



KNUST
E-LEARNING
CENTRE



E-LEARNING WEEK 2024



E-learning International Conference

THEME

Fostering Excellence in E-Learning
Across Diverse Disciplines: Progress,
Challenges and Prospects

DATE

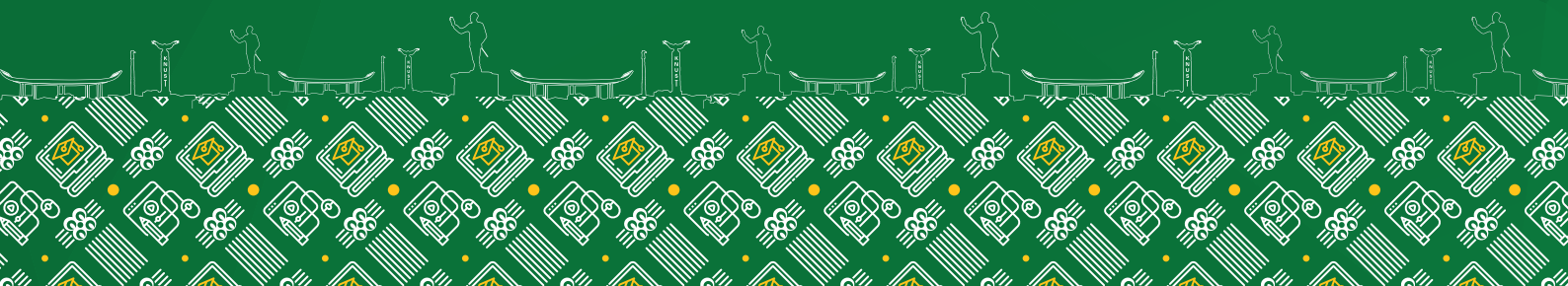
Monday-Friday,
8TH - 12TH July 2024

VENUE

THE GREAT HALL,
KNUST - Kumasi

TIME

@ 9:00am
GMT







E-LEARNING **WEEK** 20 24

Excellence - Diversity - Innovation



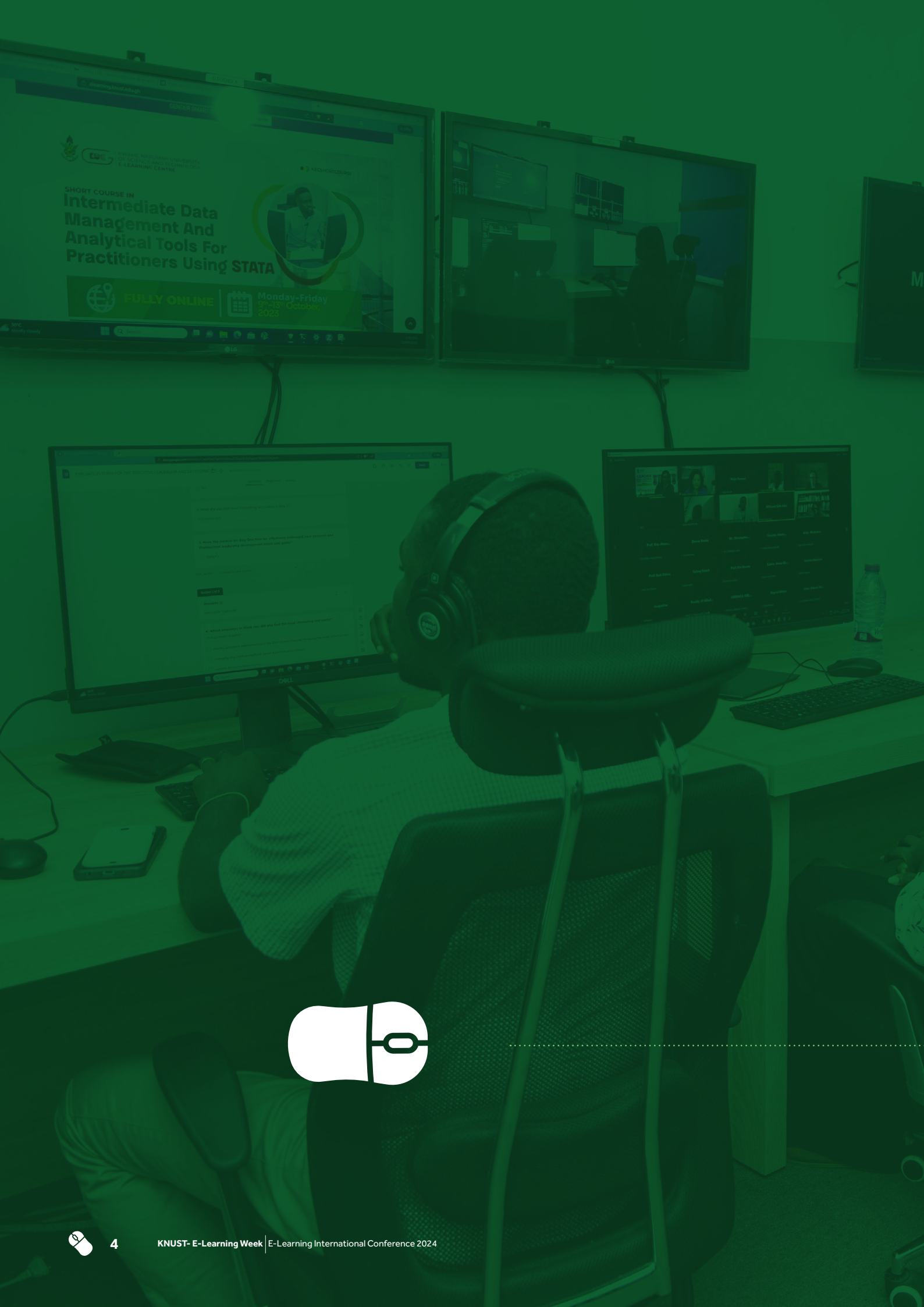


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ADDRESS BY THE VICE CHANCELLOR

PROF. (MRS.) RITA AKOSUA DICKSON

Good day and a warm welcome to the combined celebrations of the third edition of the Kwame Nkrumah University of Science and Technology's E-Learning Awareness Week and the second E-Learning International Conference. We gather here, both online and in person, to embark on a journey under the theme "Fostering Excellence In E-Learning across Diverse Disciplines: Progress, Challenges, and Prospects." This theme reflects our commitment to providing an inclusive and transformative learning environment at KNUST.

As Vice-Chancellor, I am filled with enthusiasm as we celebrate our progress, address our challenges, and explore the future prospects of E-Learning. Our journey towards becoming a Centre of Excellence for E-Learning in Africa and beyond has seen significant strides, including the recent inauguration of our first-ever virtual reality studios. These studios enable us to explore immersive learning possibilities, enhancing the educational experience for our students.

Technology is redefining education, breaking down geographical barriers, and making learning more accessible and inclusive. E-Learning at KNUST is at the forefront of this transformation. With the integration of Artificial Intelligence, we are personalizing the educational experience to cater to the unique needs of each student, ensuring that every learner can achieve their full potential.

Throughout this awareness week and conference, we will engage in a variety of activities including keynote addresses, webinars, interactive workshops, and exhibitions. We will explore emerging trends, share best practices, and learn from esteemed educators and experts in the field. Our discussions will focus on pedagogical innovations, technology integration, inclusive practices, and strategic leadership in E-Learning.

We have made remarkable advancements in e-learning technologies and pedagogical strategies. At KNUST, we are gradually realizing our vision of a 70:30 percent in-person to online learning pedagogy ratio. However, challenges remain, such as ensuring inclusivity and accessibility for all students. Initiatives like the KNUST SONSOL Project, which supports needy students with laptops, are vital in creating an equitable digital learning environment. Over 793 students have benefitted from this project so far and we are looking to reaching more students.

As educators, researchers, and innovators, we bear the responsibility to collaborate, innovate, and lead in the digital era. E-learning opens new avenues for research and global partnerships, fostering a culture of innovation and excellence. This involves developing robust assessment strategies, ensuring meaningful learning outcomes, and guiding our institutions towards a future where e-learning is fully integrated into our educational mission.

I extend my deepest gratitude to our faculty members, staff, students, and stakeholders for their dedication and enthusiasm in embracing e-learning. Your efforts have been inspiring, setting us apart as a leading institution of higher learning. Let us embark on this awareness week and conference with renewed passion and determination, breaking down barriers, fostering excellence, and shaping a brighter future for generations to come.

Thank you, and I wish you all a successful and fulfilling E-Learning Awareness Week and E-Learning International Conference.





ADDRESS BY THE DIRECTOR, KNUST E-LEARNING CENTRE

PROF. ERIC APPAU ASANTE

Your Excellencies, Ambassadors of various countries in Ghana, Vice-Chancellor, all protocols observed. It is my honor to welcome you all to the university's annual E-Learning Awareness Week. This is our third edition of the event. Our maiden edition in 2022 was themed "KNUST E-Learning: A New Age for Digital Transformation," celebrating our university's resilience during the COVID-19 pandemic and the birth of the E-Learning Centre. The central idea behind the E-Learning Awareness Week is to create awareness about all the e-learning implementation efforts of the University and harmonize them to ensure that we are acknowledging our accomplishments. To quote our Vice-Chancellor from her address in the maiden celebration, "KNUST's journey in the Digital Transformation of education is worth celebrating. I believe it will transform the national picture with events such as these."

In 2023, we built upon the success of the previous year with a grand event here at the Great Hall, centered around the theme: "Education Without Borders." Last year's focus was on exposing the University community to a wide array of learning resources that support teaching and learning in the digital age. It featured the university's maiden online learning festival, which consisted of exhibition booths showcasing various learning resources and cutting-edge technology employed by the E-Learning Centre. This year, we are looking at "Fostering Excellence in E-Learning Across Diverse Disciplines: Progress, Challenges, and Prospects." We are privileged to have keynote addresses from several members of the diplomatic community on their perspectives on interdisciplinary e-learning practices for the socio-economic development of Ghana. In collaboration with the KNUST Admissions Office of the University, there will be a seminar this afternoon on the dynamics of program selection and subject combination for admission to KNUST. This will be followed by a webinar on navigating Microsoft 365. On Tuesday, there will be college-level interactions on eLearning initiatives across the university. For example, the College of Agriculture and Natural Resources, through the Agriconnect project, will engage with students in the college on the topic 'Digitally Empowering Our Youth to Lead the Modernization of Agriculture in Ghana'. On Wednesday, there will be a session on online branding facilitated by renowned Ghanaian YouTuber and Content Creator Amofo Benard Kwadwo, popularly known as Kwadwo Sheldon. This session is expected to bring together members of the university community, including staff and students, for practical knowledge sharing on best practices in online branding. Following this, there will be a meeting involving students, teaching assistants, and postgraduates with a delegation from the Association of Commonwealth Universities (ACU). The meeting will discuss the myriad opportunities that the ACU offers to students and service persons, empowering them to maximize their potential and contribute meaningfully to the global academic community and beyond. This meeting will be hosted at the Great Hall.

Under the distinguished Chairship of our dear Vice Chancellor, the week will climax with the 2024 E-Learning International Conference on Thursday and Friday, featuring an in-person keynote address from Professor Colin Riordan, the Secretary-General and Chief Executive of the Association of Commonwealth Universities (ACU), on the conference theme, along with a speech by the Honorable Minister of Education and several other renowned guest speakers. The KNUST E-Learning Awareness Week is more than just a series of events; it is a celebration of our commitment to excellence in education. It is an opportunity to showcase the incredible work being done by faculty, staff, and students around the globe in the e-learning ecosystem. It is a time to explore new ideas, share best practices, and envision the future of education together. Let us use this week to inspire, innovate, and imagine the limitless possibilities that lie ahead.

Thank you for being part of this journey. Happy E-Learning Week!
KNUST E-LEARNING CENTRE – 'JUST A CLICK'





ADDRESS BY THE CHAIRMAN, PLANNING COMMITTEE

DR. KWADWO BOAKYE BOADU

Distinguished Guests, Esteemed Colleagues, Honored Speakers, Participants, Ladies and Gentlemen, a very warm welcome to the E-Learning Awareness Week Celebration and the E-Learning International Conference. It is indeed a great honour and privilege to stand before you today as the Chairman of the Planning Committee. On behalf of the Kwame Nkrumah University of Science and Technology (KNUST), I extend our heartfelt gratitude for your presence and participation in this significant event. I would like to extend a special welcome to our distinguished keynote speakers, the Secretary-General and Chief Executive of the Association of Commonwealth Universities, Hon. Dr. Osei Yaw Adutwum, the Minister of Education, Ambassadors of various countries in Ghana, Phil Baty, the Chief Global Affairs Officer of Times Higher Education, and all other eminent personalities who have honoured our invitation. Your support and involvement underscore the importance of this conference.

The theme for this year's conference, "Fostering Excellence in E-Learning Across Diverse Disciplines: Progress, Challenges, and Prospects," is both timely and pertinent. It reflects our collective commitment to advancing the field of e-learning, not only within our institution but across the broader educational landscape. This conference aims to provide a platform for advocacy, training, and discussion on emerging trends in the online learning environment. It also seeks to foster interdisciplinary collaboration and partnerships that are crucial for driving innovation and excellence in e-learning. In today's interconnected world, e-learning is not just an alternative; it is a necessity. The recent global challenges have underscored the critical role that digital education plays in ensuring continuity and accessibility. E-learning breaks down geographical barriers, providing learners from diverse backgrounds with the opportunity to access quality education. It fosters a more inclusive and equitable learning environment, allowing us to reach students and industrial players who might otherwise be left behind.

Our E-Learning Awareness Week is designed to create awareness about e-learning technologies among students, staff, and industry professionals. Throughout this week, we will engage in various activities, workshops, and demonstrations that highlight the transformative potential of digital tools in education. We believe that by raising awareness and enhancing understanding, we can better equip our academic community to leverage these technologies for improved teaching and learning outcomes.

Over the next few days, we have an exciting program lined up. We will explore various sub-themes including Pedagogical Innovations, Technology Integration, Inclusive E-Learning Practices, Strategic Leadership, and Industry Innovations. Our oral and poster sessions will feature insightful presentations, panel discussions, and interactive workshops led by experts from around the world. We are particularly excited about the opportunities for academics, researchers, students and industry experts to showcase their innovative approaches and for educators to share best practices and experiences.

As we embark on this journey together, I encourage each of you to actively participate, engage in meaningful discussions, and network. Let us leverage this platform to share knowledge, exchange ideas, and explore new possibilities. Your contributions are invaluable in shaping the future of e-learning and ensuring that we continue to foster excellence in this field. In conclusion, I would like to express my deepest appreciation to the Planning Committee, our sponsors, and all those who have worked tirelessly to make this event possible. Your dedication and hard work are truly commendable. To our participants, I say thank you for your commitment to advancing e-learning. Together, let us make this conference a resounding success. Thank you, and I wish you all a productive and inspiring conference.









PROFILES



PROFILE

PROFESSOR MRS. RITA AKOSUA DICKSON

(PhD, MPharm, GCAP,
BPharm, FPSGH,
FGCPh, MCPA)



Professor Rita Akosua Dickson, an alumna of Kwame Nkrumah University of Science and Technology (KNUST), became the first female Vice Chancellor of KNUST after serving as the 21st Pro Vice-Chancellor since October 2018. She completed her basic education at Akantome Primary and Royal International Schools in Bolgatanga and Kumasi respectively, her GCE Ordinary Level at St. Monica's Secondary School, and her GCE Advanced Level at Wesley Girls' High School. She earned her first degree in Pharmacy from KNUST, followed by a Master of Pharmacy in Pharmacognosy in 1999, and later a PhD from King's College, University of London, UK, along with a Graduate Certificate in Academic Practice (GCAP).

Professor Dickson started as a Teaching Assistant at KNUST, later becoming a lecturer in 2000. She rose through the ranks to become a Senior Lecturer in 2009 and Associate Professor in 2014. She has held various leadership roles, including Head of the Department of Pharmacognosy and Dean of the Faculty of Pharmacy and Pharmaceutical Sciences (FPPS). She has also served as a visiting scientist at the University of London, UK, and a Novartis Fellow in the US.

An accomplished Phytochemist, Professor Dickson's research focuses on bioactive natural products for treating diseases. She has identified novel bioactive compounds with potential as drug leads and has emphasized the importance of phytopharmaceutical analysis and quality control. Her extensive research has led to over 80 publications in peer-reviewed journals and authorship of five books. She is a recognized reviewer for several journals and serves as Editor in Chief for the International Journal of Ethnomedicine and Pharmacognosy.

Professor Dickson holds memberships in various scientific societies, including the Society of Medicinal Plant Research and the American Society of Pharmacognosy. She has served on numerous boards and committees, including the Ghana Pharmacy Council and the Pharmaceutical Society of Ghana. She has been involved in several initiatives to advance pharmacy education and training in Ghana and West Africa.

Passionate about STEM education for girls and youth leadership, Professor Dickson also enjoys cooking, exercising, and spending time with family and friends. She is a Deaconess and Marriage Counsellor at Grace Baptist Church in Kumasi. She is married to Nana Sarkodie Dickson, a Chartered Accountant, and they have four daughters: Akosua, Abena, Akua, and Afua.





PROFILE

**HON. DR. YAW
OSEI ADUTWUM**
MINISTER OF
EDUCATION FOR
GHANA



Dr. Yaw Osei Adutwum was born on 9th April, 1964 at Jachie in the Ashanti Region of Ghana. He obtained a Bachelor's degree in Land Economy/ Business Administration with a major in Real Estate from the Kwame Nkrumah University of Science and Technology, Ghana. He holds a Master's degree in Education Management from the University of La Verne, California and a PhD in Educational Policy, Planning and Administration from the University of Southern California. He is also an alumnus of Kumasi High School in Ashanti Region where he obtained his Advanced Level education certificate. He is the founder of the New Designs Charter Schools in Los Angeles California. Prior to this, he worked as a Mathematics and Information Technology teacher at the Manual Arts High School in Los Angeles, California for ten years.

During this period, he founded the International Studies Academy which served as a small learning community for students to thrive academically and socially. He also served as the lead Mathematics teacher at the University of California/Manual Arts Neighborhood Academic Initiative (NAI). He was part of the task force established by the National Research Center for Career and Technical Education to develop a national model for career and technical education in High Schools and Colleges in the United States. In March 2017, Dr. Yaw Osei Adutwum was appointed by President Nana Addo Dankwa Akufo-Addo to serve as Deputy Minister for Education.

In 2019, he was voted the Best Performing Deputy Minister of the Year by two research bodies: Alliance for Social Equity and Public Accountability (ASEPA) and FAKS Investigative Services. He is the Member of Parliament for Bosomtwe Constituency in the Ashanti Region of Ghana. He is also part of the Works and Housing Committee as well as the Poverty Reduction Strategy Committee in the 7th Parliament of the 4th Republic of Ghana.

