Joshua M. Rosenberg

Curriculum Vitae

Assistant Professor, STEM Education  
Department of Theory and Practice in Teacher Education  
The University of Tennessee, Knoxville  
420 Claxton, 1122 Volunteer Blvd., Knoxville, TN 37996  
865-974-5973 | [jmrosenberg@utk.edu](mailto:jmrosenberg@utk.edu) | <http://jmichaelrosenberg.com>

# Education

PhD, Educational Psychology & Educational Technology, 2018 Michigan State University

Graduate Certificate, Science Education, 2017 Michigan State University

MA, Educational Technology, 2012 Michigan State University

BS, Biology, 2010  
University of North Carolina, Asheville

Teacher Licensure Program, 2010  
University of North Carolina, Asheville

## Professional Experience

Assistant Professor of STEM Education, 2018  
Department of Theory and Practice in Teacher Education  
University of Tennessee, Knoxville

## Publications

### Peer-Reviewed Journal Articles

=2em Greenhalgh, S. P., Staudt Willet, K. B., Rosenberg, J. M., & Koehler, M. J. (in press). Tweet, and we shall find: Using digital methods to locate participants in educational hashtags. *TechTrends*.

=2em Beymer, P. N., Rosenberg, J. M., Schmidt, J. A., & Naftzger, N. (2018). Examining relationships between choice, affect, and engagement in out-of-school time STEM programs. *Journal of Youth and Adolescence, 47*(6), 1178-1191. <https://doi.org/10.1007/s10964-018-0814-9>

=2em Akcaoglu, M., Rosenberg, J. M., Ranellucci, J., & Schwarz, C. V. (2018). Outcomes from a self-generated utility value intervention on fifth and sixth-grade students’ value and interest in science. *International Journal of Educational Research, 87*, 67-77. <https://www.sciencedirect.com/science/article/pii/S0883035517308492>

=2em Schmidt, J. A., Rosenberg, J. M., & Beymer, P. (2018). A person-in-context approach to student engagement in science: Examining learning activities and choice. *Journal of Research in Science Teaching, 55*(1), 19-43. <https://dx.doi.org/10.1002/tea.21409>

=2em Rosenberg, J.M., Greenhalgh, S.P., Graves Wolf, L. & Koehler, M.J. (2017). Strategies, use, and impact of social media for supporting teacher community within professional development: The case of one urban STEM program. *Journal of Computers in Mathematics and Science Teaching, 36*(3), 255-267. <https://www.learntechlib.org/primary/p/180387/>

=2em Koehler, M. J., Greenhalgh, S. P., Rosenberg, M. J., & Keenan, S. (2017). What the tech is going on with digital teaching portfolios? Using the TPACK framework to analyze teachers’ technological understanding. *Journal of Technology and Teacher Education, 25*, 31-59. <http://www.learntechlib.org/p/173346/>

=2em Rosenberg, J. M., Greenhalgh, S. P., Koehler, M. J., Hamilton, E., & Akcaoglu, M. (2016). An investigation of State Educational Twitter Hashtags (SETHs) as affinity spaces. *E-Learning and Digital Media, 13*(1-2), 24-44. <http://dx.doi.org/10.1177/2042753016672351>

=2em Greenhalgh, S. P., Rosenberg, J. M., & Wolf, L. G. (2016). For all intents and purposes: Twitter as a foundational technology for teachers. *E-Learning and Digital Media, 13*(1-2), 81-98. <http://dx.doi.org/10.1177/2042753016672131>

=2em Hamilton, E., Rosenberg, J. M., & Akcaoglu, M. (2016). Examining the Substitution Augmentation Modification Redefinition (SAMR) model for technology integration. *Tech Trends, 60*, 433-441. <http://dx.doi.org/10.1007/s11528-016-0091-y>

=2em Rosenberg, J. M., Terry, C. A., Bell, J., Hiltz, V., & Russo, T. (2016). Design guidelines for graduate program social media use. *Tech Trends, 2*, 167-175. <http://dx.doi.org/10.1007/s11528-016-0023-x>

=2em Rosenberg, J. M., & Koehler, M. J. (2015). Context and Technological Pedagogical Content Knowledge (TPACK): A systematic review. *Journal of Research on Technology in Education, 47*, 186-210. <http://dx.doi.org/10.1080/15391523.2015.1052663>

### Book Chapters

=2em Eidelman, R., Rosenberg, J. M. ,& Shwartz, Y. (invited publication). E-Learning in chemistry education: Self-regulated learning in a virtual classroom. In D. Ifenthaler, M. Spector, P. Isafas, & S. Sergis (Eds), Learning technologies for transforming teaching, learning and assessment at large scale. Berlin, Germany: Springer.

