

Lauren Vogelstein

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CURRENT POSITION

University of Pennsylvania Nov 2023-Aug 2024
Postdoctoral Associate
Engaging High School Youth in Algorithmic Justice Through Audits of
Designed and Everyday Machine Learning Applications NSF Funded Grant
PIs Yasmin Kafai (University of Pennsylvania) & Danaë Metaxa (University of Pennsylvania)

PREVIOUS POSITION

New York University 2022-2023
Postdoctoral Associate
Participating in Literacies & Computer Science (PiLa-CS) NSF Funded Grant
Equity Centered Learning Environments Collaborative Lucas Foundation Funded Initiative
PIs Christopher Hoadley (SUNY Buffalo), Jasmine Ma (NYU), & Laura Ascenzi-Moreno (Brooklyn College)

EDUCATION

Vanderbilt University 2022
PhD Learning and Design
Dissertation: Choreographic ways of knowing as generative sites for STEM learning, design, and analysis
Committee: Dr. Rogers Hall (co-chair), Dr. Corey Brady (co-chair), Dr. Noel Enyedy, & Dr. Dionne Champion

Northwestern University 2016
MA Learning Sciences
Thesis: Lucy the Chipmunk Defender: Embodied learning on the elementary school playground
Advisor: Dr. Reed Stevens

Fordham University/The Alvin Ailey School 2013
BS Mathematics
BFA Dance *Concentration: Choreography*

RECENT RESEARCH MILESTONES

• Selected Publications

- Sengupta-Irving, T., **Vogelstein, L.**, Brady, C., Phillips-Galloway, E. (2022). Prolepsis & telos: Interpreting pedagogy and recovering the role of imagination in the mediation of youth learning. *Journal of the Learning Sciences*.
- **Vogelstein, L.**, Brady, C., & Hall, R. (2019). Reenacting mathematical concepts found in large-scale dance performance can provide both material and method for ensemble learning. *ZDM Mathematics Education* 51(2). <https://link.springer.com/article/10.1007/s11858-019-01030-2>
- **Vogelstein, L.** (2021). *Mathematical physical research: Mathematical agency in the practices of professional dancers*. Proceedings of the International Society of the Learning Sciences Annual Meeting 2021 (pp. 299-306). Best student paper nominee for Learning Sciences. https://drive.google.com/file/d/1NuYhdOKDgpp_omNH6qXKYmAh2G5_c9iv/view

• Recent Grant Funding

- \$858,997, Co-PI - Applying a complex systems perspective to investigate the relationship between choreography and agent-based modeling as tools for scientific sense-making (NSF Funded AISL - 2021-2024, Dr. Dionne Champion PI, **Lauren Vogelstein (Co-PI)** & Aditi Wagh (Co-PI)
https://www.nsf.gov/awardsearch/showAward?AWD_ID=2115773&HistoricalAwards=false

PEER REVIEWED JOURNAL ARTICLES

1. Sengupta-Irving, T., **Vogelstein, L.**, Brady, C., Phillips-Galloway, E. (2022). Prolepsis & telos: Interpreting maker pedagogy, the role of creativity, and the power of imagined futures. *Journal of the Learning Sciences*. <https://www.tandfonline.com/doi/full/10.1080/10508406.2022.2114833>
2. Steinberg, S., Gresalfi, M., **Vogelstein, L.**, & Brady, C. (2022). Coding choreography: Understanding student responses to representational incompatibilities between dance and programming. *Journal of Research on Technology in Education*, 1-18. <https://www.tandfonline.com/doi/full/10.1080/15391523.2022.2135144>
3. **Vogelstein, L.**, Brady, C., & Hall, R. (2019). Reenacting mathematical concepts found in large-scale dance performance can provide both material and method for ensemble learning. *ZDM Mathematics Education* 51(2). <https://link.springer.com/article/10.1007/s11858-019-01030-2>
4. Brady, C., Blough, R., Hollister, K., Jordan, P., Marshall, S. A., Nichols, I., **Vogelstein, L.**, & Wisittanawat, P. (2019). Clockface polygons and the collective joy of making mathematics together. *Mathematics Enthusiast*, 16(1), 75-106. <https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=1451&context=tme>
5. Barker, A., Swinarski, D., **Vogelstein, L.**, & Wu, J. (2015). A new proof of a formula for the type A 2 fusion rules. *Journal of Mathematical Physics*, 56(1), 011703. <https://arxiv.org/pdf/1408.4353.pdf>
6. **Vogelstein, L.** (2012). The Graham Trials: Preserving the Past for the Future. *Nartanam*, 12(1).

MANUSCRIPTS CURRENTLY UNDER REVIEW

* = graduate student co-author; ^ = artist co-author

1. **Vogelstein, L.**, ^Steinberg, R., ^Thomas, C., & Brady, C. (Under Review, Revise & Resubmit). Interdisciplinary Collaboration in Design Research: A process of composing across design, analysis, and relations. *Cognition & Instruction*.
2. *Jen, T., Brady, C., & **Vogelstein, L.** (Under Review, Revise & Resubmit). Youth as designers of embodied participatory simulations of ecosystems: Negotiating shared visions of thinking, acting, and feeling for sustainability. *Journal of Science Education & Technology*.

