Dr. Boniface Yaayin

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RESEARCH

Interests	Chemistry education with focus on innovative learning approaches and environmental chemistry
Areas	Education · Developmental and Educational Psychology · Information Systems · Analytical Chemistry · Health, Toxicology and Mutagenesis · Physical and Theoretical Chemistry

RESEARCH SUMMARY

19	37	3	1	0.26	0%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 19 publications listed below, 2018–2026. Field-weighted impact is the mean over the 7 works scored for it; 1.00 is the world average for works of the same field, type and year. 0 of the 7 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 17

1. **Boniface Yaayin**, Israel Ametepey (2026). EFFECTIVENESS OF MICRO-LABORATORY AND TRADITIONAL LABORATORY APPROACHES IN DEVELOPING AND RETAINING BASIC SCIENCE PROCESS SKILLS AMONG SECONDARY SCHOOL STUDENTS. *Veredas do Direito*. https://revista.domhelder.edu.br/index.php/veredas/article/view/7123
2. **Boniface Yaayin**, Israel Ametepey (2026). IMPACT OF CONCEPT MAPPING ON STUDENTS'CONCEPTUAL UNDERSTANDING AND PERFORMANCE IN ELECTROCHEMISTRY. *Veredas do Direito*. https://revista.domhelder.edu.br/index.php/veredas/article/view/6517
3. Fafanyo Dzakadzie, Akosua Birago, Victus Bobonkey Samlafo, **Boniface Yaayin** (2025). Comparative Assessment of Heavy Metals and Health Risks in Elaeis guineensis Oils Produced in Juaben Municipality, Ghana. *European Journal of Nutrition & Food Safety*. https://doi.org/10.9734/ejnfs/2025/v17i111894
4. **Boniface Yaayin**, Kenneth Afedzi Hayford (2025). Promoting Students' Conceptual Understanding in Drawing and Naming of Hydrocarbons using ChemDraw Software with Guided Worksheets. *European Journal of Education and Pedagogy*. https://doi.org/10.24018/ejedu.2025.6.3.956
5. **Boniface Yaayin** (2025). The Factors Influencing Students' Performance in Chemistry in Selected Senior High Schools. *Journal of Multidisciplinary Research and Development*. https://ejournal.papanda.org/index.php/jmrd/article/view/1251
6. **Boniface Yaayin** (2025). Uniqueness of card game intervention in improving students' conceptual understanding of chemical names and their formulae. *European Journal of Education and Pedagogy*. https://www.researchgate.net/profile/Boniface-Yaayin-2/publication/394087399_Uniqueness_of_Card_Game_Intervention_in_Improving_Students'_Conceptual_Understanding_of_Chemical_Names_and_their_Formulae/links/6888d58700a2407910a508ee/Uniqueness-of-Card-Game-Intervention-in-Improving-Students-Conceptual-Understanding-of-Chemical-Names-and-their-Formulae.pdf
7. Kwarteng Twumasi, **B Yaayin**, R Hanson (2024). Effect of Computer Animation on Senior High School Students' Academic Achievement in Rate of Reactions. *Open Access Library Journal*. https://www.researchgate.net/profile/Boniface-Yaayin-2/publication/385879122_Effect_of_Computer_Animations_on_Senior_High_School_Students'_Academic_Achievements_in_Rate_of_Reactions/links/6738905068de5e5a307830b0/Effect-of-Computer-Animations-on-Senior-High-School-Students-