=2em Herring, M., Koehler, M. J., Mishra, P., Rosenberg, J. M., & Teske, J. (2016). Introduction to the 2nd edition of the TPACK handbook. Handbook of Technological Pedagogical Content Knowledge (TPACK) for educators (2nd ed.). In M. Herring, M. J. Koehler, & P. Mishra (Eds.), Handbook of Technological Pedagogical Content Knowledge (TPACK) for educators (2nd ed., pp. 1-8). New York, NY: Routledge.

=2em Keenan, S., Rosenberg, J. M., Greenhalgh, S. P. & Koehler, M. J. (2016). Examining teachers’ technology use through digital portfolios. In L. Liu & D. C. Gibson (Eds.), Research highlights in technology and teacher education 2016 (pp. 53-60). Chesapeake, VA: Association for the Advancement of Computing in Education. [Invited reprint of conference presentation in edited book]

=2em Phillips, M., Koehler, M. J. & Rosenberg, J. M. (2016). Considering context: Teachers’ TPACK development and enactment. In L. Liu & D. C. Gibson (Eds.), Research highlights in technology and teacher education (pp. 197-204). Chesapeake, VA: Association for the Advancement of Computing in Education. [Invited reprint of conference presentation in edited book]

=2em Rosenberg, J. M., & Koehler, M. J. (2015). Context and teaching with technology in the digital age. In M.L. Niess & H. Gillow-Wiles (Eds.), Handbook of research on teacher education in the digital age (pp. 440-465). Hershey, PA: IGI Global.

=2em Rosenberg, J. M., Greenhalgh, S. P., & Koehler, M. J. (2015). A performance assessment of teachers’ TPACK using artifacts from digital portfolios. In L. Liu & D. C. Gibson, Research highlights in technology and teacher education 2015. Waynesville, NC: Association for the Advancement of Computing in Education (AACE). [Invited reprint of conference presentation in edited book]

=2em Koehler, M. J., Mishra, P., Akcaoglu, M., & Rosenberg, J. M. (2013). Technological pedagogical content knowledge for teachers and teacher educators. In N. Bharati and S. Mishra (Eds.), ICT integrated teacher education: A resource book (pp. 1-8). Commonwealth Educational Media Center for Asia, New Delhi, India.

### Other (Editor-reviewed) Publications

=2em Rosenberg, J. M. (invited publication). Engaging students in “data practices” in online science classes: Opportunities, challenges, and recommendations. Michigan Virtual Learning Research Institute Blog: Research, Policy, Innovation & Networks.

=2em Rosenberg, J. M., & Logan, C. W. (2017). Review of the book What’s Worth Teaching: Rethinking Curriculum in the Age of Technology, by A. Collins. Teachers College Record. <http://www.tcrecord.org/Content.asp?ContentID=22173>

=2em Phillips, M., Harris, J., Rosenberg, J. M., & Koehler, M. J. (2017). TPCK/TPACK research and development: Past, present, and future directions. Australasian Journal of Educational Technology. <https://doi.org/10.14742/ajet.3907>

=2em Rosenberg, J. M., & Ranellucci, J. (2017). Student motivation in online science courses: A path to spending more time on course and higher achievement. Michigan Virtual Learning Research Institute Blog: Research, Policy, Innovation & Networks. Retrieved from <https://mvlri.org/blog/student-motivation-in-online-science-courses-a-path-to-spending-more-time-on-course-and-higher-achievement/>

### Conference Proceedings Papers

=2em Krist, C., & Rosenberg, J. M. (2016). Finding patterns in and refining characterizations of students’ epistemic cognition: A computational approach. In Looi, C.-K., Polman, J., Cress, U., & Reimann, P. (Eds.), Transforming Learning, Empowering Learners: The International Conference of the Learning Sciences Proceedings 2016 (Vol. 2, pp. 1223-1224). Singapore, Singapore: ICLS.

=2ems Phillips, M., Koehler, M. J. & Rosenberg, J. M. (2016). Looking outside the circles: Considering the contexts influencing TPACK development and enactment. In Proceedings of Society for Information Technology & Teacher Education International Conference 2016 (pp. 3029-3036). Chesapeake, VA: Association for the Advancement of Computing in Education. Retrieved from <http://www.editlib.org/p/172122>

=2em Rosenberg, J. M., Koehler, M. J., Akcaoglu, M., Greenhalgh, S. P. & Hamilton, E. (2016). State Educational Twitter Hashtags: An introduction and research agenda. In Proceedings of Society for Information Technology & Teacher Education International Conference 2016 (pp. 355-360). Chesapeake, VA: Association for the Advancement of Computing in Education. Retrieved from <http://www.editlib.org/p/171698>

