



UNIVERSITY OF EDUCATION, WINNEBA



RESEARCH & PUBLICATIONS

22ND CONGREGATION

NOVEMBER 2017



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BRIEF HISTORY

The University of Education, Winneba (UEW) was established in September, 1992 as a University College under PNDC Law 322. On 14th May, 2004 the University of Education Act, Act 672 was enacted to upgrade the status of the University College of Education of Winneba to the status of a full University. The University College of Education of Winneba brought together seven diploma awarding colleges located in different towns under one umbrella institution. These Colleges were the Advanced Teacher Training College, the Specialist Training College and the National Academy of Music, all at Winneba; the School of Ghana Languages, Ajumako; the College of Special Education, Akwapim-Mampong; the Advanced Technical Training College, Kumasi; and the St. Andrews Agricultural Training College, Asante-Mampong.

The three sites in Winneba now referred to as the Winneba campus is the seat of the Vice-Chancellor with satellite campuses at Kumasi, Mampong and Ajumako.



Mission

To train competent professional teachers for all levels of education as well as conduct research, disseminate knowledge and contribute to educational policy and development.

- Gender Equity and Social Inclusiveness
- Teamwork and Partnerships Development
- Positive Work Attitude
- Environmental Responsibility

Vision

To be an internationally reputable institution for teacher education and research

Special Status and Mandate

The University is charged with the responsibility of producing professional educators to spearhead a new national vision of education aimed at redirecting Ghana's efforts along the path of rapid economic and social development.

Core Values

- Academic Excellence
- Service to Community
- Good Corporate Governance
- Judicious Utilization and Management of Funds

The University of Education, Winneba is expected to play a leading role in the country's drive to produce scholars whose knowledge would be fully responsive to the realities and exigencies of contemporary Ghana and the West African sub-region.

EDITORIAL TEAM

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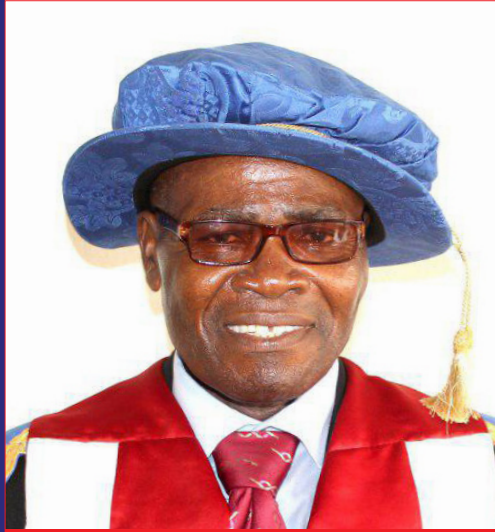
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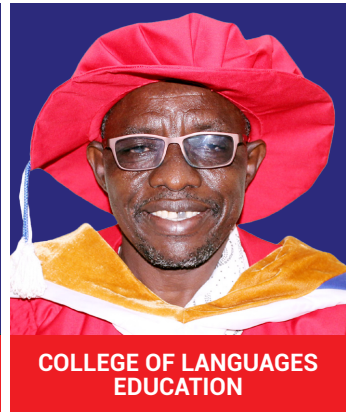
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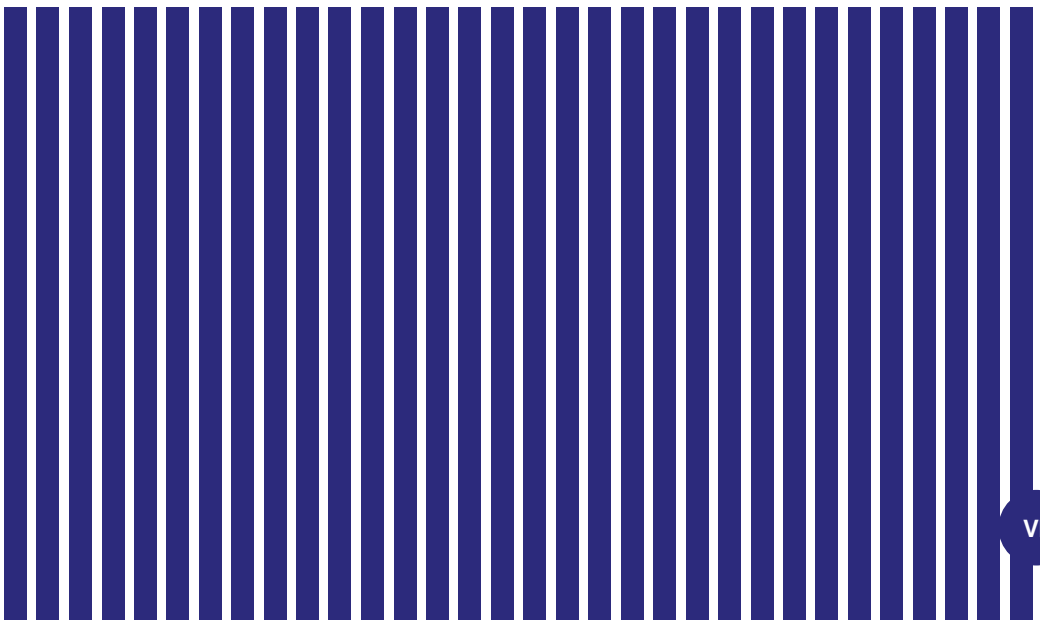
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Prof. J. K. Kagya-Agyemang



**Assoc. Prof. Ephraim Avea
Nsoh**





FOREWORD

The UEW Research and Publications is intended to provide a quick reference for researchers and other stakeholders to creative works done in the University in a particular year.

Since its inception and in line with its mission to conduct research and disseminate knowledge, staff (Teaching, Administrative and Professional) of the University of Education, Winneba (UEW) have continued to play active roles in shaping education policy, and fine-tuning education delivery in Ghana through their publications.

A number of research topics bothering on daily lives of the Ghanaian (viz. operating simple machines like 'hydraulic jacks', electronic banking services, impact of wages and remunerations on the Ghanaian worker, water quality and water supply to communities in Ghana, etc.) have been variedly published by UEW Staff. At the classroom level, staff also assessed the impact of various teaching and learning paradigms, teacher motivations as well as learner conceptions across various subject areas.

In this year's collection, over one hundred (100) abstracts of works published as Journal Articles, Books, Chapters in Books, Conference presentations and Conference Proceedings emanating from the University for the 2016/2017 academic year are presented.


If you wish to get access to the main publications, do contact the author/authors or the publishing houses of the works for copies.

Rev. Fr. Prof. A. Afful-Broni
Ag. Vice-Chancellor
November, 2017

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COLLEGE OF
**TECHNOLOGY
EDUCATION**
KUMASI

FACULTY OF TECHNICAL EDUCATION



ARTICLES IN JOURNALS

Nyame, G. (2017). A Customer-Complaint Analyzer for E-Banking Services: The Context of the Ghanaian Banking Industry. *Information and Knowledge Management*, 7, (1), 1 - 9. <http://iiste.org/Journals/index.php/IKM/article/view/34945/35947>. ISSN: 2224-5758

Abstract

Banking and financial institutions continue to intensify their efforts to engage in technological innovations in the provision of quality e-banking products and services. With this strategic approach, many banks in Ghana have migrated from the traditional and rudimentary branch banking to web-based banking transactions. This paper develops a model for a web-based customer-complaint analyzer that addresses customer complaints or suggestions in real time as well as supporting decision making processes of banks and other financial institutions. The exploratory prototype model, context diagram and UML use-case diagram were used to simplify and explain the design and development phases of the system. Both alpha and beta tests were done at the Ghana Commercial Bank and the United Bank for Africa (UBA) Ghana Limited of the KNUST Branch in Kumasi, Ghana. It is very expedient on the part of banks in Ghana to use complaint analyzer system to enable them do analyses on customers' complaints or suggestions as well as on performance for improved and better service delivery. Keywords: e-banking, analytical performance, customer complaints analyzer, banking industry, customer service delivery

Awo pone, A. K, Zobia, A. F., & Banuenumah, W. (2017). Techno-economic and environmental analysis of power generation expansion plan of Ghana. *Energy Policy*, 104, (2017), 13–22. 10.1016/j.enpol.2017.01.034. <http://www.elsevier.com/locate/enpol>. ISSN: 0301-4215

Abstract

This paper examines the current electrical generation expansion plan of Ghana and compares it with proposed expansion pathways with higher penetration of Renewable Energy Technologies. An adaptation of Schwartz's Scenario Methodology was used to develop the scenarios which were then analysed using the Long-range Alternatives Planning (LEAP) model. Each of the scenarios represents policy options for generation expansion in Ghana up to 2040. Energy, economic and environmental analysis of the three alternative scenarios compared to the base scenarios was undertaken. Sensitivity results show that, if the country were to follow the generation expansion path described in the renewable energy scenarios, it could reap economic benefits of 0.5–13.23% depending on the developments in fuel prices and renewable technology capital cost. The analysis further quantifies benefits to be derived from a reduction in Greenhouse gases of the scenarios. Policy implications for the generation system of Ghana based on the results are also discussed.

Dotche, K. A., Banuenumah, W. & Ofosu, W. K. (2016). Non Regenerative Fiber Backbone Power Loss Budget,. *Transactions on Networks and Communications*,, 4, (6), 68 - 75. 10.14738/tnc.46.2535. <http://dx.doi.org/10.14738/tnc.46.2535>. ISSN: 2054 -7420

Abstract

The most important stage in the design of a Wavelength Division Multiplexing (WDM) fiber optic system is about the choice of the correct optical transmitter, and receiver combination. This depends on the signal to be transmitted over the channel. By adopting the WDM two (2) signals at two (2) different wavelengths of 1310nm and 1550nm, can conveniently be carried on the same fiber. The WDM fiber link can carry 32,256 channels and the throughput too is high (≥ 2.5 Gbps). Many television channels can be accommodated. The amplification along the fiber backhaul remains a bottleneck due to the non-linearity effects that could be additive. In order to minimize the non-linearity effect of the amplifiers, non-regenerative solutions are nowadays used. This paper develops a power loss budget for an optical sparse WDM long haul without inserting any regenerator along the transmission line. The study gives details of establishing a 200 km fiber optic link, operating at 2.5Gbps and supporting a digital signal of Synchronous Transport Signal-48/ Synchronous Transport Module 16 (STS-48/STM-16), where the link is assumed to carry 8 (WDM). In the dimensioning, the optical interfaces were chosen in agreement with the ITU-TG 654 applicable values. The system power deficit was not satisfactory in the first attempt, and so the Erbium Doped-Fiber Amplifiers (EDFAs) were inserted at the light source, and a preamplifier at the optical detector side. The system power deficit was still negative but not much. The transmitting system should have a positive value of the system power deficit so that the link budget can be suggested for the required transmission. Finally the change of the detector sensitivity gave the best estimation in the design process for the required link budget.

Awoopone, A. K., Zobaa, A. F. & Banuenumah, W. (2017). Assessment of Optimal pathways for power generation system in Ghana. *Cogent Engineering*, 4, (1), 1314065. 10.1080/23311916.2017.1314065. <http://https://www.cogentoa.com/article/10.1080/23311916.2017.1314065>.

Abstract

This study applied the Open Source Energy Modelling System (OSeMOSYS), an optimisation model for long term energy planning, which is integrated in Long-range Energy Alternatives Planning (LEAP) to develop optimal generation pathways and dispatch scheduling of selected generating technologies for power generation in Ghana. Simulating conventional and non-conventional energy technologies, the study examines the technological, economic and environmental implications of renewable energy policies from 2010 to 2040. Sensitivity analyses were undertaken to determine the effect of varied development in non-conventional renewable energy technologies investment cost as well as fuel prices. The findings suggest that, with a comprehensive implementation of energy efficiency and other strategies, renewable energy technologies can contribute more than 70% of the generation requirement in Ghana by 2040. This will result in significant economic and environmental benefits as well as sustainability of the energy sector.

Awopone, A. K. & Zobaa, A. F. (2017). Analyses of optimum generation scenarios for sustainable power generation in Ghana. *AIMS Energy*, 5, (2), 193 - 208. 10.3934/energy.2017.2.193.. <http://www.aimspress.com/energy/2017/2/193>.

Abstract

This study examines optimum generation scenarios for Ghana from 2010 to 2040. The Open Source Energy Modelling System (OSeMOSYS), an optimisation model for long term energy planning, which is integrated in Long-range Energy Alternatives Planning (LEAP) tool, was applied to model the generation system. The developed model was applied to the case study of the reference scenario (OPT) which examines the least cost development of the system without any shift in policy. Three groups of policy scenario were developed based on the future possible energy policy direction in Ghana: energy emission targets, carbon taxes and transmission and distribution losses improvements. The model was then used to simulate the development of technologies in each scenario up to 2040 and the level of renewable generation examined. Finally, cost benefit analysis of the policy scenarios, as well as their greenhouse gas mitigation potential were also discussed. The results show that: suitable policies for clean power generation have an important role in CO₂ mitigation in Ghana. The introduction of carbon minimisation policies will also promote diversification of the generation mix with higher penetration of renewable energy technologies, thus reducing the overall fossil fuel generation in Ghana. It further indicated that, significant greenhouse emissions savings is achieved with improvement in transmission and distribution losses.

Awopone, A. K., Zobaa, A. F. & Banuenumah, W. (2017). Techno-economic and environmental analysis of power generation expansion plan of Ghana. *Energy Policy*, 104, 13-22. 10.1016/j.enpol.2017.01.034. <http://www.sciencedirect.com/science/article/pii/S0301421517300447?via%3Dihub>.

Abstract

This paper examines the current electrical generation expansion plan of Ghana and compares it with proposed expansion pathways with higher penetration of Renewable Energy Technologies. An adaptation of Schwartz's Scenario Methodology was used to develop the scenarios which were then analysed using the Long-range Alternatives Planning (LEAP) model. Each of the scenarios represents policy options for generation expansion in Ghana up to 2040. Energy, economic and environmental analysis of the three alternative scenarios compared to the base scenarios was undertaken. Sensitivity results show that, if the country were to follow the generation expansion path described in the renewable energy scenarios, it could reap economic benefits of 0.5–13.23% depending on the developments in fuel prices and renewable technology capital cost. The analysis further quantifies benefits to be derived from a reduction in Greenhouse gases of the scenarios. Policy implications for the generation system of Ghana based on the results are also discussed

Dotche, K.A., Sekyere, F. and Banuenumah, W. (2016). LPC for Signal Analysis in Cellular Network Coverage.. *Open Access Library Journal*, 3, <http://dx.doi.org/10.4236/oalib.1102759>. ISSN: e2759.