PEER REVIEWED CONFERENCE PROCEEDINGS

* = graduate student co-author; ** = undergraduate student co-author; ^ = artist co-author

1. **Vogelstein, L.**, Champion, C., Wagh, A., & Appleby, L. (2024) Growing into Collective Forms of Scientific Inquiry: The dignifying affirmation of timid, half-baked ideas. *To be published in the proceedings of the International Society of the Learning Sciences Annual Meeting 2024*.
2. Wagh, A., **Vogelstein, L.**, & Champion, D. (2024). Fused Representations: Linking Choreographic and Digital NetLogo Modeling through Intermodal Inquiry. *To be published in the proceedings of the International Society of the Learning Sciences Annual Meeting 2024*.
3. **Vogelstein, L.** (2024). The Emotional Toll of Proleptic Imagining on the Job Market: When possible futures are crushed. *To be published in the proceedings of the International Society of the Learning Sciences Annual Meeting 2024*.
4. **Vogelstein, L.** (2024). Using Choreographic Lenses to Provide Evidence of (Embodied) Learning: Pushing beyond word-based evidence of changes in participation. In **Vogelstein, L.** & Woods, P. symposium, Doing Learning Sciences Research In & Through the Arts. *To be published in the proceedings of the International Society of the Learning Sciences Annual Meeting 2024*.
5. **Vogelstein, L.**, Ma, J. Y., Vogel, S., Radke, S., Hoadley, C., Ascenzi-Moreno, L., Barrales, W., *Wy, J., & *Wu, F. (2024). "An interesting mental exercise": Making space for teachers' syncretic pedagogical content knowledge. In Jones, K., & McBride, C. symposium, Applying Syncretic Frameworks in the Learning Sciences. *To be published in the proceedings of the International Society of the Learning Sciences Annual Meeting 2024*.
6. **Vogelstein, L.**, ^Burley, X., ^Springer, A., Champion, D., Wagh, A., ^Steinberg, R., & ^Varone, D. (2024). Leveraging co-analysis to disrupt normative citation practices in interdisciplinary collaborations with artists. In Pierson, A., & Keifert, D. T. symposium, Co-Research in Video

Analysis: Shifts Towards Ethical Validity. *To be published in the proceedings of the International Society of the Learning Sciences Annual Meeting 2024.*

7. **Vogelstein, L.,** ^Steinberg, R., ^Thomas, C., Champion, D., Wagh, A., & Appleby, L. (2024). Cultivating care through choreographic forms of interaction analysis. In Love, C. & Jen, T. symposium, *Caring Relations Across Interaction Analysis Labs. To be published in the proceedings of the International Society of the Learning Sciences Annual Meeting 2024.*
8. Brady, C. & **Vogelstein, L.** (2023). Epistemic Rekeying: Epistemic tensions across disciplines as opportunities for artistic response. In *Proceedings of the Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education 2023 Volume 2*, 301-309.
<https://www.pmena.org/pmenaproceedings/PMENA%2045%202023%20Proceedings%20Vol%202.pdf>
9. **Vogelstein, L.,** McBride, C., Ma, J., Wilkerson, M., Vogel, S., *Barrales, W., Ascenzi-Moreno, L., Hoadley, C., & Gutiérrez, K. (2023). Storytelling “in theory”: Re-imagining computational literacies through the lenses of syncretism and translanguaging. In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2023 ICLS*, 800-807. <https://repository.isls.org/handle/1/10331>
10. **James, S., **Vogelstein, L.,** Ma, J., Vogel, S., *Barrales, W., Ascenzi-Moreno, L., & Hoadley, C. (2023). Research as Relational: Stories of ever-present learning between undergraduate research interns and project researchers. In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2023 ICLS*, 617-624. Nominated for best student paper award.
<https://repository.isls.org/handle/1/10306>
11. *Jen, T., Brady, C., **Vogelstein, L.,** & *Ayalon, E. (2023). Designing for feelings: Disruptive beginnings in youths’ designs of mixed reality activities for sustainability. In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2023 ICLS*, 950-953.
<https://repository.isls.org/handle/1/10367>
12. *Blake, A., Chen, G., Ostrowdun, C., *Thomas, C., **Vogelstein, L.,** Radke, S., Krishnamoorthy, R., *Saba Fisher, K., Kelton, M., & Ma, J. (2023). Contesting with feeling: Childhood in and through public education. In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2023 ICLS*, 1150-1153. <https://repository.isls.org/handle/1/9866>
13. Ma, J. Y., Ostrowdun, C., **Vogelstein, L.,** & *Blake, A. R. (2023). “We cannot sacrifice one child for another”: Articulations toward public theories of learning. In Gargroetzi, E. C. & Jones, K. symposium, *What schooling is and what it could be: Exploring how we learn the discourses and technologies of public education in school-adjacent spaces.* In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2023 ICLS*, 1666-1675.
<https://repository.isls.org/handle/1/9988>
14. Ma, J.M., *Velmaur, A., *Turan, N., *Blake, A., R., **Vogelstein, L.,** Kelton, M. L., & Barrales, W. (2023). Public common-sense assumptions about mathematics: racing in a ma(th)rathon. To be published in *proceedings of Mathematics Education & Society Annual Meeting 2023 MES.*
15. Echevarria, R., **Vogelstein, L.,** & Jackson, A. (2022). Moments of Pedagogical Feedback with Explanations: Foundations for supporting educational dignity. In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2022 ICLS*, 1585-1588.
<https://repository.isls.org/handle/1/8546>
16. Mathayas, N., Xintian, T., Danish, J., **Vogelstein, L.,** & Cosic, L. (2022). Building meaningful participation using embodied Mixed Reality technologies. In **Vogelstein, L.** & Mathayas, N. symposium, *Moving toward dignity-affirming invitations to embodied participation in the design of learning environments.* In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2022 ICLS*, 1739-1746. <https://repository.isls.org/handle/1/8579>
17. Brady, C., **Vogelstein, L.,** Jen, T., & Dim, E. (2022). The Design of Embodied Participatory Simulations as a Collaborative Learning Environment. In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2022 CSCL*, 203-210. <https://repository.isls.org/handle/1/8277>
18. Brady, C., Jen, T., **Vogelstein, L.,** & Dim, E. (2022). Designing with Feeling: How students constructed participatory simulations for groups of young learners to understand and care about

