## **CURRICULUM VITAE**

## PERSONAL DATA

NAME Professor Charles Kojo Assuah (Ph.D.)

POSTAL Dept. of Mathematics Education, University of Education, Winneba, P.

ADDRESS O. Box 25, Winneba.
CELL PHONE (+233)541511706
EMAIL ckassuah@uew.edu.gh

**ADDRESS** 

DATE OF BIRTH October 7, 1967

NATIONALITY Ghanaian

## CAREER FOCUS AND PHILOSOPHY

I am a Full professor of Mathematics Education and Dean of the Centre for International Programmes at the University of Education, Winneba. I hold a Ph.D. in Curriculum, Teaching, and Learning, with a specialization in Mathematics Education from the University of Nevada, Reno, in the U.S.A., an M.Sc. in Mathematics from Youngstown State University in Ohio, U.S.A., and a B.Sc. in Mathematics from Kwame Nkrumah University of Science and Technology, Kumasi. I have served as the Head of the Department and Postgraduate Coordinator in the Mathematics Education Department, Vice Dean of the School of Graduate Studies, Dean of the School of Communication and Media Studies, and currently, Dean of the Centre of International Programmes. I have taught mathematics at the local and international levels at the Junior High School, Senior High School, and University levels. I have in-depth knowledge and experience in using and implementing the standards-based Mathematics Curriculum for school instruction. I passionately believe that the diverse and rapidly changing global societies require mathematics teachers with a broad fund of knowledge that will enable them to teach with understanding to impact student learning. To this end, I train mathematics teachers to develop the intellectual capacity to position them effectively to anticipate and respond to the diversity of problems that influence educational processes. I also train mathematics teachers to reinvent themselves purposefully as they engage with their colleagues. I teach students to develop a conceptual understanding of Mathematics to enable them to apply that understanding in multiple ways. As a mathematics teacher educator, I value academic excellence and integrity, outstanding teaching and service, effective professional leadership, individual and collective excellence; diversity, equity, social justice, education of all individuals across the lifespan, and collegiality and collaboration.

ACADEMIC QUALIFICATIONS

Qualification/certificate	Name of institution attended	Date
obtained		
Doctor of Philosophy Degree (Ph.D.)	University of Nevada, Reno, U. S. A	2006-2010
in Curriculum, Teaching, and		
learning with specialization in		
Mathematics Education		
Master of Science Degree (M.Sc.) in	Youngstown State University,	2003-2005
Mathematics	Youngstown, U. S. A	

# PROFESSIONAL QUALIFICATIONS

Rank Date	
Full Professor	December 2022 to date
Associate Professor	July 2018 – December 2022
Senior Lecturer	February 2015 – July 2018
Lecturer	February 2011 – February 2015
Graduate Research Assistant	August 2006 – May 2010
Graduate Assistant	August 2003 – August 2005

# PROFESSIONAL MEMBERSHIPS

Name of Association	Period
National Council of Teachers of Mathematics (N. C. T. M), U. S. A	2006 to date
Psychology of Mathematics Education (P. M. E), U. S. A	2008 to date
Association of Teacher Educators (A. T. E), U. S. A	2010 to date
Association of Mathematics Education of South Africa (A. M. E. S. A),	2010 to date
South Africa	
Mathematics Association of Ghana (M. A. G)	2011 to date
European Association of International Educators (E. A. I. E)	2022 to date

# PROFESSIONAL RESPONSIBILITIES

Position	Office	Period
Dean, Centre for	Students Centre	October 1, 202 to date
International Programmes		
Dean, School of	Faculty of Communication	August 1, 2021 – September
Communication and Media	and Media Studies Building	30, 2021
Studies		
Acting Dean, School of	Faculty of Social Sciences	May 17, 2021 – May 26,
Graduate Studies	Building	2021
Vice Dean, School of	Faculty of Social Sciences	2018/2019, 2018/2020,
Graduate Studies	Building	2020/2021
Head of Department,	Faculty of Science Building	2017/2018
Mathematics Education	, .	
Graduate Coordinator,	Faculty of Science Building	2015/2016,2016/2017
Department of Mathematics	racarry or before Banding	2013/2010/2010/2017
Education		

# **EMPLOYMENT HISTORY**

2018/2019, 2019/2020

Type of Employment	Place	Period
Dean, Centre for International Programmes	University of Education, Winneba	October 1, 2021, to date
Dean, School of Communication and Media Studies	University of Education, Winneba	August 1, 2021 – September 30, 2021
Acting Dean, School of Graduate Studies	University of Education, Winneba	May 17, 2021 – May 26, 2021
Vice Dean, School of Graduate Studies	University of Education, Winneba	2018/2019, 2019/2020, 2020/2021
Head of Department, Mathematics Education	University of Education, Winneba	2017/2018
Graduate Coordinator, Department of Mathematics Education	University of Education, Winneba	2015/2016, 2016/2017
Academic Counsellor	University of Education, Winneba	2012/2013, 2013/2014, 2014/2015, 2015/2016, 2016/2017, 2017/2018, 2018/2019, 2019/2020
Lecturer, Department of Mathematics and Statistics	University of Nevada, Reno, U. S. A	2008, 2009, 2010
Lecturer, Department of Curriculum, Teaching and Learning	University of Nevada, Reno, U. S. A	Fall, 2008
Lecturer, Guilford Community College	Greensboro, NC, U.S.A	Spring, 2005
Graduate Assistant, Department of Mathematics and Statistics	Youngstown State University, OH, U. S. A	Fall, 2003 – 2005
Revenue Management Officer	Electricity Company of Ghana, Ghana	1999 – 2003

Mathematics Teacher, Yaa
Asantewaa Girls Senior
High School

Mathematics Teacher,
Methodist Junior High
School

Shama, Ghana
1995 – 1998
1989 – 1991

#### ACADEMIC MANAGEMENT

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Faculty Level	Department Level	
1. Dean, Centre for International	1. Head of Department,	
Programmes: 2021 to date.	Mathematics Education:	
2. Dean, School of Communication and	2017/2018.	
Media Studies: August 2021 – September	2. Graduate Coordinator (Dept. of	
2021.	Mathematics Education: 2015	
3. Acting Dean, School of Graduate Studies:	-2017.	
May 17, 2021 – May 26, 2021.		
4. Vice Dean, School of Graduate Studies:		
2018 - 2021.		