Abstract

This paper introduces a novelty method of using a Linear Prediction Coefficient (LPC) filter, a digital signal processing (DSP) tool to get accurate signal measurement in noisy mobile environment. By measuring the received power of a mobile radio, it also measures the coverage of an area served by several base stations. For results' validation, the mobile received power at user end of two Code Division Multiple Access-2000 (CDMA2000) cellular networks operating at different frequency (450 MHz and 800 MHz) in the same environment, Lome in Togo, was considered. Our analysis has consistently shown that within the problem areas in the coverage, the filter response does not match with the measured data. These mismatching areas may likely result from poor soft-handoff process or some dead zones. The study has proven the significant help of this novelty method in problem areas identification. Consequently, such a filter can be embedded to current firmware for Radio Frequency coverage optimization, and for an effective spectrum efficiency.

Banuenumah, W., Sekyere, F. & Donkor, E. (2016). Impact of Solar Photovoltaic as an Alternative Source of Power for Rural Electrification in Ghana.. *International Journal of Scientific & Engineering Research*, 7, (6), 687-698. <http://www.ijser.org>. ISSN: ISSN 2229-5518

Abstract

The dynamics of solar photovoltaic (PV) technology's impact as an alternative source of power for rural electrification has taken centre stage in recent years. Solar PV is seen as a panacea to the energy problems of rural populations in developing countries, aiming partly to address prevailing rampant poor energy levels in households. This study seeks to evaluate the social impact, examine the economic benefits and identify challenges; financial, technical and maintenance of solar PV systems in rural electrification. The study purposively sampled 200 solar PV household heads (120 from JICA PV and 80 from Government PV), in Pungu-Navorongo in the Kassena – Nankana District in the Upper East Region of Ghana, which has one of the lowest levels of electricity access and highest poverty levels among the inhabitants. The study reveals the dynamics of rural electrification and energy needs as well as the livelihood assets such as social, economic and technical aspects. It was found that, the overall impact of solar PV on the quality of life of the local beneficiaries was positively marginal. Challenges were identified, including limited wattage capacity, malfunction of some basic components, high cost of installation and low technical know-how. The findings further indicated that satisfaction derived from solar PV electricity supply among local households was high, social as well as economic impact were enhanced and justifies concessions on fee-for-service and government subsidy for the rural poor. For a decisive enhancement of rural livelihoods, it is strongly recommended that the PV systems be scaled up to include different energy dynamics such as cooking, irrigation, heating and to explore the extent to which technical know-how can affect utilization and sustainability of solar PV systems in rural electrification.

Oduro, S.D., Metia, S., Duc, H., & Ha, Q.P. (2016). Inverse Air Pollution Emission and Prediction using Extended Fractional Kalman Filtering. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 9, (5), 2051-2063. 10.1109/jstars.2016.2541958. <http://ieeexplore.ieee.org/iel7/4609443/4609444/07446282.pdf>.

Abstract

It is essential to maintain air-quality standards and to take necessary measures when air-pollutant concentrations exceed permissible limits. Pollutants such as ground-level ozone (O₃), nitrogen oxides (NO_x), and volatile organic compounds (VOCs) emitted from various sources can be estimated at a particular location through integration of observation data obtained from measurement sites and effective air-quality models, using emission inventory data as input. However, there are always uncertainties associated with the emission inventory data as well as uncertainties generated by a meteorological model. This paper addresses the problem of improving the inverse air pollution emission and prediction over the urban and suburban areas using the air-pollution model with chemical transport model (TAPM-CTM) coupled with the extended fractional Kalman filter (EFKF) based on a Matérn covariance function. Here, nitrogen oxide (NO), nitrogen dioxide (NO₂), and O₃ concentrations are predicted by TAPM-CTM in the airshed of Sydney and surrounding areas. For improvement of the emission inventory, and hence the airquality prediction, the fractional order of the EFKF is tuned using a genetic algorithm (GA). The proposed methodology is verified with measurements at monitoring stations and is then applied to obtain a better spatial distribution of O₃ over the region.

Oduro, S.D., Metia, S., Hong, H., Duc, H., & Ha, Q.P. (2015). Multivariate Adaptive Regression Splines Models for Vehicular Emission Prediction. *Visualization in Engineering*, 3, 1-13. doi10.1186/s40327-015-0024-4. <http://link.springer.com/article/10.1186/s40327-015-0024-4>.

Abstract

Background: Rate models for predicting vehicular emissions of nitrogen oxides (NO_x) are insensitive to the vehicle modes of operation, such as cruise, acceleration, deceleration and idle, because these models are usually based on the average trip speed. This study demonstrates the feasibility of using other variables such as vehicle speed, acceleration, load, power and ambient temperature to predict (NO_x) emissions to ensure that the emission inventory is accurate and hence the air quality modelling and management plans are designed and implemented appropriately. Methods: We propose to use the non-parametric Boosting-Multivariate Adaptive Regression Splines (B-MARS) algorithm to improve the accuracy of the Multivariate Adaptive Regression Splines (MARS) modelling to effectively predict NO_x emissions of vehicles in accordance with on-board measurements and the chassis dynamometer testing. The B-MARS methodology is then applied to the NO_x emission estimation. Results: The model approach provides more reliable results of the estimation and offers better predictions of NO_x emissions. Conclusion: The results therefore suggest that the B-MARS methodology is a useful and fairly accurate tool for predicting NO_x emissions and it may be adopted by regulatory agencies.

Oduro, S.D., Ha, Q.P. & Duc, H. (2016). Vehicular emissions prediction with CART-BMARS hybrid models. Elsevier Transportation Research Part D, 49, (1), 188-202. <https://doi.org/10.1016/j.trd.2016.09.012>. <http://https://www.journals.elsevier.com/transportation-research-part-d-transport-and-enviro>.

Abstract

Vehicular emission models play a key role in the development of reliable air quality modeling systems. To minimize uncertainties associated with these models, it is essential to match the high-resolution requirements of emission models with up-to-date information. However, these models are usually based on average trip speed, not on environmental parameters like ambient temperature, and vehicle's motion characteristics, such as speed, acceleration, load and power. This contributes to the degradation of its predictive performance. In this paper, we propose to use the non-parametric Classification and Regression Trees (CART), the Boosting Multivariate Adaptive Regression Splines (BMARS) algorithm and a combination of them in hybrid models to improve the accuracy of vehicular emission prediction using on-board measurements and the chassis dynamometer testing. The experimental comparison between the proposed CART-BMARS hybrid model with the BMARS and artificial neural networks (ANNs) algorithms demonstrates its effectiveness and efficiency in estimating vehicular emissions.

Danso, H. (2016). Influence of Compacting Rate on the Properties of Compressed Earth Blocks. Advances in Materials Science and Engineering, 2016, <http://https://www.hindawi.com/journals/amse/2016/8780368/>.

Abstract

Compaction of blocks contributes significantly to the strength properties of compressed earth blocks. This paper investigates the influence of compacting rates on the properties of compressed earth blocks. Experiments were conducted to determine the density, compressive strength, splitting tensile strength, and erosion properties of compressed earth blocks produced with different rates of compacting speed. The study concludes that although the low rate of compaction achieved slightly better performance characteristics, there is no statistically significant difference between the soil blocks produced with low compacting rate and high compacting rate. The study demonstrates that there is not much influence on the properties of compressed earth blocks produced with low and high compacting rates. It was further found that there are strong linear correlations between the compressive strength test and density, and density and the erosion. However, a weak linear correlation was found between tensile strength and compressive strength, and tensile strength and density.

Danso, H., Martinson, D. B., Ali, M. & Williams, J. B. (2017). Mechanisms by which the inclusion of natural fibres enhance the properties of soil blocks for construction. *Journal of Composite Materials*, , 1 - 11. 10.1177/0021998317693293. <http://journals.sagepub.com/doi/abs/10.1177/0021998317693293>.

Abstract

Soil blocks are widely used for construction, especially in less economically developed countries. Addition of agricultural waste fibres has been shown to improve the properties of these blocks, however unlike most composites the fibres are not bound to the soil matrix. Therefore, the reinforcement mechanisms are different and not well characterised. This article investigates these mechanisms through a series of experimental studies to inform the development of better guidance for practitioners, and hence improve housing for low-income communities. The microstructural characteristics were investigated using scanning electron microscopy, computerised tomography scan, optical microscope analysis and pull out testing. It was established that fibres in the soil matrix are randomly distributed with gaps between the fibres and soil matrix due to fibre shrinkage during drying of the blocks. It also found that natural fibres in soil matrix can either be pulled-out or rupture under load depending on the depth of fibres embedment in the soil matrix.

Amedorme, S.K. & Apodi, J. (2016). Influence of Density Ratio on Turbulence in Two Phase Flow. *International Journal of Innovative Science, Engineering & Technology*, 3, (5), 15-23. http://ijiset.com/vol3/v3s5/IJISSET_V3_I5_03.pdf. ISSN: 2348 – 7968

Abstract

An entirely Eulerian approach treating two phase flow as a single phase with large scale features of the flow dependent only upon density variation is carried out. The average density for the two fluids is defined in the Computational Fluid Dynamics (CFD commercial code STAR-CCM+ and a transport equation tracking the liquid mass fraction models the turbulent mixing of liquid. Standard k-epsilon model is used for the turbulence. The paper shows the results of average density on turbulence and presents the contour plots of flow and turbulence fields such as turbulent kinetic energy and its rate of dissipation. The variations in the density ratios in relation to turbulent parameters are also presented and the noticeable changes in the turbulent quantities are analysed. Key words: Eulerian Model, Density Ratio, Liquid Mass Fraction, Turbulent and Flow Fields

Amedorme, S.K. & Fiagbe, Y.A.K. (2016). Modification of an Existing Small Hydraulic Jack for Lifting Light Duty Vehicle. *International Journal of Science and Technology*, 5, (11), 552-557. http://www.journalofsciences-technology.org/archive/2016/november_vol_5_no_11/32515147395112.pdf. ISSN: 2049-7318

Abstract

Hydraulic jack has been used extensively in the maintenance, servicing and repairing of motor vehicles. Although the hydraulic jack serves a wide range of purpose, it has one major problem of unexpected hydraulic failure. This has called for the use of a mechanism or an axle stand when the hydraulic jack is in use. Most often, drivers carry the jack forgetting to go along with the stand. And in the event of any repairs on the road have to use incorrect undersigned or unprescribed supports to assist the jack. This paper highlights on the modification of an existing small hydraulic jack for lifting light duty vehicle. The modified jack has been incorporated with reasonable clutch top, simple locking mechanism and sizeable base to support the weight of the vehicle in the event of any hydraulic failure. The distortion energy theory (DET) is used to predict failure and check the factor of safety. The new modification makes the jack serves multi-purpose function of lifting and acting as supporting unit. It also prevents the frustrations the drivers go through in search for undersigned lifting supports between trips when they encounter a flat tyre as well as eliminates the burden mechanics go through in fixing an axle stand. Key words: Modified Hydraulic Jack, Hydraulic Failure, Failure Prediction, Von Mises

Amedorme, S.K. & Burluka, A.A. (2017). Numerical Prediction of Sauter Mean Diameter from Pressure Swirl Atomizer Using Eulerian Model. *International Journal of Engineering and Technology*, 7, (3), 484-494. http://iet-journals.org/archive/2017/march_vol_7_no_3/135471474378785.pdf. ISSN: 2049-3444

Abstract

Atomizers are used in many engineering applications including spray combustion in furnaces, diesel engines, gasoline direct injection engines and gas turbine engines. Pressure swirl atomizers occupy a special position amongst other atomizers because they differ in quality of atomization, simplicity of construction, reliability of operation, low clogging and low expenditure of energy. Turbulence behaviour and the mean droplet size are indispensable considerations in the sprays and atomization process of pressure swirl atomizers. This paper presents entirely Eulerian modelling of two phase flow in a pressure swirl atomizer as a single multi-component phase with high density variations using Computational Fluid Dynamics (CFD) commercial code STAR-CD. The transport equations for the liquid surface density and liquid mass fraction are modelled for the flow and turbulent fields. Numerical results such as liquid mass fraction and liquid surface density are presented. The model also shows the results of atomization characteristics such as droplet velocity and predicts Sauter Mean Diameter (SMD) with reasonable order-of- magnitudes. Key words: Sauter Mean Diameter (SMD), Droplet Velocity, Eulerian Modelling, Liquid Mass Fraction, Liquid Surface Density

BOOKS

Amedorme, S.K., (2016). *Automotive Electrical Systems*. (1) Germany: LAP LAMBERT Academic Publishing. <http://https://www.lap-publishing.com/extern/listprojects>. ISBN: 978-3-659-97984-2

ARTICLE(S) / CHAPTER(S) IN AN EDITED BOOK

Adu Gyamfi, S., Ohemeng Gyaase, P. & Ansong-Gyimah, K. (2016). Designing Blended Learning Environment for Pre-Service Teachers: The Moderating Role of Formative Experiment. In L. Lui & D. C. Gibson *Research Highlights in Technology and Teacher Education 2016*. Waynesville, NC., USA: Association for the Advancement of Computing in Education. 179 - 187. <http://www.aace.org/bookshelf.htm>.

Abstract

This study used formative experiment to design and test a blended learning environment intervention on the teaching and learning of Communication Skills for pre-service teachers. The learning environment was designed on the Moodle platform to combine online learning support with traditional face-face lectures. Pre-intervention baseline data and post-intervention data were collected for comparison. Analysis of the findings showed wide acceptance of use of the blended learning environment. There was appreciable improvement of students' participation and interaction in the course and this resulted in the improvement of the key areas of the Communication Skills course among the pre-service teachers. Lecturers were also able to interact with the students better than in face-to-face classroom setting. It was concluded that the design of a blended learning environment could improve teaching and learning in Ghanaian Universities in courses where large class sizes exist.

CONFERENCES / WORKSHOP/ SYMPOSIA/SEMINAR WITH PRESENTATIONS

Danso, H.