- sustainability in ecosystems. In *Proceedings of the 2022 Conference on Interaction Design and Children*, 315-326. <https://dl.acm.org/doi/pdf/10.1145/3501712.3529725>
19. Brady, C., **Vogelstein, L.**, Gresalfi, M., Knowe, M. (2021). Circular reasoning: Shifting epistemological frames across mathematics and coding activities. In *Proceedings of the Psychology of Mathematics Education North American Chapter annual meeting*, Philadelphia, PA, 1182-1190. <https://www.pmena.org/pmenaproceedings/PMENA%2043%202021%20Proceedings.pdf>
 20. **Vogelstein, L.** (2021). Mathematical physical research: Mathematical agency in the practices of professional dancers. *Proceedings of the International Society of the Learning Sciences Annual Meeting 2021*, 299-306. Nominated for best student paper award. <https://repository.isls.org/handle/1/7480>
 21. **Vogelstein, L.**, Brady, C., ^Steinberg, R., & ^Thomas, C. (2021). Developing computational double awareness through rule-based dance games. In **Vogelstein, L.** & Solomon, F. symposium, Embodying, STEM: Learning at the Intersection of Dance and STEM. In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2021*, 819-826. <https://repository.isls.org/handle/1/7588>
 22. **Vogelstein, L.**, Brady, C., ^Steinberg, R., ^Thomas, C. (2021). Flares in the soup game: Improvisational collective choreography and computational expressivity. In Wagh, A. & Dickies, A. symposium, Expansive Modeling: Broadening the scope of modeling in K-12 education. In *Proceedings of the International Society of the Learning Sciences Annual Meeting 2021*, 832-833. <https://repository.isls.org/handle/1/7589>
 23. Brady, C., & **Vogelstein, L.** (2020) Patches as an expressive medium for agent-based modeling and programming. *Proceedings of Constructionism, 2020*, 436-448. <https://www.constructionismconf.org/wp-content/uploads/2020/05/C2020-Proceedings.pdf>
 24. **Vogelstein, L.** (2020) Physical research: Professional dancers exploring collective possibilities in a solidifying substrate. *Proceedings of the International Conference of the Learning Sciences, 2020*, 737-739. <https://repository.isls.org/handle/1/6741>
 25. **Vogelstein, L.** & Hall, R. (2020). The push that never made sense to me: the substrate of dancers' professional intrinsic and extrinsic vision. In Keifert, D. T. & Enyedy, N. symposium, Analytical designs: Goodwin's substrates as a tool for studying learning. In *proceedings of the International Conference of the Learning Sciences, 2020*, 1471-1478. <https://repository.isls.org/handle/1/6352>
 26. Jackson, A., **Vogelstein, L.**, Clark, H., Lindberg, L., Thompson, N., & Uttamchandani, S. (2020). Learning together: Reflections at the intersection of friendship, research, and learning processes. *Proceedings of the International Conference of the Learning Sciences, 2020*, 657-660. <https://repository.isls.org/handle/1/6720>
 27. **Vogelstein, L.** & Radke, S. (2020). Making use of video for other purposes: When participants use video data as part of their practice. In Hennessey Elliott, C. & Radke, S. symposium, Whose video?: Surveying implications for participants engagement in video recording practices in ethnographic research. In *proceedings of the International Conference of the Learning Sciences, 2020*, 414-421. <https://repository.isls.org/handle/1/6666>
 28. Sengupta-Irving, T., **Vogelstein, L.**, Brady C., Galloway, E. P., (2020) The pedagogical moves of artist mentors in a public library makerspace. *Proceedings of the International Conference of the Learning Sciences, 2020*, 2297-2299. <http://repository.isls.org/handle/1/6536>
 29. **Vogelstein, L.**, & Brady, C. (2019). Taking the patch perspective: A Comparative analysis of a patch based participatory simulation. In *Proceedings of the 2019 Conference on Computer Supported Collaborative Learning* Lyon, France, 512-519. <http://repository.isls.org/handle/1/1611>
 30. Gresalfi, M., Bell, A., Brady, C., & **Vogelstein, L.** (2019). Same place, new rules: The joint accomplishment of engagement. In Cheng, B. H. symposium, Theorizing and measuring collective productive disciplinary engagement. In *Proceedings of the 2019 Conference on Computer Supported Collaborative Learning*, Lyon, France, 775-782. <https://repository.isls.org/handle/1/4504>
 31. Chapman, K., Jasien, L., Reimer, P., & **Vogelstein, L.** (2019). Discussant for symposium, Designing for Productive Problem Posing in Informal STEM Spaces. In *Proceedings of the 2019 Conference on Computer Supported Collaborative Learning*, Lyon, France, 791-798. <https://repository.isls.org/handle/1/4506>