=2em Greenhalgh, S. P., Rosenberg, J. M. & Wolf, L. G. (2016). For every tweet there is a purpose: Twitter within (and beyond) an online graduate program. In Proceedings of Society for Information Technology & Teacher Education International Conference 2016 (pp. 2044-2049). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). Retrieved from <http://www.editlib.org/p/171972>

=2em Keenan, S., Rosenberg, J. M., Greenhalgh, S. P. & Koehler, M. J. (2016). Examining teachers’ technology use through digital portfolios. In Proceedings of Society for Information Technology & Teacher Education International Conference 2016 (pp. 1084-1091). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). Retrieved from <http://www.editlib.org/p/171824>

=2em Rosenberg, J. M., Greenhalgh, S. P. & Koehler, M. J. (2015). A performance assessment of teachers’ TPACK using artifacts from digital portfolios. In D. Slykhuis & G. Marks (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference 2015 (pp. 3390-3397). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). Retrieved from <http://www.editlib.org/p/150472>

=2em Schwarz, C. V., Ke, L., Lee, M, & Rosenberg, J. M. (2014). Developing mechanistic explanations of phenomena: Case studies of two fifth grade students’ epistemologies in practice over time. In J. L. Polman, E. A. Kyza, K. O’Neill, I. Tabak, W. R. Penuel, A. S. Jurow, . . . L. D’Amico (Eds.), Learning and becoming in practice: The international conference of the learning sciences (ICLS) 2014 (Vol. 1, pp. 182-189). Boulder, CO: ISLS. <http://www.isls.org/icls2014/Proceedings.html>

=2em Rosenberg, J. M., & Koehler, M. (2014). Context and Technological Pedagogical Content Knowledge: A content analysis. In M. Searson & M. Ochoa (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference 2014 (pp. 2412-2417). Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/131183>

=2em Greenhalgh, S. P., Rosenberg, J. M., Zellner, A. & Koehler, M. J. (2014). Zen and the art of portfolio maintenance: Best practices in course design for supporting long-lasting portfolios. In M. Searson & M. Ochoa (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference 2014 (pp. 1604-1610). Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/131027>

=2em Rosenberg, J., Terry, C., Bell, J., Hiltz, V., Russo, T. & The EPET Social Media Council (2014). What we’ve got here is failure to communicate: Social media best practices for graduate school programs. In M. Searson & M. Ochoa (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference 2014 (pp. 1210-1215). Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/130949>

=2em Rosenberg, J. (2013). Review of mobile device use policies in public high schools. In R. McBride & M. Searson (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference 2013 (pp. 3774-3779). Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/48698>

### Unpublished Manuscript

=2em Rosenberg, J. M. (2018). *Understanding work with data in summer STEM programs: An experience sampling method approach* (Doctoral dissertation). Retrieved from Proquest Dissertations and Theses. (Proquest No. 10747232)

### Peer-Reviewed Conference Presentations

=2em Staudt Willet, K. B., Greenhalgh, S. P., Rosenberg, J. M., Koehler, M. J. (2018, October). Won’t you be my neighbor? How education stakeholders use hyperlinks to build information neighborhoods on Twitter. Paper to be presented at the Association for Educational Communications and Technology (AECT) International Convention 2018. Kansas City, MO.

=2em Beymer, P. N., Rosenberg, J.M., & Schmidt, J. A. (2018, April). Investigating the effects of interest and choice: An experience sampling approach. Paper presented at the Annual Meeting of the American Educational Research Association New York, NY.

=2em Greenhalgh, S. P., Staudt Willet, B., Rosenberg, J. M., Akcaoglu, M., & Koehler, M. J. (2018, April). Timing is everything: Comparing synchronous and asynchronous modes of Twitter for teacher professional learning. Paper presented at the Annual Meeting of the American Educational Research Association New York, NY.

=2em Rosenberg, J. M., Beymer, P. N., & Schmidt, J. A. (2018, April). How engagement during out-of-school time STEM programs predicts changes in motivation in STEM. In J. M. Rosenberg (Chair), Data-intensive approaches to studying engagement in education: Exploring their current potential. Paper presented at the Annual Meeting of the American Educational Research Association New York, NY.

=2em Rosenberg, J. M., Lee, Y., Robinson, K. A., Ranellucci, J., Roseth, C. J., & Linnenbrink-Garcia, L. (2018, April). Patterns of engagement in a flipped undergraduate class: Antecedents and outcomes. In L. Daniels & A. Frenzel (Chairs), New empirical insights on what energizes learners – A session on emotions and engagement. Paper presented at the Annual Meeting of the American Educational Research Association New York, NY.

