Lauren Vogelstein

New York University
Steinhardt School of Culture, Education, & Human Development
Department of Administration, Leadership & Technology
New York, NY
lev226@nyu.edu
www.laurenvogelstein.com

I study how embodied theories of learning, informed by the expressive and artistic practices of dancers and choreographers, can reframe *what* is learned in STEM environments, *how* it can be learned collectively, and *who* is involved in expanding the pedagogical implications of this work. In other words, I study how people learn from an embodied and interactionist perspective in order to better design expansive STEM learning environments for students.

CURRENT POSITION

New York University 2022-2024
Postdoctoral Fellow
Participating in Literacies & Computer Science (PiLa-CS) NSF Funded Grant
Equity Centered Learning Environments Collaborative Lucas Foundation Funded Initiative

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
  - **Vogelstein, L.,** & Brady, C. (2019, June*). Taking the patch perspective: A comparative analysis of a patch based participatory simulation.* In Proceedings of the 2019 Conference on Computer Supported Collaborative Learning. http://repository.isls.org/handle/1/1611
- 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** & Aditi Wagh Co-PIs) 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).

PEER REVIEWED CONFERENCE PROCEEDINGS

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

1. **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.*
2. **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.* Nominated for best student paper award.
3. *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.*
4. *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.*
5. Gargroetze, E., Jones, K., Garcia, A., Mirra, N., Ma, J., Ostrowdun, C., **Vogelstein, L.,** *Blake, A., Nicolas Gómez Marchant, C., Aguilar, A., Josephson, J., Fatima, N., & Vea, T. (2023). What schooling is and what it could be: Exploring how we learn the discourses and technologies of public education in school-adjacent spaces. Symposium in *Proceedings of the International Society of the Learning Sciences Annual Meeting 2023 ICLS.*
6. 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* (pp. 1585-1588). https://www.dropbox.com/s/ws5sdcfi72aykj1/ICLS2022%20Proceedings.pdf?dl=0
7. Mathayas, N., **Vogelstein, L.,** Danish, J., Lindberg, L., Marin, A., Kern, A., Orellana, M. F., Meixi, Dorr, S., Keefe, D., Diaz, V., Zohar, R., Tu, X., Cosic, L., & Vickert, M. (2022). 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* (pp. 1739-1746). Serving as co-chair and paper author. https://www.dropbox.com/s/ws5sdcfi72aykj1/ICLS2022%20Proceedings.pdf?dl=0

8. 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* (pp. 203-210). *https://www.dropbox.com/s/9mwx6t8mi75op15/CSCL2022%20Proceedings.pdf?dl=0*
9. 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.* https://dl.acm.org/doi/pdf/10.1145/3501712.3529725?casa_token=V8p82Hc8y_EAAAAA:oEnzSxtnenZMoWlJdkBsznIlDopUubYow9cu8qp6_fctZHysS2rMFgjewrqa-CGNerIvibzg2BlpMA
10. 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. https://par.nsf.gov/servlets/purl/10311204
11. **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). Nominated for best student paper award. https://drive.google.com/file/d/1NuYhdOKDgpp_omNH6qXKYmAh2G5_c9iv/view
12. Solomon, F., **Vogelstein, L.,** Brady, C., Steinberg, R., Thomas, C., Champion, D., Lindberg, L., Enyedy, N., DesPortes, K., Payne, W., Bergner, Y., Taylor, E., & Shapiro, B. (2021). Embodying STEM: Learning at the intersection of Dance & STEM. Symposium (pp. 819-826). Served as co-chair and presenter. https://drive.google.com/file/d/1NuYhdOKDgpp_omNH6qXKYmAh2G5_c9iv/view
13. **Vogelstein. L.,** Brady, C., Steinberg, R., Thomas, C. (2021). Flares in the soup game: Improvisational collective choreography and computational expressivity. In the 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* (pp. 832-833). https://drive.google.com/file/d/1NuYhdOKDgpp_omNH6qXKYmAh2G5_c9iv/view
14. Brady, C., & **Vogelstein, L.** (2020) Patches as an expressive medium for agent-based modeling and programming. *Proceedings of Constructionism, 2020*, 436-448. https://www.researchgate.net/profile/Karl-Fuchs-2/publication/349732688_A_Constructionistic_Approach_to_Mathematical_Concepts_with_Hand-Held_Technology_Proceedings_Constructionism_2020_Dublin_S_62_63/links/603f6424a6fdcc9c780cc238/A-Constructionistic-Approach-to-Mathematical-Concepts-with-Hand-Held-Technology-Proceedings-Constructionism-2020-Dublin-S-62-63.pdf#page=436
15. **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://par.nsf.gov/biblio/10202099
16. Keifert, D., Hall, R., Enyedy, N., **Vogelstein, L.,** Ehrenfeld, A. P. N., Marshall, S., ... & Clark, H. (2020). Analytical designs: Goodwin's substrates as a tool for studying learning. *Proceedings of the International Conference of the Learning Sciences*, 2020, 1471-1478. https://45.55.127.102/bitstream/1/6352/1/1471-1478.pdf
17. 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/bitstream/1/6720/1/657-660.pdf
18. Elliott, C. E., Radke, S., DeLiema, D., Silvis, D., **Vogelstein, L.,** Vossoughi, S., Hall, R. (2020) Whose video?: Surveying implications for participants engagement in video recording practices in ethnographic research. *Proceedings of the International Conference of the Learning Sciences*, 2020, 414-421. https://repository.isls.org/bitstream/1/6666/1/414-421.pdf
19. 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

