



UNIVERSITY OF
EDUCATION, WINNEBA



INSTITUTE FOR EDUCATIONAL RESEARCH
AND INNOVATION STUDIES, UEW

International Conference on Educational Research and Innovation Studies

16TH - 18TH OCTOBER 2025 @UEW, GH

Book of Abstracts

THEME:

**Innovating Teacher Education for
a Sustainable Future:**

**Enhancing Pedagogy, Technology,
and Inclusivity in the 21st Century
Learning Environment.**



**UNIVERSITY OF EDUCATION, WINNEBA
INSTITUTE FOR EDUCATIONAL RESEARCH AND
INNOVATION STUDIES**

**INTERNATIONAL CONFERENCE ON EDUCATIONAL
RESEARCH AND INNOVATION STUDIES, 2025
(ICERIS-2025)**

**DATE: 16-18TH OCTOBER 2025
VENUE: NORTH ASSEMBLY HALL**

ICERIS 2025 PARALLEL SESSIONS &
CONFERENCE OUTLOOK

Contents

Profile of Personalities	1
Profile of Plenaries	4
Conference Programme Outline	7
Welcome Message from the Conference Organizing Committee Chairman.....	8
Parallel Sessions.....	10
Book of Abstracts	16
A Glance at IERIS.....	57
CERIS 2025 Organizing Committee Members.....	59

PROFILE OF PERSONALITIES

Professor Hope Pius Nudzor | Host

Professor Hope Pius Nudzor is a professor of critical education policy and implementation analysis. He is currently the Director of the Institute for Education Research and Innovation Studies (IERIS) at the University of Education, Winneba. Before this, he was the Director of Research, Innovation and Outreach at the Institute for Educational Planning and Administration (IEPA), a UNESCO Category II Centre of Excellence at the University of Cape Coast for five (5) years. He also holds graduate degrees in MSc. in Management and Leadership in Education; and PhD in Educational and Professional Studies, both from the University of Strathclyde in Glasgow, Scotland in 2004 and 2007 respectively. After he obtained his PhD, Professor Nudzor pre-occupied himself with research concerning universal primary education (UPE) provision and delivery for learners from disadvantaged and/or marginalized settings. His PhD thesis, which was on the free compulsory universal basic education (fCUBE) policy implementation in Ghana, for example, had won the prestigious UK's Economic and Social Research Council (ESRC's) post-doctoral research fellowship grant (of about £68,000). This post-doctoral fellowship award enabled Professor Nudzor to attend national and international conferences to disseminate the findings of his doctoral research through conference presentations, policy dialogues, development of policy briefs, and other user-engagement seminars, workshops, fora and academic publications. Essentially, this post-doctoral award served a useful purpose in offering him the opportunity to deepen understanding of the constraints to implementing Education for All (EFA) policy initiatives among stakeholders in low-income countries. In particular, his doctoral and post-doctoral research activities have served to unmask the socio-economic, geo-political, discursive and context-specific issues that act as barriers to policy change in Ghana and other sub-Saharan Africa countries and has shown ways by which these issues could be conceptualized for mediation. Professor Nudzor's other areas of research and expertise include critical education policy analysis; teachers' professional development; foundational learning; and qualitative research methods. The rest concern management and leadership issues in education, educational decentralization; change management in educational institutions; activity-based learning (ABL) practices in low-income contexts; and research concerning the group of young people referred to in policy terms as not in education, employment or training (NEET). Professor Nudzor has extensive knowledge and experience in leading research projects and delivering on expected project objectives and outcomes.



Mr. Robin Todd | Guest Speaker

Mr. Robin Todd serves as Executive Director of Transforming Teaching, Education & Learning (T-TEL), where he is responsible for strategic direction and ensuring the organization provides high-quality technical assistance to the Government of Ghana. He is a public policy, education, and international development professional with extensive experience ranging from community-level implementation to national policy and planning, including twenty years of experience with fifteen years working in education, social development, and public service delivery positions in Africa. His background includes five years developing and implementing policy on skills and technical and vocational education and training at senior levels within the British Government. With over 24 years of experience working with more than 17 Sub-Saharan African countries in the area of education. Mr. Todd has developed deep expertise in teacher education reform and educational quality improvement. Under his leadership, T-TEL has worked closely with Ghana's government to transform teacher education and learning outcomes. Mr. Todd has been actively engaged with various educational stakeholders, delivering keynote addresses at major teacher education forums and advocating for the successful implementation of educational reforms. He has publicly stated that Ghana has the best education system in Sub-Saharan Africa. Reflecting his confidence in the country's educational infrastructure and potential. His work continues to influence policy and practice in teacher education across Ghana and the broader region.



Prof. Stephen Jobson Mitchual
Chairperson, Vice-Chancellor
University of Education, Winneba (UEW)



Stephen Jobson Mitchual is a professor of Wood Science and Technology and the current Vice-Chancellor of the University of Education, Winneba (UEW). He assumes office with over two decades of academic and administrative expertise in the higher education space. He is a distinguished figure in the field of Wood Science and Technology, renowned for his ground-breaking research, unwavering commitment to education, and contributions to sustainable wood processing and safety practices which have earned him his place as a luminary in academia. His works have had a profound impact on the wood industry, conservation, and education. Prof. Mitchual embarked on his academic journey at the prestigious Kwame Nkrumah University of Science and Technology, where he completed his undergraduate studies in Agricultural Engineering with excellence in 1993. He further obtained a Postgraduate Diploma in Education from the University of Cape Coast in 1998. His passion for wood science and technology quickly drove him from 2005 to 2014 to pursue MSc in Wood Technology and Management and a PhD in Wood Science and Technology respectively, both from Kwame Nkrumah University of Science and Technology (KNUST). In his quest for versatility and to position himself for administrative responsibilities, Prof. Mitchual obtained a management-level certificate from the Chartered Institute of Administrators and Management Consultants, Ghana, and certification from the Association of Chartered Certified Accountants. He has also taken courses in financial management and managerial economics. Throughout his over a score year of work as an academic and researcher with a special interest in the utilization of agro-forest residue for biomass energy, wood machining and sawmill safety, and issues in technical and vocational education, Prof. Mitchual has been at the forefront of pioneering research in Wood Science and Technology, studies on wood processing, wood preservation, wood machining, and sawmill safety, and the development of innovative wood-based materials. He has published numerous papers in top-tier journals, sharing his insights on sustainable forestry practices and the utilization of wood resources. His extensive research portfolio includes collaborations with other researchers to make significant progress and breakthroughs in the production of briquettes from agro-forest residue at room temperature and low compacting pressure without a binder, assessment of fuel characteristics of binder-free briquettes made at room temperature from blends of oil palm mesocarp fibre and *Ceiba pentandra* and impact of training on the occupational health and safety of woodworkers. Additionally, these collaborations have led to successful publications in a wide range of reputable international journals and presentations at local, regional, and international conferences. Prof. Mitchual has over 40 peer-reviewed journal articles and books, over 20 conferences/seminar papers, and memoranda to his credit. His

publications have made a significant impact on the scientific community, especially in biomass energy. Professor Mitchual is a reviewer of scholarly papers for publication in a dozen reputable international journals including Energy Sources, Part A: Recovery, Utilisation, and Environment Effects, Taylor and Francis; Alexandria Engineering Journal, Elsevier, United States of America; British Journal of Education, Society & Behavioural Science; Journal of Global Ecology and Environment; Journal of Basic and Applied Research International, United Kingdom; International Journal of Agricultural Policy and Research, Poland; Energy, Sustainability and Society, Springer, Germany; International Research Journal of Public and Environmental Health, Switzerland and; Advances in Research, United Kingdom.

PROFILE OF PLENARIES

Prof. Samuel Ofori Obuobisah Bekoe

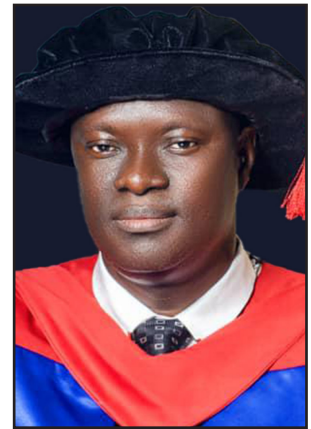
Prof. is the Acting Director-General, National Council for Curriculum and Assessment (NaCCA). Prof. Samuel Ofori Obuobisah Bekoe is a distinguished educationist and academic with over eighteen (18) years of progressive experience in higher education, research, teacher development, academic administration, and educational leadership. He had his education at the following institutions, PhD in Curriculum Studies– University of Strathclyde, Glasgow, Scotland, UK (2003–2006). Bachelor of Education (B.Ed.) in Social Studies & Mathematics– University of Education, Winneba, Ghana (1999–2000). Diploma in Education (Dip. Ed.) in Social Studies & Mathematics– University of Education, Winneba, Ghana (1996–1999) Teachers’ Certificate “A”– Presbyterian College of Education, Akropong-Akwapim, Ghana (1987–1990). GCE “O” Level– Pope John Senior High School and Minor Seminary, Koforidua, Ghana (1980–1985). His professional trajectory reflects a deep commitment to advancing quality education and building robust systems that support effective teaching and learning in Ghana and beyond. Prof. Bekoe has played an instrumental role in shaping academic and institutional structures through his various leadership positions at the University of Education, Winneba (UEW), where he served as Head of Department, Dean of Faculty, and a member of the Governing Council. His leadership style is characterized by strategic vision, collaborative engagement, and an unwavering dedication to academic excellence and institutional growth. Until his appointment as the Acting Director-General of the National Council for Curriculum and Assessment (NaCCA), Prof. Bekoe was the Director of the Institute for Teacher Education and Continuing Professional Development



(ITECPD) at UEW. In this role, he led the coordination of teacher training programmes, continuing professional development activities, and partnerships aimed at improving teacher quality and instructional delivery nationwide. Prof. Bekoe also made a significant impact at the national level as the President of the University Teachers Association of Ghana (UTAG), where he demonstrated strong leadership and negotiation skills in advancing the interests of university faculty and contributing to national discourse on education policy and reform. As a curriculum expert, Prof. Bekoe's work spans curriculum design and development, instructional planning, assessment systems design, and programme evaluation.

Professor Vincent Adzahlie-Mensah

Professor Vincent Adzahlie-Mensah holds a PhD from the University of Sussex in the United Kingdom and specializes in education and development, with particular focus on methodologies for conflict resolution, human rights, and peace programming. He currently serves as Director of the Institute for Educational Research and Innovation Studies (IERIS) at the University of Education, Winneba (UEW) where he is also affiliated with the College for Distance and e-Learning. Throughout his distinguished career, Professor Adzahlie-Mensah has provided consultancy services to numerous prestigious organizations including the Economist Intelligence Unit, UNICEF, USAID, British Council, Plan Ghana, Ministry of Education, and the Ghana National Education Campaign Coalition. His academic work addresses critical issues in African education, with research publications examining topics such as the continuing shadows of colonialism in Ghana's educational system and school social control in sub-Saharan Africa. Beyond academia, Professor Adzahlie-Mensah has made significant contributions to human rights advocacy. He joined Amnesty International in 2001 and has served in various leadership roles, including as Board Chair of Amnesty International Ghana beginning in January 2009, where he led the organization in developing policies, establishing effective governance systems, and creating leadership development programs. His work as a Ghanaian academic specializes in security and social justice issues making him a prominent voice in both educational reform and human rights advocacy in Ghana and beyond. Professor Vincent Adzahlie-Mensah is currently the Principal of the Seventh Day Adventist (SDA) College of Education, Akokore Koforidua, Eastern region.



Professor Ruby Hanson

Professor Ruby Hanson is an accomplished scholar in Chemistry Education at the University of Education, Winneba (UEW) in Ghana. A specialist in how students learn science, her work focuses on conceptual misunderstandings in chemistry, active and interactive teaching methods, sustainability and systems-thinking, and teacher preparation. She earned her Ph.D. in Chemistry Education from UEW in 2014. Prior to that, she completed an MPhil in Analytical and Environmental Chemistry at the University of Cape Coast, where she carried out work in chemical toxicology. Her academic training also includes certificates in designing and facilitating e-learning, and in science and mathematics education development from institutions in New Zealand and the Netherlands. At UEW, she has held several leadership roles. She is Dean of the Faculty of Science Education, Associate Professor of Chemistry Education, and has served as Acting Pro-Vice Chancellor. Her research includes investigations into how to remediate students' conceptual challenges in chemistry through innovative interventions: e-courseware, micro-science equipment for labs, diagnostic worksheets, and integrating sustainability and humanitarian principles into chemistry teaching. She has also worked on reducing misconceptions in coordination chemistry, reasoning about chemical compounds, gender and STEM education, and making science labs more accessible and safer. She has won distinctions for her scholarship, including awards for best full paper internationally, and leads projects involving international grants. For instance, she co-leads the Ghanaian arm of a European grant under the Regional Teachers Initiative for Africa, aimed at enhancing teacher professional learning communities. Professor Hanson is also active in science education policy, curriculum transformation, and promoting sustainability and environmental awareness in how chemistry is taught. Her vision includes preparing pre-service science teachers who are both pedagogically strong and environmentally conscious, and empowering learners with science understandings that are relevant to real-world problems.



CONFERENCE PROGRAMME OUTLINE

TIME	ACTIVITY
8:00 AM	Registration of Presenters/Participants
8:30 AM	Arrival of Invited Guests
8:30AM	Breakfast
9:05 AM	Opening Prayer: Rev. Prof. Alexander Edwards
9:05 AM	Introduction of Chairperson & Acknowledgement of Guests: Eva Annan
9:10 AM	Chairperson's Acceptance and Address
9:15 AM	Welcome Address / Purpose of Conference: Director, IERIS
9:30 AM	Guest Speaker's Message –Topic: <i>Innovating Teacher Education for Sustainable Future: Enhancing Pedagogy, Technology and Inclusivity in the 21st century learning Environment</i> ” by Mr. Robin Todd
10:00 AM	Plenary Presentation 1 – <i>Educational Policy Reforms and Governance: The Way Forward</i> by Prof. Samuel Ofori Obuobisah Bekoe
10:20 AM	Plenary Presentation 2 – <i>Education Policy and Sustainable Leadership and Advancement in Early Childhood Education</i> by Prof Vincent Adzahlie-Mensah
10:40 AM	Plenary Presentation 3 – <i>STEM Education Holds the Future of National Development</i> by Prof. Ruby Hanson
11:00 AM	Training Workshop for Senior High School Teachers
12:00 PM	LUNCH BREAK
1:00 PM	BREAKOUT SESSIONS <ul style="list-style-type: none"> • Concurrent/Parallel Sessions • Paper Presentations (20 minutes per paper)
2:00 PM	Paper Presentations Continue
5:00 PM	Closing Remarks/Closing Prayer

Master of Ceremony: Ms. Eva Annan

WELCOME MESSAGE FROM THE CONFERENCE ORGANIZING COMMITTEE CHAIRMAN

Dear Esteemed Colleagues, Valued Participants, and Distinguished Guests, On behalf of the Organizing Committee, I extend a heartfelt welcome to all of you gathered here at the University of Education, Winneba, for the International Conference on Education and Innovation Studies (ICERIS-2025). It is with tremendous enthusiasm that I greet you as we commence this important three-day conference. Our organizing committee has worked diligently to create an environment that fosters meaningful dialogue, encourages innovative thinking, and facilitates connections that lead to transformative change in education. We meet at a critical juncture in global education. The accelerating demands of the 21st century such as technological disruption, climate change, social inequality, and evolving workforce needs require educators, researchers, and policymakers to reimagine how we prepare learners for unpredictable futures. Our conference theme, ***“Innovating Teacher Education for a Sustainable Future: Enhancing Pedagogy, Technology, and Inclusivity in the 21st Century Learning Environment,”*** is a call to action. Teachers are the backbone of any educational system, and investing in their development and enabling them to embrace innovation is essential to transforming education outcomes across Ghana and the broader region. Over the next three days, you will engage in rigorous intellectual exchange through presentations spanning educational policy and governance, sustainable leadership, early childhood and basic education, and science and technology integration. You will network with over 100 peers, academic researchers, educators, administrators, policymakers, and emerging scholars who are all united by passion for educational excellence. This conference offers practical insights that bridge research and practice, collaborative possibilities that may spark new initiatives, and recognition of graduate students and early career researchers through our dedicated poster session. This conference would not have been possible without exceptional support from the Vice-Chancellor, IERIS Board and leadership of the University of Education, Winneba, the Institute for Educational Research and Innovation Studies (IERIS), our distinguished sponsors T-TEL. Their generosity and support have made ICERIS-2025 a reality. As we embark together, I urge you to engage fully and authentically. Ask challenging questions, share your research fearlessly, and listen to diverse perspectives. Every conversation and connection here has the potential to influence educational policy and practice profoundly. This inaugural ICERIS conference is not merely a one-time event but the beginning of an established annual platform where educators, researchers, and innovators convene to advance knowledge and generate evidence-based recommendations for educational improvement. Policy recommendations emerging from ICERIS-2025 will be shared with key stakeholders, ensuring our collective work translates into real action and measurable impact. Education is the most powerful tool for individual and societal transformation. Together, we have the opportunity to shape a future in which every learner has access to quality, inclusive, and innovative education, in which teachers are empowered with essential skills and support, and in which policies are grounded in research and responsive to community needs. Thank

you for your commitment to educational excellence and for being part of this important movement to innovate and transform education for a sustainable future. I wish you stimulating discussions, meaningful connections, and an experience that leaves you inspired and energized.

