Candace Chappelle

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Education

August 2017--Present, Washington State University, Pullman, WA

- Candidate for Ph.D. in Mathematics and Science Education in the Teaching and Learning Department
- Dissertation Topic: Best Practices of Teaching Online Postsecondary Remedial Mathematics Courses
- Major academic course highlights: Mathematics and Science Learning Theories; Frameworks for Research in Mathematics and Science

August 2015—August 2017, Washington State University, Pullman, WA

- Candidate for Ph.D. in Mathematics with Education Emphasis in the Mathematics Department
- Major academic course highlights: Mathematics Learning Theories; Abstract Algebra; Real and Complex Analysis

August 2013---August 2015, Washington State University, Pullman, WA

- Master's degree in Mathematics (MS) Teaching Option (August 2015)
 - Project: Teaching Developmental Mathematics in an Online Setting
 - Research Question: What modifications are critical to convert Math 100 face-to-face into a successful online counterpart?
- Major academic courses highlights: Real Analysis; Linear Algebra; Linear Optimization, Graph Theory

September 2010---June 2013, Central Washington University, Ellensburg, WA

- Bachelor in Mathematics degree (BS).
- Minor in Spanish
- Major academic courses highlights: Real Analysis; Linear and Abstract Algebra; Topology; Cryptology

August 2008- August 2011, Highline Community College, Des Moines, WA

- Associates of Arts with an emphasis in Mathematics (AA).
- Performed Piano Pieces and vocal performances various times with Paula Mayfield, the Pianist for all the Music classes

August 2007-May 2009, Pacific Lutheran University, Tacoma, WA

• Major: Psychology, Minors: Statistics, Music

Research Interests

- Integrating contextualized problems in remedial mathematics classrooms
- Creating and executing best practices in postsecondary mathematics classrooms
- Building and maintaining communities of practice in online settings
- Building online versions of face-to-face mathematics courses to advance educational equity and social justice

Publications

Book Chapter

Turner, E., Roth McDuffie, A., Aguirre, J., Foote, M. Q., Chappelle, C., Bennett, A., Granillo, M. & Ponnuru, N. (accepted). Upcycling plastic bags to make jump ropes: Elementary students leverage experiences and funds of knowledge as they engage in a relevant, community-oriented mathematical modeling task. In J. Suh, M. Wickstram, L. English (Eds). *Exploring the Nature of Mathematical Modeling in the Early Grades*. The Netherlands: Springer.

Employment

Instructor, Washington State University, Teaching and Learning Department Upcoming in May 2020

• Educated middle school teachers on topics in 2D and 3D geometry including technology-based reasoning and exploration, deductive arguments, transformational and proportional reasoning, and non-Euclidean geometries.

Graduate Assistant, Washington State University, McNair Scholars Program May 2019-Present

- Mentored McNair Students about graduate school related topics
- Trained scholars on professional development topics
- Hosted National Pacific North West
- Developed a Workshop Series
 - o Time Management, CV, professional Development Series
- Developed Content for Mathematics GRE Section
- Taught McNair Students Study tips for Math GRE Section
- Developed Content for Financial Literacy Workshop
- Taught McNair Scholars Financial Literacy

Instructor, Washington State University, Teaching and Learning Department May 2019-June 2019

• Educated middle school teachers on topics in 2D and 3D geometry including technology-based reasoning and exploration, deductive arguments, transformational and proportional reasoning, and non-Euclidean geometries.