32. Hall, R., & Vogelstein, L. (2018). How did they do that? Using video-elicited re-enactments to invite ensemble learning in mathematical activity. In Nemirovsky, R. symposium Video Data and the Learning Event: Four Case Studies. In *Proceedings of the International Conference of the Learning Sciences*, London, England, 1195-1202. <https://repository.isls.org/bitstream/1/593/1/266.pdf>
33. Sengupta-Irving, T., & Vogelstein, L. (2018). Mentors in the making: A case study of heterogeneity in meaning making at a public library makerspace. In *Proceedings of the International Conference of the Learning Sciences*, London, England, 1693-1694. <https://repository.isls.org/handle/1/807>
34. Vogelstein, L., Brady, C., & Hall, R. (2017). Putting our bodies on the line: Mathematizing ensemble performances. In *Proceedings of the Psychology of Mathematics Education North American Chapter annual meeting*, Indianapolis, IA, 383-386. <http://www.pmena.org/pmenaproceedings/PMENA%2039%202017%20Proceedings.pdf>
35. Vogelstein, L., Brady, C., & Hall, R. (2017). Mathematical reflections: The design potential of ensemble performance. In *Proceedings of the 2017 Conference on Interaction Design and Children*, 583-588. <https://dl.acm.org/doi/abs/10.1145/3078072.3084328>

MANUSCRIPTS CURRENTLY IN PREPARATION

1. Vogelstein, L., & McBride, C. (In preparation for MCA to submit Spring 2024). Learning from teachers' agentic moves to bring counterscripts into their classroom scripts for expansive computational learning.
2. Vogelstein, L. (In preparation for JLS) Physical research: The design potential of embodied ensemble mathematical choreography.
3. Vogelstein, L., Champion, D., & Wagh, A. (In preparation for Science Education to submit Summer 2024). Moving Through Uncertainty: The case of Liquid Architecture as expansive dance-science activity & pedagogy.
4. Wagh, A., Vogelstein, L., & Champion, D. (In preparation for IJCSCS to submit Summer 2024). Fused Representations: Linking Choreographic and Digital NetLogo Modeling through Intermodal Inquiry.
5. Hall, R., Vogelstein, L., Shapiro, B. R., & Erickson, F. (In preparation for JLS to submit Summer 2024). In the body of analysts: Reenactment and embodiment as important tools for Interaction Analysis.
6. Vogelstein, L., Morales-Navarro, L., Kafai, Y., & Metaxa, D. (In preparation for IJCCI to submit Spring 2024). Youth Peer Auditing for Algorithmic Justice as Computational Empowerment.
7. Brady C., & Vogelstein, L. (In preparation for JLS). Epistemic re-keying: Transforming interdisciplinary tensions into opportunities for students to engage in playful artistic expression.
8. Brady, C. & Vogelstein, L. (In preparation for MCA). Artistic practices as expanding the potential of Vygotskian double stimulation experiments.
9. Everyday IA Collective: DeLima, D., Elliott, C. E., Marin, A., Radke, S., Shapiro, B. R., Silvis, D., & Vogelstein, L. (In preparation for JLS to submit Spring 2024). Everyday Video Analysis: Political and ethical dimensions of engaging in video-based data analysis in today's age of media production, consumption, and analysis.