# **ACADEMIC COMMITTEES**

University Level	Faculty Level	Department Level
1. Graduate Board:	1. Faculty Board: 2017	1. Graduate Board:
2018 to date.	to date.	2017 to date
2. Academic Board:	2. Appointment and.	
2017 to date.	Promotions: 2020 to	
3. College of Distance	date.	
and e-Learning		
Board: 2022 to date.		
4. Appointment and		
Promotions		
Committee: 2020 to		
date.		

## RESEARCH INTEREST

What inspires me most in mathematics teaching and learning is exposing mathematics teachers to effective and innovative teaching methods to enhance their students' learning outcomes. To this end, I encourage teachers to constantly indulge in reflective practices as they plan their lessons to instruct their students. Through excellent classroom discourse practices, teachers improve their pedagogical practices by integrating technology into their teaching.

# REFEREED RESEARCH PUBLICATIONS

- Assuah, C. K. (2024). The limit of a function using the epsilon-delta definition. *Manuscript submitted for publication*.
- Assuah, C. K. (2024). The concept of total probability and its applications. *Manuscript* submitted for publication
- Assuah, C. K. (2024). Practical Approaches of assisting students to understand "Counting" at the undergraduate level. *Manuscript submitted for publication*.
- Assuah, C. K. (2024). Level 100 Undergraduate Mathematics Students' Conceptual Understanding of Independent, Dependent, and Mutually Exclusive Events. *Manuscript submitted for publication*.
- Assuah, C. K. (2024). Teacher instructional variables contributing to mathematics teaching and learning in the Ghanaian Senior High Schools: Smart Partial Least Square Analysis. *Manuscript submitted for publication*.
- Assuah, C. K. (2024). The interconnectedness of the factors affecting STEM Education in Ghana: Smart Partial Least Square Analysis. *Manuscript submitted for publication*.
- Assuah, C. K. (2024). Ghanaian Mathematics teachers' knowledge about access and equity in Mathematics Education: A cross-sectional study design. *Manuscript submitted for publication*.
- Boakye, S., Quansah, F., Awuku, E., & **Assuah, C. K**. (2024). Assessing pre-service teachers' competencies in teaching basic school science curriculum: A case study. *European Journal of Educational Sciences*, 11(1), 1-12.
- Amadu, C. D., Ali, K. A., Andoh-Kesson, J. D., & **Assuah, C. K.** (2023). Tutors' perspectives of factors affecting the implementation of the four-year bachelor of education science curriculum in the colleges of education in Ghana. *International Journal of Innovative Research and Development*, 12(8), 157-167.
- Pinamang, I., Mensah-Wonkyi, T., & **Assuah, C. K.** (2023). Pre-service teachers' perceptions of the effectiveness of their mathematics tutors' classroom learning environment management practices. *African Journal of Educational Studies in Mathematics and Sciences*, 19 (2), 225-231.
- Goka, N. M. K., **Assuah, C. K**. & Owu-Annan, C. (2023). Senior high school mathematics teachers' continuous professional development: Evidence from Keta municipality in Ghana. *International Journal of Secondary Education*, 11(2), 49-54.
- Owu-Annan, C., & **Assuah, C. K**. (2023). The relationship between female students' attitude and their mathematics achievement. *International Journal of Secondary Education*, 11(1), 18-25.
- Owu-Annan, C., **Assuah, C. K**., & Akayuure, P. (2022). Female students' attitude toward the learning of mathematics: Empirical evidence from a high school in the central region. *International Journal of Innovative Science and Research Technology*, 7(10), 1811-1816.

- **Assuah, C.K.**, Osei, L. & Mantey, G. K. (2022). University mathematics major ratings of their lecturers' preferred teaching methods: A repeated-measures design. *British Journal of Education*, 10(15), 37-45.
- **Assuah, C.K.**, Osei, L. & Mantey, G. K. (2022). The effect of inquiry-based learning on high school students' achievement in plane geometry: Pre-test-post-test randomized experimental design. *Asian Research Journal of Mathematics*, 18(11), 320-331.
- **Assuah, C.K.**, Mantey, G. K., & Osei, L. (2022). The effect of think-pair-share learning on junior high school students' achievement in algebraic expressions: Pre-test-post-test non-equivalent control group design. *Asian Journal of Probability and Statistics*, 20(2), 46-55.
- **Assuah, C.K.**, Abedu, G., Mensah- Wonkyi, T., Adusei, M. S., & Ghunney, S. (2022). Walking undergraduate students through the maze of chi-square test of independence and homogeneity, involving several proportions, and goodness-of-fit. *Asian Journal of Probability and Statistics*, 18(4),22-35.
- **Assuah, C.K.**, Abedu, G., Mensah- Wonkyi, T., Adusei, M. S., & Ghunney, S. (2022). Enhancing undergraduate mathematics students' conceptual knowledge of the confidence interval for the population mean. *British Journal of Education*, 10(8), 1-17.
- **Assuah, C.K.**, Armah, R. B., Sabtiwu, R., Abedu, G., & Assuah, S. (2022). High school mathematics teachers' knowledge about stem education: The ordinal logistic regression model. *International Journal of Research and Innovation in Social Sciences*, 16(5), 868-878.
- **Assuah, C.K.**, Armah, R. B., Sabtiwu, R., Abedu, G., & Awolu, F. (2022). The multinomial logistic regression model's utility to assess parameters in predicting junior high school students' preference for selected mathematics topics. *American Journal of Information Technology*, 6(1), 31-38.
- **Assuah, C.K.**, Sabtiwu, R., Armah, R. B., Abedu, G., & Awolu, F. (2022). Pass or failure of students in the "WASSCE" mathematics mock examination: The binary logistic regression model. *International Journal of Education, Learning and development*, 10(4), 38-56.
- Assuah, C. K. (2021). Student-level, classroom-level, and school-level factors as predictors of undergraduate mathematics students' achievement in vector analysis. *International Journal of Education, Learning and Development*, 9(7), 16-37.
- Assuah, C.K. (2021). Understanding the concept of *P*-value from the perspectives of two distinct definitions. *International Journal of New Technology and Research*, 7(8), 9-19.
- Assuah, C.K. (2021). Developing undergraduate mathematics students' conceptual knowledge about the sampling distribution of the sample mean and Central Limit Theorem. *International Education and Research Journal*, 7(5), 42-53.