7th West Africa Built Environment Research (WABER) Conference. University of Ghana, Accra, Ghana 16-18 August 2017

Paper presented:

Improving Water Resistance of Compressed Earth Blocks Enhanced with Natural Fibres

Abstract

Studies have shown a great potential for the use of CEBs as a sustainable building material due to its economic, environmental and social benefits. This study investigates the water resistance characteristics of CEBs reinforced with natural fibres. The fibres were sourced from coconut husk, sugarcane bagasse and oil palm fruit at 1 wt% added to two soil samples. The CEB specimen size of 290 × 140 × 100 mm were made at a constant pressure of 10 MPa and dried in the sun for 21 days. Accelerated erosion test was conducted to determine the resistance of the specimen to continuous rainfall condition. It was discovered that the fibres helped in reducing the erodability rate of the blocks, though there were some degree of damage. The difference between the water resistance of the unreinforced and fibre reinforced CEBs were found to be statistically significant. Furthermore, the surface of the fibre reinforced blocks eroded rapidly in depth than the internal part, and there was reduction in the depth difference of the erosion with increase time of water spraying on the specimens. The study concludes that though the addition of fibres in soil blocks does not completely prevent the block from erosion, the impact of the fibres on the blocks significantly reduce the erosion.

Danso, H.

3rd International Conference on Natural Fibers - Advanced Materials for a Greener World. Braga, Portugal June 21-23, 2017

Paper presented:

Properties of coconut, oil palm and bagasse fibres: As potential building materials

Abstract

The use of natural fibres in composite materials is attracting research interest worldwide due to the fibres ability to increase the strength, reduce environmental impact and reduce cost of the material. In this study the properties of coconut husk fibre, oil palm fruit fibre and sugarcane bagasse fibre have been investigated. Experiments on length and diameter, specific weight, tensile strength, modulus of elasticity, moisture content and water absorption tests on the fibres have been conducted to determine their properties for possible use as reinforcement in composite. It was found that different fibres have different properties and behave similarly in wet and damp conditions. The study concludes that all the fibres possess the properties that are acceptable as natural fibres to be used as reinforcement in soil blocks.

FACULTY OF BUSINESS EDUCATION



ARTICLES IN JOURNALS

Kumah, A (2017). Minimum Wage Compliance in Developing Countries among the Informal Sector Workers in Ghana. *International Journal of Current Innovation Research*, 3, (4), 646-652. <http://journalijcir.com>. ISSN: 2395-5775

Abstract

Minimum wage legislations are applicable in most countries in the world and across continents. This research sought to assess the level of compliance of minimum wage legislation among informal sector workforce in Ghana. Literature in relation to wages such as components, types, classifications, compositions, determinants among others relative wage analysis were reviewed. A survey research was used with the adoption of a cross-sectional design that allowed the researchers to draw one or more samples from the population at one-time period. The methodology then comprises research design, population, sample size and techniques, data collection procedure as well as data quality control. Using household and labour force survey data from varying informal sectors in Ghana as a developing country, the author calculated the rates of minimum wage compliance for employees covered by current legislation and assesses the average "depth" of violations. The level of compliance with minimum wage laws often depends on factors specific to each labour market. The research revealed, a substantial share of workers still earns less than the legal minimum wage. Enforcement has not kept up with growth in regulations to protect workers from low wages and working conditions. Several institutional structures shape enforcement, including the role of labour inspectors and the presence of unions. These enforcement enablers were non-functional and thus though make compliance negatively related to the ratio of minimum to median wages in Ghana, compliance rates with occupational or industry or location-specific minimum wage systems are more prevalent. Pursuance of informal minimum wages across sectors and the provisioning of adequate infrastructural base to expand employment opportunities shall on its own expand the economy and surge up wages to become living wages instead of pursuance of minimum wages. However, better compliance – especially for women, ethnic groups, and unskilled and informal workers – also depends on contextualized yet comprehensive minimum wage policies combining union/employer involvement, awareness-raising and credible enforcement.

Kumah, A & Boachie, W. K. (2017). Teacher Job Satisfaction as a motivational tool for School Effectiveness: An Assessment of Private Basic Schools in Ghana. *International Journal of Research Science & Management*, 4, (3), 10-21. <http://www.ijrsm.com>. ISSN: 234-5197

Abstract

This is a survey study undertaken to assess the function of extrinsic and intrinsic factors of motivation in determining job satisfaction of private basic school teachers in Ghana. Demographic variables such as teachers' gender, age, marital status, school resources, teaching experience,

academic qualifications, and rank were examined to ascertain whether these had any reasonable large relevance, or made any significant contribution, to the level of job satisfaction experienced by teachers as well as ascertaining the mutual relationship between the teachers' diminished interest and job satisfaction as a determinant of the extent of their relationship. A 412 sample from the population was used across 31 private basic schools in Ashanti Region of Ghana. The results showed reasonable large levels of dissatisfaction in relation to intrinsic factors of work. There was a significant dissatisfaction factors in mutual relationship with demographic variables of school area and rank. A reasonable large relationship between levels of diminished interest and job satisfaction was also identified, specifically, in respect of consumption of sentimental resources and emotional detachment, which were shown to be in mutual relationship with low levels of job satisfaction. The study recommended that training must be offered to private basic school owners and encourage effective communication among stakeholders in educational sector whereas authorities in education sector should develop a formalized advancement programmes for teachers in schools notably in private basic schools.

Kumah, A & Boachie, W. K. (2016). An Investigation into the Impact of Microfinance in Poverty Reduction in Less Developed Countries (LDCs): A case of Ghana. *American Scientific Research Journal for Engineering, Technology and Sciences (ASRJETS)*, 26, (3), 188-201. 2313-4402. <http://asrjetsjournal.org/>. ISSN: 2313-4410

Abstract

The paper attempts to provide a critical appraisal of the debate on the effectiveness of microfinance as a universal poverty reduction tool. It argues that while microfinance has developed some innovative management and business strategies, its impact on poverty reduction remains in doubt. The instrument for data collection is structured questionnaire. The study was carried out in Ashanti Region of Ghana. Using a sample size of 380 clients from various microfinance institutions (MFIs) within the research area and a survey with descriptive analysis, the result reveals among others that the clients enjoy opportunities for savings which enable them to increase their income levels by way of using their savings to acquire basic necessities of tools, equipment and materials and are able to create employment and improve their standard of living. Thus, microfinance, however, certainly plays an important role in providing safety-net and consumption smoothing. The study therefore recommends among others an urgent refocus on the promotion of micro-savings, a robust financial sector regulation and improved financial support to the MFIs by government and other stakeholders to help in the world's effort in respect of poverty eradication agenda.

FACULTY OF EDUCATION AND COMMUNICATION SCIENCES



ARTICLES IN JOURNALS

Cobbold, C., & Boateng, P. (2016). How Confident are Kindergarten Teachers in Their Ability to Keep Order in the Classroom? A Study of Teacher Efficacy in Classroom Management. *Journal of Education and Practice*, 7, (36), 181-190. <http://www.iiste.org>. ISSN: 2222-1735 (Paper) 2222-288X (Online)

Abstract


The objective of the study was to investigate kindergarten teachers' efficacy beliefs in classroom management. The sample size was 299 teachers drawn from both public and private kindergarten schools in the Kumasi Metropolis of Ghana. The efficacy beliefs of the teachers with respect to their classroom management practices were measured on a six-point Likert agreement survey questionnaire. Findings from the study indicated that kindergarten teachers in the study area had high efficacy beliefs in classroom management practices. No statistically significant difference was found in the efficacy beliefs in classroom management practices of trained and untrained kindergarten teachers, and of public and private kindergarten teachers. The study drew the conclusion that the professional status of the teachers (i.e. whether they were trained or untrained) and their institutional placement (i.e. whether they taught in a public or private school) were not important influential factors in the teachers' efficacy beliefs in classroom management. Recommendations for early childhood teacher education programme and research are made.

Adjei, S. B. (2017). Sociocultural groundings of battered women's entrapment in abusive marital relationship in Ghana. *Journal of Aggression, Maltreatment & Trauma*, , 1 - 23. 10.1080/10926771.2017.1284171. <http://dx.doi.org/10.1080/10926771.2017.1284171>. ISSN: 1092-6771 (Print) 1545-083X (Online)

Abstract

While social psychological theorizations have contributed to our understanding of why battered women continue to remain in abusive intimate relationships, its apparent exclusive focus on individual victims' psychological orientation leaves little conceptual space for discovering the subtle ways by which social and cultural norms shape the stay/leave decisions of victims of spousal violence. Drawing upon discursive psychology, this study explores the sociocultural groundings of stay/leave decisions of battered women in Ghana. Semi-structured focus groups and personal interviews were conducted with 32 participants: 16 victims and 16 perpetrators from rural and urban Ghana. Discursive accounts of participants suggest that post-divorce social stigma, remarriage alternatives, and post-divorce child care, as well as privacy framing of marital abuse function in concert to influence battered women's entrapment in violent marital relationships. The article argues that, rather than individual psychological orientation, the decision to stay in or leave abusive marital relationships in Ghana is socioculturally and structurally grounded. To understand the highly complex nature of spousal violence, one must always go beyond the person and his or her psychological orientations, and seek the origin of battered women's entrapment also in the external conditions of life, and in the sociocultural and structural forms of human existence.



A man in a white polo shirt and a long green lab coat stands in a cacao plantation. The background is filled with lush green cacao trees and pods. A large green circular graphic is overlaid on the right side of the image, containing the text.

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ARTICLES IN JOURNALS

Nyarko, K. B., Oduro-Kwarteng, S., Dwumfour-Asare, B. & Boakye, K. O. (2016). Incentives for water supply to the urban poor and the role of the regulator in Ghana. *International Journal of Water*, 10, (2), 267-280. 10.1504/ijw.2016.075572.

Abstract

Urban water coverage in Ghana has been increasing but urban water supply to the poor is a challenge. This paper examines the incentive mechanisms in use in the urban water sector to serve the poor. The paper is based on reviews of incentive mechanisms (policy, strategies and practices), assessment of the level of implementation of pro-poor strategies and water supply situation in selected poor communities in the second largest city, Kumasi. The paper discusses the incentive mechanisms and the level of effectiveness and emphasises the role of the regulator. The study revealed that the policy framework for water service delivery to the urban poor exists but not all the intentions have been implemented. The urban utility is setting up a pro-poor unit and piloting innovative technical and management approaches for delivering services to the urban poor. The sector lacks sufficient incentive mechanisms to accelerate water service delivery to the urban poor.







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ARTICLES IN JOURNALS

Samlafo, B.V and Ofoe, E.O (2017). Water quality Assessment of River Bonsa in Tarkwa, a Mining-impacted Area of Ghana. *Chemical Science International Journal*, 20, (4), 1-8. 10.9734/csji/2017/37251. <http://www.sciencedomain.org/>. ISSN: 2456-706X

Abstract

The suitability of River Bonsa for drinking, without any chemical treatment was assessed using a developed and robust water quality index (WQI), with modification for the river under study. In evaluating WQI, nine parameters in water quality, which were harmful to human health were considered. They were pH, dissolved oxygen, total suspended solids, total dissolved solids, total hardness, total alkalinity, chlorides, sulphates and nitrates. On the basis of the computed WQI (55.054), River Bonsa fell within the poor for drinking water category. Hence the water needs to be treated before it can be drunk directly. Intensive education on water-related diseases is also needed to inform the inhabitants living along the river bank, who use the water from the river directly without any chemical treatment. **Keywords:** River Bonsai; illegal mining; water quality index; Tarkwa; heavy metals

Samlafo, B.V (2017). Comparative Analysis of Leachable Heavy Metals in Earthenware Clay Deposits in the Central and Volta Regions of Ghana. *American Journal of Chemistry*, 7, (4), 145-151. 10.5923/j.chemistry.20170704.03. <http://journal.sapub.org/chemistry>. ISSN: 2165-8781

Abstract

This paper, sought to compare and contrast the potential leachable heavy metals in earthenware clay deposits in the Central and Volta regions of Ghana, using the Atomic Absorption Spectrophotometer (AAS). The study also tried to establish the suitability of which clay deposit is the ideal raw material for earthenware products used as food wares, based on toxic heavy metal and micronutrient/essential metal levels. The toxic metals determined were Pb, As, Hg, and Cd, while the micronutrients/essential elements examined were Cr, Zn, Mn, Cu, and Fe. The results showed that, apart from Hg and Cr, there was no statistical difference in heavy metal levels in the two regions. Earthenware clay deposits in the two regions were found to be suitable raw materials for food ware products based on their heavy metal levels. The reproducibility of the analytical method was assessed by analysis of the standard reference material IAEA soil-7. The values obtained, compared favourably well with the recommended values as Spearman correlation coefficient was +0.96%. The experimental values were within $\pm 4\%$ of the recommended values. The measurement precision specified by the relative standard deviation was within $\pm 5\%$. The error margins are standard deviations. A two-tailed student's t-test was used to establish any statistical differences between the mean concentrations of the two earthenware clay deposits. The level of probability at which significant differences existed between the deposits was set at $p < 0.05$ at 95% confidence level. In general, the two clay deposits were found to be suitable sources of raw materials for food ware products. **Keywords** Heavy metals, Essential elements, Clay, Earthenware, Central region, Volta region

Akayuure, P. Asiedu-Addo, S. K. & Alebna, V. (2016). Investigating the Effect of Origami Instruction on Pre-service Teachers' Spatial Ability and Geometric Knowledge for Teaching. *International Journal of Education in Mathematics, Science and Technology*, 4, (3), 198-209. 10.18404/ijemst.78424. <http://www.ijemst.com>. ISSN: 2147-611X

Abstract

Whereas origami is said to have pedagogical benefits in geometry education, research is inclusive about its effect on spatial ability and geometric knowledge among preservice teachers. The study investigated the effect of origami instruction on these aspects using pretest posttest quasi-experiment design. The experimental group consisted of 52 students while students in the control group were 42. Paper folding test and mental rotation test were used to assess two subscales of spatial ability of the pre-service teachers and achievement test was also used to assess geometric knowledge for teaching shape and space. Data were analyzed using (M)ANOVAs at .05 significance level. The results of univariate ANOVAs show statistical and practical significant effect on spatial orientation and geometric knowledge for teaching, but unpredictably no statistical significant difference in spatial visualization between groups was found. The MANOVA however indicated overall statistically significant difference in posttest mean scores between groups with treatment accounting for 17% of multivariate variance of dependent variable. Implications for adopting origami instructions at the colleges of education were discussed.