Let ICERIS-2025 begin!

Warm regards,

Conference Organizing Committee Chairman
International Conference on Education and Innovation Studies (ICERIS-2025)
University of Education, Winneba | October 2025

Professor Kofi Adu-Boahen, PhD
Chairperson, Conference Organizing Committee

Professor Kofi Adu-Boahen is the Deputy Director of IERIS and the Chairman of the organising Committee of the ICERIS 2025 Conference. He is a Ghanaian expert in physical and environmental geography, serving in the Department of Geography Education at the University of Education, Winneba. He holds a PhD in Geography and Regional Planning from the University of Cape Coast, where he also earned his MPhil and bachelor's degree, and has supplemented these with a postgraduate diploma in teaching and learning, and training in online design and higher-education pedagogy. Rising through the ranks from Senior Lecturer to Associate Professor, he achieved the rank of full Professor in 2024, and currently leads the Department, in addition to holding leadership roles in quality assurance and assessment. Prof. Adu-Boahen's research spans a range of topics at the intersection of environmental change, community participation, and resource management. He has published recently on shoreline change and community restoration around Lake Bosomtwe, desertification and how smallholder farmers in Ghana's Upper East Region cope with climate change, morphology of coastal lagoon barrier beaches, land-use and land-cover change in municipalities, and the impacts of traditional beliefs on natural resource conservation. He is also active in educational practice using field trips, geographic information systems, remote sensing, and GIS in his teaching and is involved in supervising students, engaging communities, and contributing to applied work that links geography to sustainable development and water governance. Prof. Adu-Boahen brings together rigorous scientific inquiry with a strong commitment to communicating and applying geography to pressing environmental and social challenges in Ghana and beyond.



PARALLEL SESSIONS

Parallel Session 1

Chair: Mr Cosmos Dzikunu

Educational Policy and Governance

Thursday: 16/10/2025

Venue: SCS Room 1

Time: 1:00-5:00 pm

S/N	Topics	Authors
1	Ghana's Pre-Tertiary Curriculum Design and its Processes.	<u>Miriam Ogah</u>
2	Evaluation of The Implementation of NTEAP in Colleges of Education in Ghana: The Case of Western North Region.	<u>Emmanuel Adom Ashun (Ph.D)</u> & <u>Regine Kwaw Nsiah (Ph.D)</u>
3	Influence of Headteachers' Ethical Leadership on Learners Self-Discipline in Public Junior High Schools In Sunyani.	<u>Sandra Damoah</u>
4	From PTA-PA-PTA: The Challenges of Sustaining Meaningful Parental Involvement in Educational Management in Ghana.	<u>Ishmael Iddris</u>
5	Headteachers' leadership styles and the implementation of the Common Core Programme in the Ho Metropolis: The Mediation role of Change Management.	<u>Samuel Tatsi</u>
6	Assessing What We Teach: Bridging Theory and Practice Using Culturally Responsive Sustainable Educational Assessment Strategies	<u>Simon Ntumi</u>
7	Ghana's Between Crisis and Transformation: The Political Economy of Ghana's 1987 Educational Reforms in Historical Context, 1981-1992	<u>Isaac Ocran</u> , John K. Osei-Tutu, & Anitha Oforiwah Adu-Boahen
8	Advancing Teacher Professionalism: Policy, Practice, and Impact on Education in Ghana	<u>Dr. Christian Addai-Poku</u> , Prof. Isaac Boateng & Rev. Prof, Alexander K. Edwards

Parallel Session 2

Chair: Prof. Richardson Addai-Mununkum, PhD

Sustainable Leadership and Professional Development

Thursday: 16/10/2025

Venue: SCS Room 2

Time: 1:00-5:00 pm

S/N	Topics	Authors
9	Exploring Internationalization in Teacher Education: A Systematic Review.	<u>Paul Acheampong (Ph.D)</u>
10	Unleashing Teacher Potential in Bridging Learning Gaps in Ghanaian Basic Schools: The Role of Teachers' Continuous Professional Development.	<u>Dr. Nelson Amponsah</u>
11	Power to the Learners: Adopting Critical Pedagogies in the Ghanaian SHS Literature-In-English Classroom	<u>Grace Danquah</u>
12	A Bibliometric Review of Teacher Assessment and Feedback Literacy in the Era of GEN AI: Lessons Learnt and Opportunities for the Global South.	<u>Christopher Sam</u> , Winston Kwame Abroampa , Dennis Glover & Michael Brem Quansah.
13	Why Teaching aspects of High School Economics is Difficult: Unpacking Teacher Attributions of Curriculum, Student, Teacher, and Resource Factors.	<u>Alex Tetteh</u> , Bernard Yaw Sekyi Acquah & Peter Anti Partey
14	Character and Virtue Development Through Service Opportunities: A Mixed Methods Study Among Student and Faculty Leaders.	<u>Ebenezer Hagan</u> , PhD, & Kwame Agbeshie
15	The Role of Participative Leadership in Enhancing Teacher Creative Thinking and Instructional Effectiveness.	<u>John Opoku (Doctoral Student) & Rev. Prof Alexander K. Edwards</u>
16	Transformational Leadership, Job Satisfaction, and Union Commitment among Senior High School Teachers in Ghana	<u>Dr. Christian Addai-Poku</u> & Rev. Prof Alexander K. Edwards

Parallel Session 3

Chair: Prof Peter Akayuure

Advancements in Early Childhood and Basic Education

Thursday: 16/10/2025

Venue: SCS Room 1

Time: 1:00-5:00 pm

S/N	Topics	Authors
17	Promoting Injury Prevention Awareness through Physical Education: Insights From Ghanaian Basic Schools	<u>Dr. Simon Kormla Donkor</u>
18	An Exploration of Holistic Learning of Students through Co-Curricular Activities: The Akuapem Experience.	<u>Kwadwo Twum Ampofo</u>
19	Re-thinking the Teaching of French in Senior High Schools to Enhance Foundational Literacy for Sustainable Development.	<u>Benedicta Ataa Owusu</u>
20	Pre-Service Teachers' Perceptions of using the First Language to support instruction in Early Grade Classrooms: insights from Accra College of Education, Ghana.	<u>Faustina Quist & Selina Nana Simpson</u>
21	Reimagining Scaffolding in Marginalized Contexts: Equity-Oriented Praxis and Postcolonial Perspectives in Early Grade Classrooms.	<u>Faustina Quist & Emmanuel Dwamena</u>
22	Interpreting Grief Through Language: An Analysis of the Gricean Maxims on the Kokrokoo Morning Show Discussion on Peace FM Following the Fatal Ghanaian Helicopter Crash.	<u>Mark Abbey</u>
23	From Home to School: Assessing the Alignment between Community Language Practices and Standards-based Curriculum Implementation for Early Grade Learners in Multilingual Contexts in Ghana.	<u>Dr. Davis Mawuena Aweso</u>

Parallel Session 1B

Chair: Rev Prof. Alexander K. Edwards		
Science, Technology and Community Engagement I		
Friday: 17/10/2025	Venue: SCS Room 1	Time: 9:30-1:00 pm

S/N	Topics	Authors
24	Perceptions of Senior High School Students and Teachers on the Topics in the Integrated Science Syllabus: A Ghanaian Perspective.	<u>Mr. Henry Egyei-Mensah</u> & Rev. Dr. Joseph Annan
25	Perceptions of Public Basic School Teachers About the Integration of Information Communication Technology Tools in Teaching.	<u>Mr. Selorm Kwashigah,</u> Charles Nyarko Annobil, Kwame Odei-Tettey, & Bernard Mensah Amoako
26	Using an Electronic Board Game to Improve Academic Performance of Students in Writing Chemical Symbols and Atomic Numbers.	<u>Mr. Simon Nderago Amore</u>
27	Improving Student-Teachers' Conceptual Understanding in Science Through ICT	<u>Dr., Mrs. Cosmos Eminah</u>
28	Leveraging Assistive Technology to Enhance STEM Learning for Students with Visual Impairment in Inclusive Classrooms in Ghana	<u>Dr. Adam Awini</u>
29	STEM Perceptions and Barriers: The Influence of Gender, School and District Type among Junior High Learners in the Central Region of Ghana.	<u>Dr. Victus Kumazah, Dr.</u> Ethel Ansaah Addae & Prof Peter Akayuure

Parallel Session 2B

Chair: Dr. Seth Dade Ansah

Science, Technology and Community Engagement II

Friday: 17/10/2025

Venue: SCS Room 2

Time: 9:30-1:00 pm

S/N	Topics	Authors
30	Social Studies as a Bridger of the Overt and Covert Curriculum in cultivating University-Ready Competencies among Students in Ghana.	<u>Clarke Ebow Yalley</u> , Mohammed Adam & Samuel Poatob
31	Developing Digital Citizens for a Secure Society: Social Studies as a Lens for Cybersecurity Education.	Mohammed Adam, <u>Clarke Ebow Yalley</u> , Ameyaw Jacob, Arthur Ernest Nana Kwame, Okumo Gloria, Appiah Amankwah Christina, Adomako Kezia Sarpomaa.
32	Analysis of Psychometric Properties of Teacher-Made Social Studies Assessments in Ghanaian Senior High Schools.	Ebenezer Appiah-Kubi, Eric Gyasi Mensah, <u>Mohammed Adam</u> , Prof. Samuel Ofori Bekoe & David Naya Zuure
33	Evaluating Cognitive And Contextual Alignment in Ghanaian TVET Mathematics Materials: A Case Study In Blended Learning.	<u>Mr. Denteh Akwasi Sakyi</u> & Francis Kwadwo Awuah
34	Comparative Analysis of a Conceptual Change Instruction Strategy in Virtual versus Authentic Learning Environments on Students' Conceptual Needs and Understanding of Electrochemistry.	<u>Zacchaeus Bukari (PhD candidate)</u> , & Harrison I. Atagana (Prof)
35	Redesigning HACCP Programs through Curriculum Innovation and the Establishment of a Centre for Public Safety Management and Resilience Engineering: A Pathway to Sustainable Capacity Building in Ghana.	<u>Benjamin Osafo Carlis-Paittoo</u>
36	Exploring the Role of Digital Tools in Enhancing Mathematics Engagement among Ghanaian Undergraduate Students.	Prof Peter Akayuure & <u>Christopher Owu-Annan</u>
37	Motivations and Deterrents to Alumni Contributions for Scholarship programs and Stem Initiatives In Ghana	<u>Christopher Sam</u> & Winston Kwame Abroampa

Parallel Session 3B

Chair: Prof Daniel Yelkpiere		
Other Related/Relevant Areas (8 presentations)		
Friday: 17/10/2025	Venue: SCS Room 3	Time: 9:30-1:00 pm

S/N	Topics	Authors
38	From the Margins of Inclusion: Educator Narratives on Disability, Access, and Equity in Winneba's Classrooms.	Prof. Lomotey C. F., Prof Adu-Boahen, K, <u>Dr. Acquah, A.</u> , & Dr. Agyekum, M. W
39	Integrating Refugees in Ghanaian Public Universities for Sustainable Development: What Does the Literature Say?	<u>Hannah Amoasi</u>
40	Unpacking the State Partnerships and Collaborations in Universities for Sustainable Development.	<u>Ms. Angela Owusu Kusi</u>
41	Challenges of Open And Distance Learning (ODL) For Functional Education in Nigeria.	<u>Dr. Caroline Ogbeide</u>
42	Navigating a Terrain: The Lived Experiences of First-Generation Tertiary Students in Ghana	<u>Mr. Stephen Kwakye Apau</u>
43	The effect of Helicopter Parenting on Financial Behaviour, Self-Directed Learning and Entrepreneurial Intentions among young adults: the mediating role of Grit and Self-control.	<u>Abraham Gyamfi</u> Ababio(Ph.D), Benedicta Akrono (Ph.D) & Felicia Esinam Pufaa (Ph.D)
44	Emotional Intelligence and Academic Resilience: A Mixed-Method Study among University Students in Ghana.	<u>Bernard Mensah Amoako</u> , Inuusah Mahama & Stephen Kwakye Apau
45	Reimagining University Teaching: The Promise of Flipped Classrooms for Developing 21st-Century Pedagogical Skills among Pre-Service Teachers.	<u>Professor Richardson Addai-Mununkum</u> , PhD, Joana Ashardey Ashley, William Ahiany, Mensah, & Florence Amanfo
46	Teacher Retention in Home Communities: Implication for Teacher Deployment Policy	<u>Cosmos Kwame Dzikunu</u> , Daniel Yelkpiere, Alexander Edwards, Gideon Ampofo, & Baraatu Abdulai Yakubu
47	AI Prompt Engineering for Educators	<u>Dr. Seth Dade Ansah</u>

NB: Names underlined indicate corresponding and/or presenting authors

1. Ghana's Pre-Tertiary Curriculum Design and its Processes

Miriam Ogah

University of Education, Winneba, Ghana Department of Educational Foundations

Corresponding Author's email address : mogah@uew.edu.gh

Abstract

Although conceived with progressive aspirations to transition toward a competency based pedagogical paradigm, the Standards Based Curriculum has encountered substantial implementation challenges. These include insufficient teacher preparation, inadequate contextual adaptation, limited stakeholder engagement and the absence of a clearly defined and theoretically grounded curriculum development model. Collectively, these shortcomings have sustained a persistent disjuncture between policy intent and classroom practice thereby constraining the transformative potential of educational reform. Drawing upon a comprehensive review of extant literature, conceptual analysis and theoretical synthesis, this study identifies enduring structural and procedural deficiencies in Ghana's curriculum design and implementation architecture. It underscores the systematic marginalization of key constituencies including teachers, students, parents, local communities, school administrators, policymakers and media institutions. The analysis calls for a fundamental reorientation toward a more inclusive participatory and contextually attuned approach to curriculum development that acknowledges the sociocultural and institutional realities of the Ghanaian educational landscape. In response to these imperatives, the paper introduces the Participatory Competency and Context Responsive Curriculum Framework, a theoretically integrated model that synthesizes core tenets from Tyler's Objective Model, Taba's Grassroots Model, Constructivist Learning Theory and Naturalistic Evaluation Models. The proposed framework foregrounds collaborative stakeholder engagement, contextual relevance, competency driven learning outcomes and iterative feedback mechanisms. It is designed to foster a curriculum development process that is dynamic, equitable and responsive to both national educational objectives and localized community needs. The study concludes with actionable recommendations for policymakers, educational practitioners and other relevant stakeholders aimed at cultivating a more democratic adaptive and efficacious curriculum system. By deliberately centering the perspectives and experiences of those most directly affected by curricular reforms, Ghana stands to develop an education system that not only redresses longstanding structural inequities but also equips learners with the competencies necessary to navigate and contribute meaningfully to the complexities of the twenty first century.