- Assuah, C.K. (2019). Using a Latin- Square design to determine the most effective mathematics teaching method. *International Journal of New Technology and Research*, 5(70), 64-69.
- Assuah, C.K. (2019). Preservice mathematics teachers' knowledge about forms of representing the dispersion of a data set. *International Education Research Journal*, 5(7), 29-32.
- Adu, E., Mereku, D. K., **Assuah, C. K**., & Okpoti, C. (2018). Effect of multimedia courseware with cooperative learning on senior high school students' proficiency in solving linear equation word problems. *African Journal of Educational Studies in Mathematics and Sciences*, 13, 1-11.
- **Assuah, C.K.**, Asiedu-Addo, S.K., & Arthur, Y.D. (2018). Investigating the reliable and interpretable components existing among twenty-one variables using principal component analysis. *International Journal of Current Advanced Research*, 7(2A), 9631-9635.
- **Assuah, C.K.**, Asiedu-Addo, S.K., & Arthur, Y.D. (2018). Effect of gender, participant type and subject type on student and teacher perceptions of teacher oral communication behaviour in the mathematics classroom. *International Journal of Current Advanced Research*, 7(2A), 9625-9630.
- Ayebo, A., & **Assuah**, C.K. (2017). Exploring teachers' knowledge of classroom management and control. *Malaysian Journal of Learning and Instruction*, 14(1), 169-185.
- Ayebo, A., Ukkelberg, S., & **Assuah, C.K**. (2017). Success in introductory calculus: The role of high school and pre-calculus preparation. *International Journal of Research in Education and Science*, 3(1), 11-19.
- **Assuah, C.K.**, Asiedu-Addo, S.K., & Arthur, Yarhands, Y.D. (2017). Mathematics teachers' knowledge of effective pedagogy before and after a professional development workshop. *Journal of Science and Research*, 3(1), 79-94.
- Arthur, D. Y., Asiedu-Addo, S.K., & **Assuah, C.K**. (2017). Students' perception and its impact on Ghanaian students' interest in mathematics: Multivariate statistical analytical approach. *Asian Research Journal of Mathematics*, 4(2), 1-12.
- Arthur, D. Y., **Assuah**, **C.K**., & Asiedu-Addo, S.K. (2017). Triangular law of students' mathematics interest in Ghana: A model with motivation and perception as predictors. *IEJME*, *12*(5), 539-548.
- Arthur, D. Y., Asiedu-Addo, S.K., & **Assuah, C.K**. (2017). Effect of instructor quality and availability on Ghanaian students' interest in mathematics using regression and principal component analysis. *Advances in Research*, 11(5), 1-11.

- Arthur, D. Y., Asiedu-Addo, S.K., & **Assuah, C.K.** (2017). Senior high school students' interest in mathematics in Ghana- A logistic regression analysis approach. *ASIO Journal of Chemistry, Physics, Mathematics & Applied Sciences*, 2(1), 1-6.
- Arthur, D. Y., **Assuah**, C.K., & Asiedu-Addo, S.K. (2016). Compulsion in studying mathematics and career influence by mathematics on student interest in mathematics. *Asian Research Journal of Arts & Social Sciences*, 1(2), 1-8.
- **Assuah, C.K.**, Yakubu, W., Asiedu-Addo, S.K., & Arthur, Y.D. (2016). Primary school mathematics teachers' ideas, beliefs, and practices of constructivist instructional strategies. *African Journal of Educational Studies in Mathematics and Sciences*, 13, 1-11.
- Assuah, C.K. (2016). Exploring the Pedagogical Effects of Using a Mathematical Game to aid Instruction. *Proceedings of the 9th International Conference of Education, Research and innovation*. Seville, Spain.
- Assuah, C.K. (2016). Enhancing Ghanaian Junior School Students' Understanding of the Concept of Dividing a Non-zero real by Zero. *Proceedings of the 9th International Conference of Education, Research and innovation*. Seville, Spain.
- Issah, N.J., **Assuah, C.K.**, & Tse, K.N. (2016). The prevalent rate of problem-solving approach in teaching mathematics in Ghanaian basic schools. *International Journal of Research in Education and Science*, 2(2), 444-452.
- Adu, E., **Assuah**, **C.K**., & Asiedu-Addo, S.K. (2015). Students' errors in solving linear equation word problems: A case study of a Ghanaian senior high school. *African Journal of Educational Studies in Mathematics and Sciences*, 11, 17-29
- Oppong, R. A., **Assuah, C.K.**, & Asiedu-Addo, S.K. (2015). Comparative assessment of Poisson and negative binomial regressions as best models for road count data. *International Journal of Scientific Research and Engineering Studies*, 2(11), 28-38.
- **Assuah, C.K.**, & Ayebo, A. (2015). Lecturers' views on Ghana's undergraduate mathematics education. *International Journal of Education in Mathematics, Science and Technology*, 3(2), 132-139.
- Asiedu-Addo, S.K., Nwi-Mozu, I., **Assuah, C.K.**, & Asumadu, O. R. (2014). Determination of predictor variables contributing to the survival of prostate cancer patients in Komfo Anokye Teaching Hospital, Ghana. *International Journal of Applied science and Technology*, 4(6), 77-83.
- Assuah, C.K. (2013). The effect of gender and English Language Learner status on algebra and geometry students' perceptions of teacher oral communication behaviour in the mathematics classroom. *International Journal of Educational Research and Development*, 2, 69-80.
- Assuah, C.K. (2012). Pre-service teachers' pedagogical content knowledge on hypotheses testing: The Ghanaian experience. *Proceedings of the 5th International Conference of Education, Research and Innovation*. Madrid, Spain.

