

Kathryn L. Kirchgasser

Assistant Professor, Curriculum and Instruction
University of Wisconsin-Madison
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Education

- 2018 Ph.D. University of Wisconsin-Madison
Ph.D. Curriculum and Instruction
Title of Dissertation: *Tracking disparities: How schools make up scientific Americans and pathologized Others*
- 2006 Bachelor of Arts Williams College
Major: Psychology, *summa cum laude*
Concentration: Neuroscience

Academic Appointments

- 2019 - present Assistant Professor, Science Education
Department of Curriculum and Instruction, University of Wisconsin-Madison
Madison, WI
- Faculty Affiliate (2020 - present): Chican@ & Latin@ Studies; The Holtz Center for Science and Technology Studies; Latin American, Caribbean and Iberian Studies
- 2017 - 2019 Multi-Term Lecturer, Curriculum and Teaching
School of Education, University of Kansas
Lawrence, KS

Honors/Awards

- 2024 Postdoctoral Research Fellowship
National Academy of Education/Spencer Foundation
- 2023 Semi-Finalist/Alternate for Postdoctoral Research Fellowship
National Academy of Education/Spencer Foundation
- 2021 Semi-Finalist for Postdoctoral Research Fellowship
National Academy of Education/Spencer Foundation
- 2020 Research Development Award
National Academy of Education/Spencer Foundation
- 2019 Honorable Mention for Outstanding Dissertation Award
American Educational Research Association Division B Curriculum Studies
- 2018 Graduate Student Award
American Educational Research Association Critical Issues in Curriculum and Cultural Studies Special Interest Group

2016	Semi-Finalist for Dissertation Fellowship National Academy of Education/Spencer Foundation
2014	Graduate Student Fellowship The Holtz Center for Science and Technology Studies, University of Wisconsin-Madison
2014	Milton O. Pella Science Education Fellowship Department of Curriculum and Instruction, University of Wisconsin-Madison
2013	Honorable Mention for Graduate Research Fellowship Program National Science Foundation
2012	Honorable Mention for Graduate Research Fellowship Program National Science Foundation
2012	James B. and Susan Solie Patterson Graduate Student Scholarship Department of Curriculum and Instruction, University of Wisconsin-Madison
2011	Chancellor's Opportunity Award Graduate School, University of Wisconsin-Madison
2011	University Fellowship Graduate School, University of Wisconsin-Madison
2006	Teaching Assistantship in Spain United States Fulbright Program

Research and Publications

Peer-Reviewed Research and Scholarly Papers

(*Mentorship of student co-author)

1. Yolcu, A., & **Kirchgasler, K. L.** (2024). Social (justice) mathematics: Racializing effects of ordering pedagogies and their inherited regimes of truth. *Educational Studies in Mathematics*, 116, 351–370.
2. Ziols, R. & **Kirchgasler, K. L.** (2024). Slow emergencies of racism in mathematics education. *Educational Studies in Mathematics*, 116, 371–389.
3. **Kirchgasler, K. L.** (2023). Science class as clinic: Why histories of segregated instruction matter for health equity reforms today. *Science Education*, 107(1), 42–70.
4. **Kirchgasler, K. L.**, & Kuhlmann, N. (2023). Historicising inclusion: How science pedagogies produced populations of concern in the United States and West Germany (1960s–1980s). *Paedagogica Historica*, 59(1), 124–144.
5. **Kirchgasler, K. L.** & Yolcu, A. (2022). ‘Real-life needs’: How humanitarian techniques produce hierarchies of science and mathematics education. *Teachers College Record*, 124(11), 30–57.

6. Ziols, R., & **Kirchgasler, K. L.** (2021). Health and pathology: A brief history of the biopolitics of US mathematics education. *Educational Studies in Mathematics*, 108, 123–142.
7. **Kirchgasler, K. L.** (2018). Moving the lab into the field: The making of pathologized (non)citizens in U.S. science education. *Curriculum Inquiry*, 48(1), 115–137.
8. Braaten, M., Bradford, C., **Kirchgasler, K. L.**, & Barocas, S. (2017). How data use for accountability undermines equitable science education. *Journal of Educational Administration*. 55(4), 427–446.
9. Feinstein, N.W., & **Kirchgasler, K. L.** (2015). Sustainability in science education? How the Next Generation Science Standards approach sustainability, and why it matters. *Science Education*. 99(1), 121–144.

