Christopher Yarkwah

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RESEARCH

Interests: Mathematics Education · Technology in Education · Teacher Education · Teachers Knowledge for teaching

Areas: Education · Applied Mathematics · Computer Science Applications · Artificial Intelligence · Clinical Psychology · Demography

RESEARCH SUMMARY

33	116	8	6	3.56	25%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 33 publications listed below, 2014–2026. Field-weighted impact is the mean over the 12 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 12 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

University of Cape Coast
Department of Mathematics and ICT Education, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

M.Phil (Mathematics Education)/Mr. 2008–2010
Mathematics & I.C.T. Education, University of Cape Coast, Cape Coast, Ghana

PUBLICATIONS

Journal articles 30

1. D Gbormittah, **Christopher Yarkwah** (2026). Effect of Ethnomathematics Approach on Senior High School Students' Achievement in Geometry. *The Electronic Journal for Research in Science & Mathematics Education*. https://ejrsme.icrsme.com/article/view/23838
2. Atar Alphaa Mohammed, Ernest Kofi Davis, **Christopher Yarkwah** (2026). Preservice Early-Grade Teachers' Perception of Play-Based Learning in Mathematics Education. *Brock Education Journal*. https://doi.org/10.26522/brocked.v35i1.1234
3. Daniel Gbormittah, **Christopher Yarkwah**, Japhet Kwasi Osiakwan, George Adom (2025). Culturally responsive pedagogy model integration in mathematics education: Perceptions and practices among Ghanaian teachers. *Social Sciences & Humanities Open*. https://doi.org/10.1016/j.ssaho.2025.102036
4. Daniel Gbormittah, **Christopher Yarkwah** (2025). Effects Of Three-Tier Teaching Model For Teaching Mathematics In Context On Pupils' Performance In Fractions In Cape Coast Metropolis. *International Journal of Environmental Sciences*. https://doi.org/10.64252/n8p8a758
5. Peter Reindorf Okyere, **Christopher Yarkwah**, Daniel Gbormittah (2025). Impact of demographic factors on senior high school mathematics teachers' perceptions of core mathematics as an enculturating curriculum. *Discover Education*. https://doi.org/10.1007/s44217-025-00929-1
6. D Gbormittah, **C Yarkwah** (2025). Teaching identification of fractions in context using the three-tier teaching Model's pedagogy. *International Journal of Scientific Research & Engineering Trends*. https://