RESEARCH EXPERIENCE

Postdoctoral Associate 2023-2024
 RAPID: Engaging High School Youth in Algorithmic Justice Through Audits of Designed and Everyday Machine Learning Applications (NSF Funded, Dr. Yasmin Kafai P &, Dr. Danaë Metaxa Co-PI)
https://www.nsf.gov/awardsearch/showAward?AWD_ID=2333469&HistoricalAwards=false

Postdoctoral Associate 2022-2024
 Participating in Literacies & Computer Science (PiLa-CS) (NSF Funded, Dr. Christopher Hoadley PI, Dr. Jasmine Ma & Dr. Laura Ascenzi-Moreno Co-PIs)
https://www.nsf.gov/awardsearch/showAward?AWD_ID=1837446

- Postdoctoral Associate** 2022-2024
Equity Centered Learning Environments Collaborative (George Lucas Educational Foundation Funded, Dr. Christopher Hoadley, Dr. Michelle Wilkerson, Dr. Kris Gutiérrez, Dr. Shirin Vossoughi, Dr. Paula Hooper, & Dr. Arturo Cortez PIs)
- Co-Principal Investigator** 2021-2024
The body as a tool for science learning and research: Utilizing choreography and agent-based models to study scientific phenomena (NSF Funded AISL - \$858,997, Dr. Dionne Champion PI, **Lauren Vogelstein** & Aditi Wagh Co-PIs) https://www.nsf.gov/awardsearch/showAward?AWD_ID=2115773&HistoricalAwards=false
- Postdoctoral Associate** 2022-Present
Public Education Engagement (PEE) (Dr. Jasmine Ma & Molly Kelton PIs)
- Research Assistant** 2021-2022
GEM STEP (NSF Funded, Dr. Noel Enyedy, Dr. Corey Brady, & Dr. Joshua Danish PIs)
- Research Assistant** 2017-2021
Foregrounding Agency Versus Structure as Models for Designing Integrated Mathematics and Computational Thinking Curriculum – CAMPS Project (NSF Funded, Dr. Melissa Gresalfi & Dr. Corey Brady PIs)
- Doctoral Student Principal Investigator** 2019-2020
NSF INTERN Grant, supplemental to the Foregrounding Agency project
- Research Assistant** 2017-2018
The Making of Expansive Possibilities (Peabody College small grant, Dr. Tesha Sengupta-Irving, Dr. Corey Brady, & Dr. Emily Phillips Galloway PIs)

PEER REVIEWED CONFERENCE PRESENTATIONS

1. Wagh, A., **Vogelstein, L.**, & Champion, D. (March, 2024). *Fused Representations: Linking Computational Embodied and Digital Models through Intermodal Inquiry*. To be presented at the National Association for Research and Science Teaching Annual Conference Denver, CO.
2. **Vogelstein, L.**, Vogel, S., Ma, J. Y., Hoadley, C., Ascenzi-Moreno, L., & Barrales, W. (April, 2024). *In-Service CS Teachers' & Researchers' Notions of Equity in a Professional Learning Community*. To be presented at the 2024 American Education Research Association Conference Philadelphia, PA.
3. Radke, S. & **Vogelstein, L.** (October, 2023). *Other People and Places: Cross-case analysis of location indexing and perspective taking in argumentation*. The 11th Annual Meeting of the Language and Social Interaction Working Group New York, NY.
4. **Vogelstein, L.**, Vogel, S., Hoadley, C., Radke, S. C., Ascenzi-Moreno, L., Ma, J. Y., Barrales, W., & James, S. (2023, April). *Moving Towards Syncretic Literacies to Validate Student Sense-Making in Computing-Integrated Language Arts*. 2023 American Education Research Association Conference Chicago, IL.
5. **Vogelstein, L.**, Vogel, S., Barrales, W., Ascenzi-Moreno, L., Hoadley, C., & Ma, J. (2022, April). *Translanguaging Towards More Expansive Computing Education: Reflections from a Professional Learning Community*. 2022 American Education Research Association Conference San Diego, CA.
6. **Vogelstein, L.**, Clark, H., Sandoval, W., Champion, D., Wagh, A., Scipio, D., Pierson, A., Keifert, D., Daniel, B., & Brady, C. (2022, April). *Conjecture Mapping: New Approaches to broadening processes of educational design research*. Chair and paper presenter of symposium at the 2022 American Education Research Association Conference San Diego, CA.