- Assuah, C.K. (2011). Student and teacher perceptions of teacher oral communication behaviour in the algebra classroom. *African Journal of Educational Studies in Mathematics and Sciences*, 9, 71-82.
- Assuah, C. K. (2011). Comparing university teachers' perceptions of teacher oral communication behaviour in calculus, algebra, and statistics classes. *Community for Undergraduate Learning in the Mathematical Sciences*, 4, 12-18.
- Assuah, C.K. (2010). Use of technology for college mathematics instruction: African instructors' experience. *Mathematics Connection*, 9, 2010.
- **Assuah, C.K.,** & Wiest, L.R. (2010). Comparing the volumes of rectangular prisms. *Mathematics Teaching in the Middle School*, 15(9), 502-504.
- Lamberg, T., Balimuttajjo, S., & **Assuah, C. K**. (2009). What do Elementary Students' Solutions tell us about their Strategies for Solving Division with Remainder? *Proceedings of the joint meeting of the 31st Conference of the Psychology of Mathematics Education-Northern American Chapter*. Atlanta, Georgia, U.S.A.

#### NON-REFEREED RESEARCH PUBLICATIONS

- Assuah, C.K. (2016, February 8). Responsible quantitative literate society must begin with children. *Daily Graphic*, Ghana, p 61.
- Assuah, C.K. (2015, October 15). Mathematics education versus mathematics. *Daily Graphic*, Ghana, p 32.
- Assuah, C.K. (2015, May 11). Math must be well communicated to benefit children. *Daily Graphic*, Ghana, p 53.
- Assuah, C.K. (2014, November 8). Children need support and motivation in learning mathematics. *Daily Graphic*, Ghana, p 28.
- Assuah, C.K. (2014, October 11). Mathematics teachers need to reflect on teaching methods. *Daily Graphic*, Ghana, p 28.
- Assuah, C.K. (2014, September 12). Ghana needs reflective teachers. Daily Graphic, Ghana, p 7.
- Assuah, C.K. (2014, August 12). Effective ways of teaching mathematics. *Daily Graphic*, Ghana, p 44.
- Assuah, C.K. (2014, April 4). Embrace diversity in teaching mathematics. *Daily Graphic*, Ghana, p 44.
- Assuah, C.K. (2014, March 11). Creating and sustaining a culture of equity in teaching mathematics. *Daily Graphic*, Ghana, p 44

- Assuah, C.K. (2014, January 15). Classroom discourse facilitates understanding of math. *Daily Graphic*, Ghana, p 44.
- Assuah, C.K. (2013, December 16). Problem-solving enhances the teaching of mathematics. *Daily Graphic*, Ghana, p 52.
- Assuah, C.K. (2013, October 19). Developing proficiency in mathematics among our children. *Daily Graphic*, Ghana, p 28.
- Assuah, C.K. (2013, September 25). Conceptual understanding of mathematics: Its importance in the early years of schooling. Daily *Graphic*, Ghana, p 44.
- Assuah, C. K. (2013, September 9). Using mathematical games for teaching: Benefits and effects. *Daily Graphic*, Ghana, p 60.

#### REFEREED CONFERENCE PAPERS

- Zakaria, A. L., **Assuah, C. K**., & Mathisen, S. (2023). *Developing global skills for future teachers through the virtual exchange: Reflections from Ghana, Norway, and Denmark*. Paper presented at the September 26-29, 2023 European Association for International Education, Rotterdam, Netherlands.
- Assuah, C.K. (2023). *Preparation, defense of a thesis, and format of thesis presentation*. Paper presented at the Inter-university conference for doctoral studies at UEW, Winneba, January 17-19, 2023.
- Assuah, C.K. (2021). *Understanding the concept of the p-value from perspectives of two distinct definitions*. Paper presented at the July 15-16, 2021 5<sup>th</sup> International Multi-Disciplinary Conference for Postgraduate Students.
- Assuah, C.K. (2019). *The art of public speaking and presentation skills*. Paper presented at the November 7, 2019, GRASAG-UEW seminar.
- Assuah, C.K. (2019). Participated in the Inter-university conference for doctoral studies at *UCLM*, Abidjan, October 14-20, 2019.
- Assuah, C.K. (2019). Briefs on appointments, promotions, and support in professional development agenda. Professional development conference on November 5, 2019, at the University of Education, Winneba.
- Assuah, C.K. (2018). Using a Latin-Square design to determine the most effective mathematics teaching method. Paper presented at the April 28- May 1, 2018, International Conference on Education in Mathematics, Science, and Technology, Marmaris, Turkey.
- Assuah, C.K. (2018). Mathematics teachers' knowledge of effective pedagogy before and after a professional development workshop. Paper presented at the April 28- May 1, 2018, International Conference on Education in Mathematics, Science and Technology, Marmaris, Turkey.

- Assuah, C.K. (2016). Exploring the pedagogical effects of using a mathematical game to aid instruction. Paper presented at the November 14-16, 2016 9th International Conference of Education, Research and Innovation, Seville, Spain.
- Assuah, C.K. (2016). Enhancing Ghanaian junior secondary school students' understanding of the concept of dividing a non-zero real number by zero. Paper presented at the November 14-16, 2016 9th International Conference of Education, Research and Innovation, Seville, Spain.
- Assuah, C.K. (2016). Guidelines for writing a thesis for a Ph.D. Paper presented at the January 20-21, 2016 Mathematics Education Graduate Research seminar, University of Education, Winneba, Winneba, Ghana.
- Assuah, C. K. (2014). Understanding the sampling distribution of the mean, significance level, effect size, and statistical power. Paper presented on October 29, 2014, Faculty of Science series seminar, University of Education, Winneba, Ghana.
- Assuah, C. K. (2012). Preservice teachers' pedagogical content knowledge on hypotheses testing: The Ghanaian experience. Paper presented at the 5th International Conference of Education, Research and Innovation, Madrid, Spain.
- Assuah, C.K. (2012). Ghanaian Lecturers' views on undergraduate education in mathematics. Paper presented at the 5th International Conference of Education, Research and Innovation, Madrid, Spain.
- Assuah, C. K. (2012). The effect of gender, subject, and English language learner status on students' perceptions of teacher oral communication behaviour in the algebra and geometry Classrooms. Paper presented at the March 2012 Faculty of Science series seminar, University of Education, Winneba, Winneba, Ghana.
- Assuah, C.K. (2011). Teachers' oral communication behaviours in the mathematical problem 1991-1994 Volcanic Delta Conference. Rotorua, New Zealand.
- Assuah, C. K. (2011). Demystifying the concept of hypotheses testing-A simple case analysis. Paper presented at the April 2011 Faculty of Science series seminar, University of Education, Winneba, Winneba, Ghana.
- Assuah, C.K., & Quinn, R. (2009). Communication for effective teaching in the mathematics classroom. Paper presented at the 2009 Association of Teacher Educators Conference, Reno, Nevada, U.S.A.
- Assuah, C.K., & Quinn, R. (2009). Communication in the mathematics classroom: What perceptions do students have in the learning process? Paper presented at the 2009 School Science and Mathematics Association's Conference, Reno, Nevada, U.S.A.
- Assuah, C.K., & Quinn, R. (2009). Enhancing students' mathematical understanding through communication. Paper presented at the Northern Rocky Mountain Educational Research Association 2009 Conference, Jackson, Wyoming, U.S.A.