Book Chapters

10. **Kirchgasler, K. L.** (2020). Dangers of “making diversity visible”: Historicizing metrics of science achievement in U.S. educational policy. In G. Fan & T. S. Popkewitz (Eds.), *Handbook of Education Policy Studies: Volume II* (pp. 331–349). Springer, Singapore.
11. **Kirchgasler, K. L.** (2019). Strange precipitate: How interest in science produces different kinds of students. In W. Letts & S. Fifield (Eds.), *STEM of Desire: Queer Theories and Science Education* (pp. 191–209). Brill.
12. Braaten, M., Bradford, C., Barocas, S. F., & **Kirchgasler, K. L.** (2018). Using data meaningfully to teach for understanding in middle school science. In N. Barnes & H. Fives (Eds.) *Cases of Teachers’ Data Use* (pp. 80-95). Routledge.
13. **Kirchgasler, K. L.** (2017). Scientific Americans: Historicizing the making of difference in early 20th-century U.S. science education. In T. S. Popkewitz, J. Diaz & C. Kirchgasler (Eds.), *A Political Sociology of Educational Knowledge: Studies of Exclusions and Difference* (pp. 87–102). Routledge.

Research Funding

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| 2024 - 2025 | National Academy of Education/Spencer Foundation Postdoctoral Fellowship (Awarded \$70,000)
Unsettling raciolinguistic hierarchies in U.S. science education. (Principal Investigator) |
| 2024 - 2025 | University of Wisconsin–Madison Fall Research Competition (Awarded \$50,845)
Unsettling raciolinguistic hierarchies in U.S. science education. (Principal Investigator) |
| 2020 - 2021 | Spencer Foundation, Special Grant for COVID-19 (Not awarded \$49,985)
Teaching COVID-19 and health equity: A curricular analysis and literature synthesis of science and mathematics education as sites to address health disparities. (Principal Investigator) |
| 2019 - 2020 | National Academy of Education/Spencer Foundation, Research Development Award (Awarded \$5,000)
Tracking by triage: How science education began dividing populations by perceived health needs. (Principal Investigator) |

- 2019 - 2020 **Robert Wood Johnson Foundation, Pioneering Ideas Brief Proposal** (Not awarded \$321,293)
High school health pathways: Affordances and constraints for promoting educational and health equity. (Principal Investigator)

List of Presentations

Keynote Addresses

- 2018 A paradox of diversity and inclusion: Making the future citizen in science education. Keynote Address, XVIII Symposium of the International Organization for Science and Technology Education, Malmö, Sweden.

Invited Lectures

- 2024 Unsettling raciolinguistic hierarchies in STEM education. Invited lecture, University of Southern Mississippi's Center for STEM Education STEMEd Speaker Series, Virtual.
- 2023 The manufacture of hierarchies in STEM higher education: Why our fields' forgotten histories matter today. Invited lecture, UW System Chemistry Faculties Meeting, Madison, WI.
- 2022 Raciolinguistic foundations of U.S. science education: From segregated schooling to equity reforms. Invited lecture, Talking Race in the Borderlands Speaker Series, San Diego State University, Virtual.
- 2021 Raciolinguistic and historicizing perspectives. Invited seminar (co-presenter: Diego Román), Sandra K. Abell Institute for Doctoral Students, National Association for Research in Science Teaching, Virtual.
- 2018 A "win-win strategy" and its colonial history: Making healthier citizens in science class. Invited lecture, TERC, Cambridge, MA.

Conference Panels Organized

1. Rethinking language in science, engineering, and environmental education: Historical dangers and transformative possibilities (April 2023). National Association for Research in Science Teaching Annual International Conference. Chicago, IL.
2. Raciolinguistic perspectives in science education (March 2022). National Association for Research in Science Teaching Annual International Conference. Vancouver, British Columbia.
3. Interrogating the racialization of the language of science and the science of language (April 2021). American Educational Research Association Annual Meeting. Virtual.
4. The cultural politics of health/pathology in STEM education reforms past and present (April 2021). American Educational Research Association Annual Meeting. Virtual.
5. Epistemic anxieties of STEM education: Pedagogical duress and productions of desire, fear, and difference (April 2019). American Educational Research Association Annual Meeting. Toronto,

ON.

6. From sleeping police to socio-material entanglement: Rethinking the racialization and gendering of STEM education practices (March 2019). National Association for Research in Science Teaching Annual International Conference. Baltimore, MD.
7. Paradoxes of inclusion in STEM education: Making up cultural Others through “natural” and “neutral” spaces (April 2018). American Educational Research Association Annual Meeting. New York, NY.