7. **Vogelstein, L.**, Brady, C., Thomas, C., & Steinberg, R. (2022, April). *Choreographies of Care: Small group relations as mediating larger group sensemaking*. 2022 American Education Research Association Conference San Diego, CA.
8. Silvis, D., Krishhanmoorthy, R., Ma, J., Elliott, CH., Marin, A., Taylor, KH., Shapiro, BR., DeLiema, D., **Vogelstein, L.**, Radke, S., Keifert, D., Lindberg, L., Veal, T., Brady, C., & Hall, R. (April, 2022). *What's Next for Interaction Analysis of Learning?: Aligning analytic approaches with theoretical turns*. Co-author of two papers in working roundtable at the 2022 American Education Research Association Conference San Diego, CA.
9. **Vogelstein, L.** (2020, November). *Exploring the "with whom" in the analysis process: Broadening our perspectives to include interdisciplinary co-designers*. Published in the proceedings of the 2020 Learning Sciences Graduate Student Conference, Madison, WI.
10. **Vogelstein, L.** (2019, November). *Embodying full personhood in education: What educators can learn from the practices of professional dancers*. Paper presented at the 9th Conference on Education and Social Justice, Honolulu, Hawai'i.
11. Sengupta-Irving, T., & **Vogelstein, L.** (2019, April). *Democratizing what: A case study of how mentors in a public library makerspace organize toward expansive possibilities*. Paper presented at the American Education Research Association annual meeting, Toronto, Canada.
12. **Vogelstein, L.**, Hall, R., & Brady, C. (2019, April). *Physical research: The mathematical potential of dancers professional practices*. Paper presented at the American Education Research Association annual meeting, Toronto, Canada.
13. **Vogelstein, L.**, Hall, R., & Brady, C. (2019, April). *Unfolding joy: Expressive mathematics in ensemble performance*. Poster presented at the American Education Research Association annual meeting, Toronto, Canada.
14. **Vogelstein, L.** (2018, October). *An aesthetics of (dis)order in context*. Paper presented at the American Educational Studies Conference, Greenville, SC.
15. **Vogelstein, L.** (2018, October). *Physical research: Professional dancers' use of multi-modal choreographic resources in structuring physical inquiry*. Paper presented at Learning Sciences Graduate Student Conference annual meeting, Nashville, TN.
16. **Vogelstein, L.**, Brady, C., & Hall, R. (2017, June). *Embodied mathematical technologies: Making sense of ensemble-based embodied mathematical thinking and learning*. Paper presented at Jean Piaget Society annual meeting, San Francisco, CA.
17. **Vogelstein, L.** (2017, October). *Ensemble performance as expressive mathematics*. Poster presented at Learning Sciences Graduate Student Conference annual meeting, Bloomington, IN.
18. **Vogelstein, L.** (2016, October). *Lucy the chipmunk defender: Embodied learning in figured worlds at recess*. Poster presented at Learning Sciences Graduate Student Conference annual meeting, Chicago, IL.

INVITED & ACCEPTED CONFERENCE WORKSHOPS

1. Gresalfi, M., Brady, C., **Vogelstein, L.**, Kafai, Y., Weintrop, D., Parks, A., Bell, A., Knowe, M., Love, C., & Steinberg, S. (2021, October). *Exploring productive struggle in mathematically-rich contexts*. In *Proceedings of the Psychology of Mathematics Education North American Chapter annual meeting*, Philadelphia, PA.
2. **Vogelstein, L.**, Champion, D., Lindberg, L. (2020, June) *Interdisciplinary inquiry into dance & STEM: Collaboration and creativity to further designs for STEM learning*. Workshop accepted for the International Conference of the Learning Sciences 2020 (Canceled due to virtual nature of conference).
3. Hall, R., **Vogelstein, L.**, Vossoughi, S., R., & Echevarria, R. (2019, September). *Interaction analysis workshop*. Workshop presented at Learning Sciences Graduate Student Conference annual meeting, Evanston, IL.
4. **Vogelstein, L.**, Lindberg, L., Hall, R., & Brady, C. (2019, August). *Ensemble learning and movement*. At NSF funded Tensegrity Workshop, Vassar College.

5. **Vogelstein, L.**, Jackson, A., & Marshall, S. A. (2018, October). *Ambassadors and advocacy: A workshop on positionality*. In A. Pierson, & L. Vogelstein (Eds.), *Designing the learning sciences: Thinking deeply about the relationship between theory and design* (pp. 197-198). Nashville, TN: Learning Sciences Graduate Student Conference.
6. **Vogelstein, L.** (2017, June). *Two reflections = one rotation?: Questions in embodied analyses*. Data Gallery Presentation at the NSF funded Learning on the Move Conference, Nashville, TN.
7. **Vogelstein, L.** (2016, October). *The Learning Sciences: Figuring out what it means together*. Workshop presented at Learning Sciences Graduate Student Conference annual meeting, Chicago, IL.

GRANTS AND FELLOWSHIPS

2024-2026	NSF STEM Education Postdoc Grant –PI (Under review) National Science Foundation <i>Embodied Co-Analysis of Dance-Science Learning: Shaping scientists’ embodied pedagogical reasoning for expansive science learning</i>	\$170,000
2021-2024	NSF AISL Grant – Co-PI National Science Foundation <i>The body as a tool for science learning and research: Utilizing choreography and agent-based models to study scientific phenomena</i>	\$861,283
2019-2020	NSF INTERN Award – Principal Investigator National Science Foundation <i>Educational Outreach Internship with New Dialect</i>	\$24,425
2017-2019	Research Grant Curb Center Public Scholar, Vanderbilt University	\$2,000
2017	Peabody Small Grant Peabody College, Vanderbilt University <i>Making of Expansive Possibilities</i>	\$10,000
2018-2020	Peabody Dean’s Fellowship Peabody College, Vanderbilt University	\$5,000
2016-2021	Graduate Honor Scholarship Vanderbilt University	\$50,000