Dr. Adutwum believes that a whole school reform, emphasis on STEM/STEAM, a review of our curriculum to make our graduates fit for purpose will drive the socio-economic development of Ghana and getting it right will turn the fortunes of the nation around. He has a dream and that dream is that our education will be able to shape the aspirations of Ghanaians for the transformation that we all seek. He believes that to prepare Ghanaian students to be career ready, schools need to teach and adopt the 4Cs of the 21st Century Skills which are Critical thinking, Creativity, Collaboration and Communication. As the Minister of Education, he is honoured and humbled by the confidence entrusted in him by the President, His excellency Nana Addo Dankwa Akufo-Addo.



PROFILE

PROFESSOR COLIN RIORDAN

**SECRETARY-GENERAL AND CHIEF
EXECUTIVE, ASSOCIATION OF
COMMONWEALTH UNIVERSITIES
(ACU)**



Professor Colin Riordan CBE is the ACU's Secretary General and Chief Executive. He studied German at the University of Manchester, gaining his PhD from there in 1986. He was Lecturer, then Senior Lecturer in German at Swansea University from 1986 to 1998, when he moved to Newcastle University to become Professor of German. He became Head of the School of Modern Languages at Newcastle in 2001. After three years in that role, he was appointed as Faculty Dean of Postgraduate Studies, and a year later, in 2005, as Pro Vice-Chancellor and Provost of the Faculty of Humanities and Social Sciences. In October 2007, he became Vice-Chancellor of the University of Essex, before moving to Cardiff University in 2012, where he served as President and Vice Chancellor until August 2023.

Professor Riordan has undertaken numerous Board roles including on Universities UK, UCAS (twice), Advance HE, the Association of Commonwealth Universities (until May 2023), as Chair of UUKi, Chair of Universities Wales and as Chair of The Conversation. From 2021 to 2023 he was Chair of the IDP Connect Strategic Advisory Board.





PROFILE

SHLOMIT SUFA

AMBASSADOR OF THE
STATE OF ISRAEL TO
GHANA, LIBERIA AND
SIERRA LEONE



Shlomit Sufa is the Ambassador of the State of Israel to Ghana, Liberia and Sierra Leone, since August 2021. Amb. Sufa began her diplomatic career in the Ministry of Foreign Affairs at the Cadet Program. Since September 2001, Shlomit Sufa has served her country abroad as Deputy Ambassador, Embassy of Israel to Ethiopia, Rwanda and Burundi (2002-2005); Deputy Ambassador, Embassy of Israel to Switzerland and Lichtenstein and as the Deputy Chief of Mission at the Embassy of Israel in Canada, responsible for the Government and Parliament Relations, Jewish Community and Holocaust Remembrance (2014-2019). She was also an interim Consul General at the Consulate General of Israel to Florida, Kansas, Missouri & Puerto Rico in the Spring of 2020. Ambassador Sufa served in different capacities at the Ministry of Foreign Affairs, including the Bureau for Interreligious Affairs (2001-2002); East Africa Department, Africa Affairs Division (2005-2008) and EU Department, Europe Affairs Division (between 2012 and 2014). Between 2019 and 2020 she served at the South East Asia Department, Asia & Pacific Division. Prior to her appointment as ambassador to Ghana, she was a participant in the National Security Program at the Israeli National Defense Collage (INDC).

Before she started her diplomatic career, Amb. Sufa worked as a lawyer (1998-2000) at the Legal Department of the Municipality of Ramla. She is a member of the Women Diplomatic Network Steering Committee and in Forum Dvora (a non-partisan NGO promoting equal representation of women in key decision-making position in the fields of national security and foreign policy).

Amb. Sufa has an LL.B in law from the Harry Radzyner Law School, IDC Herzliya and M.A in Political Science from the University of Haifa. She speaks Hebrew and English fluently. Shlomit Sufa was born in 1971. She is an avid book reader, a cinephile and prefers deep, interesting conversations to small talk.



PROFILE

**JULES ARMAND
ANIAMBOSSOU**

**FRENCH
AMBASSADOR
TO GHANA**



Jules Armand Aniambossou holds a degree in engineering from the École nationale supérieure des mines de Douai in France, which he obtained in 1989. Having worked in industry and the civil service at the start of his professional career, he went to the Ecole Nationale d'Administration (ENA) in 2002, which he graduated from two years later. He was part of the graduating class Léopold Sédar Senghor and was assigned to the Prefecture department (French Ministry of the Interior).

Jules Armand Aniambossou started his professional career in 1989 at Altadis (formerly SEITA) as a project engineer at the research centre for tobacco technologies. In 2000 he joined the central administration in the Ministry of Industry in the department for regional action and the promotion of industry (DARPMI) where he was in charge of developing and promoting SMIs by managing the aid granted to the Ministry of Industry for investing in SMEs. He continued in this position until 2002, the year he went to ENA. When he left ENA in 2004, his first position was as a special adviser in the department for public liberties and legal action (DLPAJ) in the Ministry of the Interior before he took up his position in the Prefecture department. From 2004 to 2006, he was first appointed as deputy secretary general of the prefecture of the North and then director of the cabinet of the Prefect of the Champagne-Ardenne region, from 2006 to 2007, before taking up an appointment in the private sector.

In May 2013, Jules Armand Aniambossou – who is French of Beninese descent – was appointed as Benin's ambassador to France, with jurisdiction over the United Kingdom, Spain, Greece and various international organisations based in Paris (OECD, OIF), in London (IMO) and in Madrid (UNWTO). He occupied this post until October 2016. Following his experience with the Beninese diplomatic service, Jules Armand Aniambossou returned to the private sector. In February 2017, he was appointed managing director for Africa and Overseas at Groupe Duval, specialising in the areas of property, well drilling and tourism.

He decided to leave this position in June 2018 in order to take up a senior post in the civil service as the coordinator of the Presidential Council for Africa (CPA), a body created by President Emmanuel Macron in August 2017, as a means of renewing relations between France and Africa. As an instrument for consultation and supporting decision-making, the CPA, which reports to the French president, helps convey a vision of relations between France and the African continent which is particularly focused on the future and on the expectations of young people and civil societies in both Africa and France. From July 2019 to October 2022, Jules Armand Aniambossou was the Ambassador of France to Uganda. Since November 2022, he is the Ambassador of France to Ghana.





PROFILE

**SHRI
MANISH GUPTA**
HIGH COMMISSIONER
OF INDIA, ACCRA



High Commissioner Manish Gupta is a career diplomat and a member of the Indian Foreign Service since 1998. During a diplomatic career spanning over 25 years, he has held various positions in New Delhi and abroad. Before assuming his current responsibilities, he served as Consul General of India in Sydney. Earlier abroad, he has served as Consul General of India in Istanbul, Turkey from 2013-2016 and in Permanent Mission of India to the United Nations, New York from 2009-2013. While in New York, he served as Political Counsellor and Coordinator for India at the Counter-Terrorism Committee. He was also India's representative on the Executive Board of the UNDP and UNICEF. His other diplomatic assignments were in Dakar from 2002-2005 and Brussels from 2000-2002. At headquarters, he served in the Ministry of External Affairs as Joint Secretary for Overseas Indian Affairs from 2016-2019 overseeing migration and mobility, emigration policy, labour and manpower, skill development, and welfare and protection of Overseas Indians-related matters. He was also CEO of the India Centre for Migration (ICM), a think-tank of the Ministry on matters related to international migration. He also served as a desk officer for Nepal in the Northern Division from 2005-2009. High Commissioner Gupta holds a B.Tech in Electronics and Communication Engineering from the Indian Institute of Technology, Banaras Hindu University. He is married to Nimeesha Gupta and has one son.



PROFILE

**PROF. ELLIS
OWUSU-DABO**
PRO-VICE
CHANCELLOR



Prof. Ellis Owusu-Dabo is a Consultant, Public Health Physician, University Teacher and Researcher. As a Professor of Epidemiology and Global Health, his area of expertise is in Medical Epidemiology and applied public health technologies. As a university teacher, he has trained undergraduate and postgraduate students, as well as mentored young faculty at both local and international levels. Ellis is a demonstrable, experienced and astute university administrator, ethically-sound industry leader and a research project management consultant. He is highly driven in his research interest area, mainly non-communicable diseases in low-income country settings. He also has considerable interest in population genomics of pulmonary tuberculosis.

Ellis has secured and managed multimillion United States dollar research grants from principal granting institutions such as the European Union, National Institutes of Health (NIH), The World Bank and the Bill and Melinda Gates Foundation (BMGF) as well as many bilateral organisations. He has travelled extensively and serves on several boards at both local and international levels, while having a massive network of individuals and organisations he works with.





PROFILE

MAJOR GENERAL RICHARD ADDO GYANE

COMMANDANT, KOFI ANNAN
INTERNATIONAL PEACEKEEPING
TRAINING CENTRE (KAIPTC), GHANA



Major General Richard Addo Gyane was commissioned into the Ghana Armed Forces in August 1987 as a Second Lieutenant after 2 years of military training. The General has held many influential appointments in the Ghana Armed Forces, including Commanding two units. He is currently the Commandant of the Kofi Annan International Peacekeeping Training Centre at Accra, Ghana. Before his current appointment he was the Director-General, Plans Research and Development (DG PR&D), where he was responsible for the strategic planning for the Ghana Armed Forces, researching to enhance the future development of the Ghana Armed Forces, determination of the strategic disposition of the three Arms of Service.

He has done all the relevant local and international courses commensurate with his rank. In particular, he undertook a UN Staff Officers Course with the German Armed Forces Command and Staff College in 2009 in Hamburg, Germany. He holds a certificate in Strategic Defence Management from the North Atlantic Treaty Organisation (NATO) School at Oberammergau, Germany. He also holds a Certificate in Defence Resources Management from the Naval Post-Graduate School (NPS), Monterey, California, USA. He is an alumnus of African Centre of Strategy Studies in Washington, USA. The General has a wide and varied peacekeeping experiences. He served four duty tours with United Nations Interim Force in Lebanon (UNIFIL), two duty tours with United Nations Mission in the Democratic Republic of the Congo (MONUSCO) and a tour each with United Nations Mission for the Referendum of Western Sahara (MINURSO) and United Nations Mission in Sierra Leone (UNAMSIL). He also served with the ECOWAS Force in Sierra Leone (ECOMOG) in 1999/2000.

By way of civil qualifications, the General holds several certificates, significant among them is Bachelor of Science Degree in Mechanical Engineering from the Kwame Nkrumah University of Science and Technology (KNUST). He holds a Master of Arts Degree in International Affairs and an Executive Masters Degree in Business Administration both from the University of Ghana. He also holds Post graduate diploma in Contemporary Management from the Nobel International Business School. In addition, he holds a Master of Applied Business Research Degree and a Doctor of Business Administration Degree both from the Swiss Business School (SBS), Zurich, Switzerland. Major General Gyane is also a member of the Ghana Institute of Engineers (MGhIE). For his excellent, un-ending and outstanding support to the growth and development of leadership, He was recognized and awarded by the Chattered Institute of Leadership and Governance (CILG) Ghana in November 2023 for his great contribution to the growth of KAIPTC in 2023.



PROFILE

PHIL BATY

CHIEF GLOBAL OFFICER,
TIMES HIGHER EDUCATION,
UNITED KINGDOM



Phil Baty leads on government partnerships and global affairs at Times Higher Education, the data, insights and events partner to universities and governments worldwide - and winner of The King's Award for Enterprise 2024 in the International Trade category. With over 25 years in the sector, Phil: developed the Times Higher Education (THE) World University Rankings and its derivative analyses (as rankings editor for over a decade between 2008 and 2019); he created the THE World Academic Summit and oversaw its expansion into the world's preeminent series of university leadership and policy events; and he led the team that developed and launched the Global Sustainable Development Congress and the sector-leading "Digital Universities" international events series.

Phil also oversees the world's largest gathering of education ministers, the Education World Forum, as the unique annual event was acquired by Times Higher education in May 2024. Named as one of the "50 voices of 2023" - those that make the international education ecosystem tick - by The PIE, Phil is also an award-winning journalist, a sought-after keynote speaker, media commentator and consultant. Times Higher Education won two prestigious "Vision 2023" awards from the British Private Equity & Venture Capital Association (BVCA) in November 2023 - the national award for medium size companies as well as the Vision 2023 award in the regional category for London and the South East. Times Higher Education is home to Inside Higher Ed, Poets & Quants, BMI, DataHE and the Education World Forum.





PROFILE

AVI WARSHAVSKI

CEO OF MINDCET EDTECH
INNOVATION CENTER,
AND BOARD MEMBER, THE
CENTER FOR EDUCATIONAL
TECHNOLOGY, ISRAEL



Avi Warshavski is the Founder and CEO of MindCET EdTech Innovation Center and a member of the Board of Directors of The Center for Educational Technology in Israel. Warshavsky has dedicated the last decades to create and develop groundbreaking innovative initiatives in the field of learning and education, pioneer in digital books and technology-driven educational environments. His professional background includes management, instruction, and development of educational technology for leading organizations, including directing CET Humanities and Social Studies Division. Warshavsky is today one of the leading global speakers on the future of learning. Founder of the internationally acclaimed Global EdTech Startup Awards and Shaping the Future Edtech conference. Warshavsky holds MA in Philosophy and Bible Studies.





PROFILE

DR. ARAS BOZKURT

EDITOR-IN-CHIEF, OPEN
PRAXIS AND ASIAN JOURNAL
OF DISTANCE EDUCATION
ANADOLU UNIVERSITY,
TÜRKİYE



Aras Bozkurt is a researcher and faculty member at Anadolu University, Türkiye. With MA and PhD degrees in distance education, Dr. Bozkurt's work focuses on empirical studies in areas such as distance education, online learning, networked learning, and educational technology. He applies critical theories like connectivism, rhizomatic learning, and heutagogy to his research.

Dr. Bozkurt is also interested in emerging research paradigms, including social network analysis, sentiment analysis, and data mining. Dr. Bozkurt's studies also cover the integration of artificial intelligence technologies into educational processes in the axis of human-machine interaction.

His dedication to advancing the field is reflected in his editorial roles as the Editor-in-Chief of Open Praxis and Asian Journal of Distance Education, as well as his roles as an associate editor for prestigious journals like Higher Education Research and Development, Online Learning, eLearn Magazine, and Computer Applications in Engineering Education.





PROFILE

MR. ADENIYI EMMANUEL

REGIONAL ENGAGEMENT
COORDINATOR, ASSOCIATION OF
COMMONWEALTH UNIVERSITIES
(ACU)



Adeniyi Emmanuel is the Regional Engagement Representative for the Association of Commonwealth Universities (ACU), where he oversees membership engagement and strategic partnerships across Africa. He played a pivotal role as the lead consultant for the ACU's Partnership for Enhanced and Blended Learning (PEBL West Africa) project, enhancing blended learning capacities at 12 universities in Ghana and Nigeria. Prior to his current role, Adeniyi spent four years at UNICEF Nigeria as an Education Partnership Officer. During his tenure, he spearheaded key initiatives focused on youth development and facilitated numerous collaborations between UNICEF and Nigerian universities. In 2022, Adeniyi was recognized as an Africa's Emerging Leader in International Education by Impact Central International for his outstanding contributions to the field.



PROFILE

PROF. EDWARD APPIAH

Director General, National
Council for Curriculum and
Assessment, Ghana



Prof. Edward Appiah is an Associate Professor of Design Education, Pedagogy, and Social Innovation and the Director General for the National Council for Curriculum and Assessment, a position he assumed since 2021. Before his appointment, he was the Coordinator of Research and Postgraduate Studies at the department. He had his doctoral degree in Design Education at the Faculty of Informatics and Design, Cape Peninsula University of Technology, Cape Town, South Africa. His research interests are in Design for Social Innovation and Sustainability, and Technology in Design, with emphasis in Design Pedagogy. He also holds Masters in African Art and Culture from Kwame Nkrumah University of Science and Technology. He is the local Coordinator for Design for Social Innovation and Sustainability (DESIS), a network of design labs, based in design schools and design-oriented universities, actively involved in promoting and supporting sustainable change. He is an ardent believer of 'always a new paradigm', and believes that there is always a new way of sustainability in life. Edward Appiah is committed to the philosophy and practice of sustainable socially responsive (and responsible) design and recognizes its potential in promoting equity and quality of life in Africa and beyond. Professor Appiah was first appointed as a Technical Instructor in the 1998 and later became a Senior Lecturer in 2016 after being converted from Technical Instructor to Lecturer in 2012. In 2014, Professor Appiah was appointed the Head for the Department of Communication Design and the Vice Dean of the Faculty of Art in 2015 – 2017.

Professor Appiah has been an adjunct Lecturer at various institutions both in the country and outside the continent between 2008. He is a lead consultant for three different design projects in Ghana and South Africa, resource person for sustainable design and in the built environment, key speaker and facilitator of several design and sustainable design workshops in Ghana and other parts of Africa. He is a design mentor to young faculty members in Sustainable Design both in Ghana and beyond. Having published in high impact journals, he is also a reviewer for both local and international high-impact peer-reviewed journals and an international conference speaker, having attended numerous conferences. Beyond his academic activities, Professor Appiah is an ordained Minister and the Resident Pastor of one of the Family Worship Centres - the English Assembly of Christ Apostolic Church, International.





PROFILE

DR. EDMUND AALANGDONG

Head, Policy, Ghana
Tertiary Education
Commission (GTEC)



Edmund Aalangdong (PhD, MGIP, MGMEF) is Head of Planning and Policy Department at the Ghana Tertiary Education Commission (GTEC). He is responsible for coordinating and developing policies for tertiary education regulation in Ghana. He is a development policy planner with vast experience in local governance, rural development, regulation of educational systems, and project planning and management. With a strong passion for Project Preparation Management, Dr. Aalangdong has consulted for national and international development partners (Ghana Institute of Local Government Studies, Canadian International Development Agency – District Capacity Building Project, ActionAid Ghana Global Platform, UNDP and the EU-Micro Project for Sustainable Development) delivering capacity building programmes and projects. Key projects he currently coordinates include multinational programs such as the World Bank Africa Centres of Excellence Project (ACE I and ACE Impact), the IFC Employability Skills Project and the ACU PEBL project which just ended successfully in March.

With a PhD from the University of Ghana (Institute of Statistics, Social and Economic Research) Dr Aalangdong has a strong interest in research and thematic analysis, and has published in the fields of Educational Technology, Influence of policy on E-learning and blended learning, the influence of online learning in increasing access and instructional capacity of African Higher education Institutions among others. His publication (Expanding Access to Quality Tertiary Education through Distance Education in Ghana: A Literature Review) has been widely cited and continues to serve as a reference point for research students and academia.

