

PATRICK OCRAN

Utah State University
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EDUCATION

Ph.D. in Education	<i>Expected date of completion - 2026</i>
Utah State University, Logan, UT, USA Specialization in Curriculum & Instruction, majoring in Mathematics Education & Leadership	
Master of Education	2021
Shaoxing University, Shaoxing, China Master of Mathematics Education Thesis: <i>Investigating the Impact of Students' Perception on Mathematics Performance</i>	
TEFL Professional Development Institute	2021
Certificate in Teaching English as a Foreign Language	
Bachelor of Education	2011
University of Education, Winneba, Ghana Bachelor of Education in Mathematics	

RESEARCH INTERESTS

Mathematics Teacher's Beliefs, Mathematics Classroom Discourse, , Mathematics Teacher Education Curriculum, Assessments practices and Teacher Positioning on Students Mathematics Identity, and its impact on STEM.

EMPLOYMENT HISTORY

Course Instructor (Graduate Research Assistant) - Utah State University, Logan, UT	
2024 (Fall) – present	
TEAL 4630 – Teaching Middle School Mathematics Methods Development of content topics of school mathematics and plan, teach, and reflect on lessons in the middle school grades 6-8. Identify and use selected manipulatives and technology. Identify and use multiple instructional strategies and techniques. Experience, develop and learn practices of building thinking classrooms. Face-to-face and Broadcast formats.	
Course Instructor (Graduate Research Assistant) - Utah State University, Logan, UT	
2023 – 2024 (Spring, Fall & Spring)	
ELED 4061(Taught Online) – Teaching Elementary Mathematics I: Rational Numbers, Operations, & Proportional Reasoning Development of pedagogical content knowledge in rational numbers, operations, and proportional reasoning for teaching grades Preschool to Grade 6. Understanding characteristics of instruction, assessments, remediation and intervention are critically considered.	
Graduate Research Assistant – Presidential Doctoral Research Fellowship	2022 - present
Observing Opportunity Gaps Project (OOG) - Dr. Alyson Lavigne	
School of Teacher Education and Leadership, Utah State University	
<ul style="list-style-type: none">• Engage data entry and organization in excel• Employing the use of SPSS for basic descriptive statistical analysis• Coding classroom talk videos transcripts using Classroom Talk Coding Protocol Manual (Lavigne et al., 2022)	

- In collaboration with my mentor (Dr. Alyson Lavigne) write grant proposal, manuscripts.

Evaluator (Volunteer) – Office of Research, Utah State University – 2023 Fall

Evaluated Undergraduate Research Presentations – *Student Research Symposium*

Reviewer (Volunteer) – Office of Research, Utah State University – 2023 Summer

Reviewed Undergraduate Research Proposals for Undergraduate Research & Creative grants.

Graduate Research Assistant – Instructional Technology and Learning Science (ITLS) 2023 (Summer)

Expansive Framing Analysis – Dr. Jessica Shumway

Used MAXQDA in qualitative coding of lesson plans, transcripts and provide feedbacks on the coding to the team of researchers. c

Course Instructor (Graduate Research Assistant) - Utah State University, Logan, UT 2022 – 2023 (Fall)

TEAL 4630 – Teaching Middle School Mathematics Methods

Development of content topics of school mathematics and plan, teach, and reflect on lessons in the middle school grades 6-8. Identify and use selected manipulatives and technology. Identify and use multiple instructional strategies and techniques. Face-to-face and Broadcast formats.

Graduate Research Assistant – Instructional Technology and Learning Science (ITLS) 2022 – 2023 (Spring)

Computer Science for Paraprofessionals data collection Project- Mimi Recker, Jody Clarke-Midura and Jessica F. Shumway

- Collection of classroom data using video cameras and field notes
- Engage in data entry in excel
- Engage in data coding and analysis

Mathematics Teacher (Volunteer) - Aprembo Catholic Junior High School, Aprembo, Ghana February 2022 – May 2022

- Delivering Mathematics lessons and tutorials to JHS 1, 2, and 3 Students.
- Checking students' work and giving appropriate feedback to the school authorities and parents concerning students' progress.
- Counseling students and serving as a mentor.