GRADUATE & UNDERGRADUATE TEACHING EXPERIENCE

Fall 2023	Independent Study – Equity, Language, & CS Education <i>Instructor</i>	NYU
Spring 2023	Advanced Topics in Computer Science Education <i>Co-Instructor</i>	NYU
Spring 2021	Learning & the Interaction Order <i>Teaching Assistant</i>	Vanderbilt University
Spring 2020	Learning & Design in Community Settings <i>Teaching Assistant</i>	Vanderbilt University
Fall 2019	Design and Study of Informal Learning Environments <i>Teaching Assistant</i>	Vanderbilt University

Spring 2019	Discourse in STEM <i>Teaching Assistant</i>	Vanderbilt University
Summer 2018	Learning In & Out of Schools <i>Teaching Assistant</i>	Vanderbilt University
2019-2022	Learning & Design Masters Program <i>Capstone Mentor</i>	Vanderbilt University

INVITED TALKS

1. STEM+Choreography: Ensemble, embodied resources for sensemaking and learning
Learning Sciences Brown Bag Lecture Series –Learning Sciences Research Institute, University of Illinois Chicago (Spring 2024).
2. Centralizing Artistic Practices in Constructionist Learning
Scholarly Panel – FabLearn/Constructionism 2023, Teachers College, Columbia University (Fall 2023).
3. Interaction Analysis: Methodological Seeds & Blossoms
Learning Sciences: Research & Methodological Perspectives – Graduate Course, University of Utah, Tracy Dobie (Spring 2023).
4. Learning Sciences Early Career Advice
Learning Sciences Seminar – Graduate Course, University of Wisconsin Madison, David Shaffer (Spring, 2023).
5. Scientific Discovery in Intergenerational Choreographic Modeling
Science Modeling – Undergraduate & Graduate Course, Vanderbilt University, Natalie De Lucca & Jessica Watkins (Spring, 2023).
6. Interdisciplinary Collaboration in Design Research: A Process of Composing Across Design, Analysis, and Relations.
Teaching & Learning Department Lecture Series, NYU (Fall, 2022).
7. Relationality in Interdisciplinary Co-Design & Co-Analysis.
Designing for Contexts – Graduate Course, Vanderbilt University, Kris Neal (Fall, 2022).
8. New Approaches to Conjecture Mapping in Design Based Research.
Design Based Research Methods - Graduate Course, NYU, Chris Hoadley (Spring, 2022).
9. Ethical Reflections on Design Research Partnerships.
Designing for Contexts. Introduction to the Design of Learning Environments – Graduate Course, Vanderbilt University, Kris Neal (Fall, 2021).
10. Using Processes of Physical Research as Collective Embodied, Expressive Inquiry.
Introduction to the Arts with an Emphasis on Children’s Literature – Graduate Course, Vanderbilt University, Jeanne Peter (Summer 2021).
11. Embodied Methods of Interaction Analysis.
Learning in Interaction and Participation: Understanding the Role of Place, Bodies, and Movement – Graduate Course, UCLA, Ananda Marin (Spring, 2022).
12. Reenacting mathematical concepts found in large-scale dance performance can provide both material and method for ensemble learning.
Berkeley University Embodied Research Group - CU Berkeley, David DeLiema & Dor Abrahamson (Spring, 2021)
13. Creating Large Scale Ensemble Mathematical Performances & Transformations.
Mathematics Visualization - Graduate Course, Vanderbilt University, Corey Brady (Fall 2018).
14. Experiencing Ensemble Mathematics Learning in Choreography.
Learning In the Community - Graduate Course, Vanderbilt University, Andrew Hostetler (Summer 2017).

15. Viewing Ensemble Mathematics in Choreography.
Learning in and out of Schools - Graduate Course, Vanderbilt University, Rogers Hall (Spring 2017).