- Assuah, C.K. (2009). Two students' informal methods for comparing the volume of two rectangular prisms. Paper presented at the 2009 Graduate Student Association's Scholarships Awards, University of Nevada, Reno, U.S.A.
- Assuah, C.K. (2008). Gender differences in spatial abilities. Paper presented at the 2008 Graduate Students Association's Scholarships Awards, University of Nevada, Reno, U.S.A.
- Quinn, R. J., Ball, T., & Assuah, C.K. (2008). Explore, conjecture, connect, prove: The versatility of a rich geometry problem. Paper presented at the 2008 regional conference and exposition of the National Council of Teachers of Mathematics, Reno, Nevada, U.S.A.
- Assuah, C.K., & Balimuttajjo, S. (2008). Teachers' perception of effective teaching between Ghana and Uganda. Paper presented at the Northern Rocky Mountain Educational Research Association 2008 Conference, Lake Tahoe, Nevada, U.S.A.

#### JOURNAL REVIEWER

- 1. Reviewer; African Educational Research Journal (AERJ): 2016 to date
- 2. Reviewer; Asian Journal of Education and Social Studies: 2018 to date.

# PROMOTION ASSESSMENT

- 1. Assessment of a candidate's publications to the rank of associate professor, October 2021.
- 2. Assessment of a candidate's publications to the rank of senior lecturer, April 2019.
- 3. Assessment of a candidate's publications to the rank of Senior Lecturer, March 2016.

#### INVITED SPEAKER

- 1. The importance of tutoring undergraduate students by distance learning, 2012, 2013, 2014, 2015, 2016.
- 2. The importance of tutoring (M.Ed.) mentorship students by distance learning, 2013, 2014, 2015, 2016.

#### CONFERENCE PARTICIPATION

- Assuah, C.K. (2023). I participated in *the second European Conference on Reflective Practice-based Learning* at the University College, Northern Denmark, Denmark, November 20-22, 2023.
- Assuah, C. K. (2022). I participated in the 6<sup>th</sup> International Multidisciplinary Conference for Postgraduate Students, University of Education, Winneba, September 7–September 9, 2022.
- Assuah, C. K. (2021). I participated in the 5<sup>th</sup> International Multidisciplinary Conference for Postgraduate Students, University of Education, Winneba, 2021.

## SCHOLARSHIPS, AWARDS AND RECOGNITIONS

- 1. Carnegie Scholarship grant to conduct a collaborative study in Ghana with Dr. Abraham Ayebo, University of North Dakota, U.S.A, 2014, \$20,000.
- 2. Third Place Winner in the Scholarships Awards Presentation, Graduate Students' Association, University of Nevada, U.S.A, 2009.
- 3. Outstanding International Graduate Student, Graduate Students' Association, University of Nevada, U.S.A, 2008, awarded \$1,000.
- 4. Outstanding student, Chancellor's List, U.S.A, 2005.

#### UNDERGRADUATE COURSES

- 1. Further statistics (MATD 243); Second Semester, 2010/2011; 2011/2012; 2012/2013; 2013/2014; 2014/2015; 2015/2016;2016/2017;2018/2019;2019/2020.
- 2. Vector Analysis (MATD 481), second semester, 2020/2021.
- 3. Vectors and Mechanics II (MAT 361); Second Semester, 2010/2011.
- 4. Research Methods in Mathematics Education (EDP 351Ma), First Semester, 2011/2012; 2012/2013; 2013/2014; 2014/2015; 2015/2016.
- 5. Financial Management (BBA 245); Second Semester, 2011/2012; 2012/2013.
- 6. Business Mathematics & Statistics (BBA 114); First Semester, 2012/2013.
- 7. Quantitative Methods (BBA 121); Second Semester, 2012/2013.

#### POSTGRADUATE COURSES

- 1. Advanced Qualitative Research Methods in Science Education (SED 921), first semester, 2020/2021;2021/2022.
- 2. Advanced Qualitative Research Methods in Mathematics Education (GRM 902), first semester, 2020/2021;2021/2022.
- 3. Mixed-Methods Research in Mathematics Education (GRM 903), second semester, 2020/2021; 2021/2022.
- 4. Mixed-Methods Research in Science Education (SED 912), second semester, 2020/2021; 2021/2022.
- 5. Statistical Applications to Research in Mathematical Education (MTC 716); First Semester, 2011/2012; 2012/2013; 2013/2014; 2014/2015;2015/2016;2017/2018 2018/2019; 2019/2020; 2020/2021.
- 6. Advanced Instructional Strategies in Mathematics (MTE 812), 2019/2020, 2020/2021; 2021/2022.
- 7. *Mathematics Foundations; First semester*, 2011/2012.
- 8. Statistical Methods and Analysis in Education (EDI 512Ba); First Semester, 2011/2012; 2012/2013; 2013/2014; 2014/2015; 2015/2016.
- 9. Statistical Models & Experimental Design (MTC 812); First semester, 2011/2012; 2012/2013; 2013/2014; 2014/2015; 2015/2016; 2017/2018; 2018/2019; 2019/2020; 2020/2021.
- 10. Modelling and Problem-Solving in Mathematics (MTE 821); Second Semester, 2011/2012; 2012/2013; 2013/2014; 2014/2015; 2015/2016.
- 11. Measurement and Evaluation (EDI 522); Second Semester; 2011/2012; 2012/2013; 2013/2014; 2014/2015; 2015/2016
- 12. Mathematics Curriculum in the Basic School (MAB 511): Second semester, 2013/2014
- 13. Mathematics Assessment in Basic School (MAD 521); Second Semester, 2013/2014