Akayuure, P. & Ali, C. A. (2016). Incorporating Indigenous Bukre Game Into Mathematics Lessons: A Teaching Experiment. *Researchjournali's Journal of Mathematics*, 3, (1), 1-15. <http://www.researchjournali.com>. ISSN: 2349-5375

Abstract

One major drawback to the curriculum demand for the use of indigenous games in mathematics classrooms is the inability of most teachers to identify the mathematics in these games and consequently incorporate them when teaching specific mathematics content. The primary purpose of the study is therefore to analyze and show how the indigenous bukre game could be incorporated into the teaching and learning of probability concepts in junior high school mathematics. Forty-five pupils from Veja Junior High School and a 79-year old knowledgeable man were purposively engaged in bukre game and data were gathered by participant observations and interviews. A comparative analysis uncover that, similar to the classical experiment of tossing a coin, a variety of probability concepts surrounds bukre game. It is also observed that the game can promote pupils' native conception of probability, intrinsic motivation, friendly classroom dialog and interactions. Implications were discussed within the framework of projecting the use of indigenous games and knowledge systems in teaching and learning mathematics.

Ali, C. A. & Peter Akayuure, P. (2016). Infusing Competencies and Skills of Vocational Instructors: Innovations to Boost Science and Technology for National Development. *American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS)*, 6, (4), 34-42. <http://www.iosrjournals.org>. ISSN: 2320-737X

Abstract

The study explored how teacher-training institutions could infuse the Community Development Vocational and Technical Institutes' instructors with educational competencies and skills as innovations to boost science and technology to accelerate national development. Even though the restructuring transformed the then Women Vocational Training Institutes into Community Development Vocational and Technical Institutes, and subsequently introduced Core Mathematics, it was still not clear whether the instructors had the required competencies and skills to implement the curriculum. This exploratory survey purposively sampled fifty instructors in three districts of Upper East Region and issued with questionnaires to explore the instructors' educational and Mathematics backgrounds. Having coded and analysed the data with SPSS software, the findings showed that the educational and mathematical backgrounds of the instructors still require further education and training in the competencies and skills. This would build skilled manpower, create jobs, reduce north-south migration and accelerate national development. We therefore, recommended continuous inter-tertiary collaborations, scholarships and realignment of the CDVTI institutes to the Ghana Education Service to achieve these goals.

Samlafo, B.V, Bobobee, L.H, Quashie, E and Sarsah, L.A (2016). Cadmium, lead, arsenic and mercury levels in earthenware clay deposits at Vume, in the south Tongu District of Ghana, using Atomic Absorption Spectrophotometric Technique. *International Journal of Current Research*, 8, (11), 42230-42233. <http://www.journalcra.com>. ISSN: 0975-833X

Abstract

This paper screened for potentially harmful heavy metals such as As, Pb, Cd and Hg in earthenware clay deposits at Vume in the Volta region of Ghana using Atomic Absorption Spectrophotometric (AAS) technique. The concentrations of As in the clay samples ranged from 0.90 $\mu\text{g/g}$ to 2.04 $\mu\text{g/g}$ with a mean of 1.49 $\mu\text{g/g}$, and standard deviation of 0.47. Lead levels ranged from 2.85 $\mu\text{g/g}$ to 4.08 $\mu\text{g/g}$ with a mean of 3.67 $\mu\text{g/g}$, and a standard deviation of 0.38. Cadmium was below the detection limit of 0.002 $\mu\text{g/g}$ in some samples: however, the levels measured ranged from 0.15 $\mu\text{g/g}$ to 0.51 $\mu\text{g/g}$ with a mean of 0.29 $\mu\text{g/g}$, and a standard deviation of 0.13. The concentrations of mercury ranged from 0.18 $\mu\text{g/g}$ to 0.69 $\mu\text{g/g}$ with a mean of 0.53 $\mu\text{g/g}$, and a standard deviation of 0.15. The levels of Hg, Cd and Pb fell below their respective US EPA(1990) safe levels of 18.0 $\mu\text{g/g}$, 1.7 $\mu\text{g/g}$ and 80.0 $\mu\text{g/g}$, except that of As which was above its US EPA(1990) safe level of 0.07 $\mu\text{g/g}$. The levels of Arsenic in the study area, though higher than the US EPA safe level, were comparable to the worldwide background level of 5 $\mu\text{g/g}$ in soil. The precision and the accuracy of the AAS method were assessed via the use of reference material IAEA Soil-7. The values obtained for the various elements in the standard reference material (by analysing it with the

AAS method) compared favourably well with the recommended values as Spearman's correlation coefficient was + 0.96. The experimental values were within $\pm 5\%$ of the recommended value. The measurement precision determined by the relative standard deviation was within $\pm 4\%$. With the exception of As levels which need some remediation, the quality of the clay at Vume was found to be generally good for the production of earthenware products.

Hanson, R. (2015). Identifying students' alternative concepts in basic chemical bonding- A case study of teacher trainees' in the University of Education, Winneba. *International Journal of Innovative Research and Development*, 4, (1), 115-122. <http://www.ijird.com>. ISSN: 2278-0211

Abstract

The study developed a diagnostic instrument to identify misconceptions that teacher trainees have of chemistry topics in relation to ionic and covalent bonding. Students' initial ideas on these topics were collated through classroom discourse, Treagust's (1988) and Tan and Treagust's (1999) adapted diagnostic tests, concept maps and whole class interviews during the first week of interaction with teacher trainees in 2011. These data were used to produce 20 two-tier multiple choice items in four concept areas. The test had a Cronbach alpha reliability of 0.75. Item difficulties ranged from 0.12 to 0.65. Discrimination values ranged from 0.32-0.60. The diagnostic instrument was administered to 98 undergraduate teacher trainees in their second year of chemistry education at the University of Education, Winneba. The participants' scores on each item were analysed by simple percentages to identify their misconceptions on basic chemical bonding and structure. The identified alternative concepts have been presented and discussed and possible teaching remedies suggested.

Hanson, R. (2015). Using microscience equipment to facilitate the study of qualitative analysis- A case study in an undergraduate class. *European Journal of Basic and Applied Sciences*, 2, (2), 11-18. <http://www.idpublications.org>. ISSN: 2059-3053

Abstract

Analytical chemistry is an important aspect of chemistry as it provides a lot of insight into the constituents and measurements of matter in all fields of science and medicine. Thus its study comprises the practice of qualitative and quantitative analysis which allows learners of science to have an experience of analytical work. However, the growing cost of science resources and the increasing numbers of students make the regular practice of such activities difficult. It drains the resources of schools which attempt to expose their students to practical work. In this interpretive study of quality micro analysis, 46 undergraduate teacher trainees participated in the use of microscience equipment in their forth semester for the identification of ions in solutions. Data to assess the feasibility of the intervention was done through observation, a questionnaire and a semi-structured interview. About 86% of the sample intimated that the micro activities were interactive, easy to use, yielded faster results and was fun to work with.

Hanson, R., Kwarteng, T. A., & Antwi, V. (2015). Undergraduate chemistry teacher trainees' understanding of chemical phenomena. *European Journal of Basic and Applied Sciences*, 2, (3), 8-14. <http://www.idpublications.org>. ISSN: 2059-3058

Abstract

Knowledge about periodic trends enables students to understand and explain chemical phenomena which they encounter in everyday life and in formal settings such as in chemical activities in school laboratories. The case of first year undergraduate students' understanding of chemical phenomena was assessed through an interpretive study. The study revealed that almost half of Ghanaian students at the entry point of tertiary teacher education had several alternative conceptions about periodicity in general and chemical phenomena in particular. The highest alternative conception was found to be on the electronegativities within a group of atoms and how they changed as well as how they affected polarity.

Sam, A., Niebert, K., Hanson, R., & Twumasi, A. K. (2015). The model of educational reconstruction: Scientists' and students' conceptual balances to improve the teaching of coordination chemistry in higher education. *International Journal of Academic Research & Reflection*, 3, (7), 67-77. <http://www.idpublications.org>. ISSN: 2309-0405

Abstract

The general knowledge of coordination chemistry, nomenclature and geometry was characterised by domain-specific students' conceptions as observed in this study. Based on the Model of Educational Reconstruction (MER), a clarification of coordination chemistry content structure was developed and made available for teaching. Generated conceptions from four (4) university-level science textbooks and students own ideas informed this clarification process. In this interpretive study, conceptual balances from scientists and fifteen (15) third year students of the University of Education, Winneba were brought into meaningful correspondences. Students' chemical drawings were analysed by qualitative content analysis and two (2) interventions adopted to be implemented in a subsequent study. Examples of how to bring students' conceptions vis-à-vis scientists' conceptions into balance have been discussed in this study.

Sam, A., Niebert, K., Hanson, R., & Aryeetey, C. (2016). Fusing Scientist and students' conceptual correspondences to improve the teaching of metal complex isomerism in higher education- An educational reconstructive process. *International Journal of Academic Research & Reflection*, 4, (1), 54-64. <http://www.idpublications.org>. ISSN: 2309-0405

Abstract

The study was conducted to explore Scientists' and Students' perspectives on metal complex isomerism. These correspondences formed a powerful grain for conceptual change in content oriented instruction for 15 third year chemistry major students at the University of Education, Winneba-Ghana. The interpretive case study was used to explore students' responses on geometrical isomers of complexes. Based on the researchers' interpretation and the Model of Educational Reconstruction (MER), a clarification of geometrical isomerism in coordination chemistry content structure was developed. The generated conceptions from four (4) university-level textbooks and students, primarily informed this clarification process. These conceptions on metal-complex isomerism (geometrical) from scientists and students were brought into meaningful correspondences. All data were analysed by qualitative content analysis, addressing students' reasoning during a ten (10) week class sequence. The research afforded students access to use their constructed knowledge rather than being passive recipients of scientist-presented knowledge. The study discussed the relevance of geometrical isomerism in Higher Education (HE).

Hanson, R. (2016). Chemistry teacher trainees' perceptions of chemical equilibrium. *The International Journal of Humanities & Social Studies*, 4, (1), 80-88. <http://www.theijhss.org>. ISSN: 2321-9203

Abstract

This study investigated Ghanaian chemistry teacher trainees' understanding about chemical equilibrium. A total of 104 second year undergraduate teacher trainees participated in the study. A test consisting of ten, 2-tiered multiple choice questions were used to collect data on the trainees' conceptions about chemical equilibrium. The results from the study indicated that about 46% of the trainees had no conception about chemical equilibrium, while 32% had alternative conceptions, some of which had been identified in other studies in some parts of the world. About 50% of the trainees in this study, in addition, could not comprehend thoroughly on an abstract level. Neither could they appreciate the factors that influenced rates of chemical reactions, equilibrium shifts, nor their implications. In all, only about 23% of the participants understood the concept of chemical equilibrium. Eleven alternative concepts were identified. The use of interactive intervention was suggested for remediation.

Hanson, R. & Kwarteng, T. A. (2016). Using concept mapping to remediate chemistry teacher trainees' understanding of chemical phenomena- Before and after. *International Journal of Scientific Research in Science and Technology*, 2, (4), 214-221. <http://www.ijrst.com>. ISSN: 2395-602X

Abstract

Researchers have shown interest in how beginning chemistry teacher trainees can improve on their technological pedagogical content knowledge so as to be able to engage their students in concept-based and reflective activities. This is a task that trainees have to build up on their own by first mastering their content knowledge. This article focuses on 29 first year teacher trainees' understanding of chemical phenomena and how their understanding could be improved through concept mapping. An intervention was designed to enhance their basic conceptions upon which other concepts could be built. We analysed concept maps on linkages of periodic properties and how they affect chemical bonding. Their submissions were analysed based on three categories of conceptual understanding. The results showed that their levels of conception improved after the concept mapping intervention.

Hanson, R. (2016). Ghanaian teacher trainees' conceptual understanding of stoichiometry. *Journal of Education and e-Learning Research*, 3, (1), 1-8. <http://asianonlinejournals.com/index.php/JEELR>. ISSN: 2410-9991

Abstract

Chemical stoichiometry is a conceptual framework that encompasses other concepts such as the mole, writing of chemical equations in word and representative form, balancing of equations and the equilibrium concept. The underlying concepts enable students to understand relationships among entities of matter and required amounts for use when necessary. Success in this area of chemistry depends mainly on a student's understanding of the concepts of the mole. An interpretive study on trainees' conceptual understanding of chemical stoichiometry was carried out among 78 teacher trainees in their second year of study. The study comprised a combination of quantitative and qualitative interpretation of responses provided by trainees to stoichiometric questions. The interpretation indicated that their learning of stoichiometry was basically through the use of picket fence (factor label), undefined strategies and algorithm. The trainees were found to have more persistent problems with conceptual interpretation as they were not able to fully translate word problems into mathematical equations regardless their algorithmic underpinnings. Neither did they understand fully, the law of conservation of matter. Qualitative findings were found to be consistent with quantitative outputs. **Keywords:** Chemical change, Conceptual understanding, Non-limiting reactant, Percent yield, Stoichiometry, Theoretical yield.

Hanson, R., Bobobee, L. H., Twumasi, K. A., & Antwi, V. (2015). . *Designing micro chemistry experiments for teacher trainees in a university*, 3, (5), 14-20. <http://www.idpublications.org>. ISSN: 2056-5852

Abstract

Micro chemistry experimentation has come to reduce the usual traditional experimentation through miniature activities. In addition it has reduced activity time and the cost of resources significantly and yet provided personal hands-on experiences for learners. This study presents the design of micro chemistry experimentation for some quantitative and qualitative inorganic chemistry topics for first year undergraduate teacher trainees as well as to introduce a motivating way to teach and conduct chemistry activities. It basically set out to explore the designed low-cost practical approach that could contribute to improved laboratory practice in Ghana, in view of resource, time, and space constraints in a teaching institution. Overall findings showed that the micro chemistry approach made chemistry lessons interesting, interactive, and enabled learners to acquire many learning skills by themselves. Keywords: Comboplate, wells, microchemistry kit, micro quantity, macro quantity.