Dr Aalangdong has also presented academic papers in the field of educational technology and Distance Education in various international symposiums such as the annual Going Global conferences at the Queen Elizabeth II Hall, London and recently the Oxford Education Research Symposium, University Oxford – UK.



PROFILE

GREG HEIBERGER

Associate Dean of
Academics & Student
Success, South Dakota
State University



Dr. Heiberger's 20 years of innovation at higher education includes curricular, co-curricular, and outreach programming. His professional career spans 5 years in student affairs, 10 years as pre-med advisor/instructor, and for the past 7 years he has served as Associate Professor & Coordinator of the accelerated master's in Human Biology and Associate Dean in the College of Natural Sciences. His recent research projects include a social listening study exploring the change in STEM career sentiment throughout the COVID-19 pandemic and is the PI for an NSF funded project titled: The Wokini Undergraduate Biology Education Network.

In 2022, SDSU was named one of the first 10 Metaversity campuses in the US. Greg currently leads SDSU's Metaversity initiative and additionally he has cultivated internal and external investment in VR initiatives supporting over 150 headsets deployed in physical VR labs, and a mobile VR lab project aimed at engaging regional rural communities in STEM activities and careers through VR. His team is developing 3D spatial recordings for human cadaveric anatomy education, conducted one of the first RCT's in VR anatomy education, and his PhD student and her team have created a VR app to be deployed in introductory biology curriculum to assist students in their understanding of structure and function in cellular biology.





PROFILE

PROF. FREDERICK ATO ARMAH

DIRECTOR OF RESEARCH AND
PROGRAMMES, ASSOCIATION
OF AFRICAN UNIVERSITIES (AAU)



Frederick Ato Armah is the Director of Research and Programmes at the Association of African Universities, Ghana, and a professor of environmental and sustainability science. He has extensive critical leadership skills and experience in institutional development and project management. Over the past 20 years, he has worked with national, regional and local institutions to improve management policy and undertake research to help resolve environmental, health and social issues. His wide-ranging experience includes teaching, research and collaborations with partners in developed countries including Canada, Sweden, and the Netherlands and developing countries including Ethiopia, Cameroon, and Sierra Leone.



PROFILE

**DR. ABENA
ASOMANINWAA ANTWI**

MANAGING DIRECTOR AT
AFRICA ENVIRONMENTAL
SANITATION CONSULT (AfES)



Dr. Abena Asomaning is an accomplished academic, prolific author, boasting numerous publications in her repertoire and award-winning humanitarian spearheading impactful initiatives. With a solid background in policy analysis, she earned her Doctor of Philosophy (Ph.D.) in Health Economics from the University of Lille, France, an MBA from the University of Lincolnshire, (UK), and a BSc. in Development Planning from KNUST. Presently, she is the Managing Director at Africa Environmental Sanitation Consult (AfESC), the research and innovation arm of the Jospong Group of Companies.





PROFILE

PROF. EBENEZER MALCARM

DEAN, SCHOOL OF GRADUATE
STUDIES, GHANA COMMUNICATION
TECHNOLOGY UNIVERSITY



Prof. Ebenezer Malcarm is an Associate Professor and the Dean of School of Graduate Studies and Research at Ghana Communication Technology University (GCTU). Prof. Malcarm was the former Director of Centre for Online Learning and Teaching (COLT) at GCTU. He was the founding Pro Vice Chancellor for Laweh Open University College, the first Open University in Ghana. Prof. Malcarm is a trained Instructional Designer and Technologist, Communication and Development expert and demographer. He has multidisciplinary background in E-learning, curriculum and instruction, academic programming, research, strategic planning, organizational development, programme development, management, monitoring and evaluations. Prof. Malcarm is also experienced E-learning Consultant, Professional Development Consultant, Researcher, Monitoring and Evaluation Consultant, Communication and Development Consultant and Leadership expert. Prior to his graduate studies, he spent many years as student and youth leader, where he served as the General Secretary and National President respectively for the Ghana United Nations Student and Youth Association (GUNSA). Prof. Malcarm established Rescue Mission Ghana, a sustainable development NGO, where he served as its first Chief Executive Director. He later set up Sustainable Development Training Centre, a consultancy wing of Rescue Mission Ghana. He also served as Senior Research, Monitoring and Evaluation Coordinator at World Education Ghana and the Coordinator of GUNSA Family Life Education Project.

Since the year 1999, Prof. Malcarm consulted for international organizations such as, USAID, International Youth and Student Movement for the United Nations, (ISMUN), Center for Population Activities (CEDPA), International Institute for Communication and Development (IICD) British Council, Global Teenager Foundation, (GTF) International Education and Resource Network (IEARN), Coalition of Domestic Election Observers (CODEO) Star Ghana, Ghana Health Services, Jhpiego Ghana among others. Prior joining GCTU, Prof. Malcarm was Pro Vice Chancellor of Laweh Open University College, Senior Lecturer at the School of Graduate Studies and Coordinator of Distance Learning School at University of Professional Studies, Accra. He also worked with American Institute of Research and African American Studies Department at Ohio University, USA. He also facilitated online courses at Ohio University, USA. About his educational background, Prof. Malcarm obtained a Bachelor degree in Publishing Studies at Kwame Nkrumah University of Science and Technology Kumasi, Ghana and a Masters degree in Population Studies, from Regional Institute of Population Studies at University of Ghana. He also graduated and earned Masters degree in International Affairs with a major in Communication and Development at Ohio University. He earned his Ph.D in Instructional Design and Technology at Ohio University, USA.



PROFILE

MR. LAWRENCE SARPONG

DEPUTY REGISTRAR,
OPERATIONS, NATIONAL
TEACHING COUNCIL,
GHANA



Lawrence Sarpong has gone through the ranks of education (Assistant Superintendent II, Assistant Superintendent I, Principal Superintendent, Assistant Director II, Ag. Head Professional Operations, Ag. Head Professional Development) and is currently the Deputy Registrar (Operations) for the National Teaching Council, Ghana. He holds a Teacher Cert 'A', Bachelor of Science degree, Master of Education in Science, and Master of Philosophy in Science Education. He was the Founder and Chief Trainer for the Malaysian Technical Cooperation Agency in Ghana Education Service, a Soul Facilitator in Strengthening Teacher Regulatory Services in Sierra Leone and South Africa, and a Key Facilitator in Establishing the Teaching Council in Namibia. He was the Professional Development Coordinator for tutors in St Joseph's College of Education through the initiative of T-TEL. He has led the implementation of many National programs including Leadership and Management Training for the Secondary Education Improvement Project (SEIP), Coaching and Mentoring Programme for school leaders, Digital Literacy for teachers; all under the World Bank sponsorship, Leadership for Learning, Universal Design for Learning, Differentiated Learning, Better Life for Girls and Development of Compliance Framework and INSET framework for Early Childhood Teachers under the sponsorship of UNICEF, Development of Portfolio rubrics for teachers under the sponsorship of T-TEL and BIGWIN. He is the brain behind CPD portal for teachers in Ghana (Teacher Portal Ghana). He also played a major role in developing the Comprehensive National Teacher Policy – CNTP, Pre-Tertiary Teacher Professional Development and Management (PTPDM) Policy. He was a key member in the development of the in-service teachers' standards and the INSET manuals for teachers in Ghana. He has attended many seminars in Ghana and beyond because of his skillfulness and versatility. He was a Mathematics and Pre-Technical Skills Teacher at English Arabic L/A Junior Secondary School and Wesco Demonstration Junior High School, Chemistry and Science teacher at St. John's Grammar High School and Odorgonnor SHS, Science Resource Personnel for Ga West District, Chemistry and Science Tutor at St. Joseph College of Education, has been a Coordinator for many projects and a committee member for many committees and currently the Deputy Registrar (Operations) for National Teaching Council and a Coordinator for University of Cape Coast Distance Learning Centre in Adenta.





PROFILE

**PROF. WILBERFORCE
A. OWUSU-ANSAH**

AFRICA HIGHER EDUCATION
HEALTH COLLABORATIVE
PROJECT, KNUST, GHANA



Professor Wilberforce Owusu-Ansah is an accomplished researcher, lecturer, trainer and consultant in Entrepreneurship and Small Business Management, Public Policy, Public Health, and Immigrant Entrepreneurship. He has worked in private, public and not-for-profit organizations and academic institutions throughout the world including Norway, The Netherlands, Ireland and his native Ghana in many and varied capacities. He is a former Head of Department of the Marketing and Corporate Strategy, and a former Vice Dean of the KNUST School of Business. Prof. Wilberforce Owusu-Ansah is the Pillar Lead for Health Entrepreneurship, of the Mastercard Foundation's Africa Higher Education Health Collaborative.



PROFILE

DR SAM AWUKU

KEY ADVISOR FOR DIGITAL LITERACY AND ICT, TRANSFORMING TEACHING, EDUCATION AND LEARNING (T-TEL), GHANA



Dr. Sam Awuku is the Managing Director TeachAid Consulting Ltd; a UK based consultancy firm that he co-founded in 2009. As an Education and Development Consultant, Sam works with Transforming Teaching, Education & Learning (T-TEL), a Ghanaian owned Non-Governmental Organisation as the Principal Technical Adviser (Leadership, Digital Literacy, Institutional Development and Secondary Education. Dr. Awuku previously worked on the Transforming Teacher Education and Learning Project (T-TEL) as Key Adviser for Policy, Leadership, Institutional Development, ICT, and Communications that positioned him to provide strategic advice to the Ministry and its agencies on school curriculum and related policies, leadership in teacher education institutions, ICT use for education to include emergency remote teaching and learning, and partnerships with external organizations like the Association for the Development Education in Africa (ADEA). Dr. Awuku led the introduction into Ghana, the Standards-Based Curriculum at the Pre-Tertiary level of Education and led the development of the Primary School Standards-Based Curriculum. He was the Innovative Pedagogies Project Lead (covering Ghana, Rwanda and Kenya) of the International Commission for Financing Education Opportunities (now Learning Generation Initiative) in USA. He now combines his work at T-TEL with being the Head of Country Engagement for the Education Development Centre's Learning Generations Initiative. Dr. Awuku has over 30 years of working experience in the education and development sectors across sub-Saharan Africa, and Europe. He was the Global Director for Centre Development and Public Engagement for the African Institute for Mathematical Science – Next Einstein Initiative (AIMS-NEI) Foundation during which he led the Centre's development efforts of the Foundation engaging with country ministers and presidents leading to the establishment of AIMS centres in Tanzania and Rwanda. He is a member of the Institute of Directors, UK, a Fellow of The Chartered College of Teaching, UK, and a Chartered Mathematics Teachers, Institute of Mathematics and Its Applications, UK. He has previously served as a council member of the University of Cape Coast and the Ghana Communication Technology University, Accra. He is a Fellow of the Chartered College of Teaching. Dr. Awuku attended SDA College of Education, Asokore-Koforidua and holds a Post-Secondary Teachers' Certificate with distinction and BA (Hons) in Social Science from the University of Cape Coast; MA in Inclusive Education from the University of Reading, UK; MBA (Leadership and Management of NGOs) from Trinity College, USA; MA in Education Programme with mathematics focus from London South Bank University, UK; Public Leadership Credential from Harvard Kennedy School, Harvard University, USA; a Ph.D. in Education Technology and Development Policy from the UCL Institute of Education, UK. He has taught across all phases of the educational system in Ghana and outside of Ghana. Dr Awuku loves teaching because it offers him the opportunity improve the life chances of others!





PROFILE

PROF. I. K. DONTWI

BOARD CHAIR,
KNUST E-LEARNING
CENTRE



Isaac Kwame Dontwi is a Professor of Mathematics, Department of Mathematics, KNUST, Kumasi – Ghana. He is the Former Director of the National Institute for Mathematical Sciences (NIMS Ghana) and the Institute of Distance Learning (IDL), KNUST. He consults for the National Accreditation Board (NAB) as chair and/or member of Programme Visitation Teams and for Ghana Open Education Resource (OER) Policy Group. His research interest is in the application of Technology in Teaching and Learning and Modelling of Real-Life Systems including Industrial, Business and Health Systems. His current focus is in Innovative and Disruptive Technologies in Education and Health Care Enterprises.



PROFILE

PROF. DADSON AWUNYO-VITOR

PROVOST, COLLEGE OF
AGRICULTURE AND NATURAL
RESOURCES, KNUST, KUMASI



Dadson Awunyo-Vitor is a professor in the Department of Agricultural Economics, Agribusiness and Extension, KNUST and a Fellow of Association of Chartered Certified Accountant (ACCA), UK; Member of Institute of Chartered Accountant (ICA) Ghana; Member of Institute of Internal Auditors (IIA); and Member of Chartered Institute of Taxation (CIT) Ghana. He graduated with a Bachelor degree from the Kwame Nkrumah University of Science and Technology, Kumasi in Agriculture (First Class Honours) and MSc. Agricultural Economics from Imperial College, University of London UK. He also had Postgraduate Diploma in Education Certificate from the University of Cape coast and Postgraduate Diploma Certificate in Management Information System (MIS) from the Ghana Institute of Public Administration (GIMPA). He obtained PhD from the University of Ghana and a Bachelor of Laws (LLB) from the Central University, Ghana.

His main areas of research interests are Agricultural and Business Finance; Accounting and Management however, he includes tax compliance by the informal sector of emerging economies and entrepreneurship as part of his research area. As a professor, he has mentored several young faculty members at both local and international levels. He has likewise trained students at both postgraduate and undergraduate levels.

Dadson is an experienced University administrator who has managed training and research grants with the utmost integrity. Specifically, he has managed training grants from the European Union, and research grants from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ); Cities Alliance; Ministry of Local Government and Rural Development; and United Nations Children's Fund (UNICEF).

Dadson serves on several boards at both local and International levels; as well as serving as external examiner for PhD/MPhil/MSc/MBA theses for both local and international Universities including: University for Development Studies (UDS), University of Professional Studies (UPSA), University of Education Winneba (UEW) and University of Cape Coast (UCC) (all in Ghana); and University of South Africa and North West University (in South Africa), University of Fort Hare, University of the Witwatersrand, Czech University of Life Sciences, Prague.





PROFILE

**FRANCESCA
OFORI-NDINYA**

**BUSINESS DEVELOPMENT LEAD
AT THE ISRAEL TRADE AND
ECONOMIC MISSION TO GHANA**



Francesca is a Business Development Lead at the Israel Trade and Economic Mission to Ghana. She supports the promotion and facilitation of trade and investment opportunities between Israel and Ghana, with a focus on fintech, cyber security, and innovation.

With over seven years of experience in research, corporate communications, and project coordination, she has developed strong skills in market research, data analysis, event management, and stakeholder engagement. She has worked with various organizations, such as the Ghana Investment Promotion Centre and Oxford Business Group, to produce high-quality reports, publications, and presentations on various economic sectors and topics. She is passionate about fostering collaborations and partnerships that drive economic growth and social impact.



PROFILE

**DR. KENNEDY
AMEYAW**

PRINCIPAL AT WESLEY
COLLEGE OF EDUCATION,
KUMASI



Dr. Kennedy Ameyaw Baah is a dedicated academic and a prominent figure in the education sector, known for his significant contributions to both academia and community service.

His educational background includes: Master of Philosophy (MPhil) in Organic and Natural Products Chemistry, Master of Science Education and Bachelor of Education in Science Education. Mr. Baah has held several significant positions including, Member of the Faculty of Educational Studies Board (2020-2024). He is currently the Substantive Principal of the Wesley College of Education.

Mr. Baah has an impressive record of twenty-six (26) publications, including twenty-three (23) journal articles from original research and three (3) published science textbooks approved by the National Council for Curriculum and Assessment. He is also notable for being the first tutor to be promoted to Chief Tutor, the terminal rank in the Colleges of Education in Ghana.





PROFILE

**PROF. AHMED
AGYAPONG**

DEAN, KNUST
SCHOOL OF
BUSINESS



Ahmed Agyapong is a Professor of Strategic Management at the Kwame Nkrumah University of Science and Technology (KNUST), Ghana. He is currently a Co-Investigator of Affordable Sustainability for Logistics Network in Ghana (ASONG) and a Research Coordinator of Digital Logistics in Ghana (DIGILOG) under the German Academic Exchange (DAAD). He has published extensively in reputable journals, including International Business Review, African Journal of Management, Journal of Cleaner Production, and International Journal of Emerging Markets. Ahmed is currently an Associate Editor for the Journal of Africa Business. His research focuses on Strategy for Small and Medium Enterprises (SMEs), Green Supply Chain Management, Entrepreneurship, and Sustainability. He is a member of the African Academy of Management (AFAM), the Academy of International Business, and the Academy of Management (AOM). He was a member of the High-Level Board of EU-Africa DIGILOGIC, a Project that boosts the cooperation between the EU and AU to develop smart logistic solutions. Ahmed played a key role in the establishment of the KNUST E-Learning Centre. During COVID-19, Ahmed was appointed by the KNUST to lead and migrate the entire university from face-to-face teaching to online teaching to complete the academic year. Ahmed has held several managerial positions at the University, including the Vice-Dean, Acting Dean of the School of Business, Deputy Director for the Institute of Distance Learning, Head of the Department of Marketing and Corporate Strategy, and Currently Dean of KNUST School of Business.



PROFILE

PROF. ANTHONY ANDREWS

DEPUTY DIRECTOR,
INSTITUTE OF DISTANCE
LEARNING, KNUST, KUMASI



Anthony Andrews is a Professor in the Department of Materials Engineering, in the College of Engineering, Kwame Nkrumah University of Science and Technology, Kumasi – Ghana. He holds MSc and PhD degrees in Materials Engineering from the University of the Witwatersrand (South Africa) and BSc in Metallurgical Engineering from KNUST. He has over 15 years of teaching, research, and community service experience at the University. He has served as Head of the Department of Materials Engineering and a member of Faculty, College, and Academic Boards. He has also served on various committees at national and international levels. He has served as an external examiner for PhD/MPhil thesis for several universities in Ghana and abroad. He has also served as an external assessor of promotions of Academic and Research Staff for several institutions. His research interests cover aspects of materials synthesis, corrosion, surface modifications, physical metallurgy, waste management, and the development of ceramic-based composites. He has published in several international high-impact journals and has also reviewed manuscripts for many international journals. He is a Guest Editor of Scientific African Journal (Elsevier) and a member of the Journal of Science and Technology (JUST) editorial board. He is currently the Deputy Director of the Institute of Distance Learning, KNUST.