Peer-Reviewed Conference Presentations

1. **Kirchgasler, K. L.** (April 2024). Affective hierarchies: How post-*Brown* science education reforms reinscribed emotional regimes. Paper to be presented at the American Educational Research Association Annual Meeting. Philadelphia, PA.
2. **Kirchgasler, K. L.** & Román, D. (March 2024). Raciolinguistic hierarchies of U.S. science education: Why hindsight matters for translanguaging today. Paper to be presented at the National Association for Research in Science Teaching Annual International Conference. Denver, CO.
3. **Kirchgasler, K. L.** (January 2024). Sensitizing to diversity: Disturbing racializing hierarchies in science teacher education. Science Educators for Equity, Diversity, and Social Justice Conference. Tucson, AZ.
4. **Kirchgasler, K. L.** (April 2023). Sensitizing the science teacher to diversity: Racializing modes of affective regulation. American Educational Research Association Annual Meeting. Chicago, Illinois.
5. **Kirchgasler, K. L.**, Wu, C. *, Baeza, C. T.,* & Román, D. (April 2023). Racialized as distant-from-science: U.S. science education research and the pathologization of linguistic diversity. National Association for Research in Science Teaching Annual International Conference. Chicago, Illinois.
6. **Kirchgasler, K. L.** & Baeza, C. T.* (April 2022). Raciolinguistic distinctions in U.S. science education: A century of dividing ‘potential scientists’ from ‘not-yet-healthy citizens.’ (Roundtable). American Educational Research Association Annual Meeting. San Diego, CA.
7. **Kirchgasler, K. L.** & Baeza, C. T.* (March 2022). Language-as-race: Segregated science education and why it matters for efforts to include ‘English learners’ today. National Association for Research in Science Teaching Annual International Conference. Vancouver, British Columbia.
8. **Kirchgasler, K. L.** (January 2022). Racialization and dis/ability in science education: Forgotten histories and present dangers. Science Educators for Equity, Diversity, and Social Justice Annual Conference. Virtual.
9. **Kirchgasler, K. L.** & Kuhlmann, N. (June 2021). The “aha! moments” that weren’t: (Re)discovering pedagogies of inclusion in post-war U.S. and German science education. International Standing Conference for the History of Education. Virtual.
10. Yolcu, A. & **Kirchgasler, K. L.** (April 2021). Hierarchies of ‘real-life needs’: Humanitarian

- techniques and the racialized tracking of science and mathematics education. American Educational Research Association Annual Meeting. Virtual.
11. **Kirchgasler, K. L.** (April 2021). Science classroom as clinic: Paradoxes of edu-health-equity intervention spaces. American Educational Research Association Annual Meeting. Virtual.
 12. **Kirchgasler, K. L.** & Baeza, C. T.* (April 2021). Experiments in Americanization: The racialization of students as having distinct linguistic and health needs. American Educational Research Association Annual Meeting. Virtual.
 13. **Kirchgasler, K. L.** & Baeza, C. T.* (April 2021). The hygienic language of science: Historicizing U.S. science education as productive of raciolinguistic distinctions. Science Educators for Equity, Diversity, and Social Justice Annual Conference. Virtual.
 14. **Kirchgasler, K. L.** (April 2020). From unhygienic bodies to healthcare burdens: Shifts in the racialization of U.S. science education reforms. American Educational Research Association Annual Meeting. San Francisco, CA. (Conference Canceled)
 15. **Kirchgasler, K. L.** (October 2019). The biopolitics of science education: From colonial distinctions to tracking disparities. Science Educators for Equity, Diversity, and Social Justice Annual Conference. Norfolk, VA.
 16. **Kirchgasler, K. L.** (April 2019). New health imperatives?: Historicizing biopedagogies designed to incite fears and healthier choices within science education. American Educational Research Association Annual Meeting. Toronto, ON.
 17. **Kirchgasler, K. L.** & Olivares, M. (March 2019). Health interventions as sleeping police: How science|health education produces and regulates racialized Others. National Association for Research in Science Teaching Annual International Conference. Baltimore, MD.
 18. **Kirchgasler, K. L.** (April 2018). Prioritizing their health: Historicizing the making of Others in U.S. colonial and metropolitan science education. American Educational Research Association Annual Meeting, New York, NY.
 19. **Kirchgasler, K. L.** (April 2017). Adapting science education for everyday needs: The production of pathologized populations. American Educational Research Association Annual Meeting. San Antonio, TX.
 20. **Kirchgasler, K. L.** (October 2016). Adapted for “immature minds” and “underperforming groups”: Historicizing science achievement as productive of racialized distinctions. Bergamo Conference on Curriculum Theory and Classroom Practice. Dayton, OH.
 21. **Kirchgasler, K. L.** (August 2016). Differentiating students’ “interest in science”: The production of racialized and gendered bodies in U.S. science education. International Standing Conference for the History of Education. Chicago, IL.
 22. **Kirchgasler, K. L.** (April 2016). Historicizing how interest in science produces different “kinds” of students. American Educational Research Association Annual Meeting. Washington, D.C.
 23. **Kirchgasler, K. L.** (April 2016). The making of non-scientists and not-yet-citizens: Historicizing