Keywords: Curriculum development, Ghana education, Standards- Based Curriculum, SBC, competency-based education, stakeholder participation, context responsive curriculum, PCCRC Framework, educational reform.

2. Evaluation of The Implementation of NTEAP in Colleges of Education in Ghana: The Case of Western North Region

Emmanuel Adom Ashun (Ph.D)^{1*} & Regine Kwaw Nsiah (Ph.D)²

^{1,2} *Department of Education, Enchi College of Education, Ghana*

Corresponding Author's email address: adomeagle@yahoo.com

Abstract

The National Teacher Education Assessment Policy (NTEAP) was introduced as part of Ghana's broader educational reforms to standardize assessment practices and enhance the quality of teacher preparation. Its implementation in Colleges of Education is critical, as these institutions serve as the training ground for future teachers. This study evaluates the implementation of NTEAP in Colleges of Education within the Western North Region of Ghana, with the emphasis on awareness of the NTEAP in CoEs, fidelity of implementation, support systems for implementation, and challenges in implementation. Using a mixed-methods approach, data will be collected through questionnaires, interviews, and document analysis involving tutors, academic affairs officers, and student-teachers. The quantitative data to be generated will be analysed using descriptive statistics (frequencies, percentages, means and standard deviations) as well as inferential statistics such as t-test and Analysis of Variance (ANOVA). The qualitative data will also be analysed using thematic analysis. This study will be beneficial by contributing to the broader goal of improving teacher education and educational outcomes in Ghana. This will also take away discrepancies and align assessment practices with NTEAP standards, resulting in consistency and quality assurance in the assessment practices in Colleges of Education in Ghana.

Keywords: NTEAP, Implementation, Assessment, colleges, compliance

3. Influence of Headteachers' Ethical Leadership on Learners Self-Discipline in Public Junior High Schools In Sunyani

Ms Sandra Damoah

University of Education, Winneba

Corresponding author's email address: damoahsandra.edu@gmail.com

Abstract

Learners' self-discipline is central to achieving holistic academic success and positive behavior outcomes. Headteachers' ethical leadership practices are widely acknowledged as a key influence in shaping learners' behavior, yet limited research has been done on how ethical leadership influences learners' self-discipline in Sunyani municipality. The purpose of the study was to investigate the extent to which headteachers' ethical leadership practices influence learners' self-discipline in public junior high schools in the Sunyani municipality.

Quantitative approach was used, employing casual-comparative design. The study involved 40 headteachers, 70 teachers and 315 basic 9 learners. Descriptive statistics, independent sample t-test, one-way Anova and multiple linear regression was used to analyze the data. The study findings revealed that ethical guidance and role modeling significantly and positively predicted learners' self-discipline highlighting the importance of ethical based mentoring and exemplary leadership in promoting responsible learners' behavior. Surprisingly, people orientation negatively predicted learners' self-discipline, suggesting that overemphasis on concern for people undermine consistent rule enforcement. Integrity, fairness and ethical decision-making did not statistically predict learners' self-discipline. Further analysis showed that, there was no statistically significant difference in ethical leadership practices by headteachers' academic qualifications or years of work experience. These results showed that ethical leadership's impact lies not in the personal values, leaders' credentials or tenure but their ability to model values and provide clear ethical guidance. Disciplinary policy interventions should therefore strengthen mentorship programs in schools and adopt the ubuntu discipline approach to balance people orientation with firm expectations to enhance learners' self-discipline in Ghanaian schools.

Keywords: Ethical leadership, Self-discipline, Sunyani Municipality, Public Junior high school

4. From PTA-PA-PTA: The Challenges of Sustaining Meaningful Parental Involvement in Educational Management in Ghana

Mr. Ishmael Iddris

Catholic University of Ghana, Fiapre

Corresponding author's email address: iddrishmael@yahoo.com

Abstract

This systematic desk review examines persistent challenges in sustaining meaningful parental involvement within Ghana's educational management system. The study analyses policy shifts between Parent-Teacher Associations (PTAs) and Parent Associations (PAs) from Policy documents, academic literature, and institutional reports on the Basic and Senior High School education sector in Ghana (2013-2025). The study identifies key structural, socioeconomic, and implementation barriers using Epstein's partnership framework. The findings reveal that financial dependencies, weak institutionalization, capacity gaps, and policy instability undermine long-term parental engagement. The review highlights critical tensions between school financing needs and participatory governance imperatives. Recommendations propose hybrid models balancing accountability with inclusivity, alongside strengthened financing and targeted capacity building, to foster sustainable school-community partnerships while upholding equitable access to education.

Key words: Parental Involvement, Educational Management, , Parent-Teacher Association (PTA), Parent Association (PA), Epstein's Framework, School Governance, Free SHS Policy

5. Headteachers' leadership styles and the implementation of the Common Core Programme in the Ho Metropolis: The Mediation role of Change Management

Samuel Tatsi

Department of Educational Administration and Management, University of Education, Winneba

Corresponding author's email address: samueltatsi20@gmail.com

Abstract

The implementation of the curriculum reforms has faced challenges related to inconsistencies in leadership practices and inadequate change management strategies at the school level. While headteachers' leadership styles are critical for driving educational reforms, their effectiveness is often constrained without systematic approaches to managing change, such as communication, stakeholder engagement, professional development, monitoring and evaluation. This gap may limit the uniform adoption and effective implementation of Ghana's Common Core Programme across schools in the Ho Metropolis. The study investigated the mediating role of change management strategies in the relationship between headteachers' leadership styles and the implementation of the Common Core Programme in Ho Metropolis. The study was underpinned by the full range leadership theory (Bass & Avolio, 1991), change management theory (Lewin, 1947), and the implementation theory (Maskin & Sjostrom, 2001). The study was guided by the positivist research philosophy and quantitative approach was employed using explanatory research design. The sample size was 415, comprising 56 headteachers, and 359 public JHS teachers selected through census and proportionate stratified sampling technique respectively. Data were collected using a validated structured questionnaire for headteachers' leadership style ($\alpha = 0.94$), change management strategies ($\alpha = 0.93$), and curriculum implementation ($\alpha = 0.89$) with overall reliability of ($\alpha = 0.97$). The findings from the Partial Least Squares Structural Equation Modelling (PLS-SEM), it was revealed that headteachers' leadership styles ($\beta = 0.289$, $T = 5.266$, $p = 0.000$) significantly influence on the implementation of the Common Core Programme. Similarly, change management strategies ($\beta = 0.498$, $T = 10.38$, $p = 0.000$) significantly influence the implementation of the Common Core Programme. Importantly, it was revealed that change management strategies ($\beta = 0.276$, $T = 8.742$, $p = 0.000$) significantly mediate the relationship between headteachers' leadership styles and the implementation of the Common Core Programme. The study concluded that effective implementation of the Common Core Programme is best achieved when leadership styles are complemented by robust change management strategies such as communication, stakeholder engagement, professional development, and monitoring and evaluation. It is recommended that the Ho Metropolitan Education Directorate should organize continuous professional development workshops tailored to strengthen headteachers' instructional, transformational, and transactional leadership capacities. The Education Office should ensure that headteachers integrate structured change management practices such as effective communication, stakeholder engagement, and professional development sessions for teachers.

Keywords: Headteachers' leadership styles, Common Core Programme, Curriculum implementation, change management strategies

6. Assessing What We Teach: Bridging Theory and Practice Using Culturally Responsive Sustainable Educational Assessment Strategies

Dr. Simon Ntumi

*Department of Educational foundations, University of Education, Winneba
-West Africa, Ghana*

Corresponding author's email address: sntumi@uew.edu.gh

Abstract

In an era where global educational reforms emphasize equity, relevance, and sustainability, Ghanaian schools face increasing pressure to adopt assessment practices that are both culturally responsive and ecologically sustainable. This study investigated the extent to which culturally responsive assessment (CRA) and sustainable assessment (SA) strategies are being implemented in public basic schools across Ghana's sixteen administrative regions. Guided by the imperative to "assess what we teach," the research adopted a cross-sectional survey design and drew on a nationally representative sample of 1,650 public basic schoolteachers. Data were collected via an online structured questionnaire and analyzed using descriptive statistics and multiple regression techniques. The results indicated high internal reliability across all CRA and SA subscales (Cronbach's $\alpha = 0.80\text{--}0.88$). Mean scores for CRA subscales ranged from 3.76 (Indigenous Knowledge Respect) to 4.10 (Inclusive Item Design), while SA subscale scores ranged from 3.68 (Tech-Enabled Assessment Sustainability) to 4.01 (Feedback & Feedforward Practices), suggesting moderate to high levels of implementation. Multiple regression analysis revealed that professional development in assessment significantly predicted both CRA ($\beta = 0.14$, $p < .001$, $\eta^2 = 0.018$) and SA ($\beta = 0.15$, $p < .001$, $\eta^2 = 0.020$) practices. Other key predictors of CRA included years of experience ($\beta = 0.10$, $p < .001$), gender ($\beta = 0.08$, $p = .002$), technology use ($\beta = 0.11$, $p < .001$), and attitudes toward inclusion ($\beta = 0.09$, $p < .001$). For SA, additional significant predictors included environmental consciousness ($\beta = 0.12$, $p < .001$), use of ICT tools ($\beta = 0.13$, $p < .001$), and curriculum adaptability ($\beta = 0.11$, $p < .001$). The regression models explained 27.4% and 28.6% of the variance in CRA and SA practices, respectively. The findings underscore the critical role of contextually grounded professional development, inclusive pedagogical orientations, and environmentally conscious assessment strategies in fostering equitable learning environments. This study provides actionable insights for policymakers, curriculum developers, and teacher educators committed to bridging theory and practice through culturally responsive and sustainable assessment frameworks in Ghanaian basic schools.

Keywords: culturally responsive assessment, sustainable assessment, basic education, Ghana, professional development, equity in education

7. Ghana's Between Crisis and Transformation: The Political Economy of Ghana's 1987 Educational Reforms in Historical Context, 1981-1992

Isaac Ocran¹, John K. Osei-Tutu², & Anitha Oforiwah Adu-Boahen³

¹*History Teacher, Swedru Business School, Swedru*

²*Department of History and Archaeology, Norwegian University of Science and Technology*

³*Department of History Education, University of Education, Winneba (Ghana)*

Corresponding author's email address: ocranisaac606@gmail.com

aoaboahen@uew.edu.gh

Abstract

This paper critically examines Ghana's 1987 educational reforms implemented under Flight Lieutenant Jerry John Rawlings' Provisional National Defence Council (PNDC) government from 1981 to 1992. Using a multidisciplinary approach that combines archival analysis, policy review, and oral history interviews with retired educators, this study investigates the contextual factors, implementation strategies, and outcomes of these transformative reforms. The research reveals that the 1987 reforms arose from a complex interplay of colonial legacy issues, economic crisis, and political ideology. Building on earlier unsuccessful reform attempts (1951-1974), the PNDC government restructured Ghana's pre-tertiary education from a 17-year system (6-4-7) to a 12-year system (6-3-3), emphasising technical and vocational skills alongside traditional academic subjects. The reforms were supported by World Bank structural adjustment programmes and aimed to align education with Ghana's socio-economic needs while progressing the government's socialist transformation agenda. The study concludes that while the 1987 reforms represented Ghana's most comprehensive educational transformation since independence, their mixed outcomes highlight the complexity of implementing educational change within broader socio-economic and political contexts. The findings contribute to understanding educational policy implementation in developing nations and inform contemporary education reform initiatives.

Keywords: Transformation, educational reforms, political economy, post-independence

8. Advancing Teacher Professionalism: Policy, Practice, and Impact on Education in Ghana

Dr. Christian Addai-Poku¹, Prof. Isaac Boateng² & Rev. Prof. Alexander K. Edwards³

¹*National Teaching Council, Accra*

²*AAMUSTED, Kumasi*

³*IERIS, UEW Winneba.*

Corresponding author's email address: christian.addai-poku@ntc.gov.gh

Abstract

Teacher professionalism is increasingly acknowledged as a critical driver of quality education and sustainable national development. This paper examines the initiatives of the National Teaching Council (NTC) of Ghana in establishing and strengthening teacher professionalism through regulatory frameworks, standards, and continuous professional development (CPD). It situates professionalism not only as compliance with standards but as a transformative process that elevates teaching to the status of a highly respected and accountable profession. The analysis is based on policy frameworks, national professional standards, and the institutional mechanisms developed by the NTC. Key areas examined include teacher licensing, registration, and CPD as mechanisms for assuring competence, ethical practice, and lifelong learning. The professional standards developed by the NTC define expectations in knowledge, practice, and ethics. Teacher licensing and registration are highlighted as accountability measures ensuring teachers meet minimum competency benchmarks. CPD is presented as a dynamic tool for equipping teachers with adaptive skills for curriculum reforms, technological innovations, and inclusive education. Challenges such as inadequate resources, institutional bottlenecks, and practitioner resistance are discussed. The paper argues that addressing these barriers requires cultural and attitudinal change, supported by strong collaboration with teacher unions, educational leaders, and local communities. The paper concludes that teacher professionalism, as advanced by the NTC, is both a national priority and a catalyst for achieving Sustainable Development Goals related to education. Positioning teachers as reflective practitioners, ethical role models, and agents of change, Ghana's approach offers valuable lessons for global educational reform and teacher quality enhancement.

Keywords: Teacher professionalism, National Teaching Council, professional standards, continuous professional development, educational reform, Ghana.

9. Exploring Internationalization in Teacher Education: A Systematic Review

Paul Acheampong (Ph.D)

Educational Planning and Administration, KNUST

Corresponding author's email address: acheampong28@gmail.com

Abstract

Teacher education has become part of the internationalization process and as such its activities in the areas of the delivery and the provision of teaching and learning as well as research and other collaborative activities can no longer be strictly viewed within the confines of a country. This systematic review explores the internationalization of teacher education programmes, focusing on initiatives, challenges, and outcomes in teacher educational institutions. A comprehensive search yielded sixteen (16) studies that met the inclusion criteria. Internationalization requires curriculum revision, faculty development, students' mobility programs, and partnership with international institutions. Understanding and addressing cultural dimensions are vital for creating a culturally inclusive teacher education environment, promoting cultural competencies, and ensuring the success of international students and faculty. Limitations include keeping records of international students enrolled, their countries of origin and languages spoken, language proficiency, cultural adaption, visa and immigration status, and research and scholarship opportunities. Resource constraints and funding limitations are major impediments of internationalization of teacher education programmes. Internationalization outcomes include enhancement of language proficiency and communication skills, improve academic success, increase cultural understanding and exchange, offer better support for international students and faculty, and enhance institutional reputation and global competitiveness.

