

Research Scientist

Institute for Teaching and Learning
 Department of Education and Social Work
 Faculty of Humanities and Social Science
 University of Luxembourg

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EDUCATION

PhD	Science Education, University of Luxembourg, 2017
MA	Elementary Education, State University of New York at Buffalo, 2000
BA	Biology, Spanish, State University of New York at Buffalo, 1994

PROFESSIONAL EXPERIENCE

Research Scientist , Institute for Teaching and Learning, University of Luxembourg	2017 – present
Research Collaborator , EMACS Research Unit, University of Luxembourg	2012 - 2013
Science Education Specialist , The Fibonacci Project, University of Luxembourg	2011 - 2012
Project Coordinator / Curriculum Developer , SEPUP, Univ of California, Berkeley, USA	2005 – 2010
Secondary Science Teacher , East Middle School, West Seneca, New York, USA	2000 – 2005
Precalculus Instructor , State University of New York at Buffalo, USA	1998 – 2000

SELECTED PUBLICATIONS

- Wilmes, S.E.D.** (2021). Interaction rituals, emotions, and early childhood science: Digital microscopes and collective joy in a multilingual classroom. *Cultural Studies of Science Education*.
- Wilmes, S.E.D.** & Siry, C. (2021). **Multimodal Interaction Analysis: a Powerful Tool for Examining Plurilingual Students' Engagement in Science Practices**. *Research in Science Education*, 51, 71–91.
- Siry, C. & **Wilmes, S.E.D.** (2020). **Working toward equitable research practices: the value of highlighting complexity and respecting context**. *Cultural Studies of Science Education*, 1-11.
- Wilmes, S.E.D.**, & Siry, C. (2020). Science notebooks as interactional spaces in a multilingual classroom: Not just ideas on paper. *Journal of Research in Science Teaching*. doi/10.1002/tea.21615
- Park, J. & **Wilmes, S.E.D.** (2019). A critical co/autoethnographic exploration of self: Becoming science education researchers in diverse cultural and linguistic landscapes. In C. Siry & J. Bazzul (Eds.), *Critical Voices in science education research: Narratives of academic journeys*. Dordrecht, The Netherlands: Springer.
- Wilmes, S.E.D.**, te Heesen, K., Siry, C., Kneip, N., Heinericy, S. (2018). The role of critical reflexivity in the professional development of professional developers: A co-autoethnographic exploration. *Interfaces educação*, 7(1), 13-24.

- Wilmes, S.E.D.** & Siry, C. (2018). Interaction rituals and inquiry-based instruction: analysis of student participation in small-group investigations in a multilingual classroom. *Science Education*, 102(5), 1107 – 1128.
- Wilmes, S.E.D.**, Siry, C., Gómez Fernández, R., & Gorges, A. (2018). Underscoring the value of video analysis in multi-lingual and multicultural classroom contexts. *Video Journal of Education and Pedagogy*.
- Wilmes, S.E.D.**, Siry, C., Gómez Fernández, R., & Gorges, A. (2018). Reconstructing Science Education within the Language | Science Relationship. In L. Bryan & K. Tobin (Eds.), *13 Questions: Reframing Education's Conversation: Science*. New York, NY: Peter Lang.
- Wilmes, S.E.D.** (2017). Science Workshop: Let Their Questions Lead the Way. In *Science Teacher Preparation in Content-Based Second Language Acquisition* (pp. 323-340). Dordrecht, Netherlands: Springer.
- Bryce, N., **Wilmes, S.E.D.**, & Bellino, M. (2016). Inquiry identity and science teacher professional development. *Cultural Studies of Science Education*, 11(2): 235-251.
- Siry, C., **Wilmes, S.E.D.**, & Haus, J. M. (2016). Examining children's agency within participatory structures in primary science investigations. *Learning, Culture and Social Interaction*, 10: 4-16.
- Bryce, N., **Wilmes, S.E.D.**, Bellino, M. (2015). Inquiry identity and science teacher professional development. *Cultural Studies of Science Education*.

SCIENTIFIC PRESENTATIONS (most recent)

- te Heesen, K. & **Wilmes, S.E.D.** (2020). The COVID19 pandemic and its impacts on education in Luxembourg and Germany: Response comparison from researchers and families' perspectives. From Disruption to Recovery during COVID-19: International Responses by Science Educators in formal and Informal Settings. Online Conference hosted by Seoul National University. November 6 and 13, 2020.
- te Heesen, K., Siry, C., Trigo, M. & **Wilmes, S.E.D.** (2020). Working towards responsive science education pedagogies during a time of crisis: Centering community” Wondering session at the Science Educators for Equity, Diversity and Social Justice conference, January 30, 2021.
- Siry, C. & **Wilmes, S.E.D.** (2019). Re-imagining primary school science: Resource-rich approaches to highlight multilingual children’s interactions. Symposium presentation at European Science Education Research Association Annual Conference, 26 – 30 August, University of Bologna, Bologna, Italy.
- Wilmes, S.E.D.**, Siry, C., te Heesen, K. (2019). Distributed expertise and relational agency: Examining the work of a science teacher professional development team, European Science Education Research Association Annual Conference, 26 – 30 August, University of Bologna, Bologna, Italy.
- Siry, C. & **Wilmes, S.E.D.** (2019). Intersections of Voice and Space in Culturally and Linguistically Diverse Classrooms. International Conference on Teaching Science and Mathematics in Culturally and Linguistically Diverse Settings, 20- 22 May 2019, University of Nicosia, Cyprus
- Wilmes, S.E.D.** & Siry, C. (2019). Views of the individual | collective dialectic: An examination of plurilingual students' science notebook use. National Association of Research in Science Teaching. Annual Meeting, Baltimore, MD, USA, March 31 – April 3, 2019.
- Symposium panel presenter in symposium, The Role of Science Education in a Changing World: Identity, Language, and Equity (2019). National Association of Research in Science Teaching. Annual Meeting, Baltimore, MD, USA, March 31 – April 3, 2019.