the racialization of U.S. science education. American Educational Research Association Annual Meeting. Washington, D.C.

24. Braaten, M., Bradford, C., Barocas, S., & **Kirchgasler, K. L.** (November 2015). Missed opportunities to learn: How data use for accountability undermines equitable science education. University Council for Educational Administration Convention. San Diego, CA.
25. **Kirchgasler, K. L.** (October 2015). Interest in science: From a matter of fact to the processes of its materializing. Bergamo Conference on Curriculum Theory and Classroom Practice. Dayton, OH.
26. **Kirchgasler, K. L.** (April 2015). General science: Making different “kinds” of students in need of different kinds of science education. American Educational Research Association Annual Meeting. Chicago, IL.
27. **Kirchgasler, K. L.** & Feinstein, N.W. (April 2015). The meaning and implications of “sustainability” in the Next Generation Science Standards. American Educational Research Association Annual Meeting. Chicago, IL.
28. Braaten, M., Barocas, S., Bradford, C., & **Kirchgasler, K. L.** (April 2015). Cordoning off student ideas: Unintended consequences of policies-as-practiced in schools. American Educational Research Association Annual Meeting. Chicago, IL.
29. Braaten, M., **Kirchgasler, K. L.**, Bradford, C., & Barocas, S. (April 2015). Why science education should care about the Educational Data Movement. National Association for Research in Science Teaching Annual International Conference. Chicago, IL.
30. **Kirchgasler, K. L.** (October 2015). Historicizing logics of equity and diversity in science education. Bergamo Conference on Curriculum Theory and Classroom Practice. Dayton, OH.

Invited Presentations

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| 2022 | Refusing the Eureka myth: Rethinking racialization and dis/ability in education. Guest lecture in Multicultural Special Education course, Cal Poly Humboldt, Virtual. |
| 2021 | Tracking by triage: A century of raciolinguistic distinctions in U.S. science education. Invited Fellows Forum for the 2021 National Academy of Education Annual Meeting. Virtual. |
| | Tracking by triage: A century of raciolinguistic distinctions in U.S. science education. Invited Poster Session for National Academy of Education / Spencer Fellows & Awardees. American Educational Research Association Annual Meeting. Virtual. |
| | Before the pandemic: Past attempts to redress health disparities via science education and their pathologizing effects. Invited seminar for the University of Wisconsin-Madison Holtz Center for Science & Technology Studies. Madison, WI. |
| 2019 | Sleeping police: Racialization and ableism at the nexus of science education and public health. Forum on Diversity, Equity, and Inclusion for the University of Kansas School of Education. Lawrence, Kansas. |

Science for all? The making of dis/abled bodies in U.S. science education. Panel on “Research and campus issues: Graduates and professionals with disabilities,” University of Wisconsin-Madison. Madison, Wisconsin.

- 2017 Findings from the study *Tracking Inequality*. Kansas City Kansas Public Schools Diploma Plus GEAR UP Academy Partners Meeting, University of Kansas. Lawrence, Kansas.
- 2016 “Culturing” pupils: The historical production of non-citizens in U.S. science education. Doctoral Seminar on “Disrupting Good Intentions of Inclusion,” Malmö University. Malmö, Sweden.
- 2015 Dividing by capacity: Historicizing measures of science ability and achievement in U.S. science education. Pre-Conference Workshop on “Merit|Achievement as Paradigm,” International Standing Conference for the History of Education. Chicago, Illinois.
- 2015 Interest in science as exclusionary matrix: Historicizing the production of difference in U.S. science education. Doctoral Seminar on “Theory and Data in the History of Education,” University of Luxembourg. Belval, Luxembourg.
- 2014 Knowledge of the pupil: Seeing and sorting difference in the general science course, 1916-1926. Doctoral Seminar on “Theory and Data in the History of Education,” University of Wisconsin-Madison. Madison, Wisconsin.