Keywords: Internationalization, Teacher education, Internationalization initiatives, Internationalization challenges, and Internationalization outcomes.

10. Unleashing Teacher Potential in Bridging Learning Gaps in Ghanaian Basic Schools: The Role of Teachers' Continuous Professional Development

Dr. Nelson Amponsah

Department of Educational Administration and Management, University of Education, Winneba School of Education and Life-Long Learning

Corresponding author's email address: nelamponsah@uew.edu.gh

Abstract

The disparities in learning outcomes among learners is a concern for many African nations, including Ghana. To enhance learning outcomes in their respective territories, governments have consequently put in place a number of policies, programmes, and interventions. Numerous

studies underscore the value of supporting teachers' ongoing professional development in enhancing learners' learning outcomes. Although continuous professional development (CPD) for teachers in Ghana's pre-tertiary education system is not new, attempts to transform and maximize teachers' potential through CPD accelerated after the 2019 education reforms were implemented. The Ghana Teacher Standards (GTS), one of the core reforms, aim to improve learner learning outcomes and provide standards for evaluating the quality of teachers. Therefore, this study was premised on the assumption that learning outcomes of Ghanaian basic school learners would improve if the CPD of teachers is improved. The study adopted the National Teaching Council's (2020) GTS as its theoretical framework. It was a quantitative study underpinned by the positivist paradigm and employed the causal-comparative research design. The study involved 1028 respondents, including 643 teachers and 385 learners, who were selected through proportionate stratified random sampling technique. Data was collected through questionnaires and achievement tests, which was analysed using the structural equation modelling (SEM) analytical technique with the aid of AMOS version 26. Prior to data collection, the reliability of the questionnaire and its construct validity were assessed through internal consistency and exploratory factor analysis (EFA) respectively. The results of the study indicated that, generally, the level of CPD among the teachers was very high. Additionally, the study discovered that, the CPD of the teachers contributed significantly to learners' learning outcomes. Based on these results, the study concluded that efforts made to enhance the CPD of the teachers have yielded desirable results in terms of learning outcomes among learners. Therefore, the study recommended that the Ghana Education Service and other relevant agencies like the National Teaching Council (NTC) and the National Schools Inspectorate Authority (NaSIA) should sustain and reinforce the CPD of the teachers to help bridge the learning gap of basic school learners in Ghana.

Keywords: Continuous professional development, learning outcomes, basic schools, education reforms, Ghana Teacher Standards

11. Power to the Learners: Adopting Critical Pedagogies in the Ghanaian SHS Literature-In-English Classroom

Ms. Grace Danquah

Department of English Education, University of Education, Winneba

Corresponding author's email address: gdanquah@uew.edu.gh

Abstract

Critical pedagogy, often defined as transformative pedagogy, pedagogies of resistance, or emancipatory literacy, foregrounds the sociopolitical dimensions of teaching and learning, with significant inferences for classroom practice. This paper explores the importance and implementation of critical pedagogy in the Ghanaian Senior High School (SHS) Literature-in-English (LiE) classroom. The study focused on two objectives: first, to interrogate

how critical pedagogical perceptions redesign understandings of whose voices matter, the purposes of literature, and the shifts in teaching approaches they demand; and second, to recommend pathways for applying critical pedagogy in SHS LiE instruction. To achieve these objectives, ten elective LiE teachers from three SHSs were purposively sampled. Classroom observations and semi-structured interviews revealed that, while traditional teacher-centred approaches continue to dominate in most classrooms for various reasons, integrating the tenets of critical pedagogy nurtures deeper student engagement, augments participation, and endorses dialogic, problem-posing modes of learning that position learners as active agents in their education. The study concludes that LiE should not be reduced to a decontextualized cognitive exercise but embraced as an avenue for cultivating critical awareness and empowering students with pertinent skills beyond the classroom. This work contributes to discussions on critical pedagogy in the Ghanaian educational contexts and highlights its potential to transform LiE teaching and learning in Ghanaian SHSs.

12. A Bibliometric Review of Teacher Assessment and Feedback Literacy in the Era of GEN AI: Lessons Learnt and Opportunities for the Global South

Christopher Sam^{1*}, Winston Kwame Abroampa², Dennis Glover³ & Michael Brem Quansah⁴

¹Department of Teacher Education, Faculty of Educational Studies, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

² University of Media, Arts and Communication, Accra, Ghana

^{3,4}Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Corresponding author's email address: csam4701@gmail.com

Abstract

The advent of Generative Artificial Intelligence (AI) in education has transformed teachers' roles in designing, implementing, and interpreting assessments, as well as in delivering feedback to students in a post-pandemic environment. Yet, there is a dearth of studies on how scholarships from the Global North and the Global South are contributing to promoting effective assessment and student feedback in a Generative AI era. To address this gap, this study employed a bibliometric methodology to map global trends in teacher assessment and feedback literacy research to highlight lessons and opportunities for higher education development in the Global South. The data for the study were obtained from Elsevier's Scopus Database using Keyword strings related to "assessment literacy", "teacher assessment", "feedback literacy", "formative assessment", "educational assessment", and "teacher evaluation". The literature search was limited to articles published between 2020 and 2025. The search results yielded 1520 publications, which were reduced to 1,046 after non-English speaking and duplicate articles were excluded. Bibliometric techniques were applied, and analyses were conducted using VOSviewer software Version 1.6.20 to generate

descriptive statistics, citation patterns, collaboration networks, and keyword co-occurrence maps. Evidence from the synthesis of literature revealed that highly cited works focused on formative assessment, student feedback practices, learning analytics, pedagogy, and educational technology. Co-authorship and institutional networks show strong collaboration clusters in the Global North, with limited representation from Africa and Latin America. Nevertheless, studies from the Global South could provide important contextual insights, particularly on infrastructural challenges, capacity building, and digital divides. The limited visibility of Global South perspectives may hinder knowledge exchange, policy innovation, and capacity building in higher education. Premised on the foregoing, the authors recommend that higher education policymakers and stakeholders in the Global South strengthen investments in digital infrastructure, faculty training, and international collaborations to enhance teacher digital feedback and assessment literacy. These efforts will not only bridge knowledge gaps but also offer actionable insights for HEIs in Ghana and other African countries as they strive towards achieving Sustainable Development Goal 4, which aims to ensure inclusive, quality education.

Keywords: Teacher assessment; feedback literacy; Higher education; Bibliometric review; Global South; Pedagogy; Innovation

13. Why Teaching aspects of High School Economics is Difficult: Unpacking Teacher Attributions of Curriculum, Student, Teacher, and Resource Factors

Alex Tetteh¹, Bernard Yaw Sekyi Acquah², Peter Anti Partey³

¹University of Education, Winneba, ^{2,3}University of Cape Coast, Cape Coast

Corresponding author's email address: atetteh@uew.edu.gh^{2*}

Abstract

High school Economics teachers consistently report that certain topics in the curriculum are difficult to teach, yet the underlying causes, particularly, from teachers' own perspectives, have received limited scholarly attention in Ghana. Without this insight, interventions designed to support teachers may be misaligned with their actual challenges. This study therefore sought to use the *attribution theory* as a basis to examine teacher-perceived causes of the difficulties in teaching high school Economics and to further determine which category of causes (curriculum-related, student-related, teacher-related, or resource-related) most strongly predicts overall teaching difficulty. Being a quantitative, cross-sectional descriptive survey, a structured questionnaire was administered via Google Forms to members of the Ghana Economics Teachers Association (GETA). Out of an accessible population of 552 high school Economics teachers, 236 voluntarily responded to the questionnaire. Descriptive statistics, involving frequencies, means, and standard deviations, will be used to examine the most frequently perceived causes, while multiple regression analysis will be used to test the predictive power of each category of causes on overall teaching difficulty. Although the

literature emphasises curriculum demands, student preparedness, and resources as the main attributions for teaching difficulties, preliminary insights from this study appear to reveal a departure from this pattern: participants seem to acknowledge their own preparation as a contributing factor. The anticipated findings will provide evidence-based directions for policy and practice, including curriculum review, targeted teacher professional development, and resource allocation. Such interventions will better align with the lived experiences of teachers and enhance the teaching and learning of Economics at the high school level.

Keywords: teacher perceptions, Economics education, teaching difficulties, attribution theory, curriculum

14. Character and Virtue Development Through Service Opportunities: A Mixed Methods Study Among Student and Faculty Leaders

Ebenezer Hagan, PhD¹, Kwame Agbeshie²

¹*Biola University, California USA, Youth Ministry Director, The Church of Pentecost*

²*BA, Pentecost University, BPH, University of Ghana, PENSA Campus Pastor*

Corresponding author's email address: ekumfiasaafal2345@gmail.com)

Abstract

Character and virtue development is crucial for positive human behaviour and flourishing. However, Ghana is grappling with moral decadence and spikes in vicious behaviour issues among its citizenry, young and old people alike. Literature points to increasing levels of bribery and corruption, indecent dressing, deviant behaviour, disrespect for leaders and the elderly, sexual perversion and harassment, examination malpractice, and unprofessionalism among others. Efforts to promote morality through traditional education have not yielded much, thereby necessitating a search for other innovative but effective approaches to character and virtue development. The study is framed by the concept of human flourishing, which is multifaceted and encompassing, providing a converging point for various disciplines. With its place as a grand *telos* of character and virtue development, human flourishing provides a common confluence where character and virtue development touches other disciplines such as the field of teaching and learning. This study aims to explore how service opportunities, especially service through leadership roles, facilitate character and virtue development, and how this relates with teaching and learning. And it is guided by two main research questions: 1) How does service through leadership roles in formal educational settings facilitate character and virtue development among students and faculty? 2) How does character and virtue development through service in the formal educational environment contribute to the achievement of the general objectives of teaching and learning? The study employs a mixed methods design to engage faculty and students in selected tertiary institutions in Ghana through questionnaires with close-ended and open-ended questions. Analyses of quantitative data and reporting shall employ descriptive statistics

from the questionnaire items. For qualitative data, thematic analysis shall be used. The study's findings will be generated from triangulations of both quantitative and qualitative data to provide insight into how leadership through service in the educational environment promotes character and virtue development.

Keywords: Character, Virtue, Development, Service, Leadership, Teaching, Learning.

15. The Role of Participative Leadership in Enhancing Teacher Creative Thinking and Instructional Effectiveness

John Opoku (Doctoral student), Rev. Prof. Alexzander K. Edwards

AAMSTED Kumasi Campus

Corresponding author's email address: johop16@yahoo.com

Abstract

This study was conducted in the Kwadaso Municipal Assembly in Kumasi using purposive and simple random sampling techniques. A mixed-method approach was adopted. Quantitative data from 261 teachers and 18 headteachers were analyzed using descriptive statistics to test the objectives, with correlations applied to examine relationships and regression analysis to determine the extent of effects. In addition, 26 teachers were observed and analyzed manually, while one teacher interview item was manually reviewed for deeper insights. Eighteen headteachers responded to both interview and questionnaire items, with qualitative data analyzed using Atlas.ti software. The findings, presented in Table 4.11, indicate a strong positive correlation between participative leadership and both creative thinking as well as teachers' instructional preparedness. For creative thinking, participative leadership showed a high and statistically significant coefficient ($r = 0.825$, $p = 0.000$), suggesting that greater participative leadership enhances innovative and adaptive thinking. Similarly, participative leadership strongly correlated with instructional practices ($r = 0.926$, $p = 0.000$), showing that shared leadership arrangements improve instructional delivery, lesson implementation, and teaching quality. The intercepts of the models reveal that in the absence of participative leadership, creative thinking remains statistically significant (0.744), while instructional practices (0.388) may depend on other determinants beyond leadership. These results underscore the pivotal role of participative leadership in fostering creativity and instructional effectiveness among teachers.

Keywords: Creative thinking, instructional preparedness, participative leadership

16. Transformational Leadership, Job Satisfaction, and Union Commitment among Senior High School Teachers in Ghana

Dr. Christian Addai-Poku¹ & Rev. Prof. Alexander K. Edwards²

¹ *National Teaching Council, Accra*

² *IERIS, University of Education, Winneba - Ghana*

Corresponding author's email address: christian.addai-poku@ntc.gov.gh

Abstract

Ghana has since independence embarked on educational policies and reforms aimed at improving access and quality of education. However, the standard has hovered around average over the years. Education leaders and teachers are known to be major players to securing higher standard of education. Job satisfaction is believed to be a major player in propping up performance in organisations. Teacher unions are considered the vanguards that protect and promote better conditions of work for teachers as they engage leaders of education in negotiations. The purpose of the study was to investigate how variables such as transformational leadership of heads of Senior High Schools, job satisfaction and union commitment of teachers interacted within the education industrial environment. Design was Correlational. Instruments for the study were adapted from the Multifactor Leadership Questionnaire, Generic Job Satisfaction Scale and Union Commitment Scale. A randomly sampled population of 400 teachers from 20 randomly selected senior high schools in the Ashanti Region of Ghana participated in the study. Using correlational design, descriptive statistics and Partial Least Squares Structural Equation Modelling the variables were measured, the interaction between the exogenous and endogenous variables ascertained and mediation analysis conducted. The study revealed a significant correlation between transformational leadership and job satisfaction of teachers. The study also established a partial mediation in the construct as job satisfaction intervened in the relationship between transformational leadership and union commitment. The study recommended coaching and continuous professional development (CPD) for heads of senior high schools and teachers. Leadership should consider conditions of work of teachers, improvement in the relationship between teacher unions and school leadership for industrial harmony among others by GES.

Keywords: Transformational Leadership, Job Satisfaction, Union Commitment, Senior High School Teachers, Ghanaian Education

17. Promoting Injury Prevention Awareness through Physical Education: Insights From Ghanaian Basic Schools

Dr. Simon Kormla Donkor

*University of Education, Winneba, Faculty of Education and Lifelong Learning,
Department of Basic Education*

Corresponding author's email address: ksdonkor@uew.edu.gh

Abstract

Injury prevention is a critical component of child and adolescent health, particularly in school settings where physical activity is part of the curriculum. Physical Education (PE) classes offer a unique platform for fostering injury prevention awareness through instruction in proper techniques, safety measures, and self-care practices. This study explored how injury-prevention awareness is promoted through physical education in basic schools. Guided by the Health Belief Model (HBM), a qualitative phenomenological research design was utilized. Twelve PE teachers and students from four schools were purposively sampled to capture diverse perspectives. Data were collected through semi-structured interviews guide and observation checklist. The interview data was analysed through thematic analysis and the observation was analysed using frequency counts. The findings revealed that Physical Education promotes injury-prevention awareness through warm-ups, safe-movement instruction, injury-awareness discussions, and peer responsibility, but its effectiveness is constrained by resource shortages, limited teacher training, large class sizes and cultural attitudes that normalize injuries. The study concludes that PE plays a significant role in promoting injury prevention awareness, and recommends integrating structured injury-prevention modules, continuous teacher training, and improved resource allocation.

