Kofi Acheaw Owusu

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University of Cape Coast

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RESEARCH

Interests	Science Education · Technology in Education · TPACK
Areas	Education · Developmental and Educational Psychology · Gender Studies · General Agricultural and Biological Sciences · Information Systems · Pollution

RESEARCH SUMMARY

30	204	7	6	3.35	41%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 30 publications listed below, 2008–2026. Field-weighted impact is the mean over the 22 works scored for it; 1.00 is the world average for works of the same field, type and year. 9 of the 22 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 Science education, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

PhD 2011–2014
University of Canterbury, Christchurch, New Zealand

Master of Philosophy (Science Education) 2007–2009
Science and Mathematics Education, University of Cape Coast, Cape Coast, Ghana

Bachelor of Education (Science) 2001–2005
Science and Mathematics Education, University of Cape Coast, Cape Coast, Ghana

PUBLICATIONS

Journal articles 26

1. Siita Danbambu Puobi, **Kofi Acheaw Owusu**, Michael Odame (2026). Comparison of Kognity (Web-based) and Paper-based Assessments in International Baccalaureate Diploma Biology. *Journal of Research in International Education*. https://doi.org/10.1177/14752409261428423
2. **Kofi Acheaw Owusu**, Joseph Kobina Baah (2025). Demographic Drivers of Science Teachers' Technological Pedagogical Content Knowledge in Ghana. *American Journal of Educational Research*. https://doi.org/10.12691/education-13-1-5
3. **Kofi Acheaw Owusu** (2025). Effectiveness of Problem-Centered Learning in Enhancing Senior High School Students' Achievements in Genetics. *The Electronic Journal for Research in Science & Mathematics Education*. https://ejrsme.icrsme.com/article/view/23747
4. Benedicta Abeka Quainoo, **Kofi Acheaw Owusu**, Charles Deodat Otami (2025). Effects of Learner-centred Instructional Approaches on Students' Achievement in Challenging Biology Concepts: Comparing REACT and 7E Approaches. *African Journal of Research in Mathematics Science and Technology Education*. https://doi.org/10.1080/18117295.2025.2503628

5. Joseph Kobina Baah, **Kofi Acheaw Owusu** (2025). Junior High School Science Teachers' Perception of Their Technological Pedagogical Content Knowledge (TPACK). *Journal of Research in Mathematics, Science, and Technology Education.*. https://doi.org/10.70232/jrmste.v2i2.31
6. Januarius Felix Nomin, **Kofi Acheaw Owusu**, Charles Deodat Otami (2025). PERCEPTIONS OF SCIENCE LEARNING SELF-EFFICACY IN GHANA: INSIGHTS AND IMPLICATIONS FOR EDUCATION. *European Journal of Education Studies*. https://doi.org/10.46827/ejes.v12i1.5761
7. **Kofi Acheaw Owusu**, Augustine Owusu Achiaw, Brooke A. Whitworth (2025). Scientific Reasoning Skills of Upper Primary School Pupils in Ghana: A Comparative Study of Public and Private School Pupils. *School Science and Mathematics*. https://doi.org/10.1111/ssm.18387
8. Nastassia N. Jones, Anna Davis Wilson, Leah-Maria N. Gaskin, DeLencia Rayford, **Kofi Acheaw Owusu** (2025). Using Quantitative Ethnography to explore the cultural nuances of identity of secondary students in Ghana, Kenya and the United States of America in an informal learning program. *Journal of International Cooperation in Education*. https://doi.org/10.1108/jice-04-2024-0016
9. Rita Ortiz, Elizabeth Vicario, **Kofi Acheaw Owusu**, Allan Feldman, Jawaher Alsultan, Elijah Asare, Kebreab Ghebremichael, Sarina J. Ergas (2024). A Study of the Engagement of Ghanaian High School Students in Authentic Science Using Model Biodigesters. *International Journal of Science and Mathematics Education*. https://doi.org/10.1007/s10763-024-10508-9
10. **Kofi A. Owusu**, Linda M. Boateng, Patrick N. Asare (2024). Advancing Peer Evaluation in Pharmacy Education: Current Practices and Future Opportunities. *Annals of Pharmacy Education Safety and Public Health Advocacy*. https://doi.org/10.51847/tkdwqrmolr
11. **Kofi Acheaw Owusu** (2024). Engaging Students in Waste-to-Energy Research Using Model Biodigesters. *The Science Teacher*. https://doi.org/10.1080/00368555.2023.2292331
12. Dennis Wilmot, **Kofi Acheaw Owusu**, Janice Dwomoh Abraham, Charles Amoah Agyei (2023). Accounting for Expertise: Unravelling the Effects of Training and Experience on Pedagogical Content Knowledge in High School Genetics Instruction. *American Journal of Educational Research*. https://doi.org/10.12691/education-11-11-2
13. Augustine Owusu Achiaw, **Kofi Acheaw Owusu** (2023). Assessing Ghanaian primary school pupils' scientific reasoning skills. *Eurasian Journal of Science and Environmental Education*. https://doi.org/10.30935/ejsee/13886
14. Dennis Wilmot, **Kofi Acheaw Owusu**, Ezekiel Akotuko Ayimbila (2023). Corroborating Magnusson's PCK Model for Teaching Genetics at The Ghanaian Senior High School Level. *British Journal of Education*. https://doi.org/10.37745/bje.2013/vol11n135781
15. **Kofi Acheaw Owusu** (2023). Effect of Students selected Context-Based Approach on Students' Performance in Genetics. *Journal of Educational Development and Practice*. https://journal.ucc.edu.gh/index.php/jed-p/article/download/1937/864
16. Benedicta Abeka Quainoo, Charles Deodat Otami, **Kofi Acheaw Owusu** (2021). Effect of the REACT strategy on senior high school students' achievement in molecular genetics. *LUMAT International Journal on Math Science and Technology Education*. https://doi.org/10.31129/lumat.9.1.1418
17. Kofi Ayebi-Arthur, **Kofi Acheaw Owusu** (2020). Using audience response system in a third world country: The good, bad and ugly. *E-Learning and Digital Media*. https://doi.org/10.1177/2042753020935551
18. Comfort Korkor Sam, **Kofi Acheaw Owusu**, Christian Anthony-Krueger (2018). Effectiveness of 3E, 5E and Conventional Approaches of Teaching on Students' Achievement in High School Biology. *American Journal of Educational Research*. https://doi.org/10.12691/education-6-1-12
19. Christiana Naa Atsreh Nsiah-Asamoah, J Ayensu, **K Owusu** (2018). Management and Care of Malnourished Children: Gaps in their Knowledge Levels of Final-Year Community Health Nursing Trainees. *Journal of Community & Public Health Nursing*. https://ir.ucc.edu.gh/server/api/core/bitstreams/af3fe3c9-0aa6-4f0d-b67f-46119ab74577/content
20. Might Kojo Abreh, **Kofi Acheaw Owusu**, Francis Kodzo Amedahe (2018). Trends in Performance of WASSCE Candidates in the Science and Mathematics in Ghana: Perceived Contributing Factors and the Way Forward. *Journal of Education*. https://doi.org/10.1177/0022057418800950