FACULTY OF SOCIAL SCIENCE EDUCATION



ARTICLES IN JOURNALS

Sam, E. F. and Abane, A. M. (2017). Enhancing passenger safety and security in Ghana: Appraising public transport operators' recent interventions. *Management Research and Practice*, 9, (3), 62-75. <http://mrp.ase.ro/no93/f5.pdf>. ISSN: 2067 – 2462

Abstract

There are increasing calls for regular monitoring and evaluation of safety and security strategies of public transport (PT) operators, especially in developing countries where PT safety and security concerns abound. In respect of this, this study examined the passenger safety and security interventions of PT operators in Ghana. Both the accident-incident theory and routine activities theory served as the theoretical framework within which the study was rooted. Guided by the convergent parallel mixed methods design, data were drawn from in-depth interviews with six major intercity PT operators as well as questionnaires administered to 273 intercity PT passengers. Field data were analysed using both thematic (qualitative data) and correlational (quantitative data) analyses in line with the study design. Varied perspectives on the state of PT passenger safety and security in the country were expressed, and operators' current interventions in this regard were appraised. The study emphasised the need for periodic review of the regulatory framework establishing public transport undertaking by the Metropolitan, Municipal and District Assemblies (MMDAs) to reflect changing safety and security circumstances.

Kursah, M. B. (2017). Least-cost pipeline using Geographic Information System: The Limit to Technicalities. *International Journal of Applied Geospatial Research*, 8, (3), 1-15. <http://https://www.igi-global.com/article/least-cost-pipeline-using-geographic-information-system/181573>. ISSN: 1947-9654

Abstract

Increasing demand for water in Wapuli and its environ has led to a proposal to construct a pipeline to link the town to an existing water plant. This paper developed a geospatial model incorporating multi-criteria analysis involving factors such as slope, landcover, watercourses, distance to roads and soil types to determine a least-cost path for the pipeline. However, the least-cost path passes through a tiny sacred grove near Moadani dam, necessitating the generation of a second least-cost path by considering sacred groves as constraint. The result showed that the least-cost path avoided steep slopes, and runs through relatively levelled grounds. This analysis showed the importance of cultural factors in route planning. It is recommended that in route planning attention be given to cultural factors much in the same way as the technical factors.

Kursah, M. B. (2017). Resolving the landfill siting impasse: Modelling technocrat and indigenous perspectives using GIS multicriteria approach. *GeoJournal*, 84, 1-18. <http://https://link.springer.com/article/10.1007/s10708-017-9796-5>. ISSN: 0343-2521

Abstract

Increase in waste generation calls for an effective waste management as this has become a necessity for environmental sustainability. Several methods are adopted in managing waste, which include waste reduction, reuse, thermal treatment, recycling and landfilling. The landfill method is recognised as the most used of all the waste management methods in developing countries such as Ghana. However, the selection of a suitable landfill site is very difficult and tedious. This is because it involves a consideration of many factors such as environmental, topographic, economic, socio-cultural and civil engineering. This research sought to identify a suitable landfill site by applying GIS multicriteria and weighted overlay approach in the Bongo District of Northern Ghana. The analysis relied on criteria and weights provided by the technocrats and the indigenes in the district as a way of demonstrating how landfill siting impasse can be resolved by incorporating the various stakeholders. The results obtained provided clear areas for landfill sites in the study area from the technocratic and the indigenous perspectives. However, the technocratic perspective failed to include an important cultural criterion, sacred groves, as a factor. The indigenous perspective also compromised on the factor related to nearness to residential areas, and is equally not sufficient on its own. The optimal landfill sites, which meets the expectations of both the technocrats and indigenes, was identified. This perspective has produced technically favourable and socio-culturally acceptable landfill site. However, it is recommended an environmental impact assessment (EIA) be conducted to identify the full environmental and social cost of the site. It is concluded that in landfill site selection much attention be given to cultural factors in the same way as the technical factors.

Kursah, M. B. (2017). A quantitative methodology for assessing sustainable tourism potentials. *Tourism Review International*, 21, (1), 63-80. <http://https://doi.org/10.3727/154427217X14866652018901>. ISSN: 1544-2721

Abstract

Sustainable tourism potential is the measure of the ability and opportunity of material and nonmaterial elements to attract tourists to a destination that takes full account of its current and future socioeconomic and environmental impacts, while addressing the needs of visitors, the industry, the environment, and the host communities. Thus, an effective way to developing sustainable tourism is a better identification of tourism potentials of different areas for accurate planning. Using a quantitative approach, this study identified the pull and push factors in assessing tourism potentials in Ghana, normalized the factors using scaled-item model and weight system assigned by tourists. It also acquired availability scores for each factor in five Municipal and District Assemblies (MDAs) in Ghana and used this to show the application of the model. The

final output is the tourism potential index (TPI), which could be used for assessing sustainable tourism development at the micro and the macrolevels. The article concludes with a ranking of the selected MDAs according to their tourism potentials and substantiation of the scaled-item model to be implemented to ensure a sustainable tourism development of the MDAs. For the pull factors, the Effutu municipality with an index of 4.44 is ranked highest, followed in that order by Gomoa West district (4.26), Agona West municipality (4.00), Ajumako-Enyan-Essiam district (3.98), and Gomoa East district (3.9). For the TPI, which included the pull and the push factors, the Effutu municipality is still ranked highest with an index of 3.20. This is followed, in that order, by Gomoa West district (2.99), Ajumako-Enyan-Essiam (2.63), Gomoa East (2.59), and Agona West municipality (2.02), which lost the third position for the least position. Effutu municipality (3.20) with the highest TPI is 1.18 higher than the Agona West municipality (2.02) with the least TPI. It is suggested that examining the tourism potentials of areas based on the pull factors or attraction sites/facilities alone is inadequate as the tourism industry involves other sectors and push factors such as security and safety, socioeconomic, environment, and natural resources.

Kursah, M. B. (2016). Modelling malaria susceptibility using Geographic Information System. *GeoJouna*, 83, 1-11. <http://link.springer.com/article/10.1007/s10708-016-9732-0>. ISSN: 0343-2521

Abstract

Identifying and/or predicting the geography of malaria will help decision makers locate the particular area with the health problem, and to design area-specific interventions. Using GIS (ArcMap 10.1), a spatial analysis of environmental factors that contribute to the spread of malaria vector was conducted to develop a malaria susceptibility model that could be used in effective malaria control planning. The study first determined malaria susceptibility index and combined it with geospatial modelling to predict malaria susceptibility. Clinical malaria cases were then geocoded and tested to determine the accuracy of the prediction. The results show that 72.3, 24.5, 3.1 and 0.1 % of the clinical malaria incidence were found in areas that were predicted to have very high, high, low and very low susceptibility levels. Hence, the model, to a large extent, predicted malaria occurrences. The conclusion is that modelling such as this can help determine spatio-temporal prediction and mapping of malaria incidence to aid in the design and administration of appropriate interventions.

Kursah, M. B. (2014). Geo-environmental assessment for identifying a least-cost road in Ghana. *Applied GIS*, 10, (3), 1-22. <http://appliedgis.net/abstract/geo-environmental-assessment-identify-least-cost-road-ghana>

Abstract

Unlike many studies which simply generate least-cost paths, this paper develops a geospatial methodology for amalgamating many geoenvironmental factors in order to determine the costs of construction for predefined or existing roads. The geo-environmental factors used were elevation, presence of watercourses, soil characteristics and land cover type. They were reclassified to cost values/attribute weights based upon their impact on road construction, and they were then

combined, using the weighted overlay tool in ArcMap, to generate a thematic cost layer. The total construction cost for each road was then extracted from this layer using the Extract by Mask tool. Although the cheapest road was longer, it less costly by 3.2%, mainly because of its higher elevation, avoidance of major valleys, suitable soils and less problematic land cover, all of which reduced the need for cut-and-fill and culverts. It is suggested, therefore, that government agencies adopt this powerful technique for reliable and well integrated road planning and assessment. Nevertheless, the method could be improved by including additional factors such as proneness to floods and access to people and socioeconomic activities.

Kursah, M. B. (2013). Application of GIS in flood detection for road infrastructure planning in North-Eastern Corridor of Northern Ghana. *International Journal of Applied Science & Technology*, 3, (5), 94-106. <http://www.ijastnet.com/journal/index/467>. ISSN: 2221-0997

Abstract

This study used GIS to identify flood risk areas on the proposed Wapuli and Kpalba roads to help policy makers take a firm decision on which road to link Yendi, Saboba, Chereponi and Gushiegu districts in Northern Ghana. The aim was to identify and measure floodable areas on the proposed roads. Factors influencing flooding in the area are identified and reclassified to flood risk values based on their suitability to retain waters, and then combined using weighted overlay tool in ArcMap to generate flood prone areas. The results showed that Wapuli road has lesser passage through flood risk areas. The study, thus, reveals how road planners can identify flood risk areas to aid in designing mitigations. The study concludes that flood risk areas should not be the sole factor in road planning, but rather multi-factors, including cost of construction, access to people and economic activities and the ability to ease trade.

Sam, E. F., Adu-Boahen, K. & Kissah-Korsah, K (2014). Assessing the factors that influence public transport mode preference and patronage: Perspectives of students of University of Cape Coast (UCC), Ghana. *International Journal of Development and Sustainability*, 3, (2), 323-336. <http://isdsnet.com/ijds-v3n2-8.pdf>. ISSN: 2168-8662

Abstract

Several factors influence the preference and patronage of one public transport mode as against the others. The study set out to assess the factors that influence students of the University of Cape Coast in their choice of public transport service operators. Using questionnaires and interview guides, the study was conducted at five main intercity bus terminals in Cape Coast involving 100 student commuters who happened to be available at the various terminals during the survey (Easter break). The study found that the students gave massive consideration to fare, safety, comfort and reliability before deciding on which transport operator to choose. The study also revealed

that the government- owned fleet were the most preferred by the students surveyed compared to the other privately- owned modals. It was thus concluded that service operator preference and patronage was a function of how affordable, comfortable, safe and reliable their fleet and services are and also that the students preferred the services of both the Metro Mass Transit (MMT) Ltd and Intercity STC Coaches Ltd compared to the other operators because they have relatively cheaper fares and are perceived to be safe as well as are comfortable and reliable respectively.

Sam, E. F. & Sam, L. G (2016). Why can't you read?: Exploring the predictors of reading difficulties.. *International Journal of Educational Leadership*, 7, (1), 97-104.

Abstract

The study explored how students' attitudes toward reading, access to reading resources at home, class teacher's attitude towards students' reading ability, access to and use of video games and TV contribute to students' reading difficulties. Data was obtained from 42 randomly selected students deemed as experiencing reading difficulties through questionnaire administration. Using the standard multiple regression technique, it was observed that the students' attitudes toward reading made a statistically significant contribution to explaining their reading difficulties while all other predictor variables recorded less of a unique contribution to the equation relative to previous findings. Given this finding, it is imperative that parents and school teachers identify and target the factors that influence their attitudes to reading. Efforts should be made to help students appreciate the value of reading.

CONFERENCES / WORKSHOP / SYMPOSIA / SEMINAR WITH PRESENTATIONS

Sam, E. F. & Glozah, F. N.
2017 Ghana Geographers' Association Conference. Ho, Ghana 3-5 August 2017

Paper presented:

Age, sex and socio-economic status do not moderate the relation between knowledge of safe road practices and attitude towards safe road practices in Ghanaian school children

Abstract

Children, especially those attending school, take high risks in traffic, particularly in relation to their regular interaction with the road environment. It is known that age, sex, and socio-economic circumstances of school children influence the relationship between their knowledge and attitude

towards safe road practices, although this has not been explored among Ghanaian school children. The aim of this study was to examine the role of age, sex and socio-economic status (SES) in the relationship between knowledge and attitude of safe road practices among Ghanaian school children. A random sample of 348 school children was drawn from 11 schools in the Cape Coast Metropolis in Ghana. Results of a hierarchical multiple regression analysis found that age, sex and SES do not moderate the relation between knowledge of and attitude towards safe road practices. This result thus suggests that child traffic safety interventions and campaigns based on age, sex and SES may not be enough to guide children's behaviour; likewise their knowledge and attitude. The study maintained that interventions targeted at the safety of the child-pedestrian especially in developing countries should go beyond educating them to acquire good knowledge and positive attitude of safe road practices to providing a safer environment that prioritises their needs, accommodates their curiosity and errors in traffic and enhances safer walking.

Sam, E. F., Daniels, S., Brijs, k; Brijs, T., & Wets, G.
30th International Co-operation on Theories and Concepts in Traffic Safety. Olomouc,
Czech Republic 26-27 October 2017

Paper presented:
Modelling public bus/minibus transport accident severity in Ghana

Abstract

The current safety concerns with buses/minibuses (public transport) in both developed and developing countries have warranted a renewed interest in bus/minibus safety research. Prior to this, there was a paucity of research in this domain especially in developed countries where the safety associated with buses was deemed adequate. In this study, we examined the factors that influence bus/minibus accident severity in Ghana using bus/minibus accident data from 2011-2015. We estimated the probability of bus/minibus accident severity by fitting generalised ordered logit models. The findings revealed that the day of the week, the presence of road median, adverse weather, daylight condition, good road terrain, the presence of traffic controls, the manner of collisions, and where drunk driving was not involved are associated with elevated bus/minibus accident severity. Conversely, vehicle type, road shoulder condition, accident location and absence of traffic control reduce the severity of bus/minibus accidents. The research, policy, and practice implications of the findings are elucidated.

Sam, E. F. and Osman Hamidu

International Conference for Engineering and Technology. University of London, London, UK 8-11 November, 2016

Paper presented:

Servqual Analysis of Public Bus Transport Services in the Kumasi metropolis, Ghana: Frequent Core User Perspectives

Abstract

Encouraging sustainable transportation, especially public transport use implies the need to make it attractive to commuters through constant service quality evaluation and improvement. Understanding public transport users' service quality expectations and perceptions are thus valuable in this regard. Using a modified servqual approach, this study sought to examine public bus transport users' service quality expectations and perceptions, and its effect on overall satisfaction with public bus transport services in the Kumasi metropolis. Data from public bus transport users in Kumasi were used. Field data was analysed using the paired-samples t-test technique. It was observed that there was statistically significant differences between participants' service quality expectations and perceptions, resulting in a general dissatisfaction with public bus transport services in the city with a large effect size ($t(67) = -8.15, p < 0.05$; 95% confidence interval $[-22.94, -13.91]$; $\eta^2 = 0.50$). Given that participants' concerns were service reliability and empathy-related, the study recommended among others automation of public transport operations in the city to help address these concerns.

Sam, E. F.