PROFILE

KWADWO SHELDON

FOUNDER/CREATIVE LEAD
OF KWADWO SHELDON
STUDIOS (KSS)



Bernard Kwadwo Amofo, also known as Kwadwo Sheldon is a Ghanaian YouTube personality and content creator. He was featured in Avance Media 50 Most Influential Young Ghanaians in 2020 and 2021 for his work in media. In 2013, he was hired as a social media manager at The Rave Media Group, and in 2016 he was employed by OMG Media where he hosted the show “Yawa of the Day,” a daily comic entertainment news segment where trending news are discussed. In March 2021, he received the silver play button from YouTube for reaching 100,000 subscribers. In 2022, he won the “Best YouTuber/Vlogger” award at the Ghana Entertainment Awards USA.



PROFILE

PROF. WINSTON K. ABROAMPA

DEAN, FACULTY OF
EDUCATIONAL STUDIES
KNUST, KUMASI



Prof. Winston Kwame Abroampa holds a Bachelor of Education in Primary Education and Master of Philosophy in Curriculum Studies from the University of Cape Coast. He also holds a Ph.D. in Curriculum Development and Teacher Education from the University of Ilorin, Kwara, Nigeria. He has rich experience in education gathered from over two and a half decades of teaching and research across various levels of Ghana's education system. Winston is a professional teacher and a certified online instructor. He has served on various international, national technical committees and working groups and has contributed to developing various policies and frameworks, guidelines for curriculum development and accreditation, assessment in actual and virtual learning spaces, continuing professional development, and mentorship both locally and internationally. His areas of interest are in curriculum implementation and evaluation, monitoring concerns of teachers using the Concerns Based Adoption Model; teacher professional identity, developing indigenous responsive pedagogies and socio-emotional learning needs of early learners. Currently, Winston is an Associate Professor and Founding Dean of the Faculty of Educational Studies, KNUST.





PROFILE

**ROGERS
SITHOLE**

GROUP CHAIRMAN
OF ONE CONNECT
GROUP



With an indelible reputation for delivering innovative business strategies and client-focused tech solutions that move margins, Group Chairman at OneConnect Group, Rogers Sithole has over 15 years of experience leading high-performing organisations.

Rogers has a Postgraduate Diploma in Business Administration from Wits Business School, a B.Sc. Honors in Computer Science, as well as a B.Sc., majoring in both Computer Science and in Computational & Applied Mathematics, all from the University of Witwatersrand.

Mr. Sithole's experience has seen him occupy strategic roles in companies including, Chairman of Black Ox Holdings, Chairman of Copperleaf Golf & Country Estate, Executive Director of OneConnect Technologies East Africa (headquartered in Nairobi), as well as Group COO of Dynatech Holdings (part owners of TIBCO Software South Africa), and other multinational organisations. His belief in giving back to the continent and communities within which he conducts business has Rogers holding Board Positions and being the Executive Director and Chairman of programs such as OneConnect Academy, a Skills Development Program and NPO.



PROFILE

MR. FRANK LOGLO SENYO

RESEARCH ASSOCIATE AT THE CENTER FOR OPEN EDUCATION RESEARCH (COER) GERMANY AND A PHD CANDIDATE IN THE FACULTY OF EDUCATIONAL AND SOCIAL SCIENCES AT CARL VON OSSIEZKY UNIVERSITÄT OLDENBURG



Frank Senyo Loglo is a Research Associate at the Center for Open Education Research (COER) and a PhD candidate in the Faculty of Educational and Social Sciences at Carl von Ossietzky Universität Oldenburg, where he also has teaching responsibilities. He is involved in a Volkswagen Foundation-funded project that focuses on the Artificial Intelligence in Education (AIEd), critically examining the future of AI in higher education by centring educators' perspectives. On the other hand, Frank's PhD research explores the interplay between digital higher education and the enabling organizational support systems in the context of the digital divide. He has published on the subject in reputable journals. Frank is also a Fellow of the Higher Education Academy (FHEA) and has previously held senior administrative roles at Ghana Communication Technology University (GCTU). Frank holds postgraduate qualifications in Adult Education, and Educational Leadership and Management from the University of Ghana, as well as a Postgraduate Certificate in International Higher Education Practice from Coventry University, UK. He is a 2016 alumnus of the DAAD-funded UNILEAD program.





PROGRAMME OUTLINE



E-LEARNING AWARENESS WEEK 2024

MONDAY, JULY 08, 2024 (MORNING)	
8:00 – 9:00	Registration of Participants
9:00 – 9:05	University Chaplain Opening Prayer
9:05 – 9:15	Prof. Eric Appau Asante (Director of E-Learning Centre, KNUST, Kumasi) Welcome Address
9:15 – 9:25	Prof. Rita Akosua Dickson (Vice-Chancellor, KNUST, Kumasi, Ghana) Vice Chancellor's Address
9:25 – 9:35	Centre for National Culture, Kumasi Cultural Performance
9:35 – 10:45	Keynote Addresses: <ul style="list-style-type: none"> - Ambassador of Israel to Ghana, Liberia and Sierra Leone - Indian High Commissioner to Ghana. Virtual - French Ambassador to Ghana Diplomatic community perspectives on inter-disciplinary E-Learning practices for the socio-economic development of Ghana
10:45 – 10:55	Prof. Rita Akosua Dickson (Vice-Chancellor, KNUST, Kumasi, Ghana) Official Opening of E-Learning Awareness Week
10:55 – 11:00	Dr. Kwadwo Boakye Boadu (Chairman, Planning Committee) Announcement
11:00 – 11:05	University Chaplain Closing Prayer
11:05 – 11:20	Group Photograph
11:20 – 12:00	Diplomats & VC tour to KNUST E-Learning Infrastructure
MC: Ms. Anita Kuma /Mr. Christopher Addo	



MONDAY, JULY 08, 2024 (AFTERNOON)

- **12:00 – Workshop for Selected Senior High School Students on the topic** “Dynamics of program selection and subject combination for admission to KNUST” - Mr. Charles Asamoah Boateng (Deputy Registrar, Admissions, KNUST)
- **15:00** - Webinar on the topic, “Mastering Microsoft 365 for Enhanced Workplace Efficiency in KNUST” – Mr. Azu Akute (UITS, KNUST)

Chair: Dr. Linda Amoako Banning

TUESDAY, JULY 09, 2024

- **9:00** – College-led E-Learning Activities
- **15:00** – Tek Smartest Quiz competition organized by the SRC for students at the Great Hall.

MC: Nennyi Abbeyquaye

Quiz Mistress: Dr (Mrs) Augustina Angelina Sylverken

WEDNESDAY, JULY 10, 2024

- **15:00** – A talk by Kwadwo Sheldon on “Mastering Online Branding.”
- **17:00** – Meeting of Students, Teaching Assistants, and Postgraduates with the Delegation from the Association of Commonwealth Universities (ACU) to discuss the myriad opportunities that the ACU offers to students and service persons, empowering them to maximize their potential and contribute meaningfully to the global academic community and beyond. To be hosted at the Great Hall.

Chair: Dr. Paul Kwadwo Addo



E-LEARNING INTERNATIONAL CONFERENCE 2024

THURSDAY JULY 11, 2024	
8:00 – 9:00	Registration of Participants
9:00 – 9:05	University Chaplain Opening Prayer
9:05 – 9:10	Prof. Eric Appau Asante (Director of E-Learning Centre, KNUST, Kumasi) Purpose of Conference and Expected Outputs
9:10 – 9:20	Prof. Rita Akosua Dickson (Vice-Chancellor, KNUST, Kumasi, Ghana) Vice Chancellor's Address
9:20 – 10:05	Keynote speaker - Professor Colin Riordan [Secretary-General and Chief Executive, Association of Commonwealth Universities (ACU)] Fostering Excellence In E-Learning Across Diverse Disciplines: Progress, Challenges, And Prospects
10:05 – 10:10	Centre for National Culture, Kumasi Cultural Performance
10:10 – 10:50	Guest of Honour - Hon. Dr. Yaw Osei Adutwum (Minister of Education, Ghana) Technology Integration In Education: Exploring The Seamless Integration Of Digital Tools And Technologies Across Diverse Academic Disciplines
10:50 – 10:55	Interlude
10:55 – 11:15	Presentation – Phil Baty (Chief Global Affairs Officer, Times Higher Education) The Role Of Digitalization In Higher Education Ranking. Virtual
11:15 – 11:20	Prof. Rita Akosua Dickson (Vice-Chancellor, KNUST, Kumasi, Ghana) Official Opening of Conference/ End of the opening ceremony
11:20 – 11:25	Dr. Kwadwo Boakye Boadu (Chairman, Planning Committee) Announcement
11:25 – 11:35	Group Photograph
11:35 – 11:45	Prof. Rita Akosua Dickson (Vice-Chancellor, KNUST, Kumasi, Ghana) Opening of Exhibition and Poster Presentation
11:45 – 12:00	Snack break/Exhibition/Poster Presentations
12:00 – 12:30	Panel Discussion – Mr. Adeniyi Emmanuel (Regional Engagement Lead for Africa, Association of Commonwealth Universities); Dr. Edmund Aalangdong (Head of Policy, Ghana Tertiary Education Commission), Prof. Fredrick Ato Armah (Director, Research and Programmes, Association of African Universities) Chairman - Prof. Ahmed Agyapong Global Outlook For Online Learning
12:30 – 12:50	Presentation - Avi Warshavski (Founder and CEO of MindCET EdTech Innovation Center; Member of the Board of Directors of The Center for Educational Technology, Israel) Educating AI: Unleashing The AI Potential To Create A Change In Education
12:50 – 13:00	Coffee break
MC: Mr. James Kwasi Oberko / Mr. Christopher Addo Rapporteur: Alice Bagyieryele Lakyiere	



PARALLEL SESSION (ORAL PRESENTATIONS)	
Room 1 – Israeli Innovations Chair: Francesca Ofori-Ndinya Rapporteur: Mr. Godfred Yeboah Venue: Great Hall Conference Room Technical Head: Martin Sefa Anno	
13:00 – 14:40	Avi Warshavski (Founder and CEO of MindCET EdTech Innovation Center; Member of the Board of Directors of The Center for Educational Technology, Israel) Exploring Educational Technologies From The Start-Up Nation
Room 2 - Emerging Trends and Inclusivity in E-Learning Chair: Prof. Anthony Andrews Rapporteur: Mr Benjamin Prempeh Venue: OGR Board Room Technical Head: Isaac Newton Segbedzi	
13:00 – 13:15	Frank Senyo Loglo, John Y. H. Bai, Olaf Zawacki-Richter (Carl von Ossietzky Universität Oldenburg, Germany) Future Prospects Of Artificial Intelligence In Higher Education: Educators' Perspectives From A Digitally Challenged Context
13:15 – 13:30	Ruby Bafu (University of Wisconsin-Madison, USA) Online Learning, Intersectionality, and K-12 Students' Experiences
13:30 – 13:45	Olubusayo Asikhia (Lagos State University of Education, Nigeria) Perceived Adaptability Performance Of Educational Psychology Lecturers In Lagos State Colleges Of Education, Nigeria: Implications For Fostering Excellence In E-Learning. <i>Virtual</i>
13:45 – 14:00	Elizabeth Funmilola Akinyooye (University of Ibadan, Nigeria) Leveraging Technology to Enhance Safety Training in the Construction Industry. <i>Virtual</i>
14:00 – 14:20	Guest Presentation – Dr. Abena Asomaninwaa Antwi [Managing Director, Africa Environmental Sanitation Consult (AfESC), Jospong Group of Companies] Industry And Innovation: Focusing On The Use Of E-Technologies And Digital Tools In Industry
14:20 – 14:40	QnA
Room 3 - Policy, Leadership, and Professional Development Chair: Prof. Winston Abroampa Rapporteur: Lawyer Kofi Anang Venue: Great Hall Main Auditorium Technical Head: Edwin Edem Adedze	
13:00 – 13:15	Jordan Nuzala, Jonas Sowah Laryea (Simon Diedong Dombo University of Business and Integrated Development Studies, Ghana) Linking Proprietors' Intellectual Leadership To Sustainable Teaching Performance: The Roles Of Teachers' Intellectual Agility And Workplace Innovation Climate

13:15 – 13:30	Christopher Addo, Edmund Nelson Amasah, Andrew Kofi Annan (Kwame Nkrumah University of Science and Technology, Ghana) Navigating The Landscape Of Policy And Regulatory Standards In E-Learning In Ghana
13:30 – 13:45	Abiola Omokhabi, Uchechukwu Charles Osu (University of Ibadan, Nigeria) Resource Availability and Accessibility as Determinants of E-Learning Utilisation in Selected Nigerian Universities
13:45 – 14:00	Abbas Alhaji Usaini (Jigawa State College of Education, Nigeria) Impact and Influence of Social Media and AI Tools Use for Educational Performance on E-Learning in Jigawa State College of Education Students. Virtual
14:00 – 14:20	Guest Presentation – Mr. Lawrence Sarpong (Deputy Registrar, Operations, National Teaching Council, Ghana) Teacher Professional Development: Addressing The Importance Of Training Educators To Create And Implement Inclusive Digital Learning Strategies
14:20 – 14:40	QnA
Room 4 - Digitalization Across Disciplines and Sectors Chair: Rogers Sithole Rapporteur: Miss Diana Nti Appiah Venue: Main Library Technical Head: Ebo Arthur	
13:00 – 13:15	Emmanuel Oppong (Seventh-day Adventist College of Education, Ghana), Eric Appiah-Twumasi, Ebenezer Ekow Mensah (AAMUSTED, Ghana), Kenneth Darko Ateko (St. Joseph's Seminary Senior High School, Ghana) Digital Transformation In Education: Challenges, Effectiveness, And Perceptions Of Computer-Assisted Instruction Application In Physics Classroom
13:15 – 13:30	Solomon Ojedeji, Rashid Aderinoye, Oyedunni Arulogun, Tolulope Gbadamosi, Omobola Adelere, Abiola Omokhabi, Uchechukwu Osu, Rosheedat Adeniji, Rukayat Ogundipe, Oluwamayowa Adebayo (University of Ibadan, Nigeria), Morufu Oyebamiji, Joy Ezeala (University of Port-Harcourt, Nigeria), Ladan Babangida, Auwalu Halilu (Bayero University, Kano, Nigeria) The Role of the Social Media in Driving Preventive Education in Nigeria during a Global Pandemic
13:30 – 13:45	2David Ababio Awuni, Rose-Mary Owusuaa Mensah Gyening, Frimpong Twum (Kwame Nkrumah University of Science and Technology, Ghana) Enhancing Student Engagement in Online Lecture Streaming Platforms through Real-time Quizzes
13:45 – 14:00	Anas Ibrahim Wumpini, Nash Nyarko, Akyea Betty Amponsah, Stella Afi Makafui Yegblemenawo, Bernard Ampong (Kwame Nkrumah University of Science and Technology, Ghana) Revolutionising The Language Learning Experience: The Case Of Virtual Reality



14:00 – 14:15	Marius Storvik (UiT The Arctic University of Norway, Norway) The Role Of Podcasts In Norwegian Legal Education: Insights From "JUSS & JÅSS"
14:15 – 14:30	Guest Presentation – Prof. Wilberforce A. Owusu-Ansah (Africa Higher Education Health Collaborative Project, KNUST, Ghana) Digital Transformation In The Health Sector: Lessons From The Mastercard Health Collaborative Project
14:30 – 14:40	QnA
14:40 – 14:55	PLENARY DISCUSSION Chair: Prof. I. K. Dontwi
14:55 – 15:00	Dr. Kwadwo Boakye Boadu (Chairman, Planning Committee) Closing Remarks
15:00 – 16:00	Lunch Break

FRIDAY JULY 12, 2024	
8:00 – 9:00	Registration of Participants
9:00 – 9:05	Opening Prayer
9:05 – 9:20	Dr. Linda Amoako Banning (Chief Rapporteur) A recap of key activities for day 1
9:20 – 9:50	Presentation - Dr. Aras Bozkurt [Assoc. Professor of Distance Education, Anadolu University, Open Education Faculty Eskişehir, Turkey] Generative AI In The Educational Landscape: The Hypes And Promises. Virtual
9:50 – 10:00	Video Documentary KNUST E-learning Initiatives
10:00 – 10:30	Presentation – Dr Sam Awuku [Key Advisor, Leadership, Institutional Development & Secondary Education, T-TEL, Ghana] Innovative Pedagogies For E-Learning Excellence: Lessons From T-TEL
10:30 – 10:50	One-on-One Interaction with Professor Colin Riordan: International Partnerships And Emerging Trends In Global Higher Education
10:50 – 11:05	Snack break/Exhibition/Poster Presentations
MC: Prof. Hannah Vivian Osei Rapporteur: Alice Bagyieryele Lakyiere	



PARALLEL SESSION (ORAL PRESENTATIONS)

Room 1 – Innovative Pedagogy and Technology Integration

Chair: Mr. Frank Loglo Senyo
Venue: Great Hall Conference Room

Rapporteur: Mr. Seth Mawuli Yaw Amehe
Technical Head: Martin Sefa Anno

11:05 – 11:20	Cynthia Fofa Dsane (Mount Mary College of Education, Ghana) Using Social Media For Assessment Of Teaching Practice: Pedagogical Training And Practises
11:20 – 11:35	Daniel Korsah (Komenda College of Education, Komenda, Ghana), Issah Bala Abdulai (PhD) (Kibi College of Education, Kibi, Ghana) and Justice Kwame Wireko-Ampem (Berekum College of Education, Berekum, Ghana) Acceptance of Google Classroom: An Exploratory Study Using UTAUT Approach
11:35 – 11:50	Boluwatife Emmanuel Oyekunle, Taofeek Gbolahan Muibi (University of Ibadan, Nigeria) Assessing The Impacts Of Quality Assurance Measures On Students' Learning Effectiveness At The University Of Ibadan's Distance Learning Centre, Nigeria
11:50 – 12:05	Keren-Happuch ZOE, Ralitsa Diana Debrah, Adams Rahman (Kwame Nkrumah University of Science and Technology, Ghana) Enhancing E-Learning Through Effective Information Design: A Practical Analysis Of Selected Materials
12:05 – 12:25	Guest Presentation - Prof. Edward Appiah (Director General, National Council for Curriculum and Assessment, Ghana) Innovative Methods For Assessing Learning Outcomes In Diverse Disciplinary Contexts
12:25 – 12:45	QnA

Room 2 - Emerging Trends and Inclusivity in E-Learning

Chair: Dr. Kennedy Ameyaw Baah
Venue: OGR Board Room

Rapporteur: Mr. Eric Okpoti
Technical Head: Isaac Newton Segbedzi

11:05 – 11:20	Eric Appiah-Twumasi (Akonten Appiah-Menka University of Skills Training and Entrepreneurial Development, Ghana), Kenneth Darko Ateko (Joseph Seminary/Senior High School, Ghana), Veronica Sarpong (Osei Kyeretwie Senior High School, Ghana), Simon Tanko Efficacy Of Flipped Learning Pedagogy On Senior High School Physics Students' Retention And The Nature Of Feedback On Electronics Studies
11:20 – 11:35	Olasunkanmi, Israel Abayomi, Tolulope Victoria Gbadamosi (University of Ibadan - Ibadan, Nigeria) Examining The Influence Of Technology Attitude, Operations, And Gender On Digital Teaching Competence: A Study Of Economics Pre-Service Teachers In Oyo State, Nigeria