Keywords: physical education, injury prevention, awareness, safety, health promotion, barriers

18. An Exploration of Holistic Learning of Students through Co-Curricular Activities: The Akuapem Experience

Kwadwo Twum Ampofo

Department of Educational Foundations, University of Education, Winneba

Corresponding author's email address: kwadwotwumampofo1989@gmail.com

Abstract

Research is conclusive that co-curricular activities play a significant role in a student's holistic development. Yet, scant literature exist that provides empirical data to explain how co-curriculum provides holistic learning experiences for learners in Senior High Schools. To fill this gap, this study explored co-curriculum practice in a notable school in the Akuapem of Ghana to gain a nuanced understanding of how co-curricular activities influence students'

holistic development. The study draws on Bronfenbrenner's Bio-ecological System Theory to examine the 'whats' the 'hows' and 'whys' of co-curriculum, whilst exploring challenges that impede its successful implementation. A qualitative instrumental case study design was used for the research which relied on observation and interview data. Purposive sampling technique was used to select the school as a case, and 24 other research participants. Data generated were in the form of audio, texts, and images and were analyzed with the use of Taguette, an open-source qualitative data analysis software. The study found 21 varying co-curricular activities that engage students' attention with the overall purpose of students' holistic development dubbed - 3H (Head, Hand, and Heart). This finding is discussed in line with Bronfenbrenner Bio-ecological System Theory to conclude that, the case school in Akuapem provides an ecology of educational experiences that promote holistic development of students. The study discovered that co-curricular activities develop the cognitive, psycho-motor and affective domains of the individual. The study recommends for these experiences to be sustained in the school, while the Ghana Education Service and Ministry of Education provide the needed resources for other schools to follow the example.

Keywords: Holistic learning, Learning experience, Co-curriculum, Akuapem experience

19. Re-thinking the Teaching of French in Senior High Schools to Enhance Foundational Literacy for Sustainable Development

Benedicta Ataa Owusu

Department of Teacher Education, KNUST, Ghana

Corresponding author's email address: beneteeta@gmail.com

Abstract

The research explored the acquisition of indirect object pronominalization among Ghanaian L2 Students of French. Specifically, this study investigated the errors and difficulties high school students have in using indirect object pronouns, using a Senior High School in the Greater Region as a case study. The target population comprised third-year learners studying French at the case Senior High School from which Forty-five (45) participants were selected using a simple random sampling technique. The instruments used for data collection consisted of a test. The responses from the test indicates that the errors made by students in indirect object pronominalization include pronoun placement errors, using *leur* instead of *lui* for a singular indirect object, using "*lui*" for a plural indirect object and using a direct object pronoun in place of the indirect object pronoun. To address the identified issues, the study implemented the ADDIE's model intervention plan. The post-intervention results demonstrated a substantial improvement in the appropriate usage of French pronouns by the French Students. The study recommends French teachers to conduct regular formative assessments to monitor French students' progress in using indirect object pronouns. French

Teachers in Senior High Schools should design targeted instruction that addresses the specific errors and difficulties identified in the study. This will, provide focused lessons on pronoun placement, distinguishing between lui and leur and understanding number agreement can significantly enhance French students grasp of indirect object pronominalization. This outcome has positive implications for French Students in Senior High School's foundational literacy which has a bearing on the Ghana's achievement of Sustainable Development Goal 4.

Keywords: French teaching, pronominalization, Senior High School, SDG, Foundational literacy

20. Pre-Service Teachers' Perceptions of using the First Language to support instruction in Early Grade Classrooms: insights from Accra College of Education, Ghana

Faustina Quist¹ & Selina Nana Simpson^{2*}

^{1,2}*Accra College of Education*

Corresponding author's email address: s.simpson@acce.edu.gh

Abstract

Although policies in Ghana promote the use of the first language (L1) in early grade classrooms, little is known about pre-service teachers' perceptions and preparedness, leaving a gap between policy aspirations and teacher education practice. This gap is significant because pre-service teachers represent the future teaching workforce, and their views are central to bridging the divide between policy and classroom realities. The purpose of this study was to examine pre-service teachers' perceptions of using the first language to support instruction in early grade classrooms at Accra College of Education, Ghana. Specifically, it explored their views on the benefits of L1 instruction, the adequacy of their training for bilingual pedagogy, and the challenges they anticipate in classroom implementation. A descriptive survey design was employed, involving 36 pre-service teachers who completed a structured Likert-scale questionnaire. Data were analysed using frequencies, percentages, means, and standard deviations to provide a comprehensive picture of respondents' perspectives. Findings indicated that pre-service teachers held highly positive perceptions of L1 instruction. They agreed that the use of mother tongue enhances comprehension, promotes cultural identity, improves classroom participation, and eases transition to English-medium learning. Regarding training, participants reported general preparedness in lesson planning and classroom practice but identified notable gaps in managing multilingual classrooms and in receiving adequate guidance on the National Literacy Acceleration Programme (NALAP). Anticipated challenges included limited teacher fluency in local languages, inadequate instructional resources, and parental resistance. Issues such as class sizes, weak policy enforcement, and the prestige of English were perceived as less pressing. The study concludes that while pre-service

teachers' value and recognize the importance of L1 instruction, systemic barriers hinder its effective adoption. Addressing these barriers requires embedding more practical bilingual pedagogy within teacher education curricula, strengthening institutional support, and ensuring the provision of adequate teaching and learning resources. Additionally, community sensitization and engagement are necessary to address parental resistance and foster broad-based support for bilingual education. These findings have important policy implications. They highlight the need for closer alignment between Ghana's teacher education programs and the language-in- education policies articulated in reforms such as the National Literacy Acceleration Programme and the Education Strategic Plan (2018–2030). By amplifying pre-service teachers' perspectives, the study provides insights that can inform curriculum development, resource allocation, and teacher professional development, thereby enhancing the sustainability and effectiveness of bilingual education in Ghana's early grade classrooms.

Keywords: pre-service teachers, first language instruction, bilingual pedagogy

21. Reimagining Scaffolding in Marginalized Contexts: Equity-Oriented Praxis and Postcolonial Perspectives in Early Grade Classrooms

Faustina Quist¹ & Emmanuel Dwamena²

¹*Department of Educational Studies Accra College of Education*

²*Neag School of Education, University of Connecticut*

Corresponding author's email address: f.quist@acce.edu.gh

Abstract

Global initiatives such as SDG4 have expanded formal school enrolment across the Global South, yet this physical access has not translated into meaningful learning outcomes. In Ghana and much of Sub-Saharan Africa, significant numbers of children complete the early grades of primary school without attaining foundational literacy and numeracy skills. This paradox highlights a deeper crisis of *epistemological access*—the capacity of learners not merely to attend school but to meaningfully engage with and benefit from the knowledge and skills education promises. The persistence of this crisis is rooted in the enduring coloniality of education systems: curricula that are alien to learners' socio-cultural realities, pedagogies transplanted from resource-rich Western contexts, and languages of instruction unfamiliar to most children. These systemic features constitute forms of epistemological violence that marginalize indigenous cultural capital and alienate learners from meaningful participation. Against this backdrop, this study interrogates the practice of instructional scaffolding in under-resourced public early grade classrooms in Ngleshie-Amanfro, within the Ga-South municipality of Ghana. Conventionally defined as temporary support provided to bridge learners' current and potential abilities, scaffolding is often understood as a cognitive-technical process. However, this perspective risks obscuring the socio-political dimensions of how

scaffolding unfolds in marginalized, postcolonial contexts. Employing an interpretivist, qualitative case study design, the research drew on semi-structured interviews and classroom observations to examine how facilitators navigate systemic constraints in their instructional practices. The findings reveal that facilitators employ culturally resonant strategies such as oral storytelling, peer-mediated learning, and the creative use of local artefacts to scaffold instruction. Far from being mere improvisations under scarcity, these practices emerge as intentional, equity-oriented responses that validate learners lived experiences and challenge the Western-centric epistemology embedded in the formal curriculum. Interpreted through the lenses of postcolonial theory, Bourdieu's concept of cultural capital, and culturally responsive pedagogy, these adaptive strategies are reconstituted as socio-political acts of resistance that create alternative pathways toward epistemological access. The study contributes to theory and practice by advancing a decolonial conception of scaffolding that positions it as a site of contestation and transformation. It demonstrates how reimagined scaffolding practices can function as tools for advancing epistemological justice in Global South classrooms. By reframing scaffolding as equity-oriented praxis, the research underscores the urgency of developing pedagogical strategies that are both contextually grounded and socially just, offering critical insights for policy, teacher education, and classroom practice.

Keywords: Instructional scaffolding, early grade classrooms, culturally responsive pedagogy, decolonial education, epistemological justice.

22. Interpreting Grief Through Language: An Analysis of the Gricean Maxims on the Kokrokoo Morning Show Discussion on Peace FM Following the Fatal Ghanaian Helicopter Crash

Mark Abbey

School of Communication and Media Studies – UEW

Corresponding author's email address: macusmarkabbey@gmail.com

Abstract

This paper investigates how grief, mourning, and communal trauma are linguistically mediated in public discourse in Ghana, focusing on Kokrokoo Morning Show on Peace FM following the helicopter crash in August 2025 that claimed eight lives. Using Grice's Cooperative Principle and its four maxims—Quantity, Quality, Relation, and Manner—as the theoretical framework, this study examines how panel members on the show adhere to, flout, or violate these maxims in expressing grief, blame, and solidarity. A qualitative content analytic method is used: selected episodes from the show (August–September, 2025) were transcribed and analysed for maxim observance or flouting. Findings show frequent flouting of the maxims of Quality and Quantity (euphemism, omission, vagueness) as well as manipulation of Relation (shifting blame or responsibility) and Manner (use of metaphor, proverbs). These pragmatic strategies

reflect cultural norms of respect, the emotional difficulty of directly naming and discussing death, and the collective processes of mourning. The study contributes to pragmatics by illustrating how maxims are not fixed rules but flexible tools in emotionally laden public speech, and to Ghanaian media studies by highlighting how radio talk shows negotiate national loss.

Keywords: Gricean maxims, grief, mourning, Ghana, public discourse, radio talk show, pragmatic analysis

23. From Home to School: Assessing the Alignment between Community Language Practices and Standards-based Curriculum Implementation for Early Grade Learners in Multilingual Contexts in Ghana

Davis Mawuena Aweso

National Centre for Research into Basic Education, University of Education

Corresponding author's email address: dmaweso@uew.edu.gh

Abstract

This qualitative study investigates the alignment between community language practices and standards-based curriculum implementation for early grade learners in multilingual contexts in Ghana. Despite policy commitments to mother tongue-based multilingual education and explicit language provisions in Ghana's standards-based curriculum, persistent challenges remain in implementation, particularly in multilingual classrooms where teachers face complex decisions about language use. This research addresses critical gaps in understanding how community linguistic resources interact with curriculum implementation across different multilingual contexts. Employing a multiple case study design grounded in interpretive and constructivist epistemology, the study examines three distinct multilingual contexts: Winneba (coastal community with dominant Efutu language), Kasoa (rapidly urbanizing peri-urban area with multiple migrant languages), and Accra Central (urban environment with high linguistic diversity). Data will be collected from 27 primary participants including 9 children (ages 6-8), 9 early grade teachers, and 9 parents/caregivers through semi-structured interviews, ethnographic classroom observations, and document analysis. Thematic analysis following Braun and Clarke's framework will be employed to analyze interview transcripts and observation notes using NVivo software. The research addresses seven key questions exploring how community language practices shape children's preparedness for curriculum implementation, challenges teachers face in multilingual classrooms, parental perceptions of home-school language relationships, patterns of alignment between community linguistic resources and curriculum requirements, and the impact of language practice differences on children's engagement with foundational literacy concepts. Findings will directly inform language policy in Ghana on language of instruction, curriculum adaptation, and teacher preparation programmes. The study contributes to global scholarship on multilingual

education by providing detailed case study evidence from Sub-Saharan Africa while offering practical guidance for improving educational outcomes in multilingual contexts. The research aligns with Sustainable Development Goal 4, supporting inclusive and equitable quality education for all children in Ghana's diverse linguistic communities.

Keywords: multilingual education, mother tongue-based instruction, standards-based curriculum, community language practices, early grade learning, Ghana, foundational literacy,

24. Perceptions of Senior High School Students and Teachers on the Topics in the Integrated Science Syllabus: A Ghanaian Perspective

Mr. Henry Egyei-Mensah^{1*} & Rev. Dr. Joseph Annan²

^{1,2}Department of Integrated Science Education, University of Education, Winneba, Ghana

Corresponding author's email address: hengymenz@gmail.com

Abstract

The purpose of the study was to determine senior high school (SHS) integrated science topic which are perceived to be difficult to teach by teachers and difficult to understand by students, whether the perception is gender related or teacher expertise-related and how to address such observed difficulties to improve students' performance. This study explored students' and teachers' perceptions of integrated science topics in the senior high school integrated science syllabus. The Objectives of the study were, to identify perceived difficult topics in the Integrated science syllabus among students, and their teachers, reasons by teachers for the perceived difficult topics to teach and comparison of students' perceived topic difficulty based on gender. TO achieve this, the descriptive survey method was employed in the collection of data from 207 SHS three (3) students and their 18 integrated science teachers in two schools within the Cape Coast Metropolis in Ghana who were purposively sampled for the study, The instruments used were questionnaires for both teachers and students. Data collected was analysed through the application of t-test, mean, standard deviation, and percentages, using the statistical package for social science (SPSS). The study revealed that biotechnology, endogenous technology, atmosphere and climate change, hydrological cycle, and nuclear energy (5 out of 48 topics) are the most perceived difficult topics to understand by students. Integrated science teachers expressed reasons for some perceived difficult topics to teach. The study also established no significant difference in topics perceived to be difficult by male and female students, 80th students and teachers expressed diverse levels of perceived difficulty in integrated science topics in the syllabus. The authors therefore, recommended that the Management. Science heads of departments and Integrated science teachers at the sampled schools should review and

simplify identified difficult topics in the integrated science syllabus for easy teaching and understanding by teachers, and students. It was also recommended that as much as possible all stakeholders should help to provide adequate teaching and learning support for integrated science to help in the teaching and learning process so as to improve students' performance.

Key words: perceptions, difficulty, integrated science, students; teachers

25. Perceptions of Public Basic School Teachers About the Integration of Information Communication Technology Tools in Teaching

Mr. Selorm Kwashigah^{1*} Charles Nyarko Annobil², Kwame Odei-Tettey³, & Bernard Mensah Amoako⁴

^{1,3}*Department of Educational Administration and Management, University of Education, Winneba.*

²*Department of Basic Education, School of Education and Life-Long Learning, University of Education.*

⁴*Department of Counselling Psychology in Education, University of Education, Winneba.*

Corresponding author's email address: Selorm.guru@gmail.com

Abstract

This descriptive survey design study aimed to establish teachers' perceptions of integrating Information and Communication Technology Tools (ICTs) in teaching and learning in public basic schools in Ga North Municipality of Ghana. Eighty-four (84) teachers responded to the questionnaire and results were analysed quantitatively using both descriptive and inferential statistics. The study was guided by four research objectives and research questions. The results were analysed using descriptive and inferential statistics. The study revealed that the ICTs were unavailable to the teachers, except few such laptops/personal computers. Also, the majority of the teachers did not use these ICTs frequently because they were incompetent pedagogically in their use. Lack of ICT tools was the main barrier to their integration in instruction. The study revealed a strong positive correlation between the public basic schoolteachers' access to ICTs and the frequency with which they use them. It was recommended to the stakeholders in education to provide support to the schools by supplying them with well-equipped computer laboratories.

Key words: Perceptions, ICTs, Computer, Competence, ICT Integration

26. Using an Electronic Board Game to Improve Academic Performance of Students in Writing Chemical Symbols and Atomic Numbers

Mr. Simon Nderago Amore

University of Education, Winneba, P. O. Box 25, Winneba, Ghana.