33rd International Geographical Congress. Beijing, China 21-25 August 2016

Paper presented:

Enhancing passenger safety and security in Ghana: Appraising public transport operators' recent interventions

Abstract

Calls for constant evaluation of safety and security strategies of public transport (PT) operators abound in urban transport literature. This cross-sectional study examined passenger safety and security interventions of PT operators in Ghana. Both the accident-incident theory and routine activities theory served as the theoretical framework within which the study was rooted. Data were drawn from in-depth interviews with six (6) major inter-urban PT operators as well as questionnaires administered to 273 inter-urban PT passengers. Field data were analysed using narratives and both descriptive and inferential statistical techniques. The study reviewed a number of recent safety and security interventions adopted by the surveyed operators. For the operators, these have resulted in a reduction in road accidents and highway robbery incidence involving their buses and passengers. On the part of passengers, interventions geared towards addressing

reckless driving and also police escort on buses were commendable. However, knowledge of the interventions did not impact on passengers' perceived safety and security on PT in any way. The study emphasised the need for periodic review of the regulatory framework establishing public transport undertaking by the Metropolitan, Municipal and District Assemblies (MMDAs) to reflect changing safety and security circumstances.

Esther Y. Danso-Wiredu
Ghana Geographical Association 2017 National Conference

Paper presented:
Promoting peaceful and Inclusive Society for sustainable development Goals: Reflecting on Space and Time

Esther Y. Danso-Wiredu
Ghana Studies Association Triennial Conference 2016. Sasakawa Guest House University of Cape Coast, Ghana July 6-9, 2016.

Paper presented:
Adjustment strategies and gendered shifts in informal labour among migratory youth porters and metal scrap dealers in Accra

Esther Y. Danso-Wiredu
Paper presented
Self-Governance in a Complex Urban Environment: The Plight of Old Fadama's Inhabitants

SCHOOL OF CREATIVE ARTS



ARTICLES IN JOURNALS

Yorke, J. O., deGraft-Yankson, P., Essuman, J. & Amissah, E. K. (2017). Ghana's Presidential Seats and Sword of State: Aesthetic Manifestation of Kwame Nkrumah's Cultural Policy on Ghana's Political Culture. *Journal of Literature and Art Studies*, 7, (12), 1604-1624. 10.17265/2159-5836. <http://www.davidpublisher.com>. ISSN: 2159-5844

Abstract

This study explores the aesthetic dimensions of Kwame Nkrumah's cultural policies in the creation of Ghana's Presidential Seats and the State Sword. The study is an Art Historical research situated within the qualitative research paradigm. It had a population of a defined class of cultural policy makers, art historians, traditional rulers, nationalists, visual artists and Ghanaians resident both in and outside Ghana. The study examined how the creation of Ghana's Presidential Seats and the State Sword were influenced by Kwame Nkrumah's cultural policies and the cultural significance of the aesthetic interplay of ethnic insignias used in capturing the Ghanaian concept of Political authority. The study revealed that, Nkrumah recognised the cultural art forms and elements of ethnic Ghana as assets for national development. In line with his policy of building the Nation State of Ghana, he used ethnic cultural art forms and elements. At independence, Nkrumah commissioned some visual artist to create some artistic pieces (politico-cultural artefacts) for the Ghanaian political authority with inspiration or based on what pertains in the traditional authority (Chieftaincy) of Ghana. Politico-cultural artefacts as used in this study refer to the artefacts produced based on the cultural concepts of the ethnic states for the use of the political authority of the Republic of Ghana. Among these artistic pieces are the three Presidential Seats, The State Sword, The President's Personal Standard Pole and the State Mace. Keywords: Adinkra, Presidential Seats, State Sword, politico-cultural artefacts, Kwame Nkrumah's cultural policies

Kemevor, A. K. & Essuman, J. (2017). The Institutionalization of Photographic Industry and the Society. *The Journal of Social Sciences Research*, 3, (2), 13-19. URL: <http://arpgweb.com/?ic=journal&journal=7&info=aims>. ISSN: ISSN(e): 2411-9458

Abstract

The purpose of this article is to highlight on photography as an excellent art work. This article on photography is based on the authenticity and social influence of the photographer. In discussing the paper, some attempts have been made to examine the nature and dynamics of photography,

as well as the appreciation of photographs as a human achievement. There is also a general overview on photography in Ghana, outlining in particular the visual aesthetics of the photographic industry, and the specialized fields that exist. The paper concludes that the use of technological photography in teaching at all levels should be encouraged. It is when we add our personal vision to the technology of photography then we cross that line from mere reproduction to transformation. With this shift from science to art, we begin speaking with a vocabulary of aesthetics. Keywords: Photography; Camera; Visual elements; Creativity; Communication.

Essuman, J. (2017). Photographic Representation of Socio-economic Development on Rural Communities in Ghana. *Journal of Literature and Art Studies*, 7, (3), 300-312. 10.17265/2159-5836. <http://www.davidpublisher.com>. ISSN: 2159-5844(online)

Abstract

It has come to notice that developments that take place in rural communities bring about a lot of challenges both positive and negative. However, people who try to manage these challenges use "text type" in books and through other communication media (publications), but the effect has scarcely been effective because, most of the people living in rural communities are illiterates. The purpose of this study was to use pictorial illustrations to create awareness on how socioeconomic development affects rural communities (Cape Three Points) and the extent to which its effect can be seen on human life within the local communities (fishermen, farmers, and fish mongers) in terms of their livelihood, attitudes, education and on the general environment. Interviews were mainly used to ascertain facts on how the situation was before the new developments started. Workshops were also organized for focus groups, through which the effect of pictorial illustrations on the people were ascertained. Again, how they should prepare for the foreseen changes that will emanate from any form of rural development was also discussed. At the end of the study, it came to light that many of our rural areas face significant challenges. These challenges as a matter of fact affect their cultural practices and the socio-economic development of the people in such rural communities and the country as a whole. It is believed that these challenges and many other related concerns that have emanated from this study would be critically recognized and managed if not solved by the powers that be. Results from this study will form a basis for further discussion of socio-economic effects of rural development on rural communities and any other related effects caused by any physical change on rural environment. Keywords: development, rural community, socio-economic, illustration

Yorke, J. O., Amisah, E. R. K., deGraft-Yankson, P & Essuman, J. (2017). An Overview of Kwame Nkrumah's Cultural Policies on Ghana's Visual Culture. *Research Journal of Humanities and Cultural Studies*, 3, (5), 22-33. <http://www.iiardpub.org>. ISSN: ISSN 2579-0528

Abstract

This paper attempts to inquire about Kwame Nkrumah's cultural policies and philosophies on the visual culture of present-day Ghana. The study hinged on the Art Historical research procedures within the qualitative research paradigm and gathered data through interviews, field notes, observation and discussions. The study examined Kwame Nkrumah's cultural policies and philosophies based on his policy actions and pronouncements and their influence on the visual culture as well as their relevance to the policies. The study revealed that, Nkrumah did not make a distinction between politics, culture and economics. He had a dialectic approach to all his policies because he acknowledged the interconnected nature of the social life of the Ghanaian. Based on this, he propagated that Ghanaians should recognise their cultural heritage and take pride in projecting it; that Ghanaians needed to create their nation state based on their culture heritage and that Ghanaians should recognise their cultural heritage as assets for national development. Keywords: visual culture, Kwame Nkrumah's cultural policies, pronouncements.

Kemevor, A.K., & Essuman, J. (2017). The institutionalization of Photographic Industry and the Society.. *The Journal of Social Sciences Research.*, 3, (24119458), 13-19. <http://arpgweb.com/?ic=journal&journal=7&info=aims>. ISSN: 2413-6670

Abstract

The purpose of this article is to highlight on photography as an excellent art work. This article on photography is based on the authenticity and social influence of the photographer. In discussing the paper, some attempts have been made to examine the nature and dynamics of photography, as well as the appreciation of photographs as a human achievement. There is also a general overview on photography in Ghana, outlining in particular the visual aesthetics of the photographic industry, and the specialized fields that exist. The paper concludes that the use of technological photography in teaching at all levels should be encouraged. It is when we add our personal vision to the technology of photography then we cross that line from mere reproduction to transformation. With this shift from science to art, we begin speaking with a vocabulary of aesthetics.

Kemevor, A.K., & Aibie, A. (2016). Kundum Festival – A repository of the rich culture of the Nzema at Axim in the Western Region, Ghana.. *International Journal of Engineering Research and Management (IJERM)*, 3, (10), 127-132.

Abstract

In this survey, an attempt has been made to give an account of the functions art-forms play in the cultural preservation of the Kundum festival. A mixed method approach which included observation of scenes, interviews and questionnaire administration was employed in collecting data. The sample size for the research analysis was Sixty-eight (68) made up of Fifteen (15) royals and significant community members and fifty-three (53) individual respondents comprising participants, elders, opinion leaders among others. Responses from the royals and significant community members were through interviews conducted while research questionnaires were used to gather information from fifty-three (53) individual respondents. The survey outcome indicated that (100%) of the individual respondents said that Akotoko Yanzu is credited with the introduction of the festival from Aboadze. In addition, the outcome from the interview with some royals affirm that all respondents (i.e. [15] 100%) interviewed mentioned the "sienu"(i.e. rites at outskirts of Axim town), the "akpazo"(i.e. sacrificial rites on Tuesday), singing of Kundum dirges, lighting of the Kundum fires among others as some of the important rites, rituals and taboos associated with Kundum celebration. The important role arts play in cultural preservation is that it helps to educate the celebrants to imbibe their cultural practices to help in the preservation of the arts and culture of the people for these is to set the pace for the celebration and to harmonize the relationship between the people and their ancestors.

Kulevome, J. D & Amissah, E. R. K. (2017). Narrative Study of Female Kete Weavers in Agbozume. *Arts and Design Studies*, 52, 22-32. <http://iiste.org/Journals/index.php/ADS/article/view/36312>. ISSN: 2224-610X

Abstract

The kete (woven fabric) industry in Agbozume has been one of the indigenous craft centres that has been in practiced from generation to generation in the Volta region of Ghana. The craft has contributed immensely to the economic and socio-cultural development of the area. Both male and female play enormous roles in the industry. Like many other indigenous crafts practiced in Ghana, the males dominate and are projected more than their female counterparts. Very little is known about the immense contributions females are making to the development of the industry, the society and Ghana at large. This research work, therefore, attempts to explore and identify female kete weavers in Agbozume and its surrounding villages. It also traces the origins of the female weavers with special reference to how they acquired the kete weaving skills, the prospects of them surviving in a male dominated industry, and the role they play in terms of marketing their products. The study is a qualitatively based, which enable the researchers to understand the socio-cultural set-up by the people. The research tools employed were: interview, observation and photography. The purposive sampling technique was employed to select fourteen (14) female

master weavers for the study. (For the purpose of this paper, eight (8) are presented). Their kete weaving activities were narrated individually and was presented in a narrative form. The study unearthed, that, females do not only play supporting role to their male counterparts when it comes to kete weaving, but also practise the trade just like the males do. This presupposes that, should they be given the necessary support, it will attract more females into the industry and employment would increase to generate more income to reduce poverty in the area. Studies such as this would promote the many ways in which female Keke weavers are involved in the production and promotions of this indigenous craft. Keywords: kete, (woven fabric), female, weavers

Acquaah, S, Amissah, E. R. K. & deGraft-Yankson, P (2017). Dress Aesthetics of Smock in Northern Ghana: Form, Function and Context. *Textile Engineering & Fashion Technology*, 1, (2), 1-11. 10.15406/jteft.2017.01.00013. <http://medcraveonline.com/JTEFT/JTEFT-01-00013.php>.

Abstract

The paper is a study of the dress aesthetics of smock in Northern Ghana; their form, function and context. The study examines the cultural aesthetics of smock in Northern traditional textiles and its role in the preservation, presentation and promotion of Northern culture and makes recommendations for its sustenance. The researchers adopted the qualitative paradigm and used descriptive and visual analytic approaches through the use of interviews and observations as its research tools. Keywords: Aesthetic; Artefacts; Cultural Symbolism; Indigenous Textiles; Regalia; Smock; North; Traditional Rulers; Yensichi; Dagomba; Bingmaa; Kpakoto; Yeble; Balmaasu; Kuyilli Gbagno; Moslem community; Nam-Kpaargu

Amissah, E R K (2016). Philosophical and Aesthetic Significance of Ceremonial and Anniversary Cloth Designs of Three Ghanaian Universities. *Journal of Literature and Art Studies*, 6, (1382), 1382 - 1395. oi: 10.17265/2159-5836/2016.11.010. <http://www.davidpublisher.org/Public/uploads/Contribute/58116e61a20c6.pdf>. ISSN: 2159-5836 / 2159 - 5844

Abstract

The study concerned itself with the philosophical and aesthetic evaluation of selected ceremonial and anniversary designed cloths of three Ghanaian universities. The study, which was qualitative in nature, specifically sought to identify, describe, examine and analyze the design patterns of ceremonial and anniversary cloths, appraise their aesthetic values and significance in relation to the ideals, and philosophies of the institutions. The sampled cloth designs were discussed and analyzed in descriptive form. The research revealed that there are several symbolic meanings attached to the corporate identities that sum up the objectives, ideals, values and philosophies of the institutions and corporate cloth design, whether for anniversary, ceremony or otherwise serves as an element of social cohesion.

BOOKS

Kemevor, A. K. & Essuman, J., (2016). *Nation Building; the Role of Photography.* (1) Accra New Town: Lema Publications. . ISBN: 978-9988-2-3471-3

Essuman, J. & Kemevor, A. K., (2013). *Encyclo Photographic Terminologies.* (1) Kumasi: Ghana: Mobby Kreation. . ISBN: 978-9988-1-8503-9

Essuman, J., deGraft-Yanson, P. & Acquah, M., (2017). *Photography Essentials.* (1) Cape Coast:Ghana: Cape Coast University Press. . ISBN: 978 - 9988 - 2 - 6470 - 3

Owusu, A. F. & Kemevor, A.K., (2016). *Overcoming Small Scale Mining Environmental Problems.* Accra New Town: Lema Press.

Kemevor, A.K., & Osei, A. E., (2016). *Hidden Tourist Sites in Ashanti Region.* Winneba: Ghodit Printing Press.

Kemevor, A.K., & Asamuah E., (2016). *Polity of Kaase.* Kumasi: Sanuel Images.