=2em Schmidt, J. A., Rosenberg, J.M., & Beymer, P. N. (2018, April). Experiences, activities, and personal characteristics as predictors of interest and engagement in STEM-focused summer programs. Paper presented at the Annual Meeting of the American Educational Research Association New York, NY.

=2em Shwartz, Y., Bayer, I., Bielik, T., Kolonich, A., Eidelman, R., Shwartz, G., . . . Rosenberg, J. M. (2018, March). Graduate student international collaboration for investigating science teachers’ professional learning. Paper presented at the meeting of the National Association for Research in Science Teaching, Atlanta, GA.

=2em Yang, B. W., Blondel, D. V., Rosenberg, J. M., Sansone, A., Linennbrink-Garcia, L., Schwarz-Bloom, R. D. (2017, November). The Rex virtual experiment platform: Design, implementation, and effects on situational interest. Poster presented at the Annual Meeting of the Society for Neuroscience, Washington, DC.

=2em Greenhalgh, S. P., Staudt Willet, K. B., Rosenberg, J. M., & Koehler, M. J. (2017, November). No accounting for theory? The case for an affinity space approach to educational hashtag research. Paper presented at the Association for Educational Communications and Technology International Convention 2017, Jacksonville, FL.

=2em Greenhalgh, S. P., Rosenberg, J. M., & Koehler, M. J. (2017, November). Hide and go tweet: Comparing methods for locating educational hashtag participants. Paper presented at the Association for Educational Communications and Technology International Convention 2017, Jacksonville, FL.

=2em Schmidt, J. A., Rosenberg, J. M., & Beymer, P. N. (2017, August). Stability and variation in student engagement in science classes: A person-oriented approach. Paper presented at the Annual Meeting of the American Psychological Association, Washington, DC.

=2em Beymer, P. N., Rosenberg, J. M., Schmidt, J. A., Naftzger, N., Sniegowski, S., Shumow, L. (August, 2017). Examining relationships between choice, affect, and engagement in informal STEM programs. Paper presented at the Annual Meeting of the American Psychological Association, Washington, DC.

=2em Greenhalgh, S. P., Rosenberg, J. M., & Koehler, M. J. (2017, April). Combining data sets and methods to explore equity in teacher professional development. In D. G. Krutka (Chair), Data, Big and Small. Symposium conducted at the meeting of the American Educational Research Association, San Antonio, TX.

=2em Schmidt, J. A., Rosenberg, J. M., & Beymer, P. N. (2017, April). Momentary engagement profiles: A person-in-context approach to studying student engagement using experience sampling data. Paper presented at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

=2em Roseth, C. J., Linnenbrink-Garcia, L., Saltarelli, W., Lee, Y-K., Rosenberg, J. M. … & Beymer, P. N. (2017, April). A design-based intervention on flipped instruction: Longitudinal effects on undergraduates’ engagement and achievement. Paper presented at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

=2em Galey, S., Ferrare, J., & Rosenberg, J. M. (2017, April). Idea brokers, policy convergence, and paradigm shifts: The co-evolution of school choice and alternative certification issue networks in the national educational policy discourse, 2000-2015. Paper presented at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

=2em Wright, E., Hao, Q., & Rosenberg, J. M. (2017, April). What are the most important predictors of the earnings of college graduates? Data from the college scorecard. Paper presented at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

=2em Mikeska, J. N., Rosenberg, J. M., Holtzman, S., & McCaffrey, D. (2017, April). Comparing the alignment between two observational measures of science teachers’ instructional practice. Poster presented at the National Association for Research in Science Teaching Annual International Conference, San Antonio, TX.

=2em Greenhalgh, S. P., Rosenberg, J. M., & Koehler, M. J. (2017, March). Avoiding madness in our methods. Paper presented at the Society for Information Technology and Teacher Education International Conference 2017, Austin, TX.

=2em Rosenberg, J. M., Akcaoglu, M., Staudt Willet, K. B., Greenhalgh, S. P., & Koehler, M. J. (2017, March). A Tale of two Twitters: Synchronous and Asynchronous Use of the Same hashtag. In P. Resta & S. Smith (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference 2017 (pp. 283-286). Waynesville, NC: Association for the Advancement of Computing in Education (AACE).

=2em Phillips, M., Koehler, M. J., Rosenberg, J. M., & Zunica, B. (2017, March). Unpacking TPACK: Reconsidering knowledge and context in teacher practice. Paper presented at the Society for Information Technology and Teacher Education International Conference 2017, Austin, TX.

=2em Kessler, A., & Rosenberg, J. M. (2017, March). Considering how teachers’ TPACK is leveraged during the mental engineering of instruction: A theory of action. Paper presented at the Society for Information Technology and Teacher Education International Conference 2017, Austin, TX.