20. **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*. http://repository.isls.org/handle/1/1611
21. Gresalfi, M., Bell, A., Brady, C., **Vogelstein, L.,** Damsa, C., Palonen, T., Rogat, T.K., Traynor, A., Adeyoe, T.F., & Hmelo-Silver, C.E. (2019). Theorizing and measuring collective productive disciplinary engagement. In *Proceedings of the 2019 Conference on Computer Supported Collaborative Learning*, Lyon, France. https://www.duo.uio.no/bitstream/handle/10852/74123/1/CSCL%2BSymposium%2B2019_Cheng_Damsa.pdf
22. Hall, R., **& Vogelstein, L.** (2018). How did they do that? Using video-elicited re-enactments to invite ensemble learning in mathematical activity. *In Proceedings of the International Conference of the Learning Sciences,* London, England. https://repository.isls.org/bitstream/1/593/1/266.pdf
23. 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. https://45.55.127.102/bitstream/1/807/1/459.pdf
24. **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 (pp. 383-386). http://www.pmena.org/pmenaproceedings/PMENA%2039%202017%20Proceedings.pdf
25. **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* (pp. 583-588). https://dl.acm.org/doi/abs/10.1145/3078072.3084328

RESEARCH EXPERIENCE

Postdoctoral Associate 2022-2024

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

- Leading analysis for researchers and practitioners, synthesizing theoretical and empirical findings related to the usage of translanguaging pedagogy to support the development of syncretic computational literacies

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)

- Developing theoretical and empirical analysis across four institutions (NYU, University of California Berkeley, Northwestern University, & University of Colorado Boulder) and their respective projects to better understand how to design and sustain equity centered learning environments
- Working closely with the Writing Data Stories (WDS) project at the University of California Berkeley with Drs. Michelle Wilkerson, Kris Gutiérrez, & Cherise McBride to synthesize across WDS & PiLa-CS project to better understand data-driven and computational syncretic literacies and pedagogies
- Develop a cohort of four postdoctoral fellows across institutions and projects to lead this initiative as emerging voices in the Learning Sciences

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

- Co-wrote grant proposal, conceptualized study

- Co-lead design team for professional development with scientists & choreographers as well as design of camp for middle school students, scientists, and choreographers
- Co-lead implementation and data collection of 2-week summer camp for middle schoolers, scientists, and choreographers
- Co-leading ongoing analysis and iterative design

Postdoctoral Associate 2022-Present

Public Education Engagement (PEE) (Dr. Jasmine Ma & Molly Kelton PIs)

- Supporting analysis on public meetings of a NYC education council for the largest district in the city in order to better understand (1) how children are constructed in public discourse on education, (2) how mathematics as a discipline is constructed in public discourse on education, and (3) how public theories of learning are constructed

Research Assistant 2021-2022

GEM STEP (NSF Funded, Dr. Noel Enyedy, Dr. Corey Brady, & Dr. Joshua Danish PIs)

- Designed a mixed reality environment that pairs physical embodiment and play with computational thinking to support deep engagement with scientific inquiry
- Designed opportunities for 9th graders to use mixed reality technology to design for younger students to learn and care about issues relating to the environment and sustainability

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)

- Designed embodied activities for 3 coding, math and arts camps for middle school students
- Designed professional development to position teachers as co-designers of these camps
- Worked with teachers to implement innovative camp curriculum in their classrooms
- Led implementation and data collection for 3 1-week long camps
- Presented analyses at national and international conferences

Doctoral Student Principal Investigator 2019-2020

NSF INTERN Grant, supplemental to the Foregrounding Agency project

- Secured NSF funding to explore connections between dance, computation, and mathematics learning
- Designed and led professional development for dancers and math teachers to co-design and math and computation activities using ensemble dance
- Lead a co-analysis with professional dancers to deepen understandings of embodied ensemble learning

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)

- Conducted 6 weeks of ethnographic observations and interviews with mentors at a teen makerspace in a public library
- Engaged in qualitative coding and iterative analysis of both field notes and interviews
- Wrote and presented analyses at national and international conferences
- Revising a manuscript on findings (second author, accepted with major revisions, *Journal of the Learning Sciences*)

MANUSCRIPTS IN PREPARATION AND UNDER REVIEW

1. **Vogelstein, L.** (In preparation) Physical research: The design potential of embodied ensemble mathematical choreography**.**
2. **Vogelstein, L.,** Steinberg, R., Thomas, C., & Brady, C. (In preparation). Interdisciplinary Collaboration in Design Research: A process of composing across design, analysis, and relations.