scholar.google.com/scholar?cluster=14724564764163499992&hl=en&oi=scholarr

7. **Christopher Yarkwah** (2024). Assessing Preservice Mathematics Teachers' Perception of their Readiness for Senior High School Mathematics Instruction. *Faculty of Natural and Applied Sciences Journal of Mathematical Modeling and Numerical Simulation*. https://fnasjournals.com/index.php/FNAS-JMNS/article/view/351
8. **Christopher Yarkwah**, Christian Kwame Kpotosu, Daniel Gbormittah (2024). Effect of test anxiety on students' academic performance in mathematics at the senior high school level. *Discover Education*. https://doi.org/10.1007/s44217-024-00343-z
9. **Christopher Yarkwah** (2024). Grammarly software-based editorial intervention to enhance scholarly writing performance in mathematics and science education. *Faculty of Natural and Applied Sciences Journal of Mathematical and Statistical Computing*. https://fnasjournals.com/index.php/FNAS-JMSC/article/view/292
10. **Christopher Yarkwah**, R Twum (2024). Preservice mathematics teachers' perception and utilization of digital literacy at the University of Cape Coast, Ghana. *Faculty of Natural and Applied Sciences Journal of Mathematical and Statistical Computing*. https://www.fnasjournals.com/index.php/FNAS-JMSC/article/view/293
11. **Christopher Yarkwah** (2023). ENHANCING ACADEMIC ACHIEVEMENT OF SENIOR SECONDARY SCHOOL STUDENTS IN MATHEMATICS THROUGH CONCEPT MAPPING TEACHING METHOD IN ANAMBRA STATE, NIGERIA. *UNIZIK Journal of Educational Research and Policy Studies*. https://mail.unijerps.org/index.php/unijerps/article/view/520
12. **Christopher Yarkwah** (2023). In-service teachers' electronic readiness towards information and communication technology integration in the teaching of mathematics. *Faculty of Natural and Applied Sciences Journal of Mathematics, and Science Education*. https://www.fnasjournals.com/index.php/FNAS-JMSE/article/view/241
13. **Christopher Yarkwah**, Rosemary Twum (2023). Preservice mathematics teachers' motivation to study online amidst COVID-19. *Faculty of Natural and Applied Sciences Journal of Mathematics, and Science Education*. https://www.fnasjournals.com/index.php/FNAS-JMSE/article/view/239
14. **Christopher Yarkwah** (2023). The mediating role of self-efficacy on adults' return to the mathematics classroom amid abuse and neglect. *Faculty of Natural and Applied Sciences Journal of Mathematics, and Science Education*. https://fnasjournals.com/index.php/FNAS-JMSE/article/view/144
15. Farouq Sessah Mensah, **Christopher Yarkwah** (2022). The Impact of Time on Learning Outcomes: Lessons from the Delivery of High School Mathematics Curriculum in Ghana. *European Journal of Education and Pedagogy*. https://doi.org/10.24018/ejedu.2022.3.6.483
16. Emmanuel Adobah, **Christopher Yarkwah**, Peter Anayitime (2021). Constructivism Learning Approaches: Assessment of Student's Participation and Approaches to Teaching of Mathematics in Selected Colleges of Education in Ghana. *Advances in Research*. https://doi.org/10.9734/air/2021/v22i130288
17. Ivy Kesewaa Nkrumah, Rosemary Twum, **Christopher Yarkwah** (2021). Utilisation of the Internet for Cyberloafing Activities among University Students. *Journal of Digital Educational Technology*. https://doi.org/10.21601/jdet/10912
18. **Florence Afua Takramah Christopher Yarkwah**, BE Arthur (2020). CHALLENGES FACED BY MATHEMATICS EDUCATION STUDENT-TEACHERS DURING MACRO-TEACHING PRACTICE. *International Journal of Interdisciplinary Research Methods*. https://ir.ucc.edu.gh/server/api/core/bitstreams/24576464-adfa-4b37-a1b6-7a634ca1f337/content
19. Benjamin Eduafo Arthur, **Christopher Yarkwah**, Rosemary Twum (2020). Effectiveness of the Use of Whatsapp in the Learning of Mathematics among University Students. *The International Journal of Science & Technoledge*. https://doi.org/10.24940/theijst/2020/v8/i11/st2011-005
20. **Christopher Yarkwah** (2020). Effects of sports participation on the academic performance of senior high school students in mathematics. *Global Journal of Arts, Humanities and Social Science*. https://www.academia.edu/download/62261995/Effects-of-Sports-Participation-on-the-Academic-Perforcs20200303-26184-v4zo5y.pdf

21. **Christopher Yarkwah** (2020). FEMALE STUDENTS' PARTICIPATION IN MATHEMATICS EDUCATION AT THE UNIVERSITY LEVEL IN GHANA. *British Journal of Education*. https://www.academia.edu/download/62858444/Female-Students_u2019-Participation-in-Mathematics-Education-at-the-University-Level-in-Ghana20200407-35139-4qnbvb.pdf

22. Rosemary Twum, **Christopher Yarkwah**, Benjamin Eduafo Arthur (2020). Factors that Influence Attitudes of Computer Science Students towards Mathematics and Related Courses at the Tertiary Level of Education. *International Journal of Innovative Science and Research Technology (IJISRT)*. https://doi.org/10.38124/ijisrt20aug377

23. **Christopher Yarkwah** (2020). JUNIOR HIGH SCHOOL MATHEMATICS TEACHERS' BELIEFS AND THEIR INSTRUCTIONAL PRACTICES AND ITS EFFECTS ON STUDENTS' ACADEMIC PERFORMANCE. *European Journal of Training and Development Studies*. https://www.researchgate.net/profile/Christopher-Yarkwah/publication/339935581_JUNIOR_HIGH_SCHOOL_MATHEMATICS_TEACHERS'_BELIEFS_AND_THEIR_INSTRUCTIONAL_PRACTICES_AND_ITS_EFFECTS_ON_STUDENTS'_ACADEMIC_PERFORMANCE_INTRODUCTION_AND_STATEMENT_OF_THE_PROBLEM/links/5e6d12e9458515e5557c7b29/JUNIOR-HIGH-SCHOOL-MATHEMATICS-TEACHERS-BELIEFS-AND-THEIR-INSTRUCTIONAL-PRACTICES-AND-ITS-EFFECTS-ON-STUDENTS-ACADEMIC-PERFORMANCE-INTRODUCTION-AND-STATEMENT-OF-THE-PROBLEM.pdf