Corresponding Author's email address: amoresimon4@gmail.com

Abstract

This study aimed to enhance the ability of first-year Science students at St. John's Grammar Senior High School, Accra, in accurately writing the first thirty (30) elements along with their corresponding chemical symbols and atomic numbers. The research utilized purposive sampling to select thirty-seven participants, consisting of thirty-two (32) males and five (5) females. The research employed a practical action research design and employed various tools including observation, interviews, tests, and questionnaires. The instruments were pre-tested and validated by the researcher's mentor from the Department of Science at St. John's Grammar Senior High School. Initially, a pre-test was conducted to identify students' weaknesses in the subject, facilitating the development of an effective intervention strategy. Following the intervention, a post-test was administered to assess improvements in performance. The analysis revealed a significant difference between the pre-test and post-test results. Specifically, 24.3% of participants (nine students) demonstrated proficiency in the pre-test, whereas 83.8% (thirty-one students) exhibited competence in the post-test. This underscores the positive impact of the electronic board game intervention on students' ability to accurately write the first thirty elements, along with their corresponding chemical symbols and atomic numbers. In conclusion, the study affirmed the beneficial influence of the electronic board game on enhancing students' aptitude in writing the chemical symbols and atomic numbers of the first thirty elements on the periodic table. As a recommendation, educators are encouraged to integrate suitable educational games into their teaching methodologies for various chemistry topics at St. John's Grammar Senior High School, Accra.

Keywords: Electronic board game, Atomic numbers, Chemical symbols

27. Improving Student-Teachers' Conceptual Understanding in Science Through the Use of ICT

Dr. Cosmos Eminah

University of Education, Winneba

Corresponding Author's email address: ceminah@uew.edu.gh

Abstract

The study sought to identify and improve the level of conceptual understanding of student teachers in some selected science concepts. It was conducted using student-teachers from selected colleges of education in Ghana. The sample consisted of 90 student teachers. The main tool used in data gathering was a two-tier questionnaire. Interventions in the form of

ICT-based teaching was employed to improve the respondents' conceptual understanding in three key concepts within the science curriculum for colleges of education. Findings of the study reveal that student teachers held misconceptions in each of these science concepts in the four-year teacher education curriculum. The ICT-based intervention resulted in improved conceptual understanding of the research subjects. It was recommended that science educators should identify the misconceptions of their learners prior to teaching various concepts and also implement the active usage of digital resources in order to eliminate misconceptions and improve conceptual understanding of student-teachers in key science concepts.

Keywords: Students-teacher's conceptual understanding of ICT.

28. Leveraging Assistive Technology to Enhance STEM Learning for Students with Visual Impairment in Inclusive Classrooms in Ghana

Adam Awini, PhD

Department of Special Education, University of Education, Winneba.

Corresponding Author's email address: aawini@uew.edu.gh

Abstract

Despite policy efforts towards inclusion, students with visual impairment continue to face systemic barriers to participating meaningfully in STEM education. This study examines how assistive technologies (AT) are being integrated into STEM instruction in selected inclusive basic schools in Ghana, and their impact on learning engagement and achievement. Using a mixed-methods design, the study involved classroom observations, teacher interviews, and analysis of student performance data. Results show that while teachers are aware of low-vision aids, screen readers, and tactile models, their use remains inconsistent due to a lack of training, infrastructure, and community partnerships. The study recommends targeted professional training, local development of low-cost AT, and school-community collaborations to promote technology-enabled inclusion. These findings have implications for policymakers, school leaders, and teacher education institutions seeking to enhance access and equity in STEM learning.

Keywords: Assistive Technology; STEM Education; Visual Impairment; Inclusive Classrooms; Teacher Training; Ghana

29. STEM Perceptions and Barriers: The Influence of Gender and School Type among Junior High School Learners in the Central Region of Ghana

Dr. Victus Kumazah^{1,*}, Dr. Ethel Ansaah Addae² & Prof. Peter Akayuure³

*^{1,2}Centre for School and Community Science and Technology Studies (SACOST)
University of Education, Winneba.*

Corresponding Author's email address: vkumazah@uew.edu.gh

Abstract

This study explores the perceptions and barriers to Science, Technology, Engineering, and Mathematics (STEM) education among Junior High School (JHS) learners in the Central Region of Ghana, focusing on the influences of gender and school type. The research utilised a descriptive survey design, collecting data from 1,030 learners across both public and private schools. The findings indicate that learners generally held positive perceptions of STEM courses, with the overall mean score suggesting that STEM education is considered valuable and relevant for future opportunities. However, the study revealed a gender disparity in perceptions, with male learners exhibiting a significantly more favourable view of STEM subjects compared to their female counterparts. Additionally, learners attending private schools reported a higher perception of STEM education compared to those in public schools, suggesting that resource availability and school infrastructure influence learners' attitudes toward STEM. Despite the positive perceptions, the study identified significant barriers that hinder learners' engagement with STEM education. Financial constraints, limited access to resources, inadequate mentorship opportunities, and insufficient school infrastructure were highlighted as key challenges. The study found that these barriers, rather than cultural or gendered societal expectations, primarily affect learners' ability to pursue STEM fields. The influence of gender and school type on the barriers faced by learners was also significant, with public school learners reporting more challenges compared to private school learners. The findings call for specific solutions to address these barriers, with a focus on improving resource allocation in public schools, providing mentorship programmes, and fostering an inclusive educational environment that encourages both male and female learners to pursue STEM careers.

Keywords: STEM Perceptions, Gender, School type, Junior High School, Central region of Ghana

30. Social Studies as a Bridger of the Overt and Covert Curriculum in cultivating University-Ready Competencies among Students in Ghana.

Clarke Ebow Yalley^{1*}, Mohammed Adam ² & Samuel Poatob³

^{1,2,3} Department of Social Studies Education, University of Education, Winneba – Ghana

Corresponding Author's email address: ceyalley@uew.edu.gh

Abstract

The formal educational curriculum across many educational systems continues to demonstrate significant limitations towards the development of 21st century skills among students. Despite widespread recognition of the changing demands of the global knowledge economy, the overt curriculum which explicitly states the learning objectives, subject matter, pedagogical and assessment practices often remain anchored in the traditional approaches that inadequately prepare students for the contemporary demands, challenges and expectations of global society. The rigid disciplinary boundaries maintained within most overt curricula represent a weakness to students in the development of social skills. Studies have identified substantial gaps between stated curricular objectives, and the actual competencies students develop. Based on this justification, the transformative learning dimension and the utility value of Social Studies education was adapted to explore how the Social Studies curriculum can bridge the explicit academic demands and the implicit social and moral expectations of higher education among students at the University of Education, Winneba. This study adopted a qualitative research design rooted in constructivism philosophical position and the study participants were social studies lecturers at the University of Education, Winneba. Maximum variation purposive sampling was used to increase the likelihood of capturing diverse perspectives. To align with the purpose of the constructivism research design, a semi-structured interview guide was used to allow participants to articulate, express and share their understanding and knowledge on the purpose of the study. Thematic analysis was adapted in analyzing the data. The study revealed that Social Studies enhances critical thinking and analytical skills by engaging students in the interpretation of historical events, evaluation of multiple perspectives, and formulation of logical arguments. Also, the findings of the study revealed that educators embed civic and ethical values into teaching using case studies and real-life dilemmas. These methods help students apply moral reasoning to both social issues and academic situations, thereby nurturing personal responsibility and integrity. It is recommended that social studies educators should adopt learner-centred pedagogies, experiential learning techniques and critical pedagogies to enable students develop essential skills through the bridging of the social studies overt and covert curriculum.

Keywords: Overt Curriculum, Covert Curriculum, Transformative Learning Theory, utilitarian value Theory, Social Studies Education

31. Developing Digital Citizens for a Secure Society: Social Studies as a Lens for Cybersecurity Education

Mohammed Adam¹, Clarke Ebow Yalley^{2*}, Ameyaw Jacob³, Arthur Ernest Nana Kwame⁴, Okumo Gloria⁵, Appiah Amankwah Christina⁶, Adomako Kezia Sarpomaa⁷

^{1,2,3,4,5,6,7} *Department of Social Studies Education, University of Education, Winneba.*

Corresponding Author's email address: ceyalley@uew.edu.gh

Abstract

The rapid digitalisation of contemporary society has introduced significant opportunities alongside pressing risks, particularly for the youth whose online engagement often exposes them to cyberbullying, identity theft, scams, and fraudulent practices. In Ghana, these challenges are intensified by limited formal instruction in cybersecurity within non-technical subjects, leading to insufficient ethical awareness and responsible online conduct among students. As a result, this study sought to examine how Social Studies education can be harnessed to promote cybersecurity awareness, ethical digital behaviour, and responsible digital citizenship among students. Guided by Ribble's digital citizenship theory, this research adopted a qualitative approach with a phenomenological design and engaged nine (9) lecturers from the Department of Social Studies Education at the University of Education, Winneba. Interviews were conducted using a semi-structured interview guide to capture participants' experiences and perspectives on integrating cybersecurity education into Social Studies instruction. Thematic analysis revealed that although Social Studies already nurtures civic values, moral reasoning, and critical thinking, its potential to address digital misconduct remains largely untapped. Lecturers identified specific courses such as Citizenship and Human Rights, Democracy and Nation Building, and Youth and Civic Ideals as effective platforms for embedding digital ethics and online responsibility. Findings also highlighted persistent gaps, including students' weak digital literacy, poor understanding of digital rights and responsibilities, and the disconnect between civic principles taught in classrooms and their application in online environments. Participants strongly advocated for curriculum innovation, reflective teaching, and project-based learning approaches to bridge these gaps. The study concludes that reorienting Social Studies to reflect digital realities can significantly contribute to developing responsible digital citizens, thereby supporting national efforts to combat cyber threats and promote safer, more ethical participation in cyberspace.

Keywords: Social Studies, Cybersecurity Education, Digital Citizenship, Ethics, Civic Responsibility, Digital Citizenship Theory

32. Analysis of Psychometric Properties of Teacher-Made Social Studies Assessments in Ghanaian Senior High Schools

Ebenezer Appiah-Kubi¹, Eric Gyasi Mensah², Mohammed Adam^{3*}, Samuel Ofori Bekoe⁴, David Naya Zuure⁵

¹*Enchi College of Education, Enchi*

²*Ofori Panin Senior High School (OPASS) Kukurantumi*

^{3,4,5}*University of Education, Winneba*

Corresponding Author's email address: madam@uew.edu.gh

Abstract

The quality of educational assessment in developing countries such as Ghana remains largely unexamined, particularly for teacher-made instruments that constitute the primary means of assessing student learning at the classroom level. This study examined the psychometric properties of a teacher-made 40-item Social Studies test administered to 530 students in Ghanaian Senior High Schools, with detailed analysis conducted on a random sample of 200 participants. The curriculum aligned assessment assessed learners' knowledge across the three main sections as structured in the 2010 Senior High School (SHS) Social Studies syllabus. Thus, Environment, Governance, Politics and Stability, and Socio-Economic Development. Using a psychometric framework, the study analysed the 40 items based on the following: validity, reliability, item quality, and fairness using established statistical procedures and in accordance with international measurement standards. Content validity was established through systematic curriculum-to-item mapping, showing balanced domain (section) representation. Exploratory factor analysis supported construct validity, revealing a three-factor structure contingent on curriculum domains (sections) ($KMO = 0.81$, 59.1% variance explained). Criterion validity was demonstrated through significant correlation with external mock examination scores ($r = .220$, $p < .01$). Internal consistency reliability was strong (Cronbach's alpha of 0.822). Item analysis revealed moderate difficulty indices ($p = 0.41-0.55$) across all items, with acceptable discrimination for most items, though five items showed suboptimal discrimination below 0.22 (required revision). Differential Item Functioning analysis identified minimal gender bias (7.5% items), below international thresholds of 10%. Findings confirm that systematically constructed teacher-made assessments can meet international psychometric standards when appropriately constructed and analysed.

Keywords: Psychometric analysis, educational assessment, reliability, validity, teacher-made assessment

33. Evaluating Cognitive And Contextual Alignment in Ghanaian TVET Mathematics Materials: A Case Study In Blended Learning

Mr. Denteh Akwasi Sakyi^{1*}, Francis Kwadwo Awuah²

^{1,2}*Department of Teacher Education, Kwame Nkrumah University of Science and Technology, Ghana*

Corresponding Author's email address: asdenteh@st.knust.edu.gh

Abstract

This study investigates the cognitive and contextual alignment between mathematics curriculum materials and occupational standards in Ghana's pre-tertiary TVET system, focusing on the Block Laying and Tiling (BLT) programme at National Certificate II (NCII). Despite Competency-Based Training (CBT) reforms, mathematics assessments often underrepresent higher-order thinking and field readiness. Guided by Webb's Depth of Knowledge (DOK), Situated Learning Theory, and Human Capital Theory, the study asks: (1) To what extent do mathematics assessment tasks in Facilitated Learning Materials (FLMs) align with DOK levels targeted by CBT? (2) How do these tasks align with real-life problems in BLT? (3) What mathematical concepts in these tasks do BLT students apply during practical work? Using a pragmatic paradigm and a concurrent triangulation mixed-methods design, the study will analyse all NCII mathematics assessment tasks through document analysis: quantitatively with a DOK checklist and qualitatively via thematic coding for vocational relevance. Fieldwork at one purposively selected TVET institution will comprise iterative observations of student practical activities and semi-structured interviews until thematic saturation. Findings will characterise the cognitive complexity of FLM tasks, reveal gaps in vocational contextualisation, and examine the practical relevance of mathematics assessments to BLT fieldwork. The study will provide evidence-based recommendations to align TVET mathematics with CBT principles and occupational standards, enhance workforce readiness, and inform the National TVET Qualifications Framework (NTVETQF). The approach and insights are expected to be transferable to similar reforms across Sub-Saharan Africa.

Keywords: competency-based training; vocational mathematics; block laying and tiling; curriculum alignment; Ghana

34. Comparative Analysis of a Conceptual Change Instruction Strategy in Virtual versus Authentic Learning Environments on Students' Conceptual Needs and Understanding of Electrochemistry.

Zacchaeus Bukari (PhD candidate)¹, & Harrison I. Atagana (Prof)²

^{1,2}School of Science, College of Science, Engineering and Technology, University of South Africa.

Corresponding Author's email address:

44508271@mylife.unisa.ac.za or bukzac2000@yahoo.com

Abstract

Despite its importance in everyday life, from battery development to neuroscience and brain research, there is a consensus in literature that chemistry students' performance poorly because of conceptual difficulties in electrochemistry worldwide including students in South Africa, United States of America, Australia, Germany, Malaysia and Singapore, Turkey, Ghana, Indonesia and Japan. The conceptual challenges in electrochemistry can be attributed to the alternative conceptions held by students (Domenech-Carbo, A., et al. 2023). The purpose of this study is in two-fold, first to carry out a novel conceptual need analysis (CNA) to understand students' conceptual needs in galvanic and electrolytic cell by describing the prevalence and persistence, the type (originality) and the nature (chemical representation) of alternative conceptions. Second, to assess the main and interaction effects of instructional approach [POE-RT hybrid model and traditional teaching approach (TTA)] and learning environment [authentic (A) and virtual (V)] on students' conceptual understanding in electrochemical cells. The mixed method design was used, following the *sequential explanatory mixed method design* (Quantitative → Qualitative). A total of 160 grade 12 chemistry students were selected using cluster random sampling technique, from 8 MST schools randomly assigned to 4 groups: APOE-RT, ATTA, VPOE-RT and VTТА. Data were collected using electrochemistry concept test (Pre-test and post-test) and interviews and analysed using two-way ANCOVA. Results of the analysis found standard Hydrogen Electrode half-cell (ST1) with prevalence of 87% and salt bridge and electrical neutrality (ST4) with prevalence of 79% to have highest prevalence of students' alternative conceptions in electrochemistry. Furthermore, these types of students' alternative conceptions, namely vernacular misconceptions and non-scientific belief were not found, but misunderstanding, preconceived belief and factual misconception with percentage occurrence of 47.06%, 35.3% and 17.64% respectively were present. Majority of students' alternative conceptions in galvanic and electrolytic cells were found to constitute microscopic representation as the highest, then symbolic and macroscopic representations with percentage occurrence of 58.8%, 23.5% and 17.7% respectively. The sub-topics: *cell reaction, cell notation and chemical equilibrium* (ST3) and bridge and electrical neutrality (ST4), were found to have the highest persistence (measured by prevalence (%) difference between pre-tests and post-tests). ST4 was identified to have most persistent alternative conceptions for all treatment groups, with minimum prevalence difference of 13%, 10%

and -4% for VPOE-RT hybrid model, VTТА and ATТА respectively. Generally, the POE-RT hybrid model was found to be more effective than TТА method in promoting students' CU in galvanic and electrolytic cells. There was significant interaction effect of instructional approach (IA) and learning environment (LE) on students' CU in galvanic and electrolytic cells, implying that the effects of IA on students' CU in electrochemistry (galvanic and electrolytic cells) is not independent of LE. Understanding students' conceptual needs and conceptual change instruction informs educators and resource developers for curriculum delivery. The study provides implications for classroom practice and further research.