=2em Nyland, R., Greenhalgh, S. P., Rosenberg, J. M., Koehler, M. J., Veletsianos, G., & Kimmons, R. (2016, October). Public data mining methods, ethics, & legalities. Panel presented at the Association for Educational Communications and Technology International Convention 2016, Las Vegas, NV.

=2em Rosenberg, J. M., Greenhalgh, S. P., & Wolf, L. G. (2016, October). Participating from near and far: Analyzing online graduate learning communities with social network analysis. Paper presented at the Association for Educational Communications and Technology International Convention 2016, Las Vegas, NV.

=2ems Rosenberg, J. M. (2016, October). Having agency in conditions that are not equitable: An examination of Donors Choose data. Paper presented at the Association for Educational Communications and Technology International Convention 2016, Las Vegas, NV.

=2em Phillips, M., Koehler, M. J., & Rosenberg, J. M. (2016, September). Contextualising teachers’ TPACK development and enactment. Paper presented at the Australian Council for Computers in Education, Brisbane, Australia.

=2em Rosenberg, J. M. & Schwarz, C. V. (2016, April). Examining fifth and sixth grade students’ epistemic considerations through an automated analysis of embedded assessment items. In B. Reiser (Chair), Longitudinal studies of elementary and middle school students’ epistemic considerations through participation in scientific practice. Related paper set presented at the National Association for Research in Science Teaching Annual International Conference, Baltimore, MD. (slides)

=2em Rosenberg, J. M. & Krist, C. (2016, April). Characterizing students’ epistemic considerations: An automated computational approach for embedded assessment responses. Poster presented at the National Association for Research in Science Teaching Annual International Conference, Baltimore, MD. (slides)

=2em Ranellucci, J., Rosenberg, J. M., Klautke, H., Robinson, K. A., Saltarelli, W., Linnenbrink-Garcia, L., & Roseth, C. J. (2016, April). Achievement goals, behavioral engagement, and achievement in a flipped undergraduate anatomy course. Paper presented at the Annual Meeting of the American Educational Research Association, Washington, DC.

=2em Lee, Y.-K., Rosenberg, J. M., Robinson, K. A., Klautke, H., Seals, C., Saltarelli, W., Linnenbrink-Garcia, L., & Roseth, C. J. (2016, April). Comparing motivation and achievement in a flipped and traditional classroom. Paper presented at the Annual Meeting of the American Educational Research Association, Washington, DC.

=2em Wormington, S. V., Lee, Y.-K., Seals, C., Rosenberg, J. M., Saltarelli, W., Roseth, C. J., & Linnenbrink-Garcia, L. (2016, April). Predicting profile permanence: When is motivation stable, why does it change, and what are the consequences? Paper presented at the Annual Meeting of the American Educational Research Association, Washington, DC.

=2em Ranellucci, J., Robinson, K. A., Rosenberg, J. M., Saltarelli, W., Roseth, C. J., & Linnenbrink-Garcia, L. (2016, April). Comparing emotions in-class and during online video lectures in a flipped classroom. Paper presented at the Annual Meeting of the American Educational Research Association, Washington, DC.

=2em Rosenberg, J. M., Ranellucci, J., Lee, Y.-K., Robinson, K., Saltarelli, W., Linnenbrink-Garcia, L., & Roseth, C. J. (2016, March). Patterns of engagement in a flipped undergraduate anatomy class and their relations to achievement. Paper presented at the Society for Information Technology & Teacher Education Annual Conference, Savannah, GA.

=2em \*Peterson, A., Freer, D., & Rosenberg, J. M. (2017). Interacting with purpose: What is the difference between face-to-face and online student relationships in a combined program? In Proceedings of Society for Information Technology & Teacher Education International Conference 2016 (pp. 3411-3414). Austin, TX: Association for the Advancement of Computing in Education. Retrieved from <https://www.learntechlib.org/p/177955/>

=2em Rosenberg, J. M. (2015, November). Examining what teachers and researchers discuss at science education conferences through a computational analysis of Twitter data. Paper presented at the meeting of the Association for Educational Communications and Technology, Indianapolis, IN.

=2em Rosenberg, J. M., Akcaoglu, M., Hamilton, E., Greenhalgh, S. P., & Koehler, M. J. (2015, November). Tweeting U.S.A.: An examination of State Educational Twitter Hashtags (SETHs). Paper presented at the meeting of the Association for Educational Communications and Technology, Indianapolis, IN.

=2em Greenhalgh, S. P., Rosenberg, J. M., Keenan, S., & Koehler, M. J. (2015, November). An investigation of the use of digital portfolios for understanding educators’ technology knowledge. Paper presented at the meeting of the Association for Educational Communications and Technology, Indianapolis, IN.