21. Kofi Ayebi-Arthur, **Kofi Acheaw Owusu** (2015). Pre-service teachers' attitudes towards information communication technology. *Ghana Journal of Education Issues and Practice (GJE)*. https://doi.org/10.47963/gje.v1i.471

22. **Kofi Acheaw Owusu** (2014). CONTEXTUALIZED USE OF TECHNOLOGY IN SCIENCE CLASSROOMS BY HIGH SCHOOL SCIENCE TEACHERS. *STEMplanet Journal*. https://researchnow.flinders.edu.au/en/publications/contextualized-use-of-technology-in-science-classrooms-by-high-sc/

23. Isaac Buabeng, **Kofi Acheaw Owusu**, Forster Danso Ntow (2014). TIMSS 2011 Science Assessment Results: A Review of Ghana's Performance. *Journal of Curriculum and Teaching*. https://doi.org/10.5430/jct.v3n2p1

24. **K.A. Owusu**, K.A. Monney, J.Y. Appiah, E.M. Wilmot (2010). Effects of computer-assisted instruction on performance of senior high school biology students in Ghana. *Computers & Education*. https://doi.org/10.1016/j.compedu.2010.04.001

25. **KA Owusu** (2009). Effect of computer-assisted instruction on senior high school students' achievement in biology. *Unpublished M.Phil Thesis, University of Cape Coast Ghana*. https://scholar.google.com/scholar?cluster=5558409941797990172&hl=en&oi=scholarr

26. Aggrey, Ameyaw, **Owusu, Kofi**, Asare, Yaw, Boateng, Abena (2008). Off-grid Communities Systems in Ghana: Methodological Validation and Clinical Outcomes Analysis via Randomized Field Trial. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.18871758

Book chapters 2

1. **Kofi Acheaw Owusu**, Lindsey Conner, Chris Astall (2017). Contextual Influences on Science Teachers' TPACK Levels. *K-12 STEM Education*. https://doi.org/10.4018/978-1-5225-3832-5.ch023

2. **Kofi Acheaw Owusu**, Lindsey Conner, Chris Astall (2015). Contextual Influences on Science Teachers' TPACK Levels. *Advances in higher education and professional development book series*. https://doi.org/10.4018/978-1-4666-8403-4.ch012

Conference papers 1

1. **Kofi Owusu** (2012). Wish list for successful/effective ICT use in science classes. *SciCon 2012*. https://researchnow.flinders.edu.au/en/publications/wish-list-for-successfuleffective-ict-use-in-science-classes/

Theses 1

1. **Owusu, Kofi Acheaw** (2014). Assessing New Zealand high school science teachers' technological pedagogical content knowledge. *UC Research Repository (University of Canterbury)*. https://doi.org/10.26021/9671