Kemevor, A.K., (2016). *Printing Press in Focus: A guide for the young entrepreneur.* UEW, Winneba: Design Press

FACULTY OF EDUCATIONAL STUDIES



ARTICLES IN JOURNALS

Annobil, C. N. & Mummuni, T. (2017). A comparison of Western and Ghanaian Early Childhood Curricula: Montley of Complexities. *Journal of Innovation in Education in Africa (JIEA)*, 1, (2), 80-91.

Abstract

The early childhood curriculum in Ghana is developed along the lines of developmentally appropriate practices (DAP) which is, the western world conception of how young children construct knowledge as they interact with elements in their world. The main purpose of this paper was to examine the complexities of the early childhood curriculum in Ghana in terms of the theoretical basis of the curriculum as well as the relationship between major western ideas (theories) and their influences on early childhood curriculum and teacher practices in Ghana. The study sought to examine the implications of the three theories of learning in terms of teaching and learning and practices in nursery and kindergarten classrooms. The convergences and divergences between the western notions of what is appropriate for young children to learn and that of the Ghanaian socio-cultural context were also examined. Five (5) research questions were formulated to guide the study. The paper further discussed the intricacies that are inherent in the lived –world and the text-world aspects of the early childhood curriculum. It was recommended among other things that preschool children should be provided with appropriate learning experiences to enable them harness their potentials; they should be given quality care and the desired social protection; and finally early childhood educators should have a firm grasp of the content of the early childhood curriculum in order that they can produce rich learning experiences for young children.

Annobil, C. N. & Mummuni, T. (2016). A Critical Analysis of the Cognitive constructivists and socio-cultural theories as a frame for Kindergarten Education.. *African Journal of Interdisciplinary Studies.*, 9, 85-93..

Abstract

The concern for how young children learn has been an issue that has agitated the minds of theorists and researchers for a very long time. However, currently early childhood educators are becoming increasingly aware of the impact of the cognitive constructivist and the sociocultural theories and their implications for teaching and learning in kindergarten classrooms. The study was based on the premise that the teaching and learning in kindergarten classrooms is anchored on the notion that young children actively create their own knowledge by relying on what they already know to construct knowledge within the context of the physical and the social world. The purpose of the study was to examine the impact of Piaget's cognitive constructivist and Vygotsky's sociocultural theories of learning on teacher practices in kindergarten classrooms. Three (3) research questions were formulated to guide the study. The study sought to examine

the implications of the two theories of learning in terms of teaching and learning and assessment practices in early kindergarten classrooms. In addition, the study revealed contrarities and connections which are inherent in both theories in terms of how children learn. It was recommended to teachers to augment children's effort by engaging them in various learning activities which would eventually help the children to develop the capacity of looking at issues from various angles and engendering critical mindedness. Finally, it was recommended to educational administrators to be conversant with the kindergarten curriculum and see to it that relevant teaching and learning materials are provided to enhance effective teaching and learning in kindergarten classrooms have been highlighted.

Ghanney, R. (2017). Exploring the Capacity of Formal School Governing Bodies in Rural Ghana: The Case of Effutu Municipality. *Journal of Education and Culture Studies*, 1, (2), 153-163. 2573-041x. <http://www.scholink.org/ojs/index.php/jecs>. ISSN: 2573-0401

Abstract

As part of its wider social and democratic governance reforms, the Government of Ghana embarked on a process of education decentralisation in 1987 (GOG, 1996). The central focus of this policy was the prescription of community participation in the affairs of school in each locality (Essuman and Akyeampong, 2011). Free Compulsory Universal Basic Education (FCUBE) policy recommends the formation of school management committees (SMCs), governing bodies and parent teacher associations (PTAs) by individual schools to work hand-in-hand with the head teacher and guide him/her in school policy formulation (GES, 2001). Capacity has become a topical issue in decentralisation discourse and critics of the latter have argued against the lack of technical and human resource availability at the local level (De Grauwe et al., (2005; Robinson, 2007) but unfortunately, research on capacity of formal governance bodies appears to have been less undertaken in poorer rural areas in Ghana. In recognition of this, the study sought to understand the nature and quality of capacity and how that impact on participation in school from the perspectives of SMCs in two rural school communities in Effutu Municipality. The study adopted qualitative methods of focus groups, supported by some initial documentary analysis to gain better understanding of school governance from key stakeholder perspectives. The findings revealed that although formal school governing bodies existed in the rural study communities, many of the SMC members lacked human and material resource to engage fully in school management. The study recommends capacity building and training programmes to enable participants upgrade their knowledge and skills in school governance. Keywords Education decentralization, community participation, School Management Committees (SMCs), capacity and school governance

Ghanney, R. (2017). A Case Study of Teacher Involvement that affect Parental Involvement in Basic Education in Rural Ghana. *World Journal of Educational Research*, 4, (1), 1-12. e-2334-3176. <http://www.wjer.org>.

Abstract

This study explores teacher involvement in basic education from the perspectives of community stakeholders in two school communities in rural Ghana. There has been relatively little previous research on teacher practices that affect parental involvement in school governance in Ghana generally and in poorer rural areas in particular to benefit children. In recognition of this, the study sought to understand the inter-relationship between teacher involvement and local school governance bodies but also the specific challenges within such context. In such context, teacher involvement are understood as contextually located and produced through intersecting spheres of influence between school, parents and community. It also recognises the importance of relational matters (Baquedano-Lopez, Alexander and Hernandez, 2013). The study adopted qualitative methods of focus groups to gain a better understanding of teacher involvement from key community stakeholder perspectives. The study findings identified tensions in the monitoring and supervision of teachers as well as issues of transparency and accountability in the administration of capitation grant in school governance. The study recommends that policies designed to encourage teacher involvement in school governance must not only reflect important contextual differences but also social dynamics between participants and structures in rural communities.

Ghanney, R. (2017). A Study of Socio-Economic factors and Role of Extended Family in Children's Basic Education in Rural Ghana: The Case of Effutu Municipality. *Journal of Education and Practice*, 8, (17), 1-7. issn 2222-288. <http://www.iiste.org>. ISSN: 2222-1735(Paper)

Abstract

The decentralized system of education delivery in Ghana through the Central government or the Ministry of Education has created space for understanding of how schools and communities should operate and how communities should assume an important role in schools but less on how informal bodies should be backed with the requisite support to be actively involved in their children's education. This creates a policy and practice gap which is more pronounced in poor rural communities and Effutu Municipality is no exception. In recognition of this, the study sought to explore the role of the extended family in resource constraint communities from the perspectives of individual parents in two schools in a rural Ghana. The case study adopted a qualitative method of interviews with twelve parents to gain understanding of their involvement in children's education including the socio-economic challenges within such context. Additional data were collected through interviews with teachers. The data were analysed through coding to identify themes. The study findings reveal that in rural communities, the notion of parents goes beyond the biological parent to wider family and community networks in part as a result of seasonal

migration. It identified grandparents, mothers in particular as playing a vital role in children's education. Consequently, the study recommends that policies on education decentralization should reflect the local factors which impact on extended family's role in children's education. Keywords: Extended family role, socio-economic challenges, community networks, and individual parents

Ghanney, R., Antwi, T., Ali, H (2017). School Culture and Teacher Job Performance: A comparative analysis of the perception of teaching staff in private and public basic schools in Ga South Municipality. *British Journal of Education*, 5, (9), 108-121. <http://www.eajournals.org>.

Abstract

This study examined the effect of school culture on teachers' job performance in private and public basic schools in the Ga South Municipality. Based on the work of Denison's (2000) Framework of Organizational Culture and Teacher Job Performance, the study adopted a descriptive survey design through the quantitative approach where a structured questionnaire was developed and distributed to collect data from 46 teachers using the census sampling technique. With the aid of the Statistical Package for Service Solution version 20, descriptive (mean, standard deviation) and inferential statistics such as t-test, One-way ANOVA, Pearson correlation, and multiple regression were used to analyze the data. The study revealed that adaptability culture was more dominant ($M=4.30$, $SD=0.60$) than involvement culture ($M=4.16$, $SD=0.55$), mission culture ($M=4.06$, $SD=0.43$), and consistency culture ($M=3.82$, $SD=0.58$), and that generally job performance of teachers was rated as very good ($M=4.43$, $SD=0.26$). Besides, the study indicated that school culture was a good predictor of teacher job performance. However, the study revealed that adaptability culture ($P=0.785$, $p=0.000$) and consistency culture ($P=-.334$, $p=0.017$) made significant unique contribution to teacher job performance whilst involvement culture ($P=-.240$, $p=0.213$) and mission culture did not contribute significantly to teacher job performance. It was therefore recommended that school administrators and teachers should be guided to strengthen the culture in their schools, especially the adaptability and consistency cultural traits since they contribute significantly to teacher job performance. Further, it was recommended that the Ministry of Education and the Ghana Education Service should design and implement programmes to assist public basic schools to improve their culture and teacher job performance so as to attain educational goals. Keywords: job performance, organizational culture, and school culture

Essia-Donkoh, K., Eshun, E.S., Acquaye, V.N.A. & Nelson Amponsah (2017). Learning Styles Preferences of Male and Female Sandwich Students of the Department of Basic Education, University of Education, Winneba, Ghana.. *Journal of Innovation in Education in Africa (JIEA)*, 1, (2), 40-54. ISSN: 2508-1152

Acquaye, V.N.A. (2016). Love in African Poetry: How Fluent are our Poets?. *International Journal of Educational Leadership*, 7, (1), 73-79. ISSN: 0855-921X

Abstract

As an expansion on an earlier study titled "The theme of Love: the ignored issue in African Poetry", this study further explores how much African poets write about love in their poetry. Dating from the 1930s to the present, the study looked at love poems in anthologies and the number of critical analyses on them. On examining the works of African poets in anthologies and journals, it was realized that African poets have given very minimal attention to love as a theme as well as scholarly research on them. This revelation ought not be interpreted as grounds for concluding that the theme of love is absent in African culture and life; since indeed a lot of love is made manifest in African cultural practices such as in betrothal, marriage, childbirth, naming ceremonies, the extended family system and funerals. It is recommended that African poets should begin to expand their writings to the theme of love since love is so fundamental and universal to life.

Gleku, T., Wilson, K. N., & Amos, P. M. (2016). Depression among teenage mothers in Otumi Community in the Kwaebibirim District of the Eastern Region of Ghana. *Research on Humanities and Social Sciences*, 6, (24), 47-51. 2225-0484. <http://www.iiste.org>. ISSN: 2224-5766 ISSN

Abstract

The research investigated depression among teenage mothers in Otumi. The population for the study comprised all teenage mothers in Otumi community. The sample size comprised sixty teenage mothers from Otumi community in the Kwaebibirim District of the Eastern Region of Ghana. The study aimed at finding whether the level of depression varied with age, socioeconomic status and marital status of non clinical teenage mothers. The main instrument used for the collection of the data was the Beck Depression Inventory, and the data collected was analyzed and presented in descriptive and inferential statistic form using frequencies, t-test tables and percentages. The result of the study revealed that age, socioeconomic status and marital status has significant relationship with the level of depression among the mothers. It was evident from the study that young teenage mothers, teenage mothers from low socioeconomic background and teenage mothers who are single suffer high level of depression. In the light of the above findings, it was

recommended that the Ministry of Gender and Social Protection as well as the Department of Social welfare should organize social education and create social safety nets to support teenage mothers to help curb their level of depression. Key Words: Depression, Teenage Mothers

Yelkper, D., Ofosu-Dwamena, E. & Kwegyir-Aggrey, P. (2017). Home related factors and its influence on learning among students in the Awutu-Senya and Effutu educational districts. *INTED2017 Proceedings*, 2121-2133. 10.21125/inted.2017.0628. <http://https://library.iated.org/view/YELKPIERI2017HOM#>. ISSN: 2340-1079

Abstract

The state of the home influences the development and learning of every child in diverse ways. This study sought to investigate how home related factors such as learning resources like television, radio set among others influence students' success in schools. A cross sectional survey and multi-site case study design was adopted in carrying out this study. The population of the study was made up of school officials, students and parents. A sample size of 331 was used. The sample was selected by using purposive, quota, convenient and random sampling techniques. The data collection instruments were questionnaire, semi-structured interview schedules and focus group discussions. The instruments were pilot tested to ensure they were reliable. Descriptive and inferential statistics were used in presenting the data. The study found that the learning environment provided by parents at home determines the academic achievements of students. The study revealed that some students did not have basic things such as tables, chairs and a place to study at home. Some students indicated that the learning facilities at home were provided by both parents. Further findings indicated that some students were over-burdened with household chores which affected their learning at home. When the hypothesis was tested the statistics revealed that the correlation was statistically significant ($p < .001$). The researcher recommends that parents should make sure they create an enabling learning environment at home to enhance students' success levels in schools.

Addai-Mununkum, R (2017). Adding and Dividing by Religion: The Not-So-Hidden Curriculum of Mission-Public Schools in Ghana. *Religion & Education*, 44, (2), 225-243. 10.1080/15507394.2016.1243435. <http://dx.doi.org/10.1080/15507394.2016.1243435>. ISSN: 1550-7394

Abstract

With the abundance of religious conflicts globally, public schools are called to nurture students for this religiously plural world. To achieve this, scholarship has overly focused on promoting teaching about religion to the neglect of schools' religious climate and its' impact on diversity education. This article, written to fill this need, is based on a qualitative case study of 3 pseudo-religious public schools in Ghana. Through interviews, observations, and focus groups, I infer from the findings to argue that, although opportunities exist for schools to create dialogue out of their diversities, it also offers scenarios for dissections along religious lines.

Esia-Donkoh, K., Eshun, E. S., Acquaye, V. N. A., & Amponsah, N. (2017). Learning style preferences of male and female sandwich students of the department of basic education, university of education, Winneba, Ghana. *Journal of Innovation in Education in Africa*, 1, (2), 40-54. ISSN: 2508-1152

Abstract

The study investigated the learning style preference of male and female sandwich students of the Department of Basic Education, University of Education, Winneba (UEW), Ghana. It employed descriptive (quantitative) survey design. Convenience sampling was used to obtain the respondents for the study. Questionnaire was distributed to all 476 students. Four hundred and forty-six (94.5%) questionnaires which were correctly filled were used for the analysis. It was found out that the most preferred learning style of the students was a combination of auditory and visual learning styles. However, more of the male students preferred a combination of auditory and visual learning styles while more of the female students opted for a combination of visual and kinesthetic learning styles. Teacher and learner factors greatly influenced the learning style preferences of the students. There was no statistically significant difference in the perception of male and female students on physical and environmental factors; personal factors; and teacher and learning factors that affect their learning style preferences. Again, there was no statistically significant difference between the male and female students' perception on the overall factors that affect their learning style preferences. Among other things, it is recommended that lecturers of the Department should ensure that they identify the learning styles of male and female students in order to structure their teaching to suit the learning style needs of the students. Key Words: learning style, preference, male, female, post-diploma, sandwich students.