=2em Hamilton, E., Rosenberg, J. M., & Akcaoglu, M. (2015, November). Examining the Substitution Augmentation Modification Redefinition (SAMR) Model for instructional design and technology integration. Paper presented at the meeting of the Association for Educational Communications and Technology, Indianapolis, IN.

=2em Mehta, R., Rosenberg, J. M., Russo, T., Arnold, B., Marich, H., & Bell, J. (2015, November). A survey of social media use and the effects of a social media initiative on graduate student engagement. Paper presented at the meeting of the Association for Educational Communications and Technology, Indianapolis, IN.

=2em Rosenberg, J. M., & Koehler, M. J. (2015, April). Context and Technological Pedagogical Content Knowledge: A content analysis. In J. M. Rosenberg & M. J. Koehler (Chairs), Addressing the complexity of teaching with technology: Context and Technological Pedagogical Content Knowledge. Symposium conducted at the American Educational Research Association Annual Meeting, Chicago, IL.

=2em Hamilton, E., Rosenberg, J. M., & Akcaoglu, M. (2015, April). The Substitution Augmentation Modification Redefinition (SAMR) framework for technology integration: Challenges to its use for guiding K-12 teacher’s pedagogy and practice. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL.

=2em Rosenberg, J. M., Ervin, L., Harris, J., Greenhow, C., Kessler, A., & Tai, D. (2015, March). How should educational technology researchers consider context? An interactive discussion on context and teaching and learning with technology. Panel presented at the meeting of the Society for Information Technology and Teacher Education International Conference, Las Vegas, NV.

=2em Akcaoglu, M., & Rosenberg, J. M. (2015, March). Best practices for designing synchronous and asynchronous online teaching for adult learners. Poster presented at the meeting of the Society for Information Technology and Teacher Education, Las Vegas, NV.

=2em Rosenberg, J. M., Schwarz, C. V., & Lee, S. W.-Y., & Akcaoglu, M. (2015, April). A comparative longitudinal case study of the use of scientific modeling in the pedagogical practice of two fifth-grade science teachers. In A. Lo (Chair), Leveraging the epistemic dimensions of scientific practice to support student’s meaningful engagement in modeling. Related paper set presented at the National Association for Research in Science Teaching Annual International Conference, Chicago, IL.

=2em Rosenberg, J. M., Schwarz, C.V., Akcaoglu, M., & Lee, S.W-Y. (2014, October). Comparative longitudinal case studies of two middle school teachers’ use of scientific modeling. Poster presented at the Advances in Educational Psychology Conference. Fairfax, VA.

=2em Lee, M., Schwarz, C. V., Ke, L., & Rosenberg, J. M. (2014, April). Analyzing fifth-grade students’ engagement in scientific modeling: Changes in students’ epistemologies-in-practice over time. Paper presented at the meeting of the National Association for Research in Science Teaching, Philadelphia, PA.

=2em Ke, L., Schwarz, C. V., Lee, M. & Rosenberg, J. M. (2014, April). Examining elementary students’ attention to mechanism as they engage in scientific modeling across content areas. Paper presented at the meeting of the National Association for Research in Science Teaching, Philadelphia, PA.

=2em Koehler, M. J., Rosenberg, J. M., Greenhalgh, S., Zellner, A. L., & Mishra, P. (2014, March). Analyzing students’ portfolios for the development of TPACK. In J. Voogt (Chair), Artifacts demonstrating teachers’ technology integration competencies. Symposium presented at the meeting of the Society for Information Technology and Teacher Education, Jacksonville, FL.

### Invited Talk

=2em Rosenberg, J. M. (March, 2016). An introduction to R for programming and statistical analysis in education. Georgia Southern University College of Education, Statesboro, GA.

## Awards & Funding

Delia Koo Global Travel Fellowship ($500), 2017  
Michigan State University (MSU)

Michigan Virtual Learning Research Institute Dissertation Fellowship ($1,500), 2017

Concord Consortium Data Science Educational Technology Travel Stipend ($1,000), 2017

Council of Graduate Students Disciplinary Leadership Award ($2,000), MSU, 2017

Research Expenses Fellowship ($3,250), MSU, 2017

College of Education Alumni Fellowship ($5,500), MSU, 2016

Best Paper Award, TPACK SIG, SITE International Conference, 2016

Cotterman Family Endowment for Education Summer Research Fellowship ($6,000), MSU, 2015

Outstanding Paper Award, Society for Information Technology and Teacher Education International Conference, 2014

Versal Foundation Grant, Basic Biology for Everyone ($2000), Versal, 2013

Massive Open Online Course Research and Development Fellowship ($1,000), MSU, 2013