Mathematics and History Teacher - Boren Sino-Canadian School, China Oct. 2021– Jan. 2022

- Delivering Mathematics, History lessons, and tutorials to grade 7, 8, and 9 students
- Marking work, giving appropriate feedback, and maintaining records of pupils' progress and development
- Researching new topic areas, maintaining up-to-date subject knowledge, and devising new methods of teaching
- Participating in and organizing extracurricular activities, such as outings, social activities, and sporting events.

Teaching Assistant - School of Mathematics, Physics, and Informatics, Shaoxing University, China, 2018-2019

- Teaching assistance for 1st year, 2nd semester, Algebra.
- Organized tutorial discussions on topics in Algebra for colleagues.

- Assisted in research conducted by some senior members of the Mathematics Education Department.

Assistant Examiner - West Africa Examination Council (WAEC) 2016-2018

- Marking of Core and Elective Mathematics external Examination for West African Examination Council

Principal Superintendent Professional Teacher - Ghana Education Service 2012-2018

- Delivering Mathematics lessons and tutorials to SHS 1, 2 & 3 Students
- Marking work, giving appropriate feedback, and maintaining records of pupils' progress and development
- Researching new topic areas, maintaining up-to-date subject knowledge, and devising new methods of teaching
- Participating in and organizing extracurricular activities, such as outings, social activities, and sporting events;

Mathematics Teacher - Catholic Girls Vocational Institute, Tarkwa (National Service) 2011-2012

- Preparing and delivering lessons to a range of classes of different ages and abilities;
- Planning lessons, marking work, and preparing students for external assessments;
- Managing students' behavior in class, on the school premises, and applying appropriate and effective measures in cases of misbehavior;
- Organized tutorials on topics in both Mathematics.

OTHER WORK EXPERIENCE

Operations Manager (Part-time) - Samma Heights Enterprise, Takoradi 2015 -2018

- Maintain constant communication with management and sales personnel to ensure proper operations of the company.
 - Develop, implement and maintain quality assurance protocols for goods and services.
 - Lead, motivate and support our team within a time-sensitive and demanding environment including setup and implementation of career development plans for all direct reports and problem resolution.
- Manage timely data collection to update operations metrics to achieve our targets, reduce cost per unit, eliminate errors, and deliver excellent customer service.

PUBLICATIONS

Beck, K. E., Shumway, J. F., **Ocran, P.**, Clarke-Midura, J., & Recker, M. (2024). Expansive framing of mathematics and computer science: Supporting educators in cross-curricular teaching. *Publications*, (Paper 16). Utah State University.

https://digitalcommons.usu.edu/eled_support_pubs/16

Ayeh, I. G., **Ocran, P.**, Yalley, E., & Agyei, F. (2024). Examining the impact of information and communication technology (ICT) integration in Chinese middle school mathematics teaching and learning. *International Journal of Scientific and Research Publications*, 14(1), 227-237.

<https://dx.doi.org/10.29322/IJSRP.14.01.2024.p14523>

Agyei, F., **Ocran, P.**, Ayeh, I. G., & Yalley, E. (2024). Teacher preparation in China: An examination of shaoxing university's program. *International Journal of Scientific and Research Publications*, 14(3), 194 -206. <https://dx.doi.org/10.29322/IJSRP.14.03.2024.p14721>

Agyei, F., **Ocran, P.**, Amoabeng, R. O., & Oppong, K. (2023). Examining the perceptions of Ghanaian teachers towards Continuous professional development. *Journal of Education and Practice* 14(30). DOI: [10.7176/JEP/14-30-05](https://doi.org/10.7176/JEP/14-30-05)

Ocran, P., & Addo, A. A. (2021). Exploring the relationships among CO2 emissions, urbanization, economic growth, economic structure, energy consumption, and trade along the BRI based on income classification. *Energy, Ecology and Environment*, 6(3), 213-231.

<https://doi.org/10.1007/s40974-020-00176-0>

Hong-yu, Y., **Ocran, P.**, & Jinsong, W. (2019). Research on “rhombus” teaching based on the cultivation of students inquiry and transfer ability. *Journal of Inner Mongolia University (Educational Science)*, 4(32), 99-103.

Lavigne, A. L. & **Ocran, P. (Under review)**. Reimagining school leadership and policy in the Digital & Artificial Intelligence (AI) Era. *Journal of School Leadership*

Kimberly E. B., Shumway, J. F., **Ocran, P.**, Clarke-Midura, J., Recker, M. (**Under Review**). Expansively framing mathematics and computer science teaching with digital technology in elementary classrooms. *Computers in the Schools*

Ocran, P. & Agyei, F. (**In progress**). Exploring teachers' beliefs about their practices and challenges with mathematics assessment in current research literature. *Educational Research and Evaluation*.