Graduate Assistant, Washington State University, Mathematics Modeling with Cultural and Community Contexts (M2C3) Project August 2018-May 2019

- Coded various videos with M2C3 Coding Guide and Coding Sheets
- Transcribed various teacher focus group interviews and solo interviews
- Wrote Audio Logs for various professional development (PD) sessions
- Wrote Video Logs for various professional development sessions
- Analyzed data across tasks, teachers, and PD sessions

Graduate Assistant, Washington State University, Office of the Dean of Students August 2015-August 2018, Pullman, WA

- Presented financial literacy workshops
 - Preforming skills in a clear voice with a confident and personable manner
 - Engaging audience with financial literacy topics: money management, budgeting, etc.
 - Researching current financial literacy trends
 - Excellent communication and presentation skills
 - Acting as the host, introduce and interview guests and interact with the audience.
 - Delivering information to the audience in a manner appropriate to the audience.
 - Reacting quickly and positively to any problems or changes.
- Coordinated social media
 - Creating and providing up-to-date content
 - o Updating and changing social media platforms
 - Providing customer service
 - Engaging students
 - Analyzing data
- Developed SALT (financial literacy) Ambassador Program
 - Writing and revising program proposal
- Recorded and emailed meeting minutes for SALT committee meetings
- Promoted for big events via social media, tabling, digital boards, posters, etc.

Graduate and Professional Student Association (GPSA) Director of Communications, Washington State University

May 2017-May 2018, Pullman, WA

- Coordinated social media on multiple channels: Facebook, Twitter, Instagram
- Created and produced bimonthly newsletter to the graduate and professional students
- Maintained accessible website for GPSA
- Lead social media team for GPSA

Graduate and Professional Student Association (GPSA) Senator, Washington State University January 2016-May 2017, Pullman, WA

- Coordinated social media
- Attended and participated in all GPSA meetings
- Recorded and developed meeting minutes
- Assessed travel and research grant applications
- Coordinated different social events
- Engaged colleagues in discussion about the Senate agenda/GPSA
- Encouraged colleagues to identify new issues of importance to GPSA

Graduate Teaching Assistant, Washington State University, Department of Mathematics August 2013-August 2015, Pullman, WA

- Assist faculty members with classroom instruction, exams, record keeping, and other miscellaneous projects.
- Tutor or mentor students.
- Clean labs and set up.
- Obtain materials needed for classes, including texts and other materials.
- Prepare presentations for lectures.
- Deliver lectures.
- Hand out assignments and grade papers.
- Proctor examinations.
- Record grades and inform students of their final grades.
- Arrange for teaching observations.
- Meet with students during office hours.
- Help professors and teachers develop course plans.
- Assist with student conferences.
- Lead discussion sections.
- Teach undergraduate courses.
- Create and write materials such as a syllabus, visual aids, answer keys, supplementary notes, and course websites.
- Correspond with students on Blackboard communication system.
- Enforce laboratory rules.
- Take attendance and record responses.

Writing Tutor, Central Washington University Learning Commons September 2011-June 2013, Ellensburg, WA

- Ability to monitor multiple tasks at once
- To motivate and teach students skills in English
- To communicate effectively with tutees

- To attend tutor training and staff meetings as required
- To present at conferences as assigned
- To assist with workshops and presentations
- To assist with advertising the Math Lab as assigned.

Mathematics Tutor, Central Washington University Learning Commons September 2011-June 2013, Ellensburg, WA

- Ability to monitor multiple tasks at once
- Strong aptitude towards numeric and statistics
- To motivate and teach students skills in Mathematics
- To communicate effectively with tutees
- To attend tutor training and staff meetings as required
- To present at conferences as assigned
- To assist with workshops and presentations
- To assist with advertising the Math Lab as assigned.

Teaching Assistant/Grader, Central Washington University Computer Science Department March 2011-September 2011, Ellensburg, WA

- Ability to monitor multiple tasks at once
- Experience in handling confidential information, loyal and trustworthy
- Experience grading projects in a timely, effective and fair manner
- Experience in excel and spread sheets
- Good student-relations background and excellent communication skills

Research Experience

May 2018-Present, Washington State University, Pullman, WA Teaching and Learning Department, Advisor: Dr. Amy Roth-McDuffie Graduate Research. See M2C3 project description under Employment

March 2012-June 2013 Central Washington University, Ellensburg, WA Department of Mathematics, Advisor: Dr. Jane Whitmire Undergraduate Research

What is the overall density of Happy Numbers base *n* such that 2 < n < 11 and $n \in \mathbb{Z}$; How do they compare to the density of Happy Primes on the same interval?