11:35 – 11:50	Ikmat Olanrewaju Junaid and Charles Oghenerume Onocha (University of Ibadan, Nigeria) Students' Cohesion And Voice Engagement Dynamics In Nigerian University Classrooms
11:50 – 12:05	Kwadwo Boakye Boadu, Joana Serwaa Ameyaw (Kwame Nkrumah University of Science and Technology, Ghana) Patterns And Demographic Factors Influencing E-Learning Platform Use By Undergraduate Students In The Multidisciplinary Degree Program In Packaging Technology
12:05 – 12:25	Guest Presentation - Greg Heiberger (Associate Dean of Academics & Student Success, South Dakota State University, USA) Emerging Trends In Multidisciplinary Online Teaching And Learning Environments: Emerging Trends, Technologies, And Methodologies Shaping The Future Of E-Learning Across Disciplines. <i>Virtual</i>
12:25 – 12:45	QnA
Room 3 - Policy, Leadership, and Professional Development Chair: Prof. Dadson Awunyo-Vitor Rapporteur: Ebenezer Senyo Venue: Great Hall Main Auditorium Technical Head: Edwin Edem Adedze	
11:05 – 11:20	Bertha Wallah (Ghana Communication Technology University, Ghana), Frank Senyo Loglo (Carl von Ossietzky Universität Oldenburg, Germany) An Institutional-Level Assessment Of Support Services For Odde In Selected Ghanaian Universities
11:20 – 11:35	Akwasi Adomako Boakye (Kwame Nkrumah University of Science and Technology, Ghana) Design and Development of Pedagogical Agent Persona to Enhance Project-Based Learning in Ghanaian Senior High Schools
11:35 – 11:50	Dzifa Abra Attah, Mawusie Seth Asafo, Jonathan Kuma Gavi, Angela Lamensdorf Ofori-Atta, Sammy Ohene (University of Ghana, Ghana), Alexa Beaulieu, Dror Ben-Zeev, Anna Larsen (University of Washington, USA), Kwadwo Marfo Obeng (Accra Psychiatric Hospital, Ghana) Facilitating Uptake Of A Digital Toolkit (M-Healer) To Improve Care For People With Serious Mental Illness In Ghana: Cross-Cultural E-Training.
11:50 – 12:05	Matthew Nyaaba, Xiaoming Zhai (University of Georgia, USA) Towards Responsible AI Use: Innovative Assessment In Education
12:05 – 12:20	Bamikole Fashogbon (University of Ibadan, Nigeria), Gbenro, Idowu Abiodun (Alayande University of Education, Oyo State, Nigeria) Nigeria Central Bank Cashless Monetary Policy and Sustainability of Small Scale Businesses: A Clarion Call for Adult and Non-Formal Education Interventions



12:20 – 12:35	Guest Presentation - Dr. Edmund Aalangdong (Head, GTEC Policy, Ghana) Policy And Regulatory Standards In E-Learning: The Development And Implementation Of Policies And Standards That Promote Excellence In E-Learning.
12:35 – 12:45	QnA
Room 4 - Digitalization Across Disciplines and Sectors Chair: Prof. Ebenezer Malcalm Rapporteur: Elisha Soglo-Ahiany Venue: Main Library Technical Head: Ebo Arthur	
11:05 – 11:20	Evans Obu (University of Mines and Technology, Ghana) Optimizing Student Learning Environments Through Fog Computing-Powered Smart Seating Systems: A Comparative Study
11:20 – 11:35	Fred Asare (All Nations University, Ghana) The Impact Of Blended Learning On Knowledge Sharing And Skills Development Amongst Students At All Nations University, Ghana
11:35 – 11:50	Prince Ebenezer Adjei, John Amuasi (Kumasi Center for Collaborative Research in Tropical Medicine, Ghana) Harnessing E-Learning To Enhance Global Health Research and Capacity Building
11:50 – 12:05	Stephen Twumasi, Lilian Antwi Boateng, Enoch Odame Anto (Kwame Nkrumah University of Science and Technology, Ghana) Conventional renal markers are insensitive to early stages of nephropathy in steady state sickle cell disease patients. A case-control study in Ghana
12:05 – 12:25	Guest Presentation - Prof. Ebenezer Malcalm (Dean, School of Graduate Studies, Ghana Communication Technology University) Assessment Of Instructor Readiness Towards E-Learning Implementation In Senior High Schools In Ghana
12:25 – 12:45	QnA
12:45 – 13:05	PLENARY DISCUSSION Chair: Prof. I. K. Dontwi
13:05 – 13:40	Presentation – Major General Richard Addo Gyane [Commandant, Kofi Annan International Peacekeeping Training Centre (KAIPTC), Ghana] Strategic Management In Promoting E-Learning Excellence
13:40 – 14:10	Award Presentation - Prof. Eric Appau Asante (Director of E-Learning Centre, KNUST, Kumasi)

14:10 – 14:25	Professor Colin Riordan [Secretary-General and Chief Executive, Association of Commonwealth Universities (ACU)] Keynote Speaker's Final Reflections
14:25 – 14:35	Prof. Rita Akosua Dickson (Vice-Chancellor, KNUST, Kumasi, Ghana) Closing Remarks
14:35 – 14:40	Dr. Kwadwo Boakye Boadu (Chairman, Planning Committee) Announcement
14:40 – 14:45	University Chaplain Closing Prayer
14:45 – 15:05	Lunch

MC: Ms. Anita Akua Kyerewaa Kuma





POSTERS

POSTERS

Evans Obu (University of Mines and Technology, Tarkwa, Ghana)
A Novel Smart Campus Framework That Uses Blockchain For Information Security And Fog/Edge Computing For Scalability

Emmanuel Oppong, Gadafi Iddrisu Balali (Seventh-day Adventist College of Education, Agona – Ashanti, Ghana)
Computer-Assisted Instruction In Teaching Science – A Synoptic Review

Joseph Ansah (Kwame Nkrumah University of Science and Technology, Ghana)
Determination Of The Learning Moods Of Online Learners Using Emotion Modeling In Speech Signals Using Feature Extractions And Machine Learning

Eric Appau Asante, Dylan Harold Abakah, Daniel Obeng Atuah, David Kwesi Nketiah Arthur (Kwame Nkrumah University of Science and Technology, Ghana)
Towards Sustainable Futures: Empowering Industries With Digital Literacy On E-Technologies Through Academia-Industry Partnership

Eric Appau Asante, Dylan Harold Abakah, Daniel Obeng Atuah (Kwame Nkrumah University of Science and Technology, Ghana)
Building a Resilient Administrative Ecosystem Through a Collaborative Digital Culture: A Journey from Paper to E-administration

Isaac Gyasi, qarî'kachä seid'ou, Sylvester Kwame Lumor, Luke Amateye Tettehio (Kwame Nkrumah University of Science and Technology, Ghana)
Iconic On-Loom Tapestry Imagery Weaving Dubbed "Nkrumah Never Dies" Using Asante Traditional Kente And Ewe Kete Inspired Digital Concepts.

Luke Amateye Tettehio (Kwame Nkrumah University of Science and Technology, Ghana), Hubert Asiwome Amevor (Ada College of Education, Ghana), Emmanuel Agbenyegah Ayerteye (Mt. Mary College of Education, Ghana)
Impact Of E-Portal System On The Teaching Practicum Skills Of Trainee Teachers: A Case Study Of The Ada And Mt. Mary Colleges Of Education

Luke Amateye Tettehio (Kwame Nkrumah University of Science and Technology, Ghana), Emmanuel Agbenyegah Ayerteye (Mt. Mary College of Education, Ghana), Hubert Asiwome Amevor (Ada College of Education, Ghana)
Development Of E-Portal System For Improved Teaching Practicum Of Teacher Trainees In Ghana: A Case Study Of The Ada And Mt. Mary Colleges Of Education.

Kofi Ayebi-Arthur (University of Cape Coast, Ghana)
The Impact of Flipped Classrooms on Student Learning in Blended Learning Programmes: Benefits, Challenges, and Strategies for Success

Olufemi Adebayo Abiona, Ihezue Donatus Ukpabi (University of Ibadan, Nigeria)
Contemporary Issues and Prospects of Teacher Professional Development in Nigeria

Ihezue Donatus Ukpabi, Olufemi Adebayo Abiona (University of Ibadan, Nigeria)
Assessment of the Quality and Relevance of Vocational Education and Training (Vet) in Ibadan, Oyo State

David Azanu (Kwame Nkrumah University of Science and Technology, Ghana)
Virtual Environmental Analysis Laboratory in Ghanaian Tertiary Education: Challenges, Prospects, and Advancement





BOOK OF ABSTRACTS



FUTURE PROSPECTS OF ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION: EDUCATORS' PERSPECTIVES FROM A DIGITALLY CHALLENGED CONTEXT

Frank Senyo Loglo¹, John Y. H. Bai¹, & Olaf Zawacki-Richter¹

¹Center for Open Education Research (COER), Faculty of Educational and Social Sciences, Carl von Ossietzky Universität Oldenburg, Germany

Recent advancements in artificial intelligence applications in education (AIEd) have garnered substantial public interest and signalled transformative shifts in educational spaces and postdigital futures. Similarly, there are contesting views on how best to use AI, particularly considering the potential for unintended consequences and exacerbating deep digital divides. To shape future scenarios of AIEd, it is imperative to incorporate the perspectives of a diverse range of educational stakeholders, particularly educators. While recent efforts have aimed at centering educator perspectives, educators' perspectives are underrepresented in digitally challenged contexts of the Global South. To address this gap, we utilized a qualitative approach to conduct two focus groups in Ghana with university educators working in the Social Sciences and Science, Technology, Engineering, and Mathematics (STEM) disciplines. In both focus groups, we presented participants with four scenarios that each described implementing a hypothetical AIEd application in their universities. A descriptive thematic analysis of the focus-group transcripts identified two key themes regarding possible future AIEd applications: 1) concerns about the specific variables used by the applications, and 2) limited generalizability of AI technologies developed from the Global North and the unique challenges to applying them to digitally challenged contexts. These contributions highlight the importance of including teachers from diverse geographic contexts in multi-stakeholder discussions and the need to cater these technologies to local contexts.

Keywords: artificial intelligence in education, focus groups, higher education, teachers, thematic analysis

ONLINE LEARNING, INTERSECTIONALITY, AND K-12 STUDENTS' EXPERIENCES

Ruby Bafu

University of Wisconsin-Madison, USA

The growth of online learning in the U.S. presents an opportunity to reimagine traditional learning, yet little is known about how schooling operates at a distance. This paper focuses on Cherry Grove, an online learning program for students in grades 5-12 in a large, Midwestern public school district in the US. I utilize digital ethnographic methods, including virtual observations and interviews of students and teachers, to understand how the program allows for the disruption or mirroring of traditional schooling norms and inequalities. I find that: 1) Cherry Grove both mirrors and disrupts traditional schooling practices. 2) There are equity issues, particularly in relation to student engagement, present at Cherry Grove due to its organizational structure. 3) Despite these equity-related challenges with student engagement, Cherry Grove has showcased various opportunities for innovative and effective schooling practices. Through its in-depth examination of online schooling, this paper contributes to the literature on the organizational context of schools and offers important insights for education policy and practice.



PERCEIVED ADAPTABILITY PERFORMANCE OF EDUCATIONAL PSYCHOLOGY LECTURERS IN LAGOS STATE COLLEGES OF EDUCATION, NIGERIA: IMPLICATIONS FOR FOSTERING EXCELLENCE IN E-LEARNING

Olubusayo Asikhia

Lagos State University of Education, Nigeria

The integration of e-learning tools in making students engage in higher-order thinking has not been fully embraced by many higher institutions in Nigeria. Many lecturers who teach Educational Psychology course continue to employ traditional approaches to teaching and assessments without utilizing e-learning tools. This study, therefore, examines student teachers' perceptions of educational psychology lecturers' adaptability performance in Michael Otedola College of Primary Education in Nigeria. A descriptive survey design was used and data were collected through total enumeration sampling from 369 second-year students who completed a self-developed questionnaire. The difference of means and ANOVA were used to analyse data and findings revealed that the lecturers' adaptability performances were high. The study recommends that the training and re-training of lecturers to aid their knowledge and competencies in e-learning should be taken with the utmost commitment by organizing seminars, workshops, and symposia for them, Curriculum planners and policymakers should also revisit and incorporate electronic and information technology into the curriculum; e-learning education should be recognized as core to every tertiary institution's plan for institutional resilience and academic continuity; online lectures for large population of students should be encouraged and management of online learning must also be integrated into existing academic leadership structures and processes.

LEVERAGING TECHNOLOGY TO ENHANCE SAFETY TRAINING IN THE CONSTRUCTION INDUSTRY IN NIGERIA.

Funmilola Elizabeth Akinyooye Ph. D

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Safety training in the construction industry plays a crucial role in preventing accidents, injuries, and fatalities. However, current practices of safety training in the Nigerian construction industry are faced with diverse challenges such as time and resource constraints, dynamic nature of construction sites, language and literacy barriers, low retention and recall and ineffective mechanism for feedbacks. This paper focuses on the integration of technological devices to enhance safety training programs within the construction industry. It explores current practices and identifies challenges associated with risk assessment and hazard mitigation. It emphasizes the potential benefits of leveraging advanced technologies such as wearable sensors, virtual reality simulations, and artificial intelligence systems. By incorporating wearable sensors into safety training programs, organizations can monitor real-time data regarding workers' vital signs, motion patterns, and exposure to hazardous conditions. Virtual reality simulations offer a safe and controlled environment for trainees to practice handling potential hazards, improving their decision-making skills and response times. Additionally, artificial intelligence systems can analyze massive datasets to identify patterns and predict potential safety risks, enabling proactive hazard mitigation strategies. The paper aims to provide valuable insights into how technological devices can revolutionize safety training practices in the construction industry. It discusses the impact of these devices on reducing accidents, improving safety awareness, and fostering a culture of safety among workers.

Keywords: Safety Training, Construction industry, Technology devices

LINKING PROPRIETORS' INTELLECTUAL LEADERSHIP TO SUSTAINABLE TEACHING PERFORMANCE: THE ROLES OF TEACHERS' INTELLECTUAL AGILITY AND WORKPLACE INNOVATION CLIMATE

Jordan Nuzala and Jonas Sowah Laryea

Simon Diedong Dombo University of Business and Integrated Development Studies, Ghana

Despite the increasing scholarly interest in investigating intellectual leadership-sustainable teaching performance link, the resulting outcomes have not been consistent. Nevertheless, studies have not examined teacher level and environmental factors that may serve as boundary conditions to explain the relationship. Drawing on the social cognitive theory, the present study examined how and when intellectual leadership influences sustainable performance by considering teachers' intellectual agility as a mechanism and workplace innovation climate as a significant factor. The sample was selected using stratified random sampling technique. Data was collected from 420 teachers and supervisors' in Ghana using structured questionnaire. The data was analyzed using structural equation modelling with Hayes Process Macros in SPSS as well as AMOS. The findings showed that intellectual leadership positively affect sustainable teaching performance and this relationship was mediated by teachers' intellectual agility. Workplace innovation climate also moderated the relationship between intellectual leadership and teachers' intellectual agility. Conclusions: The study examined intellectual leadership-sustainable teaching link by incorporating other important factors. Amongst others, this study is unique for being among the few studies that provides policymakers and educational leaders with most significant areas of insight for promoting teaching performance sustainability and teachers' professional development. **Keywords:** Intellectual Leadership, Sustainable Teaching Performance, Teachers' Intellectual Agility, Workplace Innovation Climate.

NAVIGATING THE LANDSCAPE OF POLICY AND REGULATORY STANDARDS IN E-LEARNING IN GHANA

Christopher Addo¹, Edmund Nelson Amasah¹, Andrew Kofi Annan¹

¹Kwame Nkrumah University of Science and Technology, Ghana

The rapid progress of digital technology has dramatically altered the educational landscape, with e-learning emerging as a critical medium for instruction and learning around the world. In Ghana, integrating e-learning systems that propagate quality teaching and learning, into educational institutions brings both potential and obstacles, demanding a thorough grasp of the legal and regulatory frameworks governing their application. The purpose of this article is to examine the present policy and regulatory standards for e-learning in Ghana, including their sufficiency, implementation, and influence on educational achievements. This article provides an overview of the e-learning initiatives undertaken in Ghana, highlighting the progress and milestones achieved thus far. The paper also delves into the specific policies and regulations that have been established by Ghanaian educational authorities, such as the Ministry of Education and the Ghana Education Service, to facilitate and standardize e-learning practices. The paper analyzes the legal instruments and guidelines that have been enacted to ensure quality, accessibility, and equity in e-learning, as well as the measures taken to protect the data and privacy of learners. Furthermore, the paper evaluates the effectiveness of these policies and regulations in addressing the challenges faced by stakeholders, including infrastructure limitations, digital literacy, content development, and the digital divide. We discuss the role of government, private sector, and international partnerships in shaping the e-learning policy landscape in Ghana. The paper offers recommendations for strengthening the policy and regulatory framework to better support the growth and sustainability of e-learning in Ghana. It also outlines the potential for future research and development in this area, emphasizing the need for a collaborative approach to create an enabling environment for e-learning that is both inclusive and forward-looking.

Keywords: E-learning, Policy, Regulation, Ghana, Digital Education, Educational Technology, Data Privacy, Quality Assurance, Accessibility, Digital Divide.



RESOURCE AVAILABILITY AND ACCESSIBILITY AS DETERMINANTS OF E-LEARNING UTILISATION IN SELECTED NIGERIAN UNIVERSITIES

Abiola Omokhabi¹ & Uchechukwu Charles Osu¹

¹University of Ibadan, Nigeria

This paper examines resource availability and accessibility as determinants of e-learning utilisation in selected Nigerian universities, in a bid to sustain the integration of technology in higher education of learning around the world. The paper details how resource availability (hardwares, softwares and internet access) and accessibility can be useful during teaching and learning in the selected Nigerian universities. Descriptive survey design was adopted with a multistage sampling procedure. Two Federal Nigerian Universities utilising e-learning resources were purposively selected. A total of 100 lecturers from University of Ibadan and Federal University, Oye Ekiti participated in the study. A questionnaire tagged Resource Availability and Accessibility as determinants of e-learning utilisation in selected Nigerian universities (AADOELUINSN) was used for the data collection with a reliability coefficient of 0.75. The result was analysed descriptively using mean, standard deviation and frequency counts. Finding shows that e-learning resources (hardwares, softwares, and internet access) were not adequately available and for that reason, lecturers had minimal access for instructional development purposes. The study recommends that Universities should prioritise providing lecturers and students with adequate (ICT) resources to facilitate e-learning utilisation. Additionally, dire need for collaboration with relevant service providers to develop training programmes for creating ICT compatible resources could be beneficial.