Lavigne, A. L., **Ocran, P.**, Taylor, S., White, L., & Braden, S. (**In progress**). Simple technology-driven metrics to capture the practice of teaching: What do they reveal? What do they conceal?

CONFERENCE PRESENTATIONS

Ocran, P. & Lavigne, A. L. (2024, August 14). Inquiring about Equity Using TeachFX : Transforming Classrooms Dynamics - Poster Presentation

Lavigne, A. L. & **Ocran, P.** (2024, August 14). Building Equitable Classrooms Using to Track Student Participation Patterns – Virtual Presentation

Beck, K., Shumway, J., **Ocran, P.**, Clarke-Midura, J., & Recker, M. (2024, July). Expansive Framing of Mathematics and Computer Science: Supporting Paraprofessionals and Classroom Teachers in Cross-Curricular Teaching. Proceedings of 15th International Congress on Mathematics. Sydney, Australia. ICME-15.

Ocran, P. (2024, January 30 - 31). Volume voyages: Navigating cylinders and cones in mathematics. Utah Council of Teachers of Mathematics, Provo, UT, United States.

Lavigne, A. L. & **Ocran, P.** (2023, November 16 - 18). Possibilities for instructional leadership: A study of classroom discourse patterns, teacher factors, and student outcomes. University Council for Educational Administration, Minneapolis, United States.

Ocran, P. & Lavigne, A. L. (**Under Review**). Using automated and artificial intelligence tools and coaches for teacher growth and development: A literature review. *American Educational Research Association (AERA)*.

GUEST LECTURE(S)

Guest Lecture, ELED 4062 Teaching Elementary School Mathematics II: Number, Operations, And Algebraic reasoning (2024, February). For Dr. Tye Campbell, Utah State University, Logan.

WORKSHOP AND PRESENTATION

Oral presentation. Ocran, Patrick (2017). Assessing mathematical literacy. A summit organized by the Tertiary Student Union of Apremdo (TSUOA), Apremdo, Western Region, Ghana.

AWARDS AND SCHOLARSHIPS

Utah State University, Logan

- Presidential Doctoral Research Fellowship (PDRF) 2022 – 2026
- Academic Opportunity Fund (AoF) 2023 Fall
- School of Teacher Education And Leadership (G.A. Award) 2023 Summer

Shaoxing University, China

- Shaoxing Provincial Scholarship 2018 – 2021

TRAINING AND WORKSHOPS

- Sexual Harassment and stalking (Refresher) Training – 13th August, 2024
- Reporting Employee Title IX (New Employee 2024-25) – 12th August, 2024
- Collaborative Institutional Training Initiative (CITI PROGRAM) - 25th August, 2022
- Workshop for International Teaching Assistants (ITA) at The Intensive English Language Institute, Utah State University, Utah (August, 2022).
- Academic Conference: Africa's Future Beyond Aid In the Context of SDGs. (23rd June 2021)
- The First China - Africa Economic and Trade Cooperation and Development Forum of Shaoxing Summit (November 2019).
- Workshop on Legal Education Base for International Students of Shaoxing University (November 2019).
- Workshop for International Students of Shaoxing University on Anti-drug laws and regulations of China. (October 2019).
- Workshop for International Students of Shaoxing University on how to identify and avoid online fraud. (May 2018).

PROFESSIONAL ORGANIZATION

- **National Association of Graduate Teachers (NAGRAT)** 2012 –
- **Mathematics Association of Ghana (MAG)** 2012 -

LEADERSHIP POSITIONS

- President –Tertiary Student Union of Aprembo (TSUOA) 2016 – 2022
- Deacon – Living Word Bible Center, Aprembo - Takoradi 2016 – 2021
- Maths and Science Quiz Coordinator- Fiaseman Senior High School, Tarkwa 2016 – 2018
- Chaplain – Association of Mathematics Student (AMES), Winneba 2010 – 2011

SPECIFIC SKILLS

- Microsoft Office Suite
- Statistical Package for Social sciences (SPSS)
- **MAXQDA**
- **R -Studio**