### DOCTORAL THESES SUPERVISION

- 1. Armah, Gloria: Conceptual knowledge of first-year students in the Department of Mathematics Education of the University of Education, Winneba, on the "Mean" and "Standard Deviation", 2017.
- 2. Arthur, Dissou Yarhands: Assessing factors that influence students' interest in mathematics in senior high school in Ashanti Region, Ghana, 2018.
- 3. Oppong, Asumadu Richard: Demand for senior high school mathematics teachers and their preparedness to implement an inclusive education mathematics curriculum; 2023.
- 4. Wilson, Rosemund: Factors influencing students' performance in core mathematics in some selected senior high schools in the Greater Accra Region of Ghana; 2023.
- 5. Nelson, Quansah Mark Amponsah: Modelling the effect of Headteachers' instructional leadership practices on learning outcomes of public basic school learners in the Central Region of Ghana: The mediating role of teachers' continuous professional development; 2023.
- 6. Armah, Robert: Flipped classroom adapted to the ARCS motivational model: Exploring prospective mathematics teachers' acceptance and geometric thinking levels; Yet to graduate.
- 7. Addo, Samuel Osei: Implementation of the Ghanaian official basic school standards-based curriculum reforms: Examining teachers' epistemological beliefs and efficacy beliefs on implementing the national pre-tertiary learning assessment framework of the curriculum; Yet to graduate.
- 8. Kabutey, Emmanuel: Student-teachers perceived self-efficacy, anxiety, and self-concept as predictors of performance in learning mathematics in Ghana; Yet to graduate.

#### MPHIL SUPERVISION

- 1. Nyako, Joseph: *The use of dynamic geometry software on students' attitude to geometry*; 2013.
- 2. Baah-Duodu, Samuel: *Investigating pre-service primary school teachers' mathematical knowledge for teaching fractions*; 2014.
- 3. Yawa, Stella Asase: *Identification and analysis of pupils' errors in solving mathematical word problems*; 2014.
- 4. Appau, Samuel: *Using mathematics discourse to enhance students' mathematics understanding*; 2015.
- 5. Koranteng, Emmanuel Kabutey: *Investigating senior high school students'* conceptual and procedural knowledge on indices; 2015.
- 6. Tungosiamu, Evans: *Pre-service teachers' perceptions towards mathematics learning*; 2015.
- 7. Yakubu, Wasila: *Primary school mathematics teachers' conceptions and practices of constructivist instructional strategies*; 2015.

- 8. Adu, Elizabeth: *Effect of multimedia courseware with cooperative learning on senior high school students' proficiency in solving linear equation word problems*; 2016.
- 9. Maureen Megberuwa: Effects of motivation on administrative staff performance: The case of University of Education and Presbyterian College of Education, Abetifi, 2016.
- 10. Christoph Yao Gadese: Effects of Geogebra on senior high school students' mathematical understanding of rigid motion, 2016.
- 11. Gyedu Alhassan Abubakar: *Effects of Geometer's Sketchpad on SHS students'* performance in Ouadratic graphs; 2017.
- 12. Sam, Stephen Ebo: Assessment of factors influencing achievement in Geometry among SHS students; yet to graduate; 2017.
- 13. Maureen Megberuwa: The effect of motivation on administrative performance: A case of University of Education, Winneba and Presbyterian College, Ghana, 2016.
- 14. Bernice Baiden: School resources and students' academic performance: The case of selected schools in the Gomoa East district, 2018.
- 15. Gabina Susuoroka: *The effect of cooperative learning method on pre-service teachers' achievement in word problems in quadratic equations*, 2020.
- 16. Joshua Ahorlu: The effect of differentiated instruction on students' achievement in fractions at Central Tongu district of Ghana, 2020.
- 17. Kenneth Kofikuma Puem: Junior high school students' conception of linear inequalities in one variable in the "Have" circuit of the Afadzato South district, 2020.
- 18. James Essandoh: *Effect of problem-solving method on students' achievement in algebra at the senior high schools in the Agona East District, 2021.*
- 19. Patrick Tawiah Twum: Effect of experimentation and improvisation based-model on senior high students' achievement in circle theorems, 2021.
- 20. Frederick Okyere: the effect of non-conventional methods of solving quadratic equations on students' achievement in selected senior high schools in the Mfantseman municipality of Ghana, 2021.
- 21. Jacob Cobbinah: The effect of constructivism on students' achievement in circle theorems in the Ahanta West municipality, 2021.
- 22. Peter Owusu: A comparative study of senior high school students' WASSCE achievement in core and elective mathematics from 2016 to 2018, 2021.
- 23. Valentina Philippine Kafui Dzeshie: A comparison of female students' attitude towards mathematics achievement in single-sex and mixed-sex sex senior high schools, 2021.
- 24. Yirsor, Justine: Examining female students' achievement in geometry using instructional strategies: the determinants and the way forward in senior high school in Wa municipality, 2022.
- 25. Owu-Annan, Christopher: Senior high school female students' attitude and their mathematics achievement, 2022.
- 26. Goka, Nicholas Mawufemor Kojo: Senior high school mathematics teachers' participation, motivation and challenges in continuous professional development workshops in the Keta municipality in Ghana, 2022.
- 27. Animle, Prosper Kwaku: Use of differentiated instruction among central region senior high school mathematics teachers and factors that influence it, 2022.