PUBLISHED SCIENCE CURRICULA

- te Heesen, K., Kneip, N., Heinericy, S., Siry, C., & **Wilmes, S.E.D.** (2020). Mit Kindern in den Himmel schauen. SciTeach Center. University of Luxembourg.
- Bellantoni, J., Willcox, M. and **S. E. D. Wilmes.** (2011). Sustainability. *Science and Global Issues*. The Science Education for Public Understanding Program, Lawrence Hall of Science, University of California, Berkeley, California, ISBN: 1603013288
- Willcox, M., Howarth, J., and **S. Dombkowski.** (2011). Ecology: Living on Earth. *Science and Global Issues*. The Science Education for Public Understanding Program, Lawrence Hall of Science, University of California, Berkeley, California, USA. ISBN: 1603013288

- Dombkowski, S.,** Nagle, B., Howarth, J. and M. Willcox. (2008). *Genetics: Feeding the World. Science in Global Issues*. Second field test edition. The Science Education for Public Understanding Program, Lawrence Hall of Science, University of California, Berkeley, California, USA. ISBN: 160301328
- Dombkowski, S.** and B. Nagle. (2008). *Nanotechnology: The Power of Small*. Viewer's ICAN productions and Science View at the Lawrence Hall of Science, Berkeley, CA.

SCIENCE EDUCATOR WORKSHOPS

- SciTeach Center Team. (2017-2021). Teacher professional development workshops: Alltagschemie, Bewegung und Konstruktion, Bionik, Brücken und Gebäude, Forschend entdeckendes lernen, Mäi Kierper, Wasser Marsch!
- Siry, C. & **Wilmes, S.E.D.** (2014-2016). *Würmer: Wissenschaftliche Untersuchungen in der Klasse*. University of Luxembourg and IFEN. Walferdange and Belval, Luxembourg.
- Siry, C. Teuchert, A., & **Wilmes, S. E.D.** (2012). Teacher professional development for the use of Inquiry-Based Science Education in primary schools in Luxembourg. The Fibonacci Project. The European School, Luxembourg.
- Siry, C. & **Dombkowski, S.** (2011). Teacher professional development for the use of Inquiry-Based Science Education in primary schools in Luxembourg. The Fibonacci Project. The European School, Luxembourg.
- Dombkowski, S.,** Nagle, B. & Howarth, J. (2009). *Issue-Oriented Science: Engage, Motivate, Educate*. Professional Development Institute NSTA Annual Meeting, New Orleans, Louisiana, USA.
- Nagle, B., **Dombkowski, S.,** Burke, K. & D. Markey. (2008). *Issue-Oriented Science: Engage, Motivate, Educate*. Professional Development Institute offered at the National Science Teachers' Association Annual Meeting, Boston, MA, USA.

PROJECT LEADERSHIP

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- Kuck elei! Digital Mikroskope fir Léierpersonal, Luxembourg National Research Fund, Promoting Science to the Public - Classic, 2020, PI S. Wilmes
- Analyzing Changes in Student Questions Following the Switch to Inquiry-Based Science Education (ACQUIRE) Aides à la Formation Recherche Doctoral Fellowship, FNR Luxembourg, 2013 – 2017

AWARDS

- NARST International Committee Travel Award 2019
- European Science Education Research Association (ESERA) Travel Award, 2017
- Aides à la Formation Recherche Doctoral Fellowship, Fonds National de la Recherche (FNR) Luxembourg, 2013 – 2017

PUBLIC SCIENCE OUTREACH

- Researchers Days, SciTeach Center, 2019
- Science Festival, Microbes in our world! with the Systems Biology Group LCSB, 2012

UNIVERSITY TEACHING EXPERIENCE

University of Luxembourg course co-development and offerings:

Bachelors Level: Kind, Natur und Technik, Natur- und Gesellschaftswissenschaften in der Grundschule, Naturwissenschaftliche Bildung im Elementar- und Primarstufenbereich

Master's level: Participatory research methods, Research methods Masters' Class

State University of New York at Buffalo, USA: Precalculus and Advanced Algebra

ACADEMIC SERVICE

- Reviewer for Journals: *Cultural Studies of Science Education*, *Journal of Science Teacher Education*, *Research in Science Education*, *Science Education*
- NARST International Committee co-chair, 2020 -2022

PROFESSIONAL AFFILIATIONS

- NARST – member since 2013, International Committee Member since 2019, co-chair 2020.-2022
- ESERA – member since 2014
- LuxERA – member since 2018