IMPACT AND INFLUENCE OF SOCIAL MEDIA AND AI TOOLS USE FOR EDUCATIONAL PERFORMANCE ON E-LEARNING IN JIGAWA STATE COLLEGE OF EDUCATION STUDENTS.

Abbas Usaini Alhaji

Department of Computer Science, School of Secondary Education (Science), Jigawa State College of Education, Gumel, Nigeria

The study examines the Impact and Influence of social media and Artificial Intelligence (AI) Tools on the Educational Performance of Students Engaged in E-learning at Jigawa State College of Education. Data was collected through a mixed-methods approach, combining quantitative interview and qualitative questionnaire to gather comprehensive insights from students and teacher educators. The findings indicate that social media platforms serve as significant channels for collaborative learning and peer support, facilitating information sharing and academic discussions outside traditional classroom settings. Moreover, AI tools, including adaptive learning systems and intelligent tutoring, have shown to personalize learning experiences, thereby improving student performance and retention rates. However, the study also identifies barriers such as digital literacy gaps, internet accessibility issues, and the potential for distraction and misuse of social media. The research underscores the need for targeted training programs and infrastructure improvements to maximize the benefits of these technologies. The result stated shows that 60% of the student enrolled with e-learning was not familiar with the platform, including the AI tools to utilize it for or their learning activities while 40% shows excellent performance for both e-learning and appropriate use of social media. The implications of this study suggest that when effectively integrated, social media and AI tools can significantly enhance the e-learning experience, promoting higher educational performance among students. Future research should focus on longitudinal studies to assess long-term impacts and explore strategies to mitigate the identified challenges.

Keywords: Education, Artificial Intelligence (AI), Social Media, E-Learning, Teacher Educators.

DIGITAL TRANSFORMATION EDUCATION: CHALLENGES, EFFECTIVENESS, AND PERCEPTIONS OF COMPUTER-ASSISTED INSTRUCTION APPLICATION IN PHYSICS CLASSROOM

Emmanuel Oppong¹, Eric Appiah-Twumasi², Ebenezer Ekow Mensah², Kenneth Darko Ateko³

¹Seventh-day Adventist College of Education, Ghana,

²AAMUSTED, Ghana

³St. Joseph's Seminary Senior High School, Ghana

The main objective of the study was to examine the challenges, effectiveness and students' perceptions on Computer-Assisted Instructions (CAI) application in colleges of education physics classrooms. The concurrent triangulation design, involving 12 physics tutors and 254 physics students from three CoEs in the Sekyere South District and the Mampong Municipality were used. Data was collected through interviews and questionnaires, and analysed descriptively and thematically. Results from the quantitative analysis revealed that physics tutors encountered significant challenges, primarily stemming from inadequate technological resources and limited financial support. In response, tutors employed various strategies, such as personal investment in internet bundles and advocating for institutional intervention. Students' perceptions towards the effectiveness of CAI were found to be at the "highest level", with some of their perceptions being "improved understanding of physics concepts", "adoption of CAI in their professional careers" and "recommendation of continuous use of CAI". Factors that contributed to students' highest level of perceptions of CAI effectiveness included "enhanced learning outcomes", "relevance of content", as well as "suitability to individual learning styles" amongst others. Integration of quantitative and qualitative findings revealed convergence and agreement between the quantitative and qualitative sets of data. Overall, this research underscores the transformative potential of CAI in Physics education within CoEs and emphasizes the importance of collaborative efforts to overcome challenges and maximize the benefits of technology-mediated learning for both tutors and students. Through strategic investments, innovative approaches, and ongoing research, CoEs can harness the power of CAI to cultivate a generation of scientifically literate and technologically proficient graduates equipped to thrive in an increasingly digital world.

Keywords: Computer Assisted Instruction, College of education, Physics, Technology

THE ROLE OF THE SOCIAL MEDIA IN DRIVING PREVENTIVE EDUCATION IN NIGERIA DURING A GLOBAL PANDEMIC

Solomon O. Ojedeji¹, Rashid A. Aderinoye¹, Oyedunni Arulogun², Omobola O. Adedire¹, Morufu A. Oyebamiji⁴, Tolulope V. Gbadamosi³, Abiola A. Omokhabi¹, Ladan Babangida, L.⁵, Auwalu Halilu⁵, Joy I. Ezeala⁴, Uchechukwu C. Osu¹, Rosheedat Adeniji¹, Rukayat O. Ogundipe¹ and Oluwamayowa A. Adebayo¹

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⁴Department of Adult and Non-Formal Education, University of Port-Harcourt, Nigeria

⁵Department of Adult Education and Community Services, Bayero University, Kano, Nigeria

When the entire world was ravaged by the Coronavirus popularly known as COVID-19, the difference between those who died or survived the pandemic was beyond clinical explanations alone. Preventive education strategies also served as a 'vaccine', and armed many in the fight against the spread of the disease. This paper reports part of the findings of a larger national study which investigated preventive education strategies as vaccine to COVID-19 prevalence and related diseases in Nigeria. The specific objectives of this study were to: ascertain the specific social media platforms preferred by the public to access COVID-19 preventive education messages; and determine the educational strategies used to disseminate preventive information via the social media. A descriptive survey



design was used, and convenience sampling technique adopted to select 9,000 respondents across 3 states including Oyo, Rivers and Kano. A self-structured questionnaire having three scales served as the instrument for data collection. The instrument was validated and pilot-tested, and a reliability coefficient of 0.75 obtained. The 8,561 copies of the questionnaire retrieved out of 9,000 were analysed using frequency counts and percentages with graphs. Results revealed WhatsApp, Facebook, Instagram, and Twitter as the main social media platforms the public preferred to access COVID-19 preventive education messages. Results also revealed that during this period, the kind of contents the public received via the social media include Jingles, short plays, e-flyers and posters, and others. Recommendations were made that the social media could be used as viable means to educating the public in case of future pandemics or the emergence other issues of public health concern in Nigeria.

Keywords: COVID-19; Preventive education; Socio-economic; Mental health; Nigeria

ENHANCING STUDENT ENGAGEMENT IN ONLINE LECTURE STREAMING PLATFORMS THROUGH REAL-TIME QUIZZES

David Ababio Awuni¹, Rose-Mary Owusuaa Mensah Gyening¹, Frimpong Twum, Anthony Mensah¹, Written-Right Ohene¹

¹Kwame Nkrumah University of Science and Technology, Ghana

This research focuses on enhancing student engagement in online lecture streaming platforms through the implementation of an AI-driven real-time quiz generation system. The primary objective is to monitor and promote active participation among students during live lectures by dynamically assessing their comprehension and understanding of the material being presented. The proposed system utilises machine learning algorithms to analyse ongoing lecture content, and determine optimal points at which to generate quiz questions. These questions are designed to assess students' comprehension of the lecture and encourage interaction and critical thinking. Evaluation of the system's effectiveness will be conducted through quantitative analysis of student engagement metrics, such as quiz participation rates and quiz performance. Additionally, qualitative feedback from students and instructors will be collected to assess the perceived impact of the system on learning outcomes. By leveraging machine learning technology to promote active student engagement in online lectures, this research aims to contribute to the development of more interactive and effective educational platforms. Ultimately, the goal is to create a learning environment that fosters deeper understanding and retention of course material, leading to improved academic performance and student success.

REVOLUTIONISING THE LANGUAGE LEARNING EXPERIENCE: THE CASE OF VIRTUAL REALITY

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Study abroad programmes for Ghanaian foreign language students in the tertiary institutions have long been important for intensive language learning due to the significance of multilingual fluency and cultural competency. Although study abroad opportunities provide valuable opportunities for language and cultural immersion as well as life-changing experiences, many Ghanaian students are unable to pursue them because of logistical, financial, or physical constraints. Virtual reality (VR) technology emerges as a promising alternative to provide a simulated immersion experience with

a focus on developing speaking and listening skills. This research, thus, assesses the effectiveness of VR-based language learning compared to traditional study abroad programmes, examining proficiency gains, cultural immersion, accessibility, engagement, and sustainability. Through theoretical frameworks such as constructivism, socio-cultural theory, and technology acceptance model, this research investigates the pedagogical approaches, user acceptance, and adaptation to VR language learning environments. Data collection involved interviews, questionnaires and focused group discussions with 68 prospective study abroad students, 23 students with past experience and 4 lecturers of French from Kwame Nkrumah University of Science and Technology (KNUST). Preliminary results reveal a positive attitude towards VR technology among students, particularly those with limitations, who believe it can improve language learning. However, 50% of prospective students are unsure if VR can fully replace study abroad experiences due to technical limitations and cultural authenticity issues. Lecturers, aware of the challenges with traditional Year Abroad programs, have mixed views on VR integration, expressing concerns about cost and accessibility. This research offers insights into the use of VR technology in the teaching of foreign languages in Ghana, guiding policymakers in introducing it into programmes, determining funding priorities, as well as creating richer language learning experiences for diverse learners.

Keywords: study abroad programmes, foreign language learning, virtual reality (VR) technology, fluency, culture

THE ROLE OF PODCASTS IN NORWEGIAN LEGAL EDUCATION: INSIGHTS FROM "JUSS & JÅSS"

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The primary aim of the Norwegian podcast "Juss & Jåss" is to make legal academic discussions accessible to a broader audience, including students, by blending rigorous academic content with humor and informal dialogue. The podcast also seeks to highlight the research of distinguished colleagues and provide timely commentary on legal developments. Launched in 2019 by Marius Storvik, an associate professor in law and Gunnar Eriksen full professor in law. The podcast leverages digital platforms to reach its audience. The podcast production involves a collaborative effort with students who manage guest invitations and marketing through social media channels. Each episode features discussions on legal topics, often involving guest researchers and experts. The podcast is promoted during lectures and through dedicated social media campaigns. The podcast has enhanced student engagement, demonstrated by students referencing podcast content during lectures and discussions. This indicates active listening and integration of podcast material into their broader academic pursuits. The integration of multimedia elements, such as video snippets, has expanded the podcast's reach and appeal. One challenge has been maintaining academic rigor while making content accessible and engaging for students, which has been addressed by tailoring episodes to specific legal subjects and repurposing content to fit various academic needs. "Juss & Jåss" showcases the potential of integrating multimedia tools into legal education. The podcast has successfully created a platform for dynamic and interactive learning, blending formal academic content with informal dialogue. This approach not only engages students but also broadens the scope of traditional legal education. Key lessons from this initiative include the importance of initiating innovative projects, the benefits of student involvement in content creation, and the necessity of adapting to new educational trends and technologies.

Keywords: E-learning, Podcast, Student Engagement, Pedagogical Innovation, Legal Education, Norway



USING SOCIAL MEDIA FOR ASSESSMENT OF TEACHING PRACTICE: PEDAGOGICAL TRAINING AND PRACTISES

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This paper investigates the potential of social media in enhancing teaching practice among student teachers. The teacher training programme assesses both content acquisition and practicum of student teachers. Despite the emphasis on teaching techniques in social studies education, a decline in their use has been observed. To address this, the study explores the effectiveness of leveraging social media in assessing and improving teaching practice. The research objectives are to: (1) determine the effectiveness of using social media for assessing teaching practice of student teachers and (2) to examine the effect of social media assessment on teaching practice. A qualitative approach was employed, with a population of 98 level 200 Social Studies students and a convenience sample of 12 participants. Face to face interviews, virtual focus group discussions and observation were the data collection tools. The major findings of the study were that: social media employed videos and interactive feedbacks to assess teaching practice, offered assessors the opportunity to prepare student teachers adequately for future teaching practice, led to development of digital skills and introduction to digital assessment. Social media assessment began with the creation of group platform on WhatsApp, assignment of task on the page, discussion of the task, presentation evidence of work, evaluation of work and discussion of feedback on WhatsApp. The study concluded that social media assessment enhanced student teachers' performance, supports pedagogical training and consequently can be used for formative assessment purposes.

Keywords: Social media, practical teaching, pedagogy, student teacher, teaching practice.

ACCEPTANCE OF GOOGLE CLASSROOM: AN EXPLORATORY STUDY USING UTAUT APPROACH

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This study investigated the factors influencing pre-service teachers' usage of Google Classroom within the Unified Theory of Acceptance and Use of Technology (UTAUT) framework. We extend the UTAUT model by proposing and examining a new construct: Perceived Reliability. The study employs a descriptive and confirmatory cross-sectional survey design with 337 pre-service teachers selected through a multi-stage technique (purposive and stratified random sampling). Frequencies and percentages organised in tables, correlation and regression analysis were used to analyse the data. Our findings reveal that Performance Expectancy and Effort Expectancy exert a strong positive influence on Behavioral Intention to use Google Classroom. Furthermore, a moderate positive influence of Facilitating Conditions is observed on both Behavioral Intention and Use Behavior. The newly introduced construct, Perceived Reliability, also demonstrates a moderate positive influence on Use Behavior. These findings suggest that pre-service teachers' intention to utilize Google Classroom is significantly influenced by their belief in its ability to enhance their performance and the ease with which they can learn and use the platform. Additionally, the availability of institutional support structures and a reliable technological infrastructure play a moderate yet crucial role in shaping both their intention and actual use of the technology. Based on these results, we recommend implementing comprehensive training programs that specifically target Colleges of Education (CoE) and Senior High School (SHS) students and teachers who are not yet Google Classroom users. Furthermore, strengthening institutional support systems through robust maintenance plans and prompt resolution of network issues on campus can significantly improve user perceptions of Google Classroom's reliability, ultimately encouraging continued adoption and

integration within the pre-service teacher community.

Keywords: Pre-service teachers, Google Classroom, UTAUT framework, Perceived Reliability, Behavioral Intention

ASSESSING THE IMPACTS OF QUALITY ASSURANCE MEASURES ON STUDENTS' LEARNING EFFECTIVENESS AT THE UNIVERSITY OF IBADAN'S DISTANCE LEARNING CENTRE, NIGERIA

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The study examined the effects of quality assurance measures implemented at the Distance Learning Centre of the University of Ibadan on the effectiveness of students' learning. A random sampling technique was used to select 200 students from different faculties, including Arts, Education, Science, and The Social Sciences, covering levels 100 to 500. A survey named the Perceived Quality Assurance Mechanisms Implementation on Learning Effectiveness in Distance Education Inventory (PQAMILEDEI) was employed to collect data. The survey consisted of 30 items, achieving a reliability coefficient of 0.81. Descriptive survey methodology was utilized for data analysis, employing techniques such as frequency counts, simple percentages, analysis of variance (ANOVA), mean, and standard deviation. The results indicated that quality assurance methods, including course design, teaching and learning approaches, assessment and evaluation practices, learner support services, and environmental infrastructure, had a significant impact on students' learning outcomes ($F(5, 196) = 111.823$; $R^2 = 0.74$). These factors accounted for 73.4% of the variation in learning effectiveness. Based on the findings, the study recommended that the management of the Distance Learning Centre at the University of Ibadan design policies and management structures to address various aspects of quality assurance in their distance learning program. This proactive approach would ensure compliance with the rigorous demands of twenty-first-century education.

Keywords: Quality Assurance Measures, Learning Effectiveness, Open and Distance Learning, Distance Learning Centre, Distance Learners.

ENHANCING E-LEARNING THROUGH EFFECTIVE INFORMATION DESIGN: A PRACTICAL ANALYSIS OF SELECTED MATERIALS

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In today's society, design serves as a vital tool, especially in the realm of e-learning. This paper delves into the significance of information design in crafting an enriching e-learning experience. Information design facilitates effective communication by presenting content in a user-friendly manner. The objective of our investigation is to determine if current e-learning materials follow information design principles. Qualitative content analysis was employed. By analysing ten teaching resources, we seek to provide practical guidance for e-learning tutors to create content that resonates with their audience. Through content analysis, we evaluate the learning materials' clarity, engagement, and absorption. Furthermore, we scrutinise the incorporation of information design philosophies, considering whether the materials consist solely of text, text plus images, or images alone. All ten (10) materials that met the inclusion criteria were identified, and the content analysis was based on four major themes: text only, image only, text plus image and icons or charts. The results indicate that a higher percentage do not apply information design principles although some materials incorporated images, and icons. By encouraging various stakeholders to embrace comprehensible data presentation, we aim to enhance the effectiveness of e-learning experiences.

Keywords: Design, Information Design, e-learning, Communication, User-friendly, Effective Engagement



EFFICACY OF FLIPPED LEARNING PEDAGOGY ON SENIOR HIGH SCHOOL PHYSICS STUDENTS' RETENTION AND THE NATURE OF FEEDBACK ON ELECTRONICS STUDIES

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The study aimed to explore the efficacy of Flipped Learning Pedagogy (FLP) on the retention of electronics concepts learned by Senior High School (SHS) Physics students and the nature of feedback given by SHS Physics students who were taught electronics concepts using FLP. The study was conducted with two intact classes comprising 103 research participants from the Old Tafo Municipality in Ghana using a quasi-experimental pre-test/post-test non-equivalent control group design. On the instrumentation of the study, this study employed two different sets of Electronics Concept Tests and a semi-structured interview guide to collect both quantitative and qualitative data. Split-Plot Analysis of Variance (SPANOVA) revealed a significant effect of FLP use on student retention (Wilk's Lambda = 0.038, $F(3,99) = 830.746$, $p = 0.000 < 0.05$; effect size = 0.962) in learned electronics concepts. The students' feedback on FLP was positive, indicating that FLP helped them better understand electronic concepts, remain focused on their studies, and collaborate with their classmates for better study. Based on the results obtained, it was concluded that the use of FLP in the teaching and learning of electronics enhanced students' retention of learned electronics concepts and consequently promotes positive feedback on electronics concept studies. Therefore, it was recommended that SHS Physics teachers in Old Tafo Municipality who wish to improve their students' retention of learned electronics concepts and develop positive feedback on electronics studies should consider adopting FLP as an option.