Invited Discussant Roles

- 2023 Symposium on “Coloniality of educational knowledge and discourse: Health and education.” American Educational Research Association Annual Meeting. Chicago, Illinois.
- 2021 Symposium on “De-signing science education in the Anthropocene.” American Educational Research Association Annual Meeting. Virtual.
- Fellow’s paper on “‘Receiving, sorting, and disposing of children’: The place of human defect in Progressive America.” National Academy of Education / Spencer Fellows & Awardees Spring Retreat. Virtual.

University Teaching

Courses Developed

University of Wisconsin-Madison

- CURR 823 Coloniality of Language and Science in Education

Courses Taught

University of Wisconsin-Madison (Since 2019)

- Coloniality of Language and Science in Schooling (graduate)
- Science, Bodies, Schools (graduate)
- Raciolinguistic Perspectives on STEM and Environmental Education (graduate, undergraduate elective for Chican@ and Latin@ Studies major)
- Teaching Science (elementary teacher education, early childhood)

- Teaching Science (elementary teacher education, middle childhood/early adolescence)

University of Kansas (2017 - 2019)

- Foundations of Curriculum and Instruction (graduate)
- Introduction to the Education Profession (undergraduate)

University of Wisconsin-Madison (2012 - 2017)

- Teaching Science (elementary teacher education, Professional Accelerated Licensure Program)
- Teaching Science (elementary teacher education, middle childhood/early adolescence)
- Teaching of Science in Secondary Schools (secondary teacher education)
- Advanced Seminars: Field Practicum, Student Teaching (secondary science teacher education)
- Initial Seminars: Field Practicum, Student Teaching (secondary science teacher education)

K-12 Teaching

Excel Academy Public Charter Middle School, East Boston, Massachusetts (2007 - 2011)

- 5th and 6th Grade Science Teacher, Science Department Chair

Colegio Público García Lorca, Alcalá de Henares, Community of Madrid, Spain (2006 - 2007)

- Fulbright Teaching Assistant in 3rd Grade English and Science

Service

Professional Service

Professional Organization Service

- Leadership Council Member, Science Educators for Equity, Diversity, and Social Justice (2023 - 2025)
- Chair of Conference Program Committee, Science Educators for Equity, Diversity, and Social Justice (2024 - 2025)
- Co-Chair of Conference Program Committee, Science Educators for Equity, Diversity, and Social Justice (2023 - 2024)
- Program Committee Member and Co-Chair for Strand 11 (Cultural, Social, and Gender Issues), National Association for Research in Science Teaching (2022 - 2024)
- Member of Lifetime Achievement Award Selection Committee, American Educational Research Association Division B Curriculum Studies (2022 - 2023)
- Mentor for National Association for Research in Science Teaching annual meeting (2022)
- Invited Mentor, Presenter, and Application Reviewer (Abell Institute for Doctoral Students), National Association for Research in Science Teaching (2021)

Manuscript Reviewer

- *Teachers College Record*
- *Journal of the Learning Sciences*
- *Science Education*
- *Educational Studies in Mathematics*
- *Cultural Studies of Science Education*

Proposal Reviewer for Professional Conferences

- Annual meeting for the American Educational Research Association (AERA) (Divisions B, G; Special Interest Group: Sociopolitical Issues in Mathematics and Science Education)
- Annual meeting for the National Association for Research in Science Teaching (NARST) (Strand 11)
- Annual meeting of Science Educators for Equity, Diversity, and Social Justice (SEEDS)

Service to the Public

- Advisory Board Member for NSF-funded project Racial Equity in STEM Education (Matthew Wolfgram, PI) (2022 - present)

University Service

Departmental Service

- Member, Mentor Committee for Teaching Professor, University of Wisconsin-Madison Department of Curriculum and Instruction (2022 - present)
- Member, Search Committee (Native American and Indigenous Studies in Education), University of Wisconsin-Madison Department of Curriculum and Instruction (2021 - 2022)
- Member, Hiring Committee, University of Wisconsin-Madison Department of Curriculum and Instruction (2020 - present)
- Member, Elementary Education Program, University of Wisconsin-Madison Department of Curriculum and Instruction (2020 - present)
- Member, Curriculum Committee, University of Wisconsin-Madison Department of Curriculum and Instruction (2019 - 2020)

Professional Associations

- American Educational Research Association
- National Association for Research in Science Teaching
- Science Educators for Equity, Diversity, and Social Justice
- International Standing Conference for the History of Education