WORKS READ IN UNIVERSITY COURSES

1. Learning Sciences: Research & Methodological Perspectives – Graduate Course, University of Utah, Tracy Dobie.
Vogelstein, L., Brady, C., & Hall, R. (2019). Reenacting mathematical concepts found in large-scale dance performance can provide both material and method for ensemble learning. *ZDM Mathematics Education* 51(2).
2. Science Modeling – Undergraduate & Graduate Course, Vanderbilt University, Natalie De Lucca & Jessica Watkins.
Vogelstein, L. (2022). Chapter 4: Interdisciplinary Collaboration in Design Research: A Process of Composing Across Design, Analysis, and Relations. *From Vogelstein Dissertation: Choreographic ways of knowing as generative sites for STEM learning, design, and analysis* (pp. 77-146). Vanderbilt University 2022.
3. Learning Sciences Graduate Seminar – Graduate Course, Stanford University, Victor Lee.
Vogelstein, L. (2021). Mathematical physical research: Mathematical agency in the practices of professional dancers. *Proceedings of the International Society of the Learning Sciences Annual Meeting 2021* (pp. 299-306).
4. Designing for Contexts. Introduction to the Design of Learning Environments – Graduate Course, Vanderbilt University, Kris Neal.
Vogelstein, L. (2022). Chapter 4: Interdisciplinary Collaboration in Design Research: A Process of Composing Across Design, Analysis, and Relations. *From Vogelstein Dissertation: Choreographic ways of knowing as generative sites for STEM learning, design, and analysis* (pp. 77-146). Vanderbilt University 2022.
5. Design and Study of Informal Learning Environments – Graduate Course, Vanderbilt University, Rogers Hall.
Vogelstein, L., Brady, C., & Hall, R. (2019). Reenacting mathematical concepts found in large-scale dance performance can provide both material and method for ensemble learning. *ZDM Mathematics Education* 51(2).
6. Learning in Interaction and Participation: Understanding the Role of Place, Bodies, and Movement – Graduate Course, UCLA, Ananda Marin.
Vogelstein, L., Brady, C., & Hall, R. (2019). Reenacting mathematical concepts found in large-scale dance performance can provide both material and method for ensemble learning. *ZDM Mathematics Education* 51(2).
7. Learning and the Interaction Order – Graduate Course, Vanderbilt University, Rogers Hall.
Vogelstein, L., Brady, C., & Hall, R. (2019). Reenacting mathematical concepts found in large-scale dance performance can provide both material and method for ensemble learning. *ZDM Mathematics Education* 51(2).
8. Learning & Design in Community Settings – Undergraduate Course, Vanderbilt University, Rogers Hall.
Vogelstein, L., Brady, C., & Hall, R. (2019). Reenacting mathematical concepts found in large-scale dance performance can provide both material and method for ensemble learning. *ZDM Mathematics Education* 51(2).

PROFESSIONAL DEVELOPMENT DESIGN & FACILITATION

2022	PiLa-CS Professional Learning Community <i>New York University</i>	New York, NY
2022	Language, Justice, CS, & You	New York, NY

NYC Department of Education

2022	Choreographing Science AISL PD <i>University of Florida</i>	Gainesville, FL
2019	INTERN Week exploring physical research of ensemble math <i>New Dialect</i>	Nashville, TN
2018-2020	CAMPS Co-Design and Professional Development Workshops <i>Vanderbilt University</i>	Nashville, TN

PROFESSIONAL SERVICE

	Journal Reviewer	
2021-Present	<i>Journal of the Learning Sciences</i>	
2022-Present	<i>Cognition & Instruction</i>	
	Grant Reviewer	
2023-Present	<i>Spencer Foundation</i>	
	Conference Reviewer	
2019-Present	<i>American Education Research Association Annual Meeting</i>	
2019-Present	<i>International Conference of the Learning Sciences</i>	
2016-2021	<i>Learning Sciences Graduate Student Conference</i>	
	Conference Organizer - Learning Sciences Graduate Student Conference	
2018	<i>Conference Co-Chair at Vanderbilt University</i>	
2016-2020	<i>Faculty Speakers & Social Events Committee Chair</i>	

UNIVERSITY SERVICE & MEMBERSHIPS

2019-2020	Chair , Department of Teaching & Learning Doctoral Student Association, Vanderbilt University
2019-2020	Science Ed Search Committee Graduate Representative , Department of Teacher & Learning, Vanderbilt University
2017-2018	First Year Liaison , Department of Teaching & Learning Doctoral Student Association, Vanderbilt University
2017	Social Chair , Department of Teaching & Learning Doctoral Student Association, Vanderbilt University
2017-2020	Co-Founder Math Club , Department of Teaching & Learning, Vanderbilt University
2018-2020	Graduate Student Orientation Panel , Peabody College, Vanderbilt University

PROFESSIONAL MEMBERSHIPS

International Society of the Learning Sciences (ISLS)
American Educational Research Association (AERA)

- Division G
- SIG – Learning Sciences

International Group for the Psychology of Mathematics Education (PME)

SELECTED HONORS AND AWARDS

2023	Undergraduate Mentee Nominated for Best LS Student Paper Award ISLS 2023 Research as Relational: Stories of ever-present learning between undergraduate research interns and project researchers.
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- 2021 **ISLS Nominated Best LS Student Paper Award**
Mathematical Physical Research: Mathematical agency in the practices of professional dancers.
- 2019-2020 **Jasmine Ma Award**
for service to the DTL Doctoral Student Community
- 2017 **NSF Graduate Research Fellowship Honorable Mention**
Putting the Body Back into the Equation: Ensemble based embodied mathematical thinking and learning
- 2016 **NSF Graduate Research Fellowship Honorable Mention**
The Design Potential of Full Body Movements For Mathematics Thinking and Learning
- 2015-2016 **Learning Sciences Scholarship**
Northwestern University
- 2011-2013 **Clare Boothe Luce Scholar**
Fordham University
- 2009-2013 **Dean's List**
Fordham University