## Competitive Research Training

AERA Division C Graduate Student Seminar, 2016

National Science Foundation and AECT Early Career Seminar, 2015

APA Advanced Training Institute on Research Methods with Diverse Groups, 2014

## Software Developed

### R packages on Comprehensive R Archive Network (CRAN)

tidyLPA: Interface to MCLUST to perform Latent Profile Analysis in R (w/ J. Schmidt, P. Beymer, & R. Steingut; v. 0.1.0). <https://cran.r-project.org/web/packages/tidyLPA/index.html>

konfound: R package to carry out sensitivity analysis (with R. Xu & K. Frank). <https://github.com/jrosen48/konfound>

railtrails: Rail trail data for trails in the United States from the Rails-to-Trails Conservancy (v. 0.0.3). CRAN: <https://cran.r-project.org/package=railtrails> [the railtrails data is also available as a [CSV](file:////_media/data/railtrails.csv)]

prcr: Person-centered analysis (w/ J. Schmidt, P. Beymer, & R. Steingut; v. 0.2.0). CRAN: <https://cran.r-project.org/web/packages/prcr/index.html>

clustRcompaR: Easy interface for clustering a set of documents and exploring group-based patterns (w/ A. Lishinski; v. 0.2.0). CRAN: <https://cran.r-project.org/web/packages/clustRcompaR/index.html>

### Web Applications

Konfound-It!: <https://jmichaelrosenberg.shinyapps.io/shinykonfound/>

State Educational Twitter Hashtags (SETHs): [https://jmichaelrosenberg.shinyapps.io/SETHs](https://jmichaelrosenberg.shinyapps.io/SETHs/)

## Teaching

### Teaching Awards

MSU-AT&T Instructional Technology Award: Best Online Course, 2014

MSU-AT&T Instructional Technology Award (Honorable Mention): Best Online Course, 2013

### Courses Taught

Instructor at the University of Tennessee, Knoxville

*Teaching Science in Grades 7-12* (SCED 496, B.S. & M.A. class)

Instructor at Michigan State University:

*Psychology of Learning in School and Other Settings* (CEP 800, M.A. class; taught two courses)  
*Approaches to Educational Research* (CEP 822, M.A. class)  
*Technology and Leadership* (CEP 815, M.A. class, taught seven courses, hybrid or online)

Teaching Assistant at Michigan State University:

*Proseminar in Educational Psychology and Educational Technology* (CEP 900, Ph.D. class)  
*Proseminar in Educational Technology* (CEP 807 / ED 870, M.A. class, assisted eight courses, online)  
*Educational Inquiry* (CEP 900, Ph.D. class)  
*Social-Emotional Development Across the Lifespan* (CEP 904, Ph.D. class)

## Service

### Editorial Service

Special Issue Editor, Australasian Journal of Educational Technology, 2017

Editorial Review Board Member, Journal of Research on Technology in Education (2016: 1 paper reviewed; 2017: 3 paper reviewed; 2018: 2 papers reviewed), 2016 - Present

### Service to Profession

Co-chair, Technological Pedagogical Content Knowledge (TPACK) Special Interest Group (SIG), Society for Information Technology and Teacher Education , 2015-2017

Membership Committee, Division 15 (Educational Psychology), American Psychological Association (APA), 2014-2017

Communications Deputy, Division C, American Educational Research Association, 2015-2016

Associate Chair, TPACK SIG, Society for Information Technology and Teacher Education, 2014-2015

### Conference Review Activity

Reviewer, Association for Science Teacher Education, 2019

Program Committee Member, International Conference on Computer-Supported Collaborative Learning, 2017

Review Panel Member, American Educational Research Association (AERA) Annual Meeting, 2015, 2016, 2017, 2019 (Division C - Section 1D: Science; Science Teaching and Learning SIG)

Graduate Student Reviewer, American Educational Research Association (AERA) Annual Meeting, 2014

Reviewer, Association for Educational Communications and Technology (AECT) International Convention, 2016

Reviewer, American Psychological Association (APA) Convention, 2015

### Ad-hoc Journal Article Reviews

Computers & Education, Australasian Journal of Educational Technology, Journal of Open Source Software, Asia-Pacific Education Researcher, 2018

Computers & Education, Journal of Educational Technology & Society, 2017

Computers & Education, British Journal of Educational Technology, E-Learning and Digital Media (2), 2016

Contemporary Issues in Technology and Teacher Education, 2015

### Departmental Service

Member of two practicum committees for Educational Psychology and Educational Technology program Ph.D. students, Michigan State University, 2014-2018

Search Committee Member, Program Specialist, Master of Arts in Educational Technology Program, Michigan State University, 2015

### Workshops and Outreach

=2em Rosenberg, J. M. (2017, April). Introduction to R for Data Analysis. Presentation at the School of Criminal Justice, Michigan State University.