#### M.ED SUPERVISION

- 1. Boadi, Augustine: *Using cooperative learning to enhance students' competence in solving word problems involving linear equations at Toase Senior High School*, 2013.
- 2. Tetteh, Sawer Benjamin: Mock examination results as a predictor of students' performance in West African certificate examination results in Swedru Senior High school, 2014.
- 3. Mensah, Okoampa Jacob: *Improving students' understanding of the surface area and volume of solid figures using concrete models*, 2014.
- 4. Adonu, Harrison: *The impact of professional development on the pedagogical content knowledge of the mathematics teacher*, 2014.
- 5. Badzi, Silas: Using the concept of tree-diagram to help students of University Practice Senior High school overcome problems and misconceptions in probability, 2015.
- 6. Frank Ayiku: Using guided discovery method to enhance students' understanding of the concepts of circle theorem: A case study at St. Louis College of Education, Kumasi, 2016.
- 7. Cement Assou: Exploring mathematics teachers' views about teaching integrated mathematics in senior high schools within the East Akyem Municipality, 2016.
- 8. Alexander Mintah: *Using an activity-based approach to enhance pupils'* understanding of concepts of ratio and proportion at Pentecost Junior High School, Sefwi Asawinso, 2016.
- 9. Henry Kpai: Helping students of Mampong Technical College of Education understand the concept of multiplication of two-like fractions using the Cuisenaire rods, 2016.
- 10. Simon Timpabi-Asamoah: Teaching strategies to enhance students' achievement in mathematics: A case study in Ankaase-Circuit, Afigya Kwabre District, 2016.
- 11. Ebenezer Agbo: *Using a cooperative learning approach by teachers to solve mathematics problems in some selected senior high schools in Sefwi Wiawso Municipality*, 2016.
- 12. Grace Yirmaalu Dassah: *Classroom management and learners' achievement in selected senior high schools in Lawra district*, 2016.
- 13. Gertrude Otchere: An assessment of headteachers' leadership styles and teacher performance in selected basic schools in Shama Municipality, 2016.
- 14. Prosper Gbadegbe: The effect of parent-teacher associations on the administration and management of basic schools: A case study of La Dadekotopon Municipality, Accra, 2016.
- 15. Abubakari Chentiwuni Fatawu: *Using learner-centered approaches to assist students to overcome their learning difficulties in circle theorems*, 2017.
- 16. Eunice Otiwaa Ofori: The effect of small group cooperative learning on students' performance and attitude towards mathematics: A case study of Achiase Senior High School in the Eastern region, 2017.
- 17. Ebenezer Kutriakor Kumal: Effect of using geoboard on senior high school students' conceptual understanding of the operations of the division of fractions, 2017.
- 18. George Mensah: Mathematics anxiety and student achievement: The case of Asare Bediako Senior High School, 2017.
- 19. Naomi Agbeko: Effectiveness of mathematics teaching at Aduman and St. Michael's Senior High Schools in Afigya Kwabre district, 2017.
- 20. James Taylor Amedume: *Using Microsoft Excel to enhance student understanding of quadratic functions: A case study of Sokode Senior High School*, 2017.

- 21. Eunice Ofori Otiwaa: The effect of small group cooperative learning on students' performance and attitude towards mathematics: A case study of Achiase Senior High School in the Eastern Region, 2017.
- 22. Samuel Abrokwah Kojo: *Using an integrated method to help Aburi Presbyterian Secondary Technical School students in the Eastern region translate word problems into simultaneous equations*, 2017.
- 23. Frederick Adjomani: *Using the discovery method of learning to help students improve upon their understanding of circle theorem through action research at Ashiaman Senior High School*, 2017.
- 24. Korsah Jemima: Challenges confronting principals of colleges of education: A case study of S.D.A and Mount Mary Colleges of Education, 2017.
- 25. Vida Lamisi Akulley: Managing occupational stress among administrators in Ghanaian basic schools: A case study of Agona Swedru schools, 2017.
- 26. Barnabas Gaazienye: The school administrator, an effective resource for academic performance, 2017.
- 27. Mavis Korkor Tetteh: Pupils' understanding of test and test administration in Ghana: A case of Osu Klottey basic schools, 2017.
- 28. Kasim Abdulai Bayensi: Parents' attitude towards girl-child education in the Pru district: A case study of six selected schools in the Zambrama circuit, 2017.
- 29. Michael Akoto: *Managing instructional time in the basic schools in Frankadua Asikuma circuit in the Asuogyaman district of Eastern region*, 2017.
- 30. David Osei Bonsu Effah: *Managing students' indiscipline in second cycle schools in the Kwawu East district*, 2017.
- 31. Gideon Dampson: *Basic schools' supervision within Sekondi-Takoradi metropolis in the Western region*, 2017.
- 32. Godfred Beteryel: *Administrative challenges facing headteachers of basic schools in Nabdam district in the Upper East region*, 2017.
- 33. Xavier Francis Dordaah: Impact of information communication and technology on the administration of the Tolon District Education directorate, 2018.
- 34. Alice Nimirnibe Tampour: Causes, forms, and management of students' indiscipline: a case study of two senior high schools in Jirapa Municipality, 2018.
- 35. Andrews Gyan: Factors influencing teacher absenteeism in public junior high school in the Adjoafun Circuit, Bia-West district, 2018.
- 36. Alfred Amoah: Availability of institutional factors promoting teaching and learning in public senior high schools in the Sekondi-Takoradi Metropolitan Assembly of Western Region, Ghana, 2019.
- 37. Charles Boateng Oppong: Factors teachers, students, and parents perceive as influencing junior high school students' mathematics learning, 2019.
- 38. Kofi Oporku: Effect of single parenting on pupils' academic performance. A case study in Akenten Presbyterian Basic School in the Sene West District of Bono East Region of Ghana, 2019.
- 39. Theresa Konama Adusa: Causes and effects of mathematics anxiety among senior high school students, 2019.
- 40. Bismark Gyamfi: Examining the relationship between mathematics anxiety and achievement among senior high school students in Aduman Afigya Kwabre District in Ashanti Region, 2019.
- 41. Paul Baah Nuako: The relationship between leadership styles of headteachers and basic schools' climate in the Obuasi West Municipality, 2020.
- 42. Ernestina Awoyegiba Awubayigani: teachers' perceptions of female managers of junior high schools in the Kasena Nankana East Municipality, 2020.

- 43. Alberta Opoku-Mensah: *Challenges headteachers face and the coping strategies they adopt in managing basic schools in Sekyere East District*, 2020.
- 44. Perpetual Ennin: The management and administration of capitation grants in public schools in the Circuit B schools in Sunyani Municipality, 2020.
- 45. Saratu Abu-Sadat: Leadership styles of headteachers and their effect on staff performance in Assin-North Municipality, Central Region, Ghana, 2020.
- 46. Alice Nimirnibe Tampour: Causes, forms of management of students' indiscipline: A case study of selected senior high schools in Jirapa Municipality, 2020.
- 47. Siameh Tetteh Godwin: Relationship between school attendance and academic performance related factors in mathematics among JHS pupils in Krachi East municipality, 2021.

