Adaline E. De Chenne

Oregon State University
Department of Mathematics

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Education

PhD in Mathematics Candidate (Current) Exp. Graduation Date: Summer 2023
Oregon State University Corvallis, OR
Advisor: Elise Lockwood

Master of Science in Mathematics Graduation Date: 2020
Oregon State University Corvallis, OR
Advisor: Elise Lockwood

Bachelor of Science in Mathematics Graduation Date: May 2015
University of Puget Sound Tacoma, WA
Honors in Major, Magna Cum Laude, Member Phi Beta Kappa

Positions

Graduate Teaching Assistant, Oregon State University, Department of Mathematics, 2017 - 2019, 2022 - Present

Graduate Research Assistant, Oregon State University, Department of Mathematics, 2019 - 2022

Research Support

Graduate Research Assistant. *CAREER: Developing Undergraduate Combinatorial Curriculum In Computational Settings.* With Elise Lockwood (Principal Investigator). National Science Foundation Department of Undergraduate Education (DUE) – 1650943. 2017 – 2022. Responsibilities include: data collection, data analysis, scheduling, writing.

Graduate Research Assistant. *Integrating CS Education into Teacher Education and K-12 Mathematics.* With Jennifer Parham-Mocello (Principal investigator), Elise Lockwood (Co-principal investigator) and Rebekah Elliott (Co-principal investigator). Oregon State University. Google.2019 – 2020. Responsibilities include: data collection.

Scholarship

Refereed Journal Articles

De Chenne, A. & Lockwood, E. (2022). A Task to Connect Counting Processes to Lists of Outcomes in Combinatorics. *The Journal of Mathematical Behavior, 65*(3).
DOI: 10.1016/j.jmathb.2021.10093

Lockwood, E. & **De Chenne, A.** (2021). Reinforcing key combinatorial ideas in a computational setting: A case of encoding outcomes in computer programming. *The Journal of Mathematical Behavior, 62*(6).

Lockwood, E. & **De Chenne, A.** (2020). Using conditional statements in Python to reason about sets of outcomes in combinatorial problems. *International Journal of Research in Undergraduate Mathematics Education, 6*(3), pp. 303 - 346.

Refereed Conference Proceedings (* indicates accepted)

De Chenne, A., & Lockwood, E. * A Case of a Computational Setting Facilitating Empirical Re-Conceptualization. Submitted to the 25th Annual Conference on Research in Undergraduate Mathematics Education. University of Nebraska Omaha: Omaha, NE.

De Chenne, A. (2022). A Framework for a 'Set-Oriented Perspective' in Combinatorics Using the Theory of Register of Semiotic Representations. Proceedings of the 24th Annual Conference on Research in Undergraduate Mathematics Education. Boston University: Boston, MA.

De Chenne, A., & Lockwood, E. (2022). Listing algorithms for combinatorial problems with variable parameter values: a case study. Proceedings of the 12th Annual Congress of Education Research in Mathematics Education. Free University of Bozen-Balzano, IT.

De Chenne, A. & Lockwood, E. (2020). Student verification practices for combinatorics problems in a computational environment. Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education.

Lockwood, E. & **De Chenne, A.** (2020). Investigating undergraduate students' generalizing activity in a computational setting. In Sacristán, A.I., Cortés-Zavala, J.C. & Ruiz-Arias, P.M. (Eds.). (2020). Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, (pp. 2174-2182). Mexico. Cinvestav / AMIUTEM / PME-NA. https:/doi.org/10.51272/pmena.42.2020

Lockwood, E. & **De Chenne, A.** (2019) Preservice teachers' development of mathematical knowledge for teaching via combinatorial tasks in a computational setting. Accepted to the 14th International Congress on Mathematics Education.

Lockwood, E., **De Chenne, A.**, & Valdes-Fernandez, S. (2019). Affordances of solving counting problems in a computational environment. In Graven, M., Venkat, H., Essien, A. & Vale, P. (Eds). (2019). Proceedings of the 43rd Conference of the International Group for the Psychology of Mathematics Education (Vol 3) (pp. 41-48). Pretoria, South Africa: PME.

Conference Presentations (not included among conference proceedings)

De Chenne, A. & Lockwood, E. "Pre-service teachers reasoning about computational representations of counting problems." Annual meeting of the Pacific Northwest section of the Mathematical Association of America (MAA). Western Washington University. April 2022.

De Chenne, A., & Lockwood, E. "Connecting Sets of Outcomes with Counting Processes: What is the *m*th element?" Joint Mathematics Meetings (JMM). Denver 2020.

De Chenne, A. & Lockwood, E. "Student Verification Schemes for Combinatorial Problems in a Computational Setting." Annual meeting of the Pacific Northwest section of the Mathematical Association of America (MAA). University of Portland. April 2019.

Other Presentations

De Chenne, A. "Empirical Re-Conceptualization in a computational setting: A Case study." Presented to the Oregon State University Graduate Seminar. July, 2022.

De Chenne, A. "Finding Positional Representations of Real Numbers by Counting Sets of

Outcomes." Presented to the Oregon State University Mathematics REU. July 2021

De Chenne, A. "Positional Representations of Real Numbers." Part of completion of Masters of Science, Mathematics Department. July 2020.

De Chenne, A. & Lockwood, E. "Student Verification Practices for Combinatorics Problems in a Computational Environment." Presented at Center for Computing in Science Education, University of Oslo, Norway. September 2019.

De Chenne, A. & Lockwood, E. "Asking the Right Questions: What is the *m*th Element?". Presented to Oregon State University Mathematics Graduate Seminar. July 2019.

De Chenne, A. & Lockwood, E. "Connecting Outcomes and Counting." Presented to Oregon State University Mathematics REU. July 2019.

Posters

De Chenne, A. & Lockwood, E. "Student Verification Schemes for Combinatorics Problems in a Computational Setting." Oregon State University, Mathematics Department. April, 2019.

Teaching Experience

Summary. As an instructor of record, I have been responsible for developing course materials (assessments and assignments), grading, and leading classes. I have also coordinated with other instructors to create jointly shared materials and to ensure that policies between classes are the same. As a teaching assistant, I have led recitations, graded assignments, held office hours, and tutored at a tutoring center.

Courses Taught: Instructor of Record

- **College Algebra** (Math 111). Fall 2022.
- **Vector Calculus** (Math 254). Summer 2022.
- **Differential Equations** (Math 256). Summer 2020.
- **Business Calculus** (Math 241). Fall 2018.
- **Integral Calculus** (Math 252). Summer 2018.

Courses Taught: Teaching Assistant

- **PreCalculus** (Math 150X). Fall 2017.
- **Elements of Discrete Mathematics** (Math 231).
- **Differential Calculus** (Math 251). Winter 2018.

Awards and Honors

Lonseth Award Outstanding Performance in Coursework. Award given to graduate students with highest achievements in coursework, awarded in my first year. Mathematics Department, 2018.

Service

Conference Organizer. Math For All conference, Corvallis 2023. Responsibilities include collaborating on itinerary for conference, and responsible for marketing of conference.

DEJAI Committee Member. Upcoming. Responsibilities will include helping to develop and refine department policies to promote diversity, equity, justice, access, and inclusion.

Post Doc Search Committee Member. 2020. Responsibilities include regular meetings and review of candidates for Post-doctorate hire in the Mathematics Department.

References

Dr. Elise Lockwood
Associate Professor, Oregon State University
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(541) 737-5164

Dr. Mary Beisiegel
Associate Professor, Oregon State University
beisiegm@oregonstate.edu

Dr. Mark Guzdial
Professor, University of Michigan
mjguz@umich.edu