

Biographical Sketch

Ellen Roscoe Iverson

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Professional Preparation

University of Minnesota, Twin Cities, MN	Scientific and Technical Communications	B.S. 1989
University of Minnesota, Twin Cities, MN	College of Architecture, Environmental Design	B.S. 1989
University of Minnesota, Twin Cities, MN	Scientific and Technical Communications	M.S. 1993
University of Minnesota, Twin Cities, MN	Post-graduate Program Evaluation Certificate	2012
University of Minnesota, Twin Cities, MN	Organizational Leadership, Policy, and Development: Evaluation Studies	Ph.D. 2016

Appointments

November 2008-present: Evaluation Director, Science Education Resource Center, Carleton College

March 2003-November 2008: Web Development and Evaluation, Science Education Resource Center, Carleton College

June 1996-April 2003: Technology Manager, Marathon Multimedia, Learner's Digest International

August 1989-June 1996: Technical Assistant to 3rd line Manager and Staff Programmer, IBM

Products

Most Related

Iverson, E. R., Steer, D., Gilbert, L. A., Kastens, K., O'Connell, K., & Manduca, C. A. (2019). Measuring literacy, attitudes, and capacities to solve societal problems. In D. C. Gosselin, A. E. Egger, & J. J. Taber (Eds.), *Interdisciplinary Teaching about Earth and the Environment for a Sustainable Future*. Switzerland: Springer. ISBN 978-3-030-03273-9.

McDaris, J. R., Iverson, E. R., Manduca, C. A., & Orr, C. H. (2019). Teach the Earth: Making the connection between research and practice in broadening participation. *Journal of Geoscience Education*, 67(4), 300-312.

Eddy, P., Hao, Yi, Markiewicz, C., Iverson, E. (2018). Faculty change agents as adult learners: The power of situated learning. *Community College Journal of Research and Practice* DOI: 10.1080/10668926.2018.1507848.

Manduca, C. A., Iverson, E. R., Luxenberg, M., Macdonald, R. H., McConnell, D. A., Mogk, D. W., & Tewksbury, B. J. (2017). Improving undergraduate STEM education: The efficacy of discipline-based professional development. *Science Advances*, 3(2). doi: [10.1126/sciadv.1600193](https://doi.org/10.1126/sciadv.1600193)

Condon, W., Iverson, E. R., Manduca, C. A., Rutz, C., & Willett, G. (2015). *Faculty Development and Student Learning: Assessing the Connections*. Bloomington, Indiana: Indiana University Press. ISBN: 978-0-253-01878-6

Other Significant

Iverson, E. R., & Wetzstein, L. (In press). Connecting learning about the earth to societal issues: Downstream effects on faculty teaching. In J. Ostrow (Ed.), *Teaching about Sustainability across Higher Education Coursework, New Directions for Teaching and Learning, No. 161*. San Francisco: Jossey-Bass.

Steer, D., Iverson, E.R., Egger, A.E., Kastens, K.A., Manduca, C.A., McConnell, D., 2019. The InTeGrate Materials Development Rubric: A Framework and Process for Developing Curricular Materials that Meet Ambitious Goals, *Interdisciplinary Teaching about Earth and the Environment for a Sustainable Future*. Switzerland: Springer. ISBN 978-3-030-03273-9.

Gross, D. S., Iverson, E. R.; Willett, G. A., Manduca, C. A. (2015). Broadening Access to Science With Support for the Whole Student in a Residential Liberal Arts College Environment. *Journal of College Science Teaching*, 44(4), 99-107.

Synergistic Activities

Co-lead of Assessment for InTeGrate STEP Center for the geosciences (2012-current): As co-lead for the 10 person assessment team of InTeGrate, the NSF STEP Center for the Geosciences, I lead the development of project assessment for 33 modules involving 112 faculty (Steer et al., 2019), assessment of 16 program scale implementations, and assessment of associated student work (Iverson et al., 2019). This work includes studying the influence and reach of the materials (Iverson & Wetzstein, in press). I am collaborating with a five person research team investigating the influence of implementing InTeGrate materials at Historically Black Colleges and Universities where 14 faculty at HBCUs taught 24 courses using InTeGrate materials.

Evaluator and Researcher for On the Cutting Edge professional development cyber and professional development (2002-2019): As internal evaluator on this project, I evaluated the influence of the program from 2003 to 2012 (Manduca et al., 2017). Through this project, the National Geoscience Faculty survey was administered in 2004, 2009, 2012, and 2016. I co-lead survey analysis efforts for the 2009, 2012, and 2016 administrations. As part of the 13 member research team, we are currently conducting additional research with these datasets. I am leading activities to advance work for this research team being self-sustaining within the National Association of Geoscience Teachers.

Co-PI NSF S-STEM Design and Development, Strand 2, Type 1 – Becoming a Scientist: Supporting Persistence and Success of Low-income, Academically-talented Students in the Carleton College “Broader FOCUS” Project (2016-current): As the program evaluator since 2007 for the FOCUS cohort broadening access program, I have lead the evaluation of the whole student program approach (Gross et al., 2015), examining student persistence measures and collaborating with other HHMI projects on measures related to belonging and science identity (DiBartolo et al., 2017).

Co-PI NSF Early Career Geoscience Faculty Development Workshop: A partnership between NAGT and NSF (Collaborative with U of Maryland) (2018-current): I am conducting a retrospective study of the influence of the Early Career Geoscience Faculty workshop (1999-2017) on the professional pathways of geoscience faculty.

External evaluator for NSF IUSE Collaborative Research: Community Sourcing of Introductory Physics for the Life Sciences (2016-current): As the external evaluator, I conducted a process evaluation on the organization, communication, and design processes used for development of the physics for life sciences portal. I am currently leading evaluation efforts to investigate the perceptions of faculty teaching introductory physics courses against the key tenets for the introductory physics for life science reform via a national survey.