EXAMINING THE INFLUENCE OF TECHNOLOGY ATTITUDE, OPERATIONS, AND GENDER ON DIGITAL TEACHING COMPETENCE: A STUDY OF PRE-SERVICE ECONOMICS TEACHERS IN OYO STATE, NIGERIA

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The integration of technology to enhance teaching and learning is gaining more attention by the day, all over the world. Incidentally, the adoption of technology to support classroom instruction exhibits both affordances and associated challenges. Though, more innovative technology-enhanced teaching approaches are being created, it is imperative that teachers acquire adequate requisite skills for effective and efficient instructional delivery with technology. In respect of economics education, the use of technology provides supports that are capable of demystifying difficult and complex economic concepts. It stands the chance of helping students to develop the 21st century learning skills, including critical thinking skills. However, the level of digital competence that economics education pre-service teachers need to adequately perform, considering the challenges associated with leveraging emerging technologies for meaningful teaching and learning, is uncertain. Consequently, research efforts have revealed several factors that are capable of influencing digital teaching competence. This study, therefore, determined the influence of technology attitude, technology operations, and gender on pre-service economics teachers' digital teaching competence in Oyo State, Nigeria. Three hypotheses guided this study. A survey research design was employed and a validated instrument ($r=0.71$) was used to collect data

from stratified randomly selected 100 (43 male, 57 female), from five Departments in the Faculty of Education, University of Ibadan. Data collected were analysed using correlation and regression analysis. Findings showed no significant correlation between digital teaching competency and technology attitude ($r=0.125$); no significant correlation between digital teaching competency and gender ($t(96.98) = -0.91, p > 0.05$), but a positive relationship with technology operation ($r=0.302$) at $p<0.05$ level of significance. Implications for virtual learning is discussed. It is recommended that pre-service economics teachers should be adequately trained to acquire relevant technology operation skills to enhance successful digital instructional delivery in the twenty first century and beyond irrespective of gender and attitude toward technology.

Keywords: Pre-service economics teachers, technology attitude, technology ethics, technology operation, 21st century learning skills

STUDENTS' COHESION AND VOICE ENGAGEMENT DYNAMICS IN NIGERIAN UNIVERSITY CLASSROOMS

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Recent complaints from employers of graduates from Nigerian Universities largely concern their employability. Although, several studies have been conducted on factors responsible for effective teaching and learning in university classrooms, it seems much have not been done on students' cohesion and voice engagement in Nigerian university classrooms, which calls for critical investigation, in order to ensure the achievement of predetermined educational goals at the university level. The researchers, therefore, investigated students' cohesion and voice engagement dynamics in Nigerian universities' classrooms to enhance effectiveness in teaching and learning in higher institutions. A descriptive survey research design was adopted and a multistage sampling procedure was employed to select samples for the study. Two geo-political zones (Northcentral and Southwest) were selected using a stratified random sampling technique. Two public universities (one Federal and one State) and seven faculties were randomly selected from each selected geo-political zone. A total of 1,679 undergraduates were selected using proportionate-to-size sampling. A survey that was designed and validated was used for data collection and the data collected were analysed using Partial Least Square Structural Equation Modeling PLS-SEM. Results indicated that a significant causal relationship exists between students' cohesion and self-esteem ($\beta=0.195, t=2.017, p<0.05$); students' cohesion and self-efficacy ($\beta=0.35, t=3.11=2, p<0.05$). Voice engagement has a causal linkage with students' self-concept ($\beta=0.54, t=5.85, p<0.05$) and self-esteem ($\beta=0.72, t=10.36, p<0.05$). It is recommended that education stakeholders should develop a curriculum that will foster interaction and embrace cohesion and voice engagement among students and lecturers alike.

Keywords: Students' cohesion, Voice engagement, Nigerian university classroom dynamics, Employability.



PATTERNS AND DEMOGRAPHIC FACTORS INFLUENCING E-LEARNING PLATFORM USE BY UNDERGRADUATE STUDENTS IN THE MULTIDISCIPLINARY DEGREE PROGRAM IN PACKAGING TECHNOLOGY

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E-learning platforms offer promising opportunities for education delivery, yet their effectiveness in multidisciplinary degree programs remains under-researched. The Packaging Technology undergraduate program at Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi, Ghana, could benefit from e-learning to enhance flexible and accessible learning. However, the usage patterns of these platforms by students are unknown. This study investigates the usage patterns, demographic factors (gender, age, level of study, primary disciplinary background) influencing usage, and challenges faced by undergraduate students in this program. Through the survey method employing both open and close-ended questions, data were collected from 377 students. ANOVA was used to examine the impact of demographic factors on students' use of popular e-learning platforms. The most frequently mentioned platforms were KNUST VClass (82.5% of respondents), Zoom (78%), WhatsApp (42.7%), and Google Meet (9.5%). Additionally, 34.2% of students occasionally use Zoom, while 24.7% do not use it at all. Similarly, 15.9% of students use KNUST VClass very seldom, compared to 35.5% who use it occasionally. Additionally, 24.1% of students occasionally use WhatsApp, while 40.6% use it infrequently. Despite mentioning Google Meet, 71.6% of students hardly ever use it. According to the students, they only use these platforms when their lecturers use them to conduct tutorials, lectures, and homework. Students' use of the Zoom and Google Meet platforms for instruction and learning was influenced by their year of study ($p=0.000$ and 0.01 , respectively); first-year students used these platforms more than in other years. Students' use of WhatsApp was impacted by the interaction of age, year of study, and primary disciplinary background ($p=0.029$). Students' use of the KNUST VClass platform was not significantly impacted by demographic characteristics. The main challenges that all students mentioned were technical, such as hardware and internet connectivity problems. Enhancing the e-learning experience for undergraduate students in the Packaging Technology programme necessitates a nuanced understanding of their usage patterns, encountered challenges, and the influence of demographic variables on existing platforms. By addressing the identified gaps and leveraging insights from this study, KNUST and other educational institutions can better align e-learning initiatives. This will lead to improved e-learning experiences, contributing to the quality and effectiveness of multidisciplinary degree programmes.

Keywords: E-learning, demographics, undergraduate, packaging technology

AN INSTITUTIONAL-LEVEL ASSESSMENT OF SUPPORT SERVICES FOR ODDE IN SELECTED GHANAIAN UNIVERSITIES

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Digitalization is gaining momentum in global higher education (HE), with Open, Distance, and Digital Education (ODDE) increasingly becoming mainstream, particularly in a post-COVID-19 era. Through these ODDE efforts, higher education institutions (HEIs) have adopted innovative teaching and learning practices, expanded their educational offerings through diverse modalities, and thus widened access and participation to meet the increasing demand for HE. For meaningful implementation of ODDE, institutional efforts to create facilitating conditions that ensure student success in digital learning environments are critical. Thus, providing and accessing support services in HE towards digital transformation becomes a strategic imperative. Unfortunately, African HEIs

are bedeviled with legacy challenges associated with the digital divide, including low access to digital technologies and infrastructure and low digital skills. The present study examined the nature of institutional-level support services for students and faculty for ODDE implementation in three Ghanaian public universities. Drawing on Tait's (2000) organizational dimensions of support services framework, the study utilized a qualitative case study approach and conducted interviews with senior university administrators and key academic leaders. The study's results revealed that support services for effective ODDE implementation in the universities remain inadequate despite the efforts and initiatives made by the institutions. This inadequacy has been attributed to contextual challenges such as fragmented policies, limited infrastructure, and human resource gaps. The paper concludes with suggestions for implementing proactive support mechanisms through professional development that focus on improving digital skills and innovative curricula responsive to the digital era.

DESIGN AND DEVELOPMENT OF PEDAGOGICAL AGENT PERSONA TO ENHANCE PROJECT-BASED LEARNING IN GHANAIAN SENIOR HIGH SCHOOLS.

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This study aims to design and develop a pedagogical agent persona that enhances project-based learning experiences in senior high schools in Ghana, aligning with Sustainable Development Goal 4 (SDG 4) on providing quality education. The focus is on improving student engagement and personalization. A mixed-methods approach was used to gather data from students and teachers, including observations, questionnaires, and interviews. Observations captured the complexities of the educational setting, while questionnaires and interviews provided insights into participants' perceptions of pedagogical agents in PBL. The ADDIE model and the Design Science Research Methodology Process were merged to develop the pedagogical agent. The results showed that students unanimously preferred visual aids, multimedia resources, and human-like animations. Teachers advocated for a shift from teacher-centered to student-centered methodologies facilitated by pedagogical agents. The mean scores for system-paced, learner-paced, and learner-attenuated system-paced conditions were 80%, 86.5%, and 92% respectively, indicating high usability and satisfaction. The study highlights the potential of pedagogical agents to revolutionize teaching methods and create engaging learning environments.

Keywords: Pedagogical agents, Project-Based Learning, Pacing, Senior High Schools, Ghana.

FACILITATING UPTAKE OF A DIGITAL TOOLKIT (M-HEALER) TO IMPROVE CARE FOR PEOPLE WITH SERIOUS MENTAL ILLNESS IN GHANA: CROSS-CULTURAL E-TRAINING

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Digital mental health is witnessing a transformative phase, particularly in Low and Middle-Income-Countries (LMICs), where expertise is limited. Capacity building is needed for the next generation of LMICs researchers as well as for practitioner and patient uptake. Our current study (M&M)



presents a novel digital solution, the M-Healer app designed with evidenced based psychological skills to improve care and human rights preservation for people living with serious mental illness. This paper outlines the chained procedure of training for the implementation of the M-Healer in prayer camps. We employed the practice facilitation approach to build the capacity of healers on how to use the M-Healer App. Led by a global partner with expertise in digital mental health two local researchers were first trained and subsequently led the training of four (4) healers who cared for patients with serious mental illness. The training of trainer's sessions involved a remote/in-person hybrid model, the former were held via zoom, with both parties required to be in an office setting. The healers received on-site training by the local researchers with the aid of mobile phones installed with the M-Healer app. This training approach involved the training of trainers' model and the co-adaptation of the M-Healer implementation materials, which involved language translation and the cultural appropriateness of the training setting, stakeholder engagement, the agenda and incentives. Other training activities included role-playing and video-recording role plays for practice and future training. The use of the zoom meeting platform and other technologies facilitated cross-geographical support, although in different locations participating in an office setting created intimacy and minimized distractions. Acquiring skills via the M-Healer App seemed both exciting and innovative for the participating healers. By leveraging on practice facilitation remotely and in-person, we successfully trained local researchers and healers in prayer camps in Ghana.

TOWARDS RESPONSIBLE AI USE: INNOVATIVE ASSESSMENT IN EDUCATION

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This study focuses on innovative assessment in the era of AI. The plethora of research on AI indicates that one of the key challenges that educators are grappling with is how to assess students in the era of generative (GAI). Many students are already at the forefront of using AI in their work, especially in their take-home assignments and research studies. This study presents a critical overview of non-AI-oriented assessment and AI-oriented assessment as forms of innovative assessment practices that aim at promoting both formative and summative assessment organized around the framework of the three tenets of classroom assessment and innovative assessment approaches. Even though many of these assessments are traditional in nature, we specifically argue that their reinforcement will reduce or deter students from depending solely on AI for assignments and may enhance Assessment for Learning (AfL), Assessment of Learning (AoL), and Assessment as Learning (AaL) goals. The big ideas discussed, among other approaches centered around paper and pen assessment, were considered a potential assessment that could address AoL. Also, peer assessment, self-assessment, and oral presentations were innovative assessment approaches that could solve AfL goals. An emerging assessment as part of our innovative assessments discussed was 'AI Prompt Assessment'. In this assessment strategy, students are allowed to use AI for their assignment tasks but will be assessed on the process and prompts, their criticality in assessing the validity of the responses. We, therefore, encourage educators to consider these assessments in their line of work, while advocating that policy makers support these innovative assessments with the appropriate resources.

NIGERIA CENTRAL BANK CASHLESS MONETARY POLICY AND SUSTAINABILITY OF SMALL SCALE BUSINESSES: A CLARION CALL FOR ADULT AND NON-FORMAL EDUCATION INTERVENTIONS

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The federal government of Nigeria through its apex bank, Central Bank of Nigeria launched the cashless monetary policy in 2011 to control the cash-oriented economy in which most citizens have been transacting their businesses as against what is obtainable globally. Formal and informal businesses in Nigeria have been operating heavily with cash, however, accessibility and movement of physical cash has resulted to high crime rate which include; armed robbery, kidnapping, internet fraud, banditry, corruption, bribery, etc. However, the Central Bank of Nigeria introduced new naira notes (#200, #500 and #1000) respectively as a strategy to withdraw the country's higher naira denominations from the circulation given hundred days ultimatum for the swapping activity. The policy and its strategic implementation are supposed to be citizens and economy friendly but the masses continuously experiencing hardship and decline in business activity. Therefore, this study examines the policy's relevance, challenges and adult masses reactions, in order, to proffer lasting solutions to the identified economic challenges faced by the small scale business enterprises in the economy.

Keyword: Cashless Monetary Policy Adult and Non-formal Education, Small Scale Business

OPTIMIZING STUDENT LEARNING ENVIRONMENTS THROUGH FOG COMPUTING-POWERED SMART SEATING SYSTEMS: A COMPARATIVE STUDY

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This study aims to develop a fog computing-based smart seating system for university lecture halls to address challenges such as seat scarcity and inefficiencies during lectures caused by the increasing student population. The system will utilize cutting-edge technologies such as Wireless Sensor Network (WSN), Cloud Computing, Fog computing, and Internet of Things (IoT) to improve efficiency and optimize resource allocation. The research employs fog computing to create an efficient seating system that minimizes latency, energy consumption, and network usage. Simulation experiments are conducted using iFogSim to compare the performance of the proposed fog-based implementation with cloud-based deployment. The experiments evaluate key metrics such as latency and network usage to assess the effectiveness of the fog-based approach. The results of the simulation experiments demonstrate the superiority of fog-based implementation over cloud-based deployment in terms of minimizing latency and energy consumption, reducing network usage and improving general responsiveness. The fog-based approach effectively addresses the challenges of accommodating a growing number of devices, users, and data without sacrificing performance. These findings highlight the potential of fog computing to optimize seating systems in university lecture halls and improve the efficiency of students. The findings contribute to the optimization of smart seating systems and pave the way for further advancements in the field of fog computing and IoT-enabled environments.

Keywords: Smart seating system, Fog computing, Wireless Sensor Network (WSN), Latency, Scalability



THE IMPACT OF BLENDED LEARNING ON KNOWLEDGE SHARING AND SKILLS DEVELOPMENT AMONGST STUDENTS AT ALL NATIONS UNIVERSITY, GHANA

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The objectives of this study were to analyse the impact of blended learning on knowledge sharing practices amongst students at All Nations University, Ghana, and to identify challenges in implementing collaborative blended learning initiatives amongst students at All Nations University, Ghana. The study employed the mixed method approach using a sequential explanatory research design. Both random and purposeful sampling techniques were employed, and sampled 143 students. This was followed by 8 semi-structured in-depth interviews of students. Thus, the qualitative data complemented the quantitative data. The quantitative data was analysed using the correlation and regression tools with thematic analysis for the qualitative data. This dual methodology provides a holistic understanding of knowledge sharing and skills development amongst students at All Nations University, Ghana. Preliminary findings demonstrate that the adoption of blended learning has effectively facilitated knowledge transfer and encouraged active participation and critical thinking among students. Moreover, the initiative has empowered students with enhanced access to diverse learning resources, nurturing subject-specific expertise, and crucial skills such as teamwork, adaptability, and digital literacy. However, challenges such as infrastructural limitations, varying digital literacy levels, the need for continuous technical support and the importance of tailored instructional design have been identified. These challenges necessitate ongoing efforts to ensure the sustainability and scalability of blended learning initiatives in the region. The insights derived from this study hold significant implications for educational institutions, policymakers, and stakeholders invested in advancing higher education in Africa.

Keywords: Blended Learning, Knowledge Sharing, Skills Development

HARNESSING E-LEARNING TO ENHANCE GLOBAL HEALTH RESEARCH AND CAPACITY BUILDING

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The Global Health Network (TGHN), a collaborating center of the World Health Organization (WHO), aims to simplify health research and enhance its quality and speed, focusing on local leadership and the translation of research findings into practical policies. The TGHN Training Centre (<https://globalhealthtrainingcentre.tghn.org/>) hosts eLearning courses and resources to equip healthcare professionals and researchers with knowledge and skills of essential research processes, tools, and guidance across the health sector. The TGHN multi-lingual eLearning platform is built using Django. This choice ensures scalability and robust multi-user access and extensive collaborative features allowing localized administrative access for our regional partners to update and manage content. This framework also facilitates the rapid deployment of new courses by reusing templates, enhancing our responsiveness to emerging health education needs. The platform remains highly accessible even in low-bandwidth settings, hosting over 60 free, peer-reviewed, open access, and fully online courses, along with a variety of webinars and workshops. Over 711,000 individuals have taken the courses on the platform, and 3.8 million eLearning modules have been completed with over 1.6 million certificates awarded. The Introduction to Clinical Research course forms a core component of local training programs for health care researchers and practitioners, including the Good Clinical Practice (GCP) training program organized by the Global Health and Infectious Diseases Group at the KCCR in Ghana. The diverse range of courses continues to receive increasing engagement from global stakeholders, reflecting the potential of our eLearning approach and digital learning to transform health education. Through strategic use of eLearning, TGHN contributes to

capacity building in health research by providing locally relevant content with global insights. This approach prepares healthcare professionals and researchers for future challenges while ensuring that research findings are effectively translated into actionable health policies and practices.

CONVENTIONAL RENAL MARKERS ARE INSENSITIVE TO EARLY STAGES OF NEPHROPATHY IN STEADY STATE SICKLE CELL DISEASE PATIENTS. A CASE-CONTROL STUDY IN GHANA

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Renal injury is a common consequence of sickle cell disease (SCD). Conventional renal function tests such as serum creatinine, urea, and eGFR show abnormal results in SCD only when there is extensive renal damage. The aim of this study was to determine the predictive role of creatinine and urea as biomarkers of nephropathy in SCD. This present study recruited 104 SCD participants and 80 healthy subjects. All participants were 18 years and above and in a steady state. Participants' information was thoroughly documented using a structured questionnaire and patient case records. Venous blood and urine were collected for laboratory analysis. Using the Receiver Operator Characteristics analytical tool, UACR with Area Under the Curve (AUC) = 1.00, $p < 0.0001$, cut-off = 29.71 mg/g, sensitivity = 100% and Neutrophil Gelatinase Associated Lipocalin (AUC = 0.74, $p < 0.0001$, cut-off = 5.72 ug/L, sensitivity = 91.2%) had relative high significant performance when compared with creatinine and urea with AUC = 0.618, $p = 0.087$, sensitivity = 47.1% and AUC = 0.531, $p = 0.693$, sensitivity = 41.2%, respectively. Creatinine and urea were found to have low sensitivities when compared to UACR and NGAL. Creatinine and urea are therefore not good predictors of nephropathy in steady state SCD patients. NGAL and Urine albumin-to-creatinine ratio better predict nephropathy in SCD.