3. Hall, R., **Vogelstein, L.,** Shapiro, B. R., & Erickson, F. (In preparation). In the body of analysts: Reenactment and embodiment as important tools for Interaction Analysis.
4. **Vogelstein, L.,** Champion, D, Wagh, A. (In preparation). Choreographing New Scientific Insights with Youth & Scientists Using Dance & Agent-Based Modeling
5. Brady C., & **Vogelstein, L.** (In preparation). Epistemic re-keying: Transforming interdisciplinary tensions into opportunities for students to engage in playful artistic expression.
6. Brady, C. & **Vogelstein, L.** (In preparation). Artistic practices as expanding the potential of Vygotskian double stimulation experiments.
7. Everyday IA Collective: DeLima, D., Elliott, C. E., Marin, A., Radke, S., Shapiro, B. R., Silvis, D., & **Vogelstein, L.** (In preparation). Public interaction analysis: Political and ethical dimensions of engaging in video-based data analysis in today's age of media production, consumption, and analysis.
8. *Jen, T., Brady, C., & **Vogelstein, L.** (Under Review). Youth as designers of embodied participatory simulations of ecosystems: Negotiating shared visions of thinking, acting, and feeling for sustainability. Journal of Science and Technology.

PEER REVIEWED CONFERENCE PRESENTATIONS

1. **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.
2. **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.
3. **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.
4. Silvis, D., Krishhanmoorthy, R., Ma, J., Elliott, CH., Marin, A., Taylor, KH., Shapiro, BR., DeLiema, D., **Vogelstein, L.,** Radke, S., Keifert, D., Lindberg, L., Vea, 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.
5. **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.
6. Chapman, K., Jasien, L., Reimer, P., & **Vogelstein, L.** (2019, June). Designing for productive problem posing in informal STEM spaces. Discussant in symposium at the 2019 Conference on Computer Supported Collaborative Learning, Lyon, France.
7. **Vogelstein, L.** (2019, November). *Embodying full personhood in education: What educators can learn from the practices of professional dances.* Paper presented at the 9th Conference on Education and Social Justice, Honolulu, Hawai'i.
8. 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.
9. **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.
10. **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.
11. **Vogelstein, L.** (2018, October). *An aesthetics of (dis)order in context.* Paper presented at the American Educational Studies Conference, Greenville, SC.

12. **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.
13. **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.
14. **Vogelstein, L.** (2017, October). *Ensemble performance as expressive mathematics.* Poster presented at Learning Sciences Graduate Student Conference annual meeting, Bloomington, IN.
15. **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

2021-2024	**NSF AISL Grant – Co-PI** National Science Foundation *The body as a tool for science learning and research: Utilizing choreography and agent-based models to study scientific phenomena*	$861,283
2019-2020	**NSF INTERN Award – Principal Investigator** National Science Foundation *Educational Outreach Internship with New Dialect*	$24,425
2017-2019	**Research Grant** Curb Center Public Scholar, Vanderbilt University	$2,000
2017	**Peabody Small Grant** Peabody College, Vanderbilt University *Making of Expansive Possibilities*	$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

Spring 2021 **Learning & the Interaction Order** Vanderbilt University
Teaching Assistant
Co-taught and revamped an advanced graduate qualitative methods course in the department of Teaching & Learning, under the tutelage of Dr. Rogers Hall. The course supported students in developing a methodological tool-kit to engage in practices of Interaction Analysis, taking the interactional achievement of learning as an empirical phenomenon to study.

Spring 2020 **Learning & Design in Community Settings** Vanderbilt University
Teaching Assistant
Co-designed and co-taught a new course in the department of Teaching & Learning, under the tutelage of Dr. Rogers Hall. We created an undergraduate version of the graduate course we had taught in the fall of 2019, Design and Study of Informal Learning Environments, pushing students to expand their conceptions of learning outside of classrooms using sociocultural theories.

Fall 2019 **Design and Study of Informal Learning Environments** Vanderbilt University
Teaching Assistant
Co-taught this course in the department of Teaching & Learning, under the tutelage of Drs. Rogers Hall & Leona Schauble. With masters and doctoral students, we deeply engaged in how empirical studies of learning outside of classrooms change the way we understand and design learning environments.