24. **and Mary Donkor Christopher Yarkwah** (2020). SENIOR HIGH SCHOOL ELECTIVE MATHEMATICS STUDENTS' READINESS TO PURSUE ADVANCED MATHEMATICS AT THE UNIVERSITY LEVEL. *International Journal of Education, Learning and Development*. https://www.academia.edu/download/62319931/Senior-High-School-Elective-Mathematics-Students_u2019-Readiness-to-Pursue-Advanced-Mathematics20200309-14437-38rz3z.pdf

25. **Christopher Yarkwah**, D Gbormittah (2020). THE STATE OF MATHEMATICS EDUCATION AT THE SENIOR HIGH SCHOOL LEVEL IN THE SEKONDI-TAKORADI METROPOLIS. *INTERNATIONAL JOURNAL OF INNOVATIVE SCIENCE AND RESEARCH TECHNOLOGY*. https://www.academia.edu/download/122823881/IJISRT20APR1043_1_.pdf

26. **Christopher Yarkwah** (2020). UTILIZATION OF MOBILE APPLICATIONS TO ENHANCE TEACHING OF MATHEMATICS AND SCIENCE IN BASIC SCHOOLS IN THE CAPE COAST METROPOLIS. *British Journal of Education*. https://www.academia.edu/download/99201245/UTILIZ1.pdf

27. **Christopher Yarkwah**, CY Kwaah, C Beccles, Kofi Ayebi-Arthur (2019). Motivation to become a teacher among preservice teachers in colleges of education in Ghana. *Bangladesh Education Journal*. https://www.researchgate.net/profile/Ernest-Davis/publication/344035050_Motivation_to_Become_a_Teacher_among_Preservice_Teachers_in_Colleges_of_Education_in_Ghana/links/5f4e8341a6fdcc9879c0045f/Motivation-to-Become-a-Teacher-among-Preservice-Teachers-in-Colleges-of-Education-in-Ghana.pdf

28. **Christopher Yarkwah** (2019). TEACHERS' INSTRUCTIONAL STRATEGY VERSUS STUDENTS' ACADEMIC PERFORMANCE IN SENIOR HIGH SCHOOL MATHEMATICS. *International Journal of Academic Research*.

29. **Christopher Yarkwah**, Might Kojo Abreh (2018). Conceptualizing teacher knowledge in domain specific and measurable terms: Validation of the expanded KAT framework. *British Journal of Education,*. https://ir.ucc.edu.gh/server/api/core/bitstreams/3a032dfc-d670-47d2-8332-63ba7ab94671/content

30. **Eric Magnus Wilmot & Christopher Yarkwah** (2014). STUDENTS' ATTITUDE TOWARDS THE USE OF SCIENTIFIC CALCULATORS IN THE TEACHING AND LEARNING OF MATHEMATICS IN GHANA: THE DOMINANT FACTORS. *JOURNAL OF SCIENCE AND MATHEMATICS EDUCATRION*.

Conference papers 2

1. Stephen Opoku Oppong, Benjamin Ghansah, **Christopher Yarkwah**, Einstein Kow Essibu, Winston Kwamina Essibu (2025). Predicting Students Academic Performance Based on Self-cognitive Factors Using Machine Learning Algorithms. *Lecture notes in networks and systems*. https://doi.org/10.1007/978-981-96-6929-5_11

2. Edward Peter Greenwood White, Jussi Okkonen, Reeta Oksa, Benjamin Ghansah, **Christopher Yarkwah**, Ephrem Kwaa-Aidoo, Issifu Yidana, Wilson Osafo Apeanti, Rosemary Twum (2023). Approaches to leveraging digital higher education in Africa. *Proceedings of the 6th ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies*. https://doi.org/10.1145/3588001.3609380

Theses 1

1. **Christopher Yarkwah** (2017). An investigation into senior high school mathematics teachers' knowledge for teaching algebra. *University of Cape Coast*. https://ir.ucc.edu.gh/items/25d751e7-1dba-43d9-9fd5-fafe056916ac