We primarily used Pari/GP to create programs to confirm previous publications that include the number of happy numbers in base n are correct. We explore how the density changes with different intervals. We want to see if the densities of the different bases will indeed converge.

Project A consists of:

- The exploration of the Density of Happy Numbers in base *n*, such that 2 < n < 11 and $n \in \mathbb{Z}$.
- The Density Happy Prime Numbers in base 10
- Finding the upper and lower bounds for the Density of Happy Primes base 10
- Finding the upper and lower bounds for the Density of Happy Numbers base *n*

Project B consists of:

- Teaching secondary students proportionality using a Poly-Pak
- This will be a lesson plan for middle school teachers to guide them in the teaching of proportionality to their students.

The project has helped me further develop the following skills:

- Analysis: developed strong analytical skills as part of my degree course
- Communication: excellent communication skills as demonstrated by my involvement in the project and
- Problem Solving: working on a research project enabled me to further develop problem solving skills

Presentations

- February 2019, Association of Mathematics Teacher Educators (AMTE) Presentation
 - Roth McDuffie, A., Foote, M. Q., Turner, E. E., Aguirre, J. M., Chappelle, C. (2019, February). Mathematical modeling in cultural and community contexts with elementary teachers and students grades 3-5. Presentation at the Annual Meeting of the Association of Mathematics Teacher Educators, Orlando, FL.
- March 2018, WSU Academic Showcase Critical Components of an Online Developmental Mathematics Course
- May 2012, Public Key Cryptology, RSA: Keeping Your Secrets Secret. Presented at The Symposium on University Research and Creative Expression (Source) Presentation. Faculty Mentor: Stuart Boersma.

Volunteer Experience

Campus Climate Executive Policy 15 Working Group, Washington State University January 2016-August 2018, Pullman, WA

- Coordinated social media
- Attended and participated in all GPSA meetings

Math Club Vice President, Central Washington University June 2012-June 2013, Ellensburg, WA

- To ensure the officers accomplish the assigned tasks
- To perform the duties of the President should the President be absent
- To plan and organize publicity for activities and special events; and to perform other such duties as may be required by the resolutions of the Executive Committee.

Math Club Secretary, Central Washington University August 2011-June 2012, Ellensburg, WA

- Attended all general correspondence of the Mathematics Club
- Kept the minutes of all Executive Committee and general meetings
- Preserved the records of the club
- Performed other such duties as may be required by the By-Laws or resolutions of the Executive Committee.

Awards

- 2017-2018 GPSA Outstanding Graduate Assistant Award
- 2012-2013 Washington State Opportunity Scholarship Recipient
- 2011-2013, Ronald E. McNair Scholarship, which helps low-income and underrepresented students in graduate education, to reach their goals of attaining doctoral degrees.
- 2011-2012 Bill & Lora Stovall Scholarship Recipient Central Washington University
- Winter 2011, Spring 2012 Central Washington University Honor Roll
- 2007-2009 Pacific Lutheran University Academic Achievement Scholarship
- 2006-2007 John Philip Sousa Outstanding Achievement Band Award

Competencies & Interests

Languages

- American Sign Language Proficiency
- Spanish Proficiency (Minor in Spanish)

Computing Skills

- LaTeX, VB, Pari/GP, Microsoft Office
- Microsoft: Word, Excel, PowerPoint, Access, Project, Outlook

Clubs

- 2012-2013 Math Club Vice President Central Washington University
- 2011-2012 Math Club Secretary Central Washington University

Personal Interests

- Dance Inspirational, Ballet, Ballroom (25 years)
- Cheerleading (6 years)
- Clarinet (22 years)
- Piano (Self-Taught 23 years)
- Zumba (5 years)
- Yoga (10 years)