

# Joshua M. Rosenberg

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## Education

PhD, Educational Psychology & Educational Technology Michigan State University	2018
Graduate Certificate, Science Education Michigan State University	2017
MA, Educational Technology Michigan State University	2012
BS, Biology University of North Carolina, Asheville	2010
Teacher Licensure Program University of North Carolina, Asheville	2010

## Professional Experience

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

### *Peer-Reviewed Journal Articles*

- 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*.
- 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>
- 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>
- 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>
- 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/>

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/>

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>

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>

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>

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>

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

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.

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.

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]

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]

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.

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]

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*

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.

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>

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>

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*

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.

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>

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>

- 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>
- 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>
- Rosenberg, J. M., Greenhalgh, S. P. & Koehler, M. J. (2015). A performance assessment of teachers' TPACK using artifacts from digital portfolios. In D. Slykhuys & 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>
- 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>
- 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>
- 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>
- 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>
- 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*

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*

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.

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.

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.

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.

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.

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.

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.

Yang, B. W., Blondel, D. V., Rosenberg, J. M., Sansone, A., Linnenbrink-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.

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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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).
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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)
- 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)
- 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.
- 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.



- 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.
- 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.
- 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.
- \*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/>
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

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.

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.

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.

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.

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.

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.

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*

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)  
Michigan State University (MSU)

2017

Michigan Virtual Learning Research Institute Dissertation Fellowship (\$1,500)	2017 Michigan Virtual School
Data Science Educational Technology Travel Stipend (\$1,000)	2017 Concord Consortium
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

### *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]

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>

### *Shiny Web Applications*

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

State Educational Twitter Hashtags (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 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*

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

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.

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.

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.

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*

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

## Consulting

<i>Statistical software development</i> Kenneth Frank, Michigan State University	2017
<i>Statistical analysis</i> Yael Shwartz, Weizmann Institute	2017
<i>Statistical analysis</i> Lara Kassab, San Jose State University	2016

## 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