#### **EXTERNAL EXAMINER POSITIONS**

- 1. External Examiner, Ph.D. Thesis, University of Kwazulu-Natal, South Africa; 2021
- 2. External Examiner, Ph.D. Thesis, University of Kwazulu-Natal, South Africa; 2022
- 3. External Examiner, M.Phil. Thesis, AAMUSTED, Ghana; 2022 to date
- 4. External Examiner, Ph.D. Thesis, AAMUSTED, Ghana; 2020 to date
- 5. External Examiner, M.Phil. Theses, UCC, Ghana; 2020 to date
- 6. External Examiner, Ph.D. Thesis, UCC, Ghana; 2020 to date
- 7. External Examiner, M.Phil. Theses, UDS, Ghana; 2020 to date
- 8. External Examiner, Ph.D. Theses, UDS, Ghana; 2020 to date
- 9. External Examiner, M. Phil. Theses, KNUST, Ghana, 2019 to date
- 10. External Examiner, Ph.D. Theses, KNUST, Ghana, 2019 to date

#### CONSULTANCY OUTSIDE THE UNIVERSITY

- 1. Member of National Accreditation Board (NAB): Catholic University, Fiapre, 2016 to date.
- 2. Drawing up syllabi for the National Bureau of Investigation (NIB), and completing modules with the staff.

## PROFESSIONAL SERVICE TO THE UNIVERSITY

- 1. Represented the Vice-Chancellor at the orientation programme for academic counselors, University of Education, Winneba on 11<sup>th</sup> March 2024.
- 2. Represented the Vice-Chancellor at the NACCA meeting, La Palm Beach Hotel, Accra, January 25-27, 2023.
- 3. Represented the Vice-Chancellor at the 10<sup>th</sup> Anniversary launch of the Methodist College of Education, Akyem Asene-Aboabo, Oda, November 30, 2022.
- 4. Co-chairman: The Planning Committee, 6<sup>th</sup> International Multidisciplinary Conference for Postgraduate students, University of Education, Winneba, September 7–9, 2022.
- 5. Represented the Vice-Chancellor at the inauguration of the Association of Gender Equality, University of Education, Winneba, in August 2022.
- 6. A member of the Planning Committee, 5<sup>th</sup> International Multidisciplinary Conference for Postgraduate Students, University of Education, Winneba, 2021.
- 7. Chairman: Critical Issues in Conducting Educational Research. Graduate Students' Association, University of Education, Winneba, June 9, 2021.

- 8. Represented the Vice-Chancellor at the grand durbar on Neonatal Jaundice awareness at Winneba Municipal Hospital, on May 28, 2021.
- 9. Represented the Vice-Chancellor at the investiture of Prof. Richard Kwasi Amankwah, Vice-Chancellor, UMAT, October 2020.
- 10. Represented the Vice-Chancellor at Ajumako to mark the 2020 International Mother Language Day (IMLD), on February 21, 2020.
- 11. Represented the Vice-Chancellor at the NPP's Economic Management Townhall Meeting at the College of Surgeons in 2017.

## SEMINARS, WORKSHOPS AND TRAINING

- 1. Staff Week celebration of University College Copenhagen, April 8-10, 2024.
- 2. Staff Mobility at the University College, Northern Denmark, September 18-22, 2023.
- 3. Staff Week Celebration of the University of Jyvaskyla, Finland, June 12-16, 2023
- 4. DAAD Information Day at the University of Education, Winneba, May 30, 2023.
- 5. Staff Week Celebration of the Europa University of Flensburg, Germany, May 14-20, 2023
- 6. Grant Writing Seminar. Directorate of Research Innovation and Development, November 2, 2022.
- 7. Staff Week Celebration of University College Copenhagen, April 3-9, 2022.
- 8. Facilitator on Ethical Issues in Research, IERIS, UEW, March 16, 2021.
- 9. Facilitator on Quantitative Research Methods, IERIS, 2021.
- 10. Panelist on the topic "Supervision of project works, dissertations, and theses: Who assesses the assessor" at a one-day workshop by the Faculty of Foreign Languages Education and Communication, December 17, 2020.
- 11. Research Transparency and Reproducibility: Data ethics and skills for the reproduction of research findings using STATA; Osun State-Nigeria, March 11-14, 2019.
- 12. Sensitization, free testing and counselling programme for staff and students; UEW, March 23, 2018.
- 13. Internationalization at UEW; February 7, 2018
- 14. Use of an upgraded version of MOODLE. UEW; March 2016.
- 15. Writers' training on I.E.D.E.'S course material. Capital View Hotel, Koforidua; February 2016.
- 16. Open distance and e-learning in tertiary institutions: Challenges and benefits, by Professor Ashar S. Kanwar, President, and CEO, Commonwealth of Learning, August 2016.
- 17. Resource person for the Mathematics Association of Ghana. Takoradi; August, 2014.
- 18. Opportunities for High School students to go to college. Dept. of Curriculum, teaching, and Learning, University of Nevada, U.S.A.; 2007.

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#### **MENTORSHIP**

Mathematics EducationSupervise Ph.D. ThesesMathematics EducationSupervise M.Phil. ThesesMathematics EducationSupervise M. Ed. ThesesMathematics EducationSupervise undergraduate projects

# **COMMUNITY SERVICE**

- 1. Church Board Member; Winneba Central Assemblies of God Church, 2021 to date
- 2. PTA Chairman; VIJAAP Community International School, Winneba, 2020-2023.
- 3. Guest of Honour: Creating awareness for the study of mathematics among students at Mfantsiman Girls' Senior High School, June 10, 2017.

#### REFEREES

Professor S. K. Asiedu-Addo, UEW, Winneba, +233 24 351 8385 Professor V. B. Samlafo, UEW, Winneba, +233 24 356 2995 Professor Victor Antwi, UEW, Winneba, +233 55 939 3224