=2em Ranellucci, J., & Rosenberg, J. M. (2016, February). Motivating our students: A partnership between Michigan Virtual Schools and Michigan State University. Workshop at Michigan Virtual University, East Lansing, MI.

=2em Rosenberg, J. M. (2014, April). Action research with mobile devices and other “disruptive” technologies. Presentation at the Best of the Michigan Association for Computer Users in Learning Conference, Waterford, MI.

=2em Rosenberg, J. M. (2014, February). Action research with mobile devices. Presentation at the Michigan Association for Computer Users in Learning Mobile Learning Conference, Kalamazoo, MI.

=2em Sawaya, S., & Rosenberg, J. M (2014, February). Master of Arts in Educational Technology Mobile Learning Workshop. Workshop at Michigan State University, East Lansing, MI.

### Campus and Departmental Presentations

=2em Rosenberg, J. M., Beymer, P. N., & Schmidt, J. A. (2017, February). Does choosing the problem or topic matter? Using a person-in-context approach to understand student engagement in science. Poster presented at the Create4Stem MiniConference 2017, East Lansing, MI.

=2em Rosenberg, J. M. (2016, April). Momentary engagement profiles: An examination of student engagement in science settings using experience sampling methodology. Presentation at the Michigan State University Educational Psychology and Educational Technology Program Informal Colloquium, East Lansing, MI.

=2em Rosenberg, J. M., & Schwarz, C. V. (2016, February). Examining the development of fifth and sixth grade students’ epistemic considerations over time through an automated analysis of embedded assessment items. Poster presented at the Create4Stem MiniConference 2016, East Lansing, MI.

=2em Rosenberg, J. M. (2015, September). Achievement goals, in- and out-of-class engagement, and students’ achievement in a flipped undergraduate anatomy class. Presentation at the Michigan State University Educational Psychology and Educational Technology Program Informal Colloquium, East Lansing, MI.

=2em Rosenberg, J. M., Akcaoglu, M., Schwarz, C.V., & Lee, S.W-Y. (2015, February). Comparative longitudinal case studies of two middle school teachers’ use of scientific modeling. Poster presented at the Create4Stem MiniConference 2015, East Lansing, MI.

=2em Lee, M., Schwarz, C.V., Ke, L., Rosenberg, J. M., Reiser, B., Berland, L., Kenyon, L., Wilson, M., Draney, K. (2015, February). Epistemic considerations in scientific practices for elementary & middle schools. Poster presented at the Create4Stem MiniConference 2015, East Lansing, MI.

=2em Wolf, L. G., Henriksen, D., Sawaya, S., & Rosenberg, J. M. (2014, December). EdCamp with Team MAET. Presentation at the Michigan State University Master of Arts in Educational Technology Bridge Webinar Series, East Lansing, MI.

=2em Rosenberg, J. M. (2014, November). Integrating “disruptive” technologies into teaching with action research and Technological Pedagogical Content Knowledge (TPACK). Presentation at the Michigan State University Educational Technology Conference, East Lansing, MI.

=2em Wolf, L. G., Henriksen, D., Sawaya, S., & Rosenberg, J. M. (2014, March). Mobile learning for educators. Presentation at the Michigan State University Master of Arts in Educational Technology Bridge Webinar Series, East Lansing, MI.

=2em Rosenberg, J. M. (2014, February). Context and Technological Pedagogical Content Knowledge: Preliminary results of a content analysis. Presentation at the Michigan State University Educational Psychology and Educational Technology Program Informal Colloquium, East Lansing, MI.

=2em Ke, L., Lee, M., Rosenberg, J. M., & Schwarz, C.V. (2014, February). Modeling across content areas: Examining elementary students’ attention to mechanism. Poster presented at the Create4Stem MiniConference 2014, East Lansing, MI.

=2em Rosenberg, J. M., Rapa, L., & Wolf, L. G. (2013, February). CEP 815 and the transition from ANGEL to Desire2Learn. Poster presented at the 6th Annual Faculty Technology Showcase.

=2em Rosenberg, J. M. (2012, November). Mobile learning for teachers. Presentation at the Michigan State University Educational Technology Conference, East Lansing, MI.

## Consulting

Statistical software development, 2017  
Kenneth Frank, Michigan State University

Statistical analysis, 2017  
Yael Shwartz, Weizmann Institute

Statistical analysis, 2016  
Lara Kassab, San Jose State University

## Professional Affiliations

American Educational Research Association, 2012 - Present Association for Educational Communications and Technology, 2015 - Present Association for the Advancement of Computing in Education, 2012 - Present  
Association for Science Teacher Education, 2018 - Present  
International Society of the Learning Sciences,2014 - Present National Association for Research in Science Teaching, 2015 - Present