Keywords: POE-RT hybrid model, Virtual learning environment, Conceptual Understanding, galvanic cell, electrolytic cell.

35. Redesigning HACCP Programs through Curriculum Innovation and the Establishment of a Centre for Public Safety Management and Resilience Engineering: A Pathway to Sustainable Capacity Building in Ghana.

Benjamin Osafo Carlis-Paittoo,

Department of Fire, Safety And Disaster Management, University of Energy and Natural Resources, Sunyani-Ghana.

Corresponding Author's email address: benjamin.carlis-paittoo@uenr.edu.gh

Abstract

Hazard Analysis and Critical Control Points (HACCP) remain one of the most internationally recognized frameworks for ensuring food safety and quality assurance across diverse agribusiness and hospitality value chains. However, the increasing complexity of environmental, technological, and socio-economic challenges in Ghana and Sub-Saharan Africa underscores the need for rethinking traditional HACCP approaches. This paper proposes a curriculum innovation framework that integrates HACCP with interdisciplinary domains such as fire safety sciences, forensic incident and accident investigation, project management, sustainable development, management and communication skills, and fundamental accounting techniques. By expanding the HACCP model into an Advanced HACCP Certification Program, designed as a six-week intensive training course, the initiative aims to enhance professional competencies, attract high-level participation from first-class hotels and restaurants, and strengthen food safety systems within the sub-region. Furthermore, the paper introduces the concept of establishing a Centre for Public Safety Management and Resilience Engineering (CePSMRE) in Ghana. This Centre will serve as a hub for research, professional training, and policy engagement in safety management and resilience, aligning with international standards such as ISO 22000 and contributing to national and regional capacity-building goals. Through this integrated approach, the research highlights how curriculum redesign

and institutional innovation can foster resilience, safeguard public health, and position Ghana as a regional leader in food safety and public safety management education.

Keywords: HACCP, curriculum innovation, food safety, resilience engineering, public safety management, sustainable development, Ghana, Sub-Saharan Africa

36. Exploring the Role of Digital Tools in Enhancing Mathematics Engagement among Ghanaian Undergraduate Students.

Peter Akayuure¹, & Christopher Owu-Annan²*

¹Department of Mathematics Education, University of Education, Winneba

²Department of Mathematics and ICT, Abetifi Presbyterian College of Education

Corresponding Author's email address: cowuannan@abeticoe.edu.gh

Abstract

Whereas research has shown that the recent generation of students prefer learning through digital space, how digital competence and usage shape students' behavioural, cognitive and affective mathematics engagement remain unclear. Guided by Technological Acceptance model, this descriptive study examined the influence of digital tool usage and digital skills level on mathematics engagement among undergraduates at the Colleges of Education in Ghana. Data were collected from 120 undergraduates via a questionnaire and analysed using frequencies, percentages, means, standard deviation, and regression analysis. The results revealed that majority of undergraduates agreed that the use of digital tools is essential for learning mathematics at the College of Education. However, most undergraduates expressed dissatisfaction with their level of engagement in mathematics. The regression analysis results indicate that while digital skills level of the preservice teachers exerts minimal influence, partially related to behavioural dimension, digital tool use significantly and consistently improves all dimensions of student engagement. The large effect observed for overall engagement underscore the potential meaningful integration of digital tools in learning. This has important pedagogical implications. Teacher training programmes and curriculum design should prioritize the integration of digital tools to promote deeper student engagement, rather than focusing solely on the improving the basic digital literacies of students.

Keywords: Digital skills, Digital Tools, Cognitive engagement, Behavioural engagement, Affective engagement, Undergraduate Mathematics

37. Motivations and Deterrents to Alumni Contributions for Scholarship programmes and STEM Initiatives In Ghana

Christopher Sam¹, Winston Kwame Abroampa²

Kwame Nkrumah University of Science and Technology

University of Media, Arts and Communication (UniMAC)

Corresponding Author's email address: csam4701@gmail.com

Abstract

Contributions from alumni are crucial for advancing scholarship opportunities for underprivileged students and promoting Science, Technology, Engineering, and Mathematics (STEM) education in Ghana. The conventional literature suggests that this type of support is essential for increasing access and equity in higher education, especially given the limited government funding and increasing demand for STEM skills. However, empirical research exploring the factors that deter and motivate alumni commitment to scholarship development for STEM initiatives at their alma mater appears non-existent in the Ghanaian Philanthropy literature. This qualitative case study was undertaken to investigate the motivations and deterrents that shape alumni support for scholarships aimed at advancing STEM education in Ghana. The data used in this study were obtained through 21 in-depth interviews with alumni donors and non-donors at a Ghanaian higher education institution. Guided by the push and pull factor theory as an analytical lens, the interviews were transcribed verbatim and analyzed thematically using MAXQDA Version 24. MAXQDA is a software used for analyzing and uncovering common themes in qualitative data. The results from the study revealed that key pull factors motivating alumni contributions include positive undergraduate experiences, a strong personal connection to their alma mater, and a profound sense of gratitude for the institution's role in their personal and professional development. Conversely, push factors deterring contributions among non-donors include limited awareness of giving initiatives, insufficient alumni engagement, and competing financial priorities. The findings indicate an important gap in communication and trust-building efforts that, if addressed, could significantly enhance alumni support towards scholarship and environmental sustainability initiatives. This study also provides practical implications for alumni relations officers and leadership of higher education institutions in Ghana and other African countries as they strive towards achieving Sustainable Development Goal 4, which aims to ensure inclusive, quality education.

Keywords: Motivations, Alumni, Scholarship program, STEM initiatives.

38. From the Margins of Inclusion: Educator Narratives on Disability, Access, and Equity in Winneba's Classrooms

Lomotey, C. F.¹, Adu-Boahen, K.², Acquah, A.^{3*}, & Agyekum, M. W.⁴

^{1,2,3} *University of Education, Winneba*

⁴ *University of Ghana*

Corresponding Author's email address: aacquah@uew.edu.gh

Abstract

This qualitative study examined the inclusion and educational access of children with disabilities in Winneba. Through the lens of the Social Model of Disability, this study sought to explore how children with disabilities access education, identify the challenges that the instructional team (special education teachers, inclusive education teachers, and GES resource persons) encounter in supporting children with disabilities in accessing education, and discover the coping strategies adopted by the instructional team to assist these children in Winneba. The researchers utilized a qualitative phenomenological design and employed an interview guide to gather data from special education teachers, inclusive education teachers, and GES resource persons. A purposive sampling strategy was used to determine a sample size of ten (10). It was found that children with disabilities are not adequately educated in Winneba. Additionally, it was revealed that the challenges faced by the instructional team included parents' reluctance to accept their children's circumstances; lack of funding; insufficient resources and teaching-learning materials; poor school infrastructure; stigma; difficulty in connecting with children with impairments; inadequate support staff; and a shortage of sign language interpreters. Finally, it was discovered that the coping strategies employed by the instructional team members for supporting children with disabilities included an all-inclusive approach, focusing on special students, bonding with them, promoting group work, engaging with the community, providing remedial teaching, drawing on their own teaching experiences, and incorporating more teaching and learning materials (TLMs). Based on the study's findings, it was recommended that the University of Education, Winneba, should collaborate with the Effutu Municipal Education Directorate to help mitigate the barriers faced by children with disabilities in accessing education. It was also recommended that the Ghana Education Service (GES) and other partners in special education work together to address the infrastructure and teaching and learning challenges in the Municipality.

Keywords: Inclusivity, Access, Education, Children With Disability, Instructional Team.

39. Integrating Refugees in Ghanaian Public Universities for Sustainable Development: What Does the Literature Say?

Ms Hannah Amoasi

Department of Teacher Education, KNUST

Corresponding Author's email address: amoasihannah96@gmail.com

Abstract

Education plays an important role in society by increasing opportunities for individuals and communities to achieve their potential. The significance of education is further underscored by several global initiatives, including Sustainable Development Goal 4, which advocates for the attainment of quality education to ensure inclusive and equitable access, while promoting lifelong learning opportunities for all individuals, including refugees. This study presents a scoping review of the structures for integrating refugees in higher education institutions. Through a search carried out in Google Scholar, ERIC, Scopus, JSTOR, ProQuest, and Google Books, fifteen (15) studies were obtained. Data was extracted using the Preview, Question, Review, and Summary (PQRS). It emerged from the literature that refugee integration in higher education is a complex and reciprocal process that requires mutual adaptation between refugee students and higher education institutions. The study revealed that structures for successful refugee integration in higher education institutions also included: financial support, cultural/social support, language support, admission and certification, and teaching and learning support. The findings also identified global and continental frameworks such as Sustainable Development Goal 4, Universal Declaration of Human Rights, the Incheon Declaration, the New York Declaration for Refugees and Migrants, the Refugee Convention, the African Charter for Human and Peoples' Rights, and the African Charter for the Rights and Welfare as promoting the integration of refugees in higher education. The study concludes that studies on integrating refugees in Ghanaian public universities appear non-existent and need urgent attention.

Keywords: Refugees, Sustainable development, Public universities.

40. Unpacking the State Partnerships and Collaborations in Universities for Sustainable Development

Ms Angela Owusu Kusi

Department of Teacher Education, KNUST

Corresponding Author's email address: angelaowusukusi@gmail.com

Abstract

The concern for Higher Education Institutions (HEIs) to engage in partnerships and collaborations has heightened in recent times. This is because partnerships and collaborations are perceived to offer enormous benefits to HEIs to enable them to support nations in achieving the Sustainable Development Goals. Through a scoping literature review based on data sourced from electronic databases such as Google Scholar, ERIC, Scopus, JSTOR,

ProQuest and Google Book studies were obtained. The data was extracted using the Preview, Question, Review and Summary (PQRS) framework and synthesised for sharing. The study revealed that partnership and collaboration have been conceptualised variedly by different authors, underscoring the complex, multifaceted nature of partnerships and collaboration in higher education for sustainable development. It also emerged that frameworks for partnership and collaboration in higher education include Sustainable Development Goal 17, European Education Area, the Bologna framework, Erasmus, Continental Education Strategy for Africa, and UK-Africa partnership on research, science and innovation. The drivers of partnership and collaboration in higher education identified in the literature include resource optimisation, globalization and education, quality assurance and institutional growth. The study further revealed that partnership and collaboration in higher education are categorised into research collaboration, Global North and South Collaboration, South-South collaboration, academic collaboration and university-industry collaboration. The study concludes that research on partnerships and collaborations in Ghanaian public universities appears underexplored in the literature and needs to be delved into.

Keywords: Partnership, Collaboration, Higher Education, Sustainable Development

41. Challenges of Open And Distance Learning (ODL) For Functional Education in Nigeria

Dr. Caroline Ogbeide

Institute of Education, Ambrose Alli University, Ekpoma, Edo State
Corresponding Author's email address: sammyogbes@gmail.com

Abstract

The challenges of Open and Distance Learning (ODL) is no doubt one of the innovative platforms created for knowledge sharing and instruction beyond the classroom setting. However, the process of transition and the eventual operation of the online platform present some challenges because students who are already accustomed to the face-to-face mode of teaching and learning often display mixed reactions to the transition. Among other challenges associated with this online learning platform are the availability of the required technology, the skills for its usage, the pedagogical skills of online instructors, and attitudinal disposition to innovation among students. In order to harness ODL for functional education in Nigeria, this paper conceptually examined open distance learning and some issues of open distance learning (ODL) in Nigeria. The challenges of distance learning in the promotion of functional education were discussed while some measures for managing ODL for functional education in Nigeria was highlighted. In light of the discussion, it was suggested that ODL system could make use of a combination of conventional resources and Information and Communication Technology (ICT) techniques shifting gradually to ICT-based programmes using a computer conferencing type. This would allow student-to-student and student-to-instructor interaction as well as complement learning, assessment and feedback.

Keywords: Challenges, Open and Distance Learning (ODL), Functional Education

42. Navigating a Terrain: The Lived Experiences of First-Generation Tertiary Students in Ghana

Mr. Stephen Kwakye Apau

Department of Educational Foundations, UEW, Winneba.

Corresponding Author's email address: skapau@uew.edu.gh

Abstract

First-generation students, defined as those whose parents have not attained tertiary education, often encounter limited familial guidance, sociocultural pressures, and difficulties navigating institutional expectations. These barriers can reduce academic engagement, hinder social integration, and compromise the overall well-being of students. However, there is limited empirical evidence in the Ghanaian context on how these students overcome such challenges to achieve academic success in higher education. This study, therefore, explored the lived experiences of first-generation university students at the University of Education, Winneba, focusing on the academic, socioemotional, and motivational challenges they face. A phenomenological qualitative design was employed to capture the students' perspectives in depth. Thirty-six participants were purposively selected across different faculties to ensure the representation of gender, programme of study, and socioeconomic background. Data were analysed thematically following Braun and Clarke's six-step process. The findings revealed that the participants faced multiple interrelated challenges that affected their academic engagement and performance. Academic challenges included difficulties in understanding course content without parental guidance, managing heavy workloads, and adjusting to new teaching and assessment methods. Social challenges involved feelings of isolation, difficulty in forming study groups, and navigating campus life without familial experience to guide them. Financial constraints emerged as a significant barrier, including managing tuition, textbooks, and daily expenses. Despite these obstacles, students employed resilience and adaptive strategies, such as developing structured study routines, seeking help from lecturers, forming peer support networks, and utilising campus resources such as libraries and tutorial programmes. Intrinsic motivation, including personal goals of degree completion and career advancement, drove participants' persistence. Key themes included proactively managing academic expectations by setting realistic goals, strategically negotiating peer and faculty relationships to access academic and social support, and developing self-efficacy through continuous self-assessment, reflection, and incremental mastery of coursework within a resource-constrained environment. These findings illustrate the complex interplay between external challenges and internal coping mechanisms that shape the academic trajectories of first-generation students. This study provides actionable insights for higher-education institutions, including the implementation of structured mentorship programmes linking first-generation students with senior peers and faculty, targeted academic support workshops, proactive socio-emotional counselling, and peer networking initiatives.

