

CV

Charles Siaw Obeng

Mathematics Lecturer | Mathematics Education Researcher

United States/Ghana

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PROFESSIONAL SUMMARY

Mathematics educator and researcher with strong academic training in pure and applied mathematics and experience teaching secondary and advanced mathematics courses. Holds Bachelor's, Master's (MSc) and Master of philosophy (Mphil) degrees in Mathematics from the Kwame Nkrumah University of Science and Technology (KNUST), and University of Cape Coast-Ghana .

Specializes in mathematics education research, particularly geometric reasoning using the Van Hiele model. Experienced in statistical analysis using SPSS and quantitative research methods. Passionate about promoting conceptual understanding of mathematics, improving student learning outcomes, and contributing to teaching and research in higher education.

EDUCATION

Master of Philosophy (Mphil) in Mathematics Education,

Kwame Nkrumah University of Science and Technology (KNUST) – Ghana

Thesis:

Van Hiele's Geometric Thinking Levels among Year Three Second Cycle School Students in the Asante Akim South Municipality

Research Methods:

- ANOVA
- t-test
- Chi-square test
- Correlation analysis
- SPSS statistical analysis

Master of Science (MSc) in Mathematics

University of Cape Coast- Ghana

Bachelor of Science (BSc) in Mathematics,

Kwame Nkrumah University of Science and Technology (KNUST) – Ghana

Bachelor of Science (BSc) in Information and Communication Technology,

University of Ghana, Legon

Certificate in Education,

University College of Education (Winneba) – Ghana

Higher National Diploma (HND) in Mechanical Engineering

Kumasi Technical University – Ghana

TEACHING EXPERIENCE

Mathematics Teacher / Lecturer

Senior High School Level – Ghana

Responsibilities:

- Taught **Core Mathematics and Elective Mathematics** to senior high school students.
- Delivered instruction in **algebra, calculus, trigonometry, geometry, and statistics.**

- Designed lesson plans aligned with national curriculum standards.
- Prepared students for national examinations through intensive problem-solving sessions.
- Implemented student-centered learning strategies to improve mathematical reasoning.

COURSES QUALIFIED TO TEACH

- College Algebra
- Pre-Calculus
- Calculus I
- Geometry
- Trigonometry
- Probability and Statistics
- Quantitative Reasoning
- Mathematical Modeling

RESEARCH EXPERIENCE

Mathematics Education Research

Research focus areas:

- Geometric thinking development
- Van Hiele geometric reasoning model
- Mathematics pedagogy
- Statistical literacy in education

Research contributions:

- Conducted empirical research on students' geometric thinking levels.
- Applied statistical techniques including **ANOVA, correlation, and chi-square tests**.
- Interpreted research results to improve mathematics teaching strategies.

TECHNICAL SKILLS

- SPSS Statistical Analysis
- Microsoft Word, Excel, PowerPoint
- Quantitative Research Methods
- Academic Writing and Research
- Data Analysis and Interpretation

ACADEMIC INTERESTS

- Mathematics Education
- Geometry Learning
- Statistical Literacy
- Quantitative Research in Education
- Mathematics Curriculum Development

PROFESSIONAL SKILLS

- Mathematics Instruction
- Curriculum Design
- Research Methodology
- Classroom Management
- Academic Mentoring

REFERENCES

Available upon request.