A NOVEL SMART CAMPUS FRAMEWORK THAT USES BLOCKCHAIN FOR INFORMATION SECURITY AND FOG/EDGE COMPUTING FOR SCALABILITY

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This paper aims to introduce a novel framework for smart campuses that leverages blockchain technology for enhanced information security and fog/edge computing for improved scalability. The primary objectives include proposing a comprehensive framework to address the security and scalability challenges faced by smart campuses, and evaluating the framework's effectiveness in optimizing campus operations. Based on the insights gained from studying existing frameworks, a conceptual framework is developed that integrates IoT, blockchain for information security and fog/edge computing for scalability. Simulation experiments are conducted to assess the performance of the proposed framework in real-world scenarios. The paper presents a novel smart campus framework that effectively utilizes blockchain technology to ensure information security and fog/edge computing for scalability. The framework improves data security, minimizes latency, and enhances resource scalability compared to traditional approaches. The innovative smart campus framework presented in this study signifies a substantial progression in tackling the security and scalability hurdles encountered by contemporary educational institutions. Through the integration of IoT, blockchain technology and fog/edge computing, the framework establishes resilient security measures while facilitating the seamless expansion of campus



operations. Moreover, its adaptability and versatility address the evolving needs of smart campus environments adeptly. The outcomes of this research not only enhance the optimization of smart campus settings but also lay the groundwork for the adoption of pioneering solutions in the realm of education technology.

COMPUTER-ASSISTED INSTRUCTION IN TEACHING SCIENCE – A SYNOPTIC REVIEW

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This article examines the impact of computer-assisted instruction (CAI) on science education by conducting a review of studies that explore the types of intelligent instructional devices, pedagogical modules, and capabilities and limitations of current CAI systems. The review includes studies on CAI in biology, physics, chemistry, and science inquiry education. The search employed four types of searches with inclusion and exclusion criteria, resulting in a final set of forty-five relevant documents. The article argues that the development of affordable microcomputers has made a computer revolution in education increasingly plausible such that outcome studies are essential for determining whether such advancements benefit or harm students. The article offers a synopsis of the information gathered from multiple assessments and outcome studies on computer-based instruction over the past twenty years. Computer-assisted instruction (CAI) has the potential to revolutionize science education by providing benefits such as improved student engagement, motivation, and performance, as well as supporting teacher professional development. However, challenges and limitations such as the need for training and technical support, the potential for passive learning, and the risk of the digital divide exist. The success of CAI in science education depends on software quality and design, instructional strategies, and context of use.

DETERMINATION OF THE LEARNING MOODS OF ONLINE LEARNERS USING EMOTION MODELING IN SPEECH SIGNALS USING FEATURE EXTRACTIONS AND MACHINE LEARNING

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Speech-emotion recognition (SER) can be a demanding task due to the various parameters and human factors involved. This study proposes a novel method for SER by integrating Mel-frequency cepstral coefficients (MFCC), discrete wavelet transform (DWT), and linear prediction coding (LPC) for feature extraction. This model employs machine learning tools, including K-Nearest Neighbours (KNN) and Support Vector Machine (SVM), to classify emotions using the EMO-DB dataset. MFCC is effective in noisy environments and computationally efficient by reducing the feature space. DWT decomposes speech signals into different frequency bands at multiple resolutions, capturing both low- and high-frequency details. LPC parameters represent the spectral envelope of speech signals using a small number of coefficients, ensuing in a compact representation of the speech signal. This study seeks to enhance online teaching and learning by introducing an effective speech emotion recognition system. By combining different feature extraction techniques and machine learning tools, the system can determine the moods and emotional stability of online learners, making online education safer and more effective.

Keywords: Mel-frequency cepstral coefficients, discrete wavelet transform, linear prediction coding, K-Nearest Neighbours, and Support Vector Machine.

TOWARDS SUSTAINABLE FUTURES: EMPOWERING INDUSTRIES WITH DIGITAL LITERACY ON E-TECHNOLOGIES THROUGH ACADEMIA-INDUSTRY PARTNERSHIP

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In the global pursuit of the Sustainable Development Goals (SDGs), the fusion of digitalization with conventional industrial practices stands out as a pivotal factor in realizing a future marked by equity, inclusivity, accessibility, and sustainability. This paper is a conceptual study that examines the symbiotic relationship between academia and industry, illuminating how the integration of e-technologies and digital tools within this partnership framework can catalyze transformative outcomes. Our focus lies on clarifying how collaborative efforts between academia and industry can deliver essential digital literacy training on e-technologies across diverse industrial sectors, aligning closely with the aspirations outlined in Goal 9 of the United Nations (SDGs): to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. As the paper explores the potential of this collaboration, it highlights how tailored digital literacy initiatives can address the distinct needs of various industrial players. This is particularly crucial in enabling the transition of traditional practices towards more sustainable and innovative approaches, a necessity amplified for industries in developing nations such as Ghana, to fortify their operations and enhance global competitiveness. By uncovering the interconnected dynamics between digital literacy, e-technologies and the pursuit of sustainable industrialization, our research aims to offer actionable insights that resonate with academia, industry stakeholders, and policymakers alike. Through this study, we strive to foster collaboration and innovation among these key stakeholders, paving the way for collective efforts towards achieving shared societal goals for a sustainable future.

Keywords: Sustainable Development, Academia-Industry Partnership, E-Technologies, Digital Literacy, Sustainable Industries

BUILDING A RESILIENT ADMINISTRATIVE ECOSYSTEM THROUGH A COLLABORATIVE DIGITAL CULTURE: A JOURNEY FROM PAPER TO E-ADMINISTRATION

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The COVID-19 pandemic spurred a rapid shift towards virtual learning environments in higher education worldwide. This shift has highlighted the crucial role of university administrators in navigating the challenges of this new educational landscape. In its aftermath, effective administrators must possess essential qualities such as communication, planning, and digital proficiency to ensure the successful operation of institutions post-pandemic. The pandemic has accelerated the pace of digital transformation in higher education, emphasizing the need for administrators to adeptly utilize technology to ensure the successful operation of their institutions. As universities adapt to new modes of instruction and organization, there is a pressing need for innovative approaches to educational administration and management. Recognized as the best university globally for quality education in the 2023 Times Higher Education Impact Rankings, Kwame Nkrumah University of Science and Technology (KNUST) is poised to lead the way in embracing innovative solutions to address these challenges. In line with the Vice-Chancellor's digital vision for KNUST and aligned with its core values of leadership in innovation and technology and a culture of excellence, KNUST is strategically positioned to usher in a new era of administrative efficiency through the adoption of e-administration. Drawing on insights from the successful implementation of its e-learning center, this presentation highlights the transformative benefits of transitioning to a sustainable, paperless administrative ecosystem at KNUST. Key elements of top management support, including visionary leadership and strategic investment in technology, are identified as crucial for the successful



propagation of online initiatives. This presentation serves as a foundational step towards assessing KNUST's institutional readiness for an e-administrative framework. By proposing a transformation away from traditional paper-based models towards a smart, collaborative administrative ecosystem, mediated by technology, it aims to spur inquiries and drive organizational innovation in educational management.

Keywords: Strategic Leadership, E-Administration, Collaborative Digital Culture, Administrative Efficiency, Innovation

ICONIC ON-LOOM TAPESTRY IMAGERY WEAVING DUBBED “NKRUMAH NEVER DIES” USING ASANTE TRADITIONAL KENTE AND EWE KETE INSPIRED DIGITAL CONCEPTS.

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This study is to demonstrate the techniques of using Asante Kente and Ewe kete traditional weaving and ikat yarn dyeing method inspired digitally. This is to demonstrate that the design and production of kente can be inspired by digital concepts and be enhanced for promoting legendary representation of Iconic figures for posterity through traditional weaving. The researchers utilized the studio-based research design under the qualitative research approach. The study was conducted in the Department of Indigenous Art and Industry under the supervision of the Department of Painting and Sculpture in the Kwame Nkrumah University of Science and Technology, Kumasi. Also, the procedural steps in the Double Helix of Praxis-Exegesis Model which consisted of exploration, production, and evaluation, were adopted for the study. Personal interview was the principal data collection instrument used in collecting data from 12 purposefully sampled traditional Asante Kente weavers from six different communities in the Ashanti region of Ghana. The traditional Asante kente and Ewe kete weaving techniques were employed to produce the picture of the first president of Ghana who was an icon of legendry; dubbed, Nkrumah Never Dies. White yarn was patchy dyed with vat dyes and used for the weaving of the Iconic image. This has brought some uniqueness in the woven piece that projects the concept “Nkrumah Never Dies”. The study revealed the possibility of fusing different cloth production techniques, particularly patchy dying effect to produce one common cloth. This study recommends that this yarn decoration method should be encouraged among dyers and weavers to boost the local weaving industry in Ghana innovative interplay of concept. Per exhibition conducted at Bonwire on the 1st of April, 2024, it was recommended that the Ministry of Art, Culture, and Tourism raise awareness through art shows, exhibitions, and trade fairs of innovation revelations in the traditional weaving industry to showcase the uniqueness studies have brought into the weaving industry.

IMPACT OF E-PORTAL SYSTEM ON THE TEACHING PRACTICUM SKILLS OF TRAINEE TEACHERS: A CASE STUDY OF THE ADA AND MT. MARY COLLEGES OF EDUCATION

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The main objective of the study was to determine the extent of impact that the introduction of e-portfolio system has had on the general Teaching practice skills of Trainee Teachers in the Ada and Mt. Mary Colleges of Education. This study employed an interactive, reflective e-portal system into the preparation and assessment of Teacher trainees to establish the extent to which the approach would impact their teaching skills generally. The study employed a mixed research method

approach comprising experimental, action and descriptive designs. One hundred and twelve (112) respondents were chosen based on purposive and convenient sampling techniques. Observation, Interview, Questionnaire and Text were employed as the main instruments for data collection. Unstructured interviews, non-participant observations, structured questionnaires as well as teacher-made-tests (pre and post-intervention tests) were used to solicit data to help establish the level of impact the e-portfolio system has had on trainees' teaching skills and to establish the possibility of incorporating a more interactive, reflective end-to-end encrypted remote system such as the e-portfolio system as a mandatory preparatory and assessment model for Teacher Education. Data was collected from pre-service teachers on the traditional preparatory processes towards on-campus and off-campus teaching practicum; also, data was collected from Tutors/Supervisors on the nature, requirements, and rationale of on-campus and off-campus teaching practicum. Mentors of partner schools of Ada and Mt. Mary Colleges of Education were probed on the adequacy of preparation and teaching skills exhibited by mentees from Colleges of Education. The results of the study revealed that an interactive internet-supported electronic portal system referred to as e-portfolio is a viable tool that can provide access to demonstration lessons, sample assessment forms, peer assessment for clinical supervision and as a means of reflective practice to the Teacher Trainee when employed into Initial Teacher preparation, would equip them with relevant teaching skills and would result in improved practice generally. It provides prerecorded real-time lessons (demonstration lesson) opportunities for clinical supervision, model lesson appraisal and feedback system for reflective practice. It is concluded that the e-portal system is a sure tool for ensuring organized teacher preparation and improved performance. The study recommends that corporate bodies and NGOs particularly the Ministry of Education, the Ghana Tertiary Education Commission (GTEC), and all stakeholders of teacher education collaborate and adopt the electronic portfolio system in preparing and assessing of Teacher Trainees in all Colleges of Education as a means of improving upon the general teaching practicum of Trainee Teachers in Ghana.

DEVELOPMENT OF E-PORTAL SYSTEM FOR IMPROVED TEACHING PRACTICUM OF TEACHER TRAINEES IN GHANA: A CASE STUDY OF THE ADA AND MT. MARY COLLEGES OF EDUCATION.

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The study seeks to develop an interactive internet-based electronic portfolio system to help improve the general On-campus and Off-campus teaching practice skills of College of Education Teacher Trainees. This study adopts available electronic tools such as the e-portfolio framework to develop an end-to-end encrypted interactive resource (referred to as e-portal) to facilitate asynchronous communication, submission, assessment and feedback between a supervisor and his/her assigned trainee teachers at the convenience of both. The study employed mixed research method approach involving experimental, action and descriptive designs. A One hundred and twenty (140) respondents were chosen. Observation, Interview and Questionnaire were employed as the instruments for data collection. Unstructured interviews, non-participant observations as well as structured questionnaires were used to solicit data to help gain insights into the rudiments of teaching practice generally and the possibility of developing a more interactive, reflective end-to-end encrypted remote system to improve teaching practice skills of teacher trainees in Ghanaian Colleges of Education. Data was collected from pre-service teachers on the impact of the traditional on-campus and off-campus teaching practicum; data was also collected from Tutors/Supervisors of Ada and Mt. Mary College of Education on the nature, requirements and rationale of on-campus and off-campus teaching practicum. Mentors of partner schools of the two Colleges were probed on the adequacy of teaching skills exhibited by mentees from Colleges of Education. The results



of the study revealed that, an interactive internet-supported electronic portal system is a viable tool that can provide a reflective practice means for improving both on-campus and off-campus teaching practice skills of teacher trainees. The system provides a prerecorded real-time lessons opportunities for clinical supervision, model lesson appraisal and feedback for reflective practice. It is concluded that, the e-portal system is a sure tool for ensuring systematic improvement of teaching practice skills of Teacher Trainees in a facilitative tension free space; providing an ideal solution for improved teaching practice generally. The study recommends that, corporate bodies and NGOs particularly the Ministry of Education, the Ghana Tertiary Education Commission (GTEC), and all stakeholders of Teacher education should collaborate and encourage the development and or the adoption of this electronic portfolio system and implement same in all Colleges of Education as a means of improving the general teaching practicum of Trainee Teachers in Ghana.

THE IMPACT OF FLIPPED CLASSROOMS ON STUDENT LEARNING IN BLENDED LEARNING PROGRAMMES: BENEFITS, CHALLENGES, AND STRATEGIES FOR SUCCESS

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The Flipped Classroom model, an educational approach that delivers instructional content online before class and encourages active learning during class, has been increasingly adopted in blended learning programmes. This study investigates the consequences of flipped classrooms on students' academic success, participation, and learning experience. The research combined quantitative data from student performance with qualitative data from surveys and focus groups. The sample comprised college students in various blended learning programmes across diverse academic fields. The findings suggest that students in flipped classrooms exhibit increased engagement and satisfaction with their learning experience, as they can access instructional content at their own pace and better prepare for in-class activities. Additionally, students show improved critical thinking and problem-solving skills as they are encouraged to apply their knowledge during in-class discussions and activities. However, challenges such as the need for self-discipline, effective time management, and the need for instructors to provide clear guidance and support were also noted. To address these challenges, educators and institutions can adopt strategies such as providing training and resources to support the implementation. The Flipped Classroom Model can enhance student learning in blended teaching programmes, provided students and teachers are adequately prepared and supported. Future research should focus on the long-term impact of the Flipped Classroom Model on student outcomes and explore strategies to address the challenges identified in this study. This study contributes to the growing body of literature on innovative teaching methods in higher education, offering insights into the benefits and challenges of Flipped Classrooms in blended teaching settings.

CONTEMPORARY ISSUES AND PROSPECTS OF TEACHER PROFESSIONAL DEVELOPMENT IN NIGERIA

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Issues relating to Teacher Professional Development (TPD) have generated several opinions and counter-opinions among stakeholders. TPD involves activities and programmes designed for teachers to acquire the required skills and competencies necessary for attaining quality education. TPD activities also encourage teachers to grow professionally to prepare themselves for advancement in the classroom and beyond. Challenges confronting TPD include unfavorable government policies, lack of funds for TPD, inadequacy of educational infrastructures – unfriendly classrooms, lack of teaching aids, laboratories and libraries. The study aimed at analyzing the

challenges confronting teachers and proffering solutions that would enhance apt professionalism. The descriptive survey research design was used. Interviews were also conducted with selected important personalities. Findings indicated that teachers need a variety of professional development skills along with the knowledge of their subject matter and experience in order to be effective teachers. Conclusion was made that TPD is essential for teachers in order to bring change to the education sector and provide students with the best education. The study recommended that TPD should be intensified in order to make educators competent, in the delivery of instruction and information to learners. In-service teacher training should move from courses with little impact to modern forms of pedagogy that integrate mentoring by highly skilled teachers.

Keywords: Teacher Professional Development, mentoring, educational infrastructure and competent educators.

ASSESSMENT OF THE QUALITY AND RELEVANCE OF VOCATIONAL EDUCATION AND TRAINING (VET) IN IBADAN, OYO STATE

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Vocational Education and Training (VET) programmes prepare people for success in a variety of industries. This paper investigates VET in Ibadan, Nigeria, looking at its situation right now and possible directions for development. It is shown that the demands of the local job market and VET skills are positively correlated. This demonstrates how well the course has met industry expectations. However, the learning process is hampered by infrastructural constraints. To provide sufficient resources, socioeconomic realities must be taken into account while creating training courses. The study underscores the significance of industrial cooperation. Collaborations between regional businesses and vocational schools guarantee that curricula meet industry demands. To sum up, this paper provides insightful information for enhancing VET in Ibadan. VET courses may develop into dynamic platforms that provide people the skills they need to flourish in a changing environment by tackling recognised difficulties. Based on the aforementioned, the study therefore recommends that stakeholders need to put infrastructural development, industry partnership, and environmental issues first in order to increase the efficacy of VET. This entails encouraging collaborations, advocating for VET initiatives, and resolving resource limitations.

Keywords: Assessment of quality, Relevance of Vocational Education, and Training resources.

VIRTUAL ENVIRONMENTAL ANALYSIS LABORATORY IN GHANAIAN TERTIARY EDUCATION: CHALLENGES, PROSPECTS, AND ADVANCEMENT

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Environmental science courses and curricula offer students hands-on experience in laboratory analysis and field observations, allowing them to develop practical and observational skills that cannot be acquired in a traditional classroom setting. This study delves into the feasibility of establishing a virtual environmental analysis laboratory (VEAL) in tertiary education institutions in Ghana, based on a thorough review of literature and expert opinions. The research includes a critical analysis of previous studies on virtual laboratories and their relevance to the Ghanaian context, as well as a questionnaire survey among undergraduate students, laboratory technicians, and lecturers with environmental science experience. The study reveals challenges such as ensuring equal access to technology and the Internet for students throughout Ghana, as well as providing reliable Internet connectivity and necessary hardware resources within institutions, and effectively integrating VEAL into existing educational programs. Ultimately, these findings will equip decision-makers with the information necessary to make informed decisions about the future of environmental analysis education in Ghanaian tertiary institutions.





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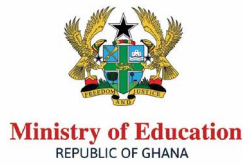
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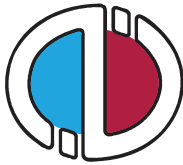
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