Academic-Achievements-in-Rate-of-Reactions.pdf

8. Gloria Asiedu, **Boniface Yaayin**, Ruby Hanson (2024). Effect of Computer Animations on Senior High School Students' Academic Achievements in Rate of Reactions. *OALib*. https://doi.org/10.4236/oalib.1112276
9. **Boniface Yaayin** (2024). Implementation of flipped classroom pedagogy to enhance students' performance and retention of electron configuration concepts. *African Journal of Chemical Education*. https://faschem.co.za/wp-content/uploads/2024/08/AJCE_2024_14_3_July.pdf#page=5
10. **Boniface Yaayin** (2024). UTILISING CONTEXT-BASED LEARNING TO PROMOTE STUDENTS'CONCEPTUAL UNDERSTANDING AND PERFORMANCE IN ORGANIC CHEMISTRY. *European Journal of Research and Reflection in Educational Sciences*. https://www.researchgate.net/profile/Boniface-Yaayin-2/publication/385343650_Utilising_Context-Based_Learning_to_Promote_Students'_Conceptual_Understanding_and_Performance_in_Organic_Chemistry/links/6720b6462326b47637b660ff/Utilising-Context-Based-Learning-to-Promote-Students-Conceptual-Understanding-and-Performance-in-Organic-Chemistry.pdf
11. George Agbenyega Nyagblormase, **Boniface Yaayin**, Ruby Hanson (2023). The Effectiveness of Flipped Classroom in Improving Pre-service Science Teachers' Performance in Kinetic Molecular Theory of Matter. *International Journal of Innovative Research and Development*. https://doi.org/10.24940/ijird/2023/v12/i6/jun23022
12. Gadafi Iddrisu Balali, R Hanson, **B Yaayin** (2023). Using exemplary materials to enhance students' performance and retention in hybridization. *African Journal of Chemical Education—AJCE*. https://www.researchgate.net/profile/Gadafi-Iddrisu-Balali-2/publication/372858906_Using_Exemplary_Materials_to_Enhance_Students'_Performance_and_Retention_in_Hybridization/links/64cb204b91fb036ba6bfcb03/Using-Exemplary-Materials-to-Enhance-Students-Performance-and-Retention-in-Hybridization.pdf
13. **Boniface Yaayin**, Emmanuel K. Oppong, Ruby Hanson (2022). ENHANCING PRE-SERVICE TEACHERS' UNDERSTANDING AND ATTITUDES TOWARD NAMING AND REACTIONS OF ORGANIC COMPOUNDS USING JIGSAW APPROACH. *European Journal of Open Education and E-learning Studies*. https://doi.org/10.46827/ejoe.v7i2.4442
14. **Boniface Yaayin**, Emmanuel K. Oppong, Ruby Hanson (2021). Efficacy of Jigsaw Model in Improving Pre-Service Teachers' Performance in Selected Functional Group Organics Compounds. *DOAJ (DOAJ: Directory of Open Access Journals)*. https://doi.org/10.33828/sei.v32.i3.2
15. **B Yaayin** (2019). Altering students misconceptions in electrochemistry using conceptual change texts. *International Journal of Innovative Research and Development*. https://scholar.google.com/scholar?cluster=3603070359910800421&hl=en&oi=scholarr
16. **B Yaayin** (2018). The Effectiveness of Problem-Based Learning Approach to Mole Concept among Students of Tamale College of Education. *Journal of Education and Practice*. https://scholar.google.com/scholar?cluster=16390722637455734468&hl=en&oi=scholarr
17. **Boniface Yaayin** (2018). The influence of problem-based learning approach on students' perceptions and attitudes toward the mole concept in Tamale College of Education. *ADRRI Journal (Multidisciplinary)*. https://scholar.google.com/scholar?cluster=15634854158395361593&hl=en&oi=scholarr

Book chapters 1

1. Gloria Asiedu, **Boniface Yaayin**, Ruby Hanson (2025). Effect of Computer Animations on Senior High School Students' Learning Outcomes in Chemistry: A Focus on Rate of Reactions. https://doi.org/10.9734/bpi/lleru/v2/4463

Theses 1

1. **Boniface Yaayin** (2019). Investigating pupils' strategies on mathematics achievement from private and public basic schools in the Chorkor Circuit of the Accra Metropolis. *University of Education Winneba*. https://ir.uew.edu.gh/handle/123456789/1198