

Joshua M. Rosenberg

Curriculum Vitae

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

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

2016, Graduate Certificate, Science Education
Michigan State University

2012, MA, Education
Michigan State University

2010, BS, Biology
University of North Carolina, Asheville

2010, Teacher Licensure Program
University of North Carolina, Asheville

Professional Experience

2018-present, Assistant Professor, STEM Education
University of Tennessee, Knoxville

Related (K-12 Teaching) Experience

2010-2012, Science Teacher (Biology and Earth Science)
Shelby High School, Shelby, NC

2009-2010, Science Teacher Intern (Biology and Chemistry)
C.D. Owen High School, Swannanoa, NC

Select Peer-Reviewed Journal Articles in Science Education and Research Methods

Rosenberg, J. M., & Lawson, M. J. (in press). A qualitative investigation of students' experiences of using a computational science simulation in an online high school physics class. *Education Sciences*.

Xu, R., Frank, K. A., Maroulis, S., & Rosenberg, J. M. (in press). Konfound: A Stata module to quantify robustness of causal inferences. *The Stata Journal*. <https://www.stata-journal.com/> (*Nb. Software-related publication*)

Rosenberg, J. M., Beymer, P. N., Anderson, D. J., & Schmidt, J. A. (2018). tidyLPA: An R package to easily carry out Latent Profile Analysis (LPA) using open-source or commercial software. *Journal of Open Source Software*, 3(30), 978, <https://doi.org/10.21105/joss.00978> (*Nb. Software-related publication*)

- 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> (Nb. This article was recognized as one of the 20 most-downloaded articles in *JRST* between June, 2016 and June, 2018)
- 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/>

Other Publications

- Eidelman, R., Rosenberg, J. M. ,& Shwartz, Y. (in press). 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.
- 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)
- Vo, T., & Rosenberg, J. M. (2018). Four posts on the academic job search in science education. *NARST Graduate Student Resources Blog*. <https://narstgradresources.blogspot.com/2018/09/part-4-interviewing-and-negotiating-for.html>
- Rosenberg, J. M. (2018). Opportunities for engaging students in “data practices” in online science classes. *Michigan Virtual Learning Research Institute Blog: Research, Policy, Innovation & Networks*. <https://mvlri.org/blog/opportunities-engaging-students-data-practices-online-science-classes/>

Editorial Service

- Special Issue Editor, *Australasian Journal of Educational Technology*, 2017
- Editorial Review Board Member, Science Education Section, *Contemporary Issues in Technology and Teacher Education*, 2019 - Present
- Editorial Review Board Member, *Journal of Research on Technology in Education*, 2016 - Present

Select Ad-hoc Journal Article Reviews

- Education Sciences (2; special issue on ‘Interactive Simulations and Innovative Pedagogy for Conceptual Understanding in Science Education’), *TechTrends*, 2019
- Contemporary Educational Psychology, *Computers & Education*, *Australasian Journal of Educational Technology* (2), *Journal of Open Source Software*, *Asia-Pacific Education Researcher*, 2018

Select Conference Presentations and Conference Proceedings Papers

- Rosenberg, J. M., Beymer, P. N., Houslay, T. M., & Schmidt, J. A. (2019, April). Using a multivariate model to understand how youths' in-the-moment engagement predicts changes in youths' interest. In M. Bernacki, A. Kaplan, and L. Linnenbrink-Garcia (Chairs), *Embracing and modeling the complex dynamics of motivation and engagement: Contextual, temporal, dynamic, and systematic*. Symposium conducted at the Annual Meeting of the American Educational Research Association, New York, NY.
- Schell, M. J., Beymer, P. N., Albert, K. M., Rosenberg, J. M., & Schmidt, J. A. (2019, April). *Predictors of momentary student engagement profiles in high school science classrooms*. Paper to be presented at the Annual Meeting of the American Educational Research Association, New York, NY.
- Reid, J., Rosenberg, J. M., Koehler, M. J., Fischer, C., & McKenna, T. J. (2019, March). *An exploration of #NGSSchat through social network analysis*. Paper to be presented at the National Association for Research in Science Teaching Annual International Conference, Baltimore, MD.
- 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.
- 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.
- 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)
- 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>

Statistical Software Developed

- tidyLPA: Easily carry out Latent Profile Analysis (LPA) using open-source and commercial software (w/ J. Schmidt, P. Beymer, D. J. Anderson, and C. J. van Lissa). <https://cran.r-project.org/web/packages/tidyLPA/index.html>
- KonFound-It! R package: Rosenberg, J. M., Xu, R., & Frank, K. A. (2018). Konfound-It!: Quantify the robustness of causal inferences (R package). <https://jrosen48.github.io/konfound/>
- prcr: Person-centered analysis (w/ J. Schmidt, P. Beymer, & R. Steingut). 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). CRAN: <https://cran.r-project.org/web/packages/clustRcompaR/index.html>