Keywords: First-generation students, Academic engagement, Resilience, Higher education, Coping strategies, Intrinsic motivation, Student well-being

43. The effect of Helicopter Parenting on Financial Behaviour, Self-Directed Learning and Entrepreneurial Intentions among young adults: the mediating role of Grit and Self-control

Abraham Gyamfi Ababio (Ph.D)^{1*}, Benedicta Akrono (Ph.D)² & Felicia Esinam Pufaa (Ph.D)³

^{1,2} *Department of Economics Education, University of Education, Winneba*

³ *Department of Social Studies Education, University of Education, Winneba*

Corresponding Author's email address: agababio@uew.edu.gh

Abstract

The objective of this study was to determine the mediating effect of self-control and grit on the association between helicopter parenting, financial behaviour, self-directed learning, and entrepreneurial intentions. Participants of the study were 515 final-year undergraduate students sampled through a systematic random approach. Data were collected through a self-administered questionnaire in a face-to-face setting. Descriptive statistics and structural equation modelling were used to analyze the data. Helicopter parenting (HP) was found to have a significant negative association with self-control (SC) and grit. It was also found that grit has a significant positive association with entrepreneurial intentions (EI), self-directed learning (SDL) and financial behaviour (FB) among young adults. However, lack of self-control was found to be negatively associated with self-directed learning. Finally, the study found a strong positive association between helicopter parenting and financial behaviour among young adults. The findings of this study highlight the significance of the dynamics of parenting and youth development and signal the importance of the integration of proper parenting skills in the basic school curriculum to advance early childhood development for successful youth outcomes.

Keywords: helicopter parenting, self-control, Grit, entrepreneurial intentions, financial behaviour, self-directed learning, young adults

44. Emotional Intelligence and Academic Resilience: A Mixed-Method Study among University Students in Ghana

Bernard Mensah Amoako^{1*}, Inuusah Mahama² & Stephen Kwakye Apau³

^{1,2,3} *University of Education, Winneba*

Corresponding Author's email address: bmamoako@uew.edu.gh,

Abstract

This study investigated the relationship between emotional intelligence (EI) and academic resilience (AR) among Ghanaian undergraduate students using a convergent parallel mixed-method design. Quantitative findings among 474 undergraduates using the Wong and Law

Emotional Intelligence Scale and CD-RISC-10 revealed self-emotion appraisal, other-emotion appraisal, and emotional use to significantly predict AR with 16.4% of the variance explained; emotion regulation was not significant. A straightforward regression revealed EI positively and moderately affected AR ($\beta = .39, p < .001$). Qualitative interviews with 13 students presented four themes: emotional management in study difficulties, social relationships as a buffer for emotions, strength cultural norms, and personal change. Synthesizing findings revealed convergence between statistical predictors and lived experience, and divergence for emotion regulation's nuanced function. The study finds EI to be a valid predictor of AR and recommends the integration of EI and AR training, enhancing peer mentoring, and the use of culturally responsive interventions to foster student persistence and well-being.

Keywords: Emotional intelligence, Academic Resilience, Mixed methods, University students.

45. Power to Reimagining University Teaching: The Promise of Flipped Classrooms for Developing 21st-Century Pedagogical Skills among Pre-Service Teachers

Professor Richardson Addai-Mununkum, PhD¹, Joana Ashardey Ashley², William Ahianyo³, Mensah, & Florence Amanfo⁴

^{1,2,3,4}*Department of Educational Foundations, University of Education Winneba*

Corresponding Author's email address: ramununkum@uew.edu.gh

Abstract

The practicality of using learner-centred pedagogy in university teaching has received limited attention, with many practitioners dismissing its applicability in higher education settings. Yet, student teachers preparing for professional practice ought to experience and practice learner-centred and innovative pedagogies during their training, if they are to successfully implement them in their classrooms. The purpose of this study was to assess the extent to which pre-service teachers perceive the value of learner-centred and integrated pedagogies for the development of their pedagogical skills. To achieve this, a flipped classroom approach was piloted in teaching a pre-service teacher education course. The study employed a concurrent mixed methods design, combining quantitative survey data with qualitative focus group discussions and in-depth interviews involving students who directly experienced the learner-centred and integrated pedagogies. This design enabled the researchers to capture both the breadth and depth of students' perceptions. Findings indicate that pre-service teachers rated learner-centred and integrated pedagogies highly, describing them as authentic and meaningful ways of learning to teach. Students reported that such pedagogies significantly contributed to the development of their critical thinking skills by encouraging them to focus on applying concepts rather than passively listening and memorising information. Importantly, more than 80% of participants expressed increased self-efficacy and a strong intention to use learner-centred pedagogies in their future teaching practice. These outcomes underscore the transformative potential of learner-centred and integrated pedagogies in higher

education. Despite these positive outcomes, challenges emerged, particularly the difficulty of implementing such approaches in large classes, which often hinders effective participation and engagement. Nonetheless, the flipped classroom model offers a promising pathway for overcoming these barriers by extending learning beyond classroom contact hours. Based on these findings, it is recommended that lecturers in higher education be systematically trained and supported to build competence in employing learner-centred pedagogies. Doing so will ensure that pre-service teachers are holistically developed and adequately equipped with the pedagogical skills required for effective 21st-century teaching and learning.

Keywords: learner-centred pedagogy, flipped classroom, pre-service teachers, pedagogical skills, higher education

46. Teacher Retention in Home Communities: Implication for Teacher Deployment Policy

Cosmos Kwame Dzikunu^{1*}, Daniel Yelkpieri, Rev. Prof. Alexander K. Edwards, Gideon Ampofo, & Baraatu Abdulai Yakubu-GES

1,2,3,4 Centre for Educational Policy Studies,UEW

⁵GhanaEducation Service

Corresponding Author's email address: ckdzikunu@uew.edu.gh

Abstract

Teachers' attrition continues to remain a challenge, especially teachers posted to their home communities. The purpose of this study was to examine the various factors that are responsible for teacher retention in their home communities and how these factors are militating against their continuing stay in the profession through a close study of the Nanumba South District. A total of seventy (76) respondents were surveyed for this study. This comprised twenty-four teachers from Junior High Schools and fifty-two (52) teachers from primary schools. Purposive and stratified sampling techniques were adopted, and data were collected using structured questionnaires. The data were analyzed using descriptive statistics. The study revealed that the motivation for accepting posting to their home community schools included the strong motivation to give back to the communities and the respect they received from community members. It was also established that teachers were willing to continue to stay in their communities because they were respected and motivated by the community's members. The collaboration teachers received from each other and remedial classes they organized helped to improve teaching and learning. Economic pressure from family members and the lack of interest of parents in education were some reasons that made teachers exited their home communities. It is therefore recommended that the GES should organize orientation for communities to embrace their own kind to their home communities as teachers. There should be a special package for teachers who accept postings to their home communities in rural settings to enable them to develop academically.

Keywords: Teacher retention, home communities, teacher attrition, incentive package.

47. AI Prompt Engineering for Educators

Dr. Seth Dade Ansah

Department of Educational Foundations

Corresponding Author's email address: sdansah@uew.edu.gh

Abstract

This chapter, “AI Prompt Engineering for Educators,” serves as a vital guide for teachers and teacher-trainees ready to embrace the transformative power of Generative Artificial Intelligence (GenAI) in their classrooms. It emphasizes that mastering AI means mastering prompt engineering—the process of carefully crafting instructions to activate the capabilities of Large Language Models (LLMs). The chapter first explores the immense potential and key benefits of integrating AI into teaching practice. AI tools offer opportunities to streamline administrative tasks and classroom management. By automating repetitive tasks, AI provides educators with the valuable gift of time, allowing them to focus on students. AI systems can assist in generating customized course materials, developing lesson plans, creating rubrics, and forming practice questions tailored to learning objectives. Thoughtful prompt engineering facilitates personalized learning experiences. However, embracing AI requires navigating complex challenges. The ethical and responsible utilization of these tools is paramount. Concerns include the truthfulness of AI output, the risk of perpetuating unfair biases, and upholding academic integrity. The chapter stresses that human oversight and critical assessment remain crucial and irreplaceable. To transition from novice user to master of AI interaction, the chapter provides a step-by-step framework for prompt engineering:

1. Define a Clear Objective and Action: State precisely the task you want the AI to perform. Effective prompts rely on clarity and specificity.
2. Assign a Role (Persona): Telling the AI to “Act as a [ROLE]”—such as a copywriter or an engineering advisor—shapes the response and ensures contextual relevance.
3. Provide Context: Include relevant background details or domain-specific terminology to guide the model.
4. Specify Constraints and Format: Set clear parameters for the desired output, such as length, style, or structure (e.g., bullet points, JSON, or a specific poetic form).
5. Refine and Iterate: Prompting is an ongoing dialogue; effective prompt engineers continuously refine and adjust their queries based on the AI’s initial output until the desired results are achieved.

By mastering these techniques, educators can harness AI’s potential, augmenting their expertise and leading the way toward innovative and effective learning experiences.

Keywords: Prompt Engineering, Generative Artificial Intelligence (GenAI), Large Language Models (LLMs), Personalized Learning, Educational Technology

A GLANCE AT IERIS

The Institute for Educational Research and Innovation Studies, UEW

Overview

The Institute for Educational Research and Innovation Studies (IERIS) was established in 2013 to play leading roles in educational research and innovations at the University of Education, Winneba.

Mandate

IERIS's mandate is to conduct research into the practice of basic education, education management and leadership, and educational policies at the institutional and national levels. The institute recognizes the critical role of education in driving national development, promoting social mobility, and fostering individual growth, with a focus on conducting cutting-edge research, providing innovative solutions, informing policy decisions, and enhancing educational outcomes. At IERIS, we recognise the critical role of education in driving national development, promoting social mobility, and fostering individual growth. Our mandate is to conduct cutting-edge research, provide innovative solutions, inform policy decisions, and enhance educational outcomes and quality. The Institute comprises three centres, namely: the Centre for Educational Policy Studies (CEPS), the National Centre for Research into Basic Education (NCRIBE), and the Centre for School and Community Science and Technology Studies (SACOST).

CEPS was established in 2000 as an interdisciplinary research-led centre aimed at fostering a comprehensive understanding of the relationship between educational policy, research and practice at institutional, national, and international levels. The Centre analyses and develops evidence-based educational policies, with a focus on education reform, policy analysis, and education governance. Additionally, the Centre conducts policy-related research and offers opportunities for its staff to teach on graduate programmes at UEW, as well as to take on leading roles in the formulation and implementation of educational policies in Ghana and beyond.

NCRIBE was established in 2006 with the Ministry of Education and the Ghana Education Service. The Centre was given a mandate to conduct evidence-based research into Basic

Education, and to engage national and international audiences in best practices that promote basic education in Ghana. NCRIBE undertakes investigations into innovative approaches to basic education provision and delivery, emphasising improvement in learners' outcomes, inclusive education, teacher professional development, innovative pedagogies, and teacher education. The Centre was also intended to serve as a Centre of Excellence, a documentation centre, and the primary point of reference on issues relating to basic education in Ghana.

SACOST was established in the year 2000 with the vision of promoting interdisciplinary research and development activities related to science and technology within and among indigenous, informal and formal manufacturing industries, aiming to enhance science and technology education in Ghana and throughout the African continent. The Centre's mission is to cultivate relevant research competence, publication proficiency, and quality knowledge in professionals to enable them connect community and workplace science and technology with that of schools, particularly at the pre-university level. SACOST develops and implements innovative science and technology programmes, fostering hands-on learning, community engagement, and sustainable development.

IERIS Research Themes

Our research focus areas include, but are not limited to:

- Educational policy studies with special reference to education reform, policy analysis, and education governance
- Basic education research, especially for improving learning outcomes, inclusive education, teacher professional growth and effectiveness, school improvement and teacher education
- Science and technology education in the areas of hands-on learning, community engagement, innovative pedagogies, STEM and STEAM education, and sustainable development
- Artificial Intelligence (AI) in Education, especially exploring AI's potential to enhance teaching, learning, and educational outcomes
- Global Citizenship Education with the aim to fostering global awareness, cultural competence, and social responsibility
- Social Justice and Human Rights Education geared towards promoting equity, inclusivity, and human rights in education
- Educational Leadership with special focus and attention on developing effective leadership practices for educational institutions and systems
- Continuing Professional Development: providing professional development opportunities for growth and competency acquisition for pre-service and in-service teachers.

To achieve our goals, we prioritise the following, among others:

- Conducting high-quality research that informs educational policy and practice
- Providing professional development opportunities for teachers, focusing on innovative pedagogies and best practices
- Disseminating research findings through publications, workshops, and conferences to stakeholders, policymakers, and educators
- Training and capacity-building for the teacher workforce, seminars, emphasizing teacher education, teacher time on task, teaching methods and practices, teacher effect variables, teacher professional growth, competency and effectiveness etc.

CERIS 2025 ORGANIZING COMMITTEE MEMBERS

CONTENT CURATOR / MEDIA COMMITTEE		
1.	Mr. Isaac Yaw Manu	Chairman
2.	Dr. Gideon Minua Kwaku Ampofo	Member
3.	Mr. Bright Fugah	Member
4.	Mr. Eric Sekyere Appiah	Member
5.	Dr. Davis Mawuena Aweso	Member
ABSTRACT COMMITTEE		
5.	Prof. Enoch F. Sam, PhD	Chairman
6	Rev. Prof. Alexander K. Edwards, PhD	Member
7.	Dr. Andrews Acquah	Member
8.	Dr. Victus Kumazah	Member
9.	Dr. Davis Mawuena Aweso	Member
LOGISTICS / HOSPITALITY COMMITTEE		
10.	Mr. Cosmos K. Dzikunu	Chairman
11.	Dr. Ethel Ansaah Addae	Member
12.	Ms. Phillipine Adipah	Member
13.	Mr. Edward Aboagye	Member
14.	Mr. Musah Awal Zampuu	Member
15.	Ms. Juliet Ackom	Member
16.	Mr. Joseph Annan	Member
17.	Ms. Grace Gyim	Member
18.	Mr. Abraham Sey	Member
19.	Ms. Beatrice Eshun	Member
CONFERENCE OPERATIONS COMMITTEE		
20.	Prof. Kofi Adu-Boahen, PhD	Chairman
21.	Prof. Enoch F. Sam, PhD	Member
22.	Mr. Cosmos K. Dzikunu	Member

23.	Rev. Prof. Alexander K. Edwards	Member
24.	Mr. Collins Owusu-Ansah	Member
25.	Mr. Isaac Yaw Manu	Member
26.	Mr. Eric Kwame Delali Afutu	Member
PROTOCOL COMMITTEE		
27.	Prof. Daniel Yelkperie	Chairman
28.	Mr. Isaac Yaw Manu	Co-Chairman
29.	Mr. Collins Owusu-Ansah	Member
30.	Mrs. Christabel Awuku	Member
31.	Mr. Justin Osei	Member
32.	Mr. Eric Kwame Delali Afutu	Member
33.	Mr. Ernest Azutiga	Member
34.	Dr. Victus Kumazah	Member
35.	Dr. Andrews Acquah	Member
36.	Dr. Ethel Ansaah Addae	Member
37.	Dr. Gideon Minua Kwaku Ampofo	Member
38.	Dr. Davis Mawuena Aweso	Member
39.	Mr. Edward Aboagye	Member
40.	Mr. Musah Awal Zampuu	Member
41.	Ms. Juliet Ackom	Member
42.	Mr. Joseph Annan	Member
43.	Ms. Grace Gyim	Member
44.	Mr. Abraham Sey	Member
45.	Ms. Beatrice Eshun	Member

International Conference on Educational Research and Innovation Studies

16TH - 18TH OCTOBER 2025 @UEW, GH