Spring 2019 **Discourse in STEM** Vanderbilt University
Teaching Assistant
Co-taught and iteratively designed lessons for this course in the department of Teaching & Learning, under the tutelage of Dr. Nicole Joseph. With masters and doctoral students, we reimagined ways of engaging students in equitable discourse in STEM learning spaces.

Summer 2018 **Learning In & Out of Schools** Vanderbilt University
Teaching Assistant
Co-taught this course in the department of Teaching & Learning, under the tutelage of visiting scholar Dr. Katie Hedrick Taylor for masters students in the Learning & Design MA program supporting their first course in graduate school.

2019-2022 **Learning & Design Masters Program** Vanderbilt University
Capstone Mentor
Assisted Dr. Kris Neal in redesigning the capstone curriculum for the one-year Learning & Design masters program in the department of Teaching & Learning. Mentored two groups of six masters students through the capstone process. Serving in this capacity for a third year, iterating on our design from the previous years to mentor another seven masters students in their capstone work.

INVITED GUEST LECTURES

1. Interaction Analysis: Methodological Seeds & Blossoms
   Learning Sciences: Research & Methodological Perspectives – Graduate Course, University of Utah (Spring 2023).
2. Learning Sciences Early Career Advice
   Learning Sciences Seminar – Graduate Course, University of Wisconsin Madison (Spring, 2023).

3. Scientific Discovery in Intergenerational Choreographic Modeling
   Science Modeling – Undergraduate & Graduate Course, Vanderbilt University (Spring, 2023).
4. Interdisciplinary Collaboration in Design Research: A Process of Composing Across Design, Analysis, and Relations.
   Teaching & Learning Department Lecture Series, NYU (Fall, 2022).
5. Relationality in Interdisciplinary Co-Design & Co-Analysis.
   Designing for Contexts – Graduate Course, Vanderbilt University, Kris Neal (Fall, 2022).
6. New Approaches to Conjecture Mapping in Design Based Research.
   Design Based Research Methods - Graduate Courses, NYU, Chris Hoadley (Spring, 2022).
7. Ethical Reflections on Design Research Partnerships.
   Designing for Contexts. Introduction to the Design of Learning Environments – Graduate Course, Vanderbilt University, Kris Neal (Fall, 2021).
8. 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).
9. 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).
10. 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)
11. Creating Large Scale Ensemble Mathematical Performances & Transformations.
    Mathematics Visualization - Graduate Course, Vanderbilt University, Corey Brady (Fall 2018).
12. Experiencing Ensemble Mathematics Learning in Choreography.
    Learning In the Community - Graduate Course, Vanderbilt University, Andrew Hostetler (Summer 2017).
13. 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.
   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, 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** New York, NY
New York University
Worked on the PiLa-CS team to design and facilitate a 6 week professional learning community for teachers interested in incorporating CS into their classrooms using translanguaging theory to inform their design work. This entailed holding weekly office hours for teachers, facilitating design feedback sessions, running a showcase event at the end of the summer, and following up with teachers to support their work throughout the school year.

2022 **Language, Justice, & You** New York, NY
NYC Department of Education
Helped the PiLa-CS team design a one-week professional development workshop for teachers interested in teaching and/or integrating computer science into their classrooms with a focus on equity for bi/multilingual learners. The workshops focused on having teachers start with reflections on their own experiences with language justice and connecting those experiences to larger systems of oppression that their classrooms and students are entangled in.

2022 **Choreographing Science AISL PD** Gainesville, FL
University of Florida
Designed and facilitated meetings to work with scientists and choreographers on the co-design of our 2-week Choreographing Science camp with middle school. The emphasis was on preparing scientists to learn about their research with youth and to bring scientists' and choreographers' perspectives to the activity and facilitation design of the camp as an intergenerational and interdisciplinary science & dance learning environment.

2019 **INTERN Week exploring physical research of ensemble math** Nashville, TN
New Dialect
Designed and led a one-week dance intensive workshop for professional dancers to engage in their practice of physical research to explore the design potential of ensemble mathematical learning environments. The week culminated in inviting middle school math teachers to join us in the dance studio to explore these ideas together.

2018-2020 **CAMPS Co-Design and Professional Development Workshops** Nashville, TN
Vanderbilt University

Designed and led one-week professional development workshops for middle school math teachers to collaboratively co-design and learn how to integrate computational and mathematics thinking in an arts-based learning environment.

PROFESSIONAL SERVICE

Conference Organizer - Learning Sciences Graduate Student Conference

2018 *Conference Co-Chair at Vanderbilt University*
2016-2020 *Faculty Speakers & Social Events Committee Chair*

Journal Reviewer

2021-Present *Journal of the Learning Sciences*
2022-Present *Cognition & Instruction*

Conference Reviewer

2016-2021 *Learning Sciences Graduate Student Conference*
2019-Present *American Education Research Association Annual Meeting*
2019-Present *International Conference of the Learning Sciences*

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

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