Ali, C.A. & Akayuure, P. (2016). Student-Teachers' Knowledge and Skills in Contemporary Quantitative Methods in Action Research Reporting. *IOSR International Journal of Research and Method in Education (IOSR JRME)*, 6, (3), 34-42. 10.9790/7388-0604023442. <http://www.iosrjournals.org>. ISSN: 2320-737X

Abstract

The study explored the knowledge and skills of undergraduate student-teachers in utilizing contemporary quantitative techniques to present their action research reports. The study purposely sampled 165 student-teachers who pursued Bachelor of Education in Basic Education degree in the University of Education, Winneba in Ghana, and adopted an exploratory mixed design in exploring the student-teachers' demographic information, academic qualifications, and knowledge and skills to cover many and varied characteristics of the student-teachers. Particularly, their knowledge and skills were centred on data collection instruments, data representing skills, and data analysis methods. Their views were sought on the main areas to help diagnose and improve their knowledge and skills. The findings revealed that student-teachers implored inadequate quantitative methods to support the statistical significances of their reports to confidently disseminate to influence educational policies and national discourse.

Ali, C.A. & Wilmot, E.M. (2016). Pre-Service Teachers' Didactic Conceptual Structures in the Absolute and Quadratic Inequalities. *IOSR Journal of Mathematics (IOSR JM)*, 12, (4), 62-69. 10.9790/5728-1204026269. <http://www.iosrjournals.org>. ISSN: 2319-765X

Abstract

This paper examined the didactic conceptual structures of preservice teachers in the absolute and quadratic inequalities to deduce mistakes and errors. Quasi-experimental and mixed exploratory sequential designs were adopted on the participants who worked in 37 groups of 10 members in the Department of Basic Education, University of Education, Winneba in Ghana. The data collection instruments consisted of 15 open-ended items on the basic ideas of the absolute and quadratic inequalities to identify the didactic content knowledge in solving the problems. The thematic analysis of the conceptual structures as well as the marked scores revealed the errors and mistakes in the inner structures, inner relations, representations, and vertical-horizontal relations preservice teachers had confronted in solving problems in absolute and quadratic inequalities. The implications of these would impact negatively on the teaching and learning of mathematics curriculum, and inappropriately applied in a variety of daily lives.

Ali, C.A. & Agyei, D.D. (2016). Preservice teachers' technological, pedagogical and content knowledge in utilizing the Merrill's first principles in solving polynomials. *Merit Research Journal of Education and Review*, 4, (10), 133-142. <http://www.meritresearchjournals.org/er/index.htm>. ISSN: 2350-2282

Abstract

This study paper examined preservice teachers' technological, pedagogical and content knowledge (TPACK) in utilizing the Merrill's First Principles to solve problems in polynomial equations in order to showcase its relevance in modern technological discourse. Quasi-experimental and mixed exploratory sequential designs were adopted on 25 preservice teachers in the Department of Basic Education, University of Education, Winneba in Ghana. The data collection instruments consisted of 12 open-ended items in the knowledge and applications of the computer in using polynomial equations. Thematic analysis as well as single-subject t-test hypothesis revealed the low base of technological pedagogical and content knowledge of preservice teachers in solving polynomial problems. There is therefore the need to vigorously champion curriculum design principles that are sacrosanct with technology integration in the teaching and learning of mathematics in basic schools.

JOURNAL(S) EDITED BY STAFF

Avoke, M. (Ed), (2016). *African Journal of Interdisciplinary Studies*, 9,<http://journals.uew.edu.gh/index.php/AJIS>. ISSN: 0855-9724

Avoke, M. (Ed), (2015). *African Journal of Interdisciplinary Studies*, 8,<http://journals.uew.edu.gh/index.php/AJIS>. ISSN: 0855-9724

BOOKS

Annobil, C. N. & Asare-Danso, S., (2016). *Religious and Moral Education in Early Childhood Education*. University of Education, Winneba (UEW): Institute for Educational Development and Extension.

PUBLISHED PROCEEDINGS OF CONFERENCES/WORKSHOP/ SYMPOSIA/SEMINAR

Ghanney, R., Antwi, T., Agyeman, E, (2017). *The Effects of Social Media on Literacy Development among Pupils in Junior High Schools in Ghana*. . United Kingdom: Society for Science and Education. (4) 16. do1:10:14738. <http://assrj.416.3603>

Abstract

The study sought to investigate the effects of social media on literacy development among pupils in junior high schools particularly on their perception about the nature of literacy, identifying major social media network sites and their mass usage among pupils as well as the effects of social media and social networking sites on pupils' language learning and literacy development within the context of socio-cultural and social learning theories. To achieve the objectives of this study, a case study design was used which comprised the use of interviews to solicit pupils' responses on the effects of social media on literacy development. The population of the study consisted of all JHS pupils in the Asante-Akim South District in the Ashanti region of Ghana. A purposive sampling technique was used to select 25 pupils (14 females, 11 males) from three junior high schools. The

data were analyzed using thematic analysis (qualitative content and document analyses), table with description and data triangulation. The findings showed participants' exposure to major social media tools and social networking sites such as Facebook, Short Message Services (SMS), WhatsApp, Twitter and You Tube likewise online practices such as chatting, blogging, watching movies, listening to audios, image sharing, and so on. The study in addition revealed that social media tools and online practices influence participants' reading skills and habits, writing skills and speaking in every way. This research recommends the strict application of Ghana Education Service rules and parental guidance on electronic devices usage in schools, homes and the promotion of social media networks for educational purposes.

Ali, C.A., Davis, E.K., & Agyei, D.D., (2017). 4T Models of Anthropological Moments of Didactical Praxeologies in the Parabola with Digital Technologies. R.S. Galván, J. Leitao, M. Martins, & Rasquinho, M. *Innovative and Creative Education Teaching International Conference.* , Badajoz, Spain: Theorem Conferences and Events, Edinburgh, United Kingdom. (1) 1. <http://www.icetic.net>

Abstract

The study integrated digital technologies (GeoGebra) tools to test the significance and success of employing 4T anthropological moments of didactical praxeologies in the teaching and learning of conceptual structures in the parabola. The experimental methodology explored mixed methods concurrent convergent design involving the GeoGebra to collect and analyze quantitative data with quasi-experimental tests and content analysis with an interview guide to collect and analyze qualitative data from thirty three groups of preservice teachers of the University of Education, Winneba, Ghana. The findings of both the quantitative and qualitative results showed that the 4T models of anthropological moments of didactical praxeologies with the GeoGebra achieved higher significant improvements as compared to the conventional methods and were adjudged most successful models for didactical praxeologies in the teaching and learning of conceptual structures in the parabola. It was therefore, concluded that the 4T models be adopted as main instructional models in the teaching and learning of conceptual structures in multiple mathematics domains.

CONFERENCES/WORKSHOP/ SYMPOSIA/SEMINAR WITH PRESENTATIONS

Acquaye, V.N.A.

Images of Childhood and the Future: Cross-cultural Perspectives. Europa-University, Flensburg, Germany 29th June – 1st July, 2017

Paper presented:

Young but not clueless; exploring children's perception of a better future through creative writing

Abstract

Most stories written for and about children were written by adults. In such stories, adults try to portray children's views, aspirations, fears and sentiments. Although adults might write based on their experiences from their childhood, research has shown that there are significant differences in children's thoughts and actions and adults thinking for children and thus for research on children to be effective, they must be involved. The purpose of this study was to explore children's perception of better future in childhood through creative writing. The children's stories were subjected to close reading and text analysis with particular attention to their presentation of details on incidence, characters, conflicts and resolution as they express their ideas of a better future. They focused more on time spent in school. Their time spent at home was minimal and focus mostly on things they lacked at home. They presented themselves as hardworking, hopeful and brilliant. They emphasized conflicts with their parents and siblings more than friends. They portrayed their friends as sources of solace to run to when the home becomes unbearable. In their resolutions, they enumerated their future desires and settled on working harder especially in their studies to change their future. They also prayed to God to provide what they or their parents cannot afford. It was deduced from their stories that children understand their dependency but insist decisions concerning them be left to them, yet, their needs and wants must be met. They also want more quality relationship with especially their parents.

Acquaye, V.N.A.

Childhood, Children and the Future: African and European Perspectives in the 21st Century.
University of Education, Winneba, Ghana 1st and 2nd March, 2016,

Paper presented:

Issues about children, childhood and the future as presented in the creative writing of undergraduate students of Basic Education Department, University of Education, Winneba.

Abstract

Childhood is a stage in life that molds the individual and continues to dominate most perception of life. Most adult reactions are repercussions of childhood experiences. In writing children's stories, it is empirical for most adults to roll back years of growing up and look once again with the eyes of the child at issues of life of which the child is at the center. This paper looks at issues student-teachers raised in their stories and what makes their ideas different from or similar to expectations. A greater percentage of them portrayed tragedy as a catalyst to successful life. Education as a right is portrayed as a delicacy which is given out of pity or as an insurance policy to safeguard the future of the parents or sponsors. Forty of the students were randomly and conveniently selected and interviewed to find out their perception of children and childhood. They all agreed that parents or sponsors must benefit from children's education otherwise it is baseless to finance it. Most of them were of the view that the hardship they encountered in childhood groomed them to face the future bravely and take their destinies into their own hands. As pertaining to rights of children, they assert to the idea that a child has a right as long as the parent or guardian can afford to let him or her have it. In spite of some negative attitudes to childhood, they all agree that the psychologically fulfilled child could make a better adult.

Rev. Kwesi Nkum Wilson (PhD)

1-day workshop organized by St Paul Methodist Preparatory & Junior High School.. El-Capitano Hotel, Agona Duakwa, C/R 9th March 2017

Paper presented:

Effective Management of School Resources for Productivity

Abstract

School administrators must ensure judicious utilisation of resources, which include a stock of supply of money, materials, staff and other assets that can be drawn of by a person or organization in order to function effectively. Judicious utilisation is the act or process of deciding how to use something prudently as means to accomplish an end. The rate at which goods are produced or work is completed. The ratio of the quantity and quality of units produced to the labour per unit of time. The rate at which goods are produced or work is completed. The ratio of the quantity and quality of units produced to the labour per unit of time. The relevance of teacher education lies in the fact that the quality of a nation's school cannot be better than the calibre of the teacher in the classroom.

Rev. Kwesi Nkum Wilson (PhD)

26th Anniversary Celebration & 9th Speech and Prize-Giving Day Celebration of Kwanyako Senior High Technical School, Agona Kwanyako. Agona Kwanyako SHTS 18th march, 2017

Paper presented:

The development of Ghana is founded on well-educated youth: the role of the stakeholders.

Abstract

Providing good and quality education has confronted every society, whether simple or complex. Various societies have questioned the education given to its young ones, as to whether it addresses problems confronting them or whether that education is relevant. In recent times we have had governments embarking on reviews of educational policies and programmes, just to make it more relevant and meaningful to societal demands. In Ghana, the recent (2002) work done by Prof. Jophus Anamuah-Mensah readily comes to mind. The concept 'quality' is hard to define precisely, especially in the context of education. Any statement about quality implies a certain relative measure against a common standard, in education; such a common standard does not exist. Purposeful education trains the person totally – head, hand and inner being (Psycho-somatic-pneumatic). Any attempt to overlook any of these will create disaster for that person and society. We need education that will transform our outlook and fire our imaginations especially in problem solving activities. I propose compulsory military training as part of national service I believe with basic military training our young ones will be imbued with the sense of nationalism, initiative, bravery, self-discipline and dedication. I propose that the National Service Secretariat and the Ghana Armed Forces should lead this. Service persons within a district should be brought together during every vacation for basic military training for two-three weeks; these training will include entrepreneurial education.

Rev. Kwesi Nkum Wilson (PhD)

In-Service Training for staff of Estate Section, organised by the Division of Human Resource, UEW. Jophus Anamuah Mensah's Auditorium. 2nd February 2017

Paper presented:

Managing Life from a Spiritual Perspective

Abstract

Spiritual health is a highly individualized concept that is measured by the amount of peace and harmony an individual experiences in his day-to-day life. Spiritual life must be taken seriously regardless of your religious affiliation. "God did not design mankind to die early in active working service," negative effect of fear affects person's life. Fear is a false element that kills so they should kill fear before it kills them. Members must take particular care about their children, so that they can in turn take care of them in their old age.

Rev. Kwesi Nkum Wilson (PhD)

2016 Retirees Seminar. Demonstration Theatre, North Campus, UEW, Winneba. 15-16th June 2016

Paper presented:

Retirement Preparation and Life in Retirement

Abstract

Ghanaians often never think of retirement when they start working, hence they are not able to make the right decisions concerning it. Four crucial things to consider for an individual's retirement are a Dwelling House, Stable family, Children who are out of school or at the tertiary level and modest savings. Lack of any of these, creates a serious problem for the retired person, he said. Retirement is a phase in life and not a crisis situation. Just like a child moves from the adolescent stage to adulthood, retirement is supposed to be a smooth transition if one really plans it well. Additionally, it is important to do a checklist on oneself by using the following; • At what age will I retire • Where will I live when I retire • When to start a family and what number of family • How will I sustain my family when I retire (consider Passive Income Generation) • What kind of lifestyle do I hope to lead after retirement Before retirement, one needs to build social networks, engage in voluntary activities, church or political activities and locate old friends. Humans are Psycho (Mind) Somatic (Body) Pneumatic (Spirit) beings and therefore every aspect of our personality must be well nurtured before we retire. Retirement is more desirable than dying on the job, therefore prepare to retire and enjoy your retirement.

Wilson, K. N.

24th Biennial Meeting of the International Society for the study of Behavioural Development. Vilius, Lithuania 10-14th July 2016

Paper presented:

Predictors of Retirement Adjustment among Senior Staff of Public Universities in Ghana

Abstract

Retirement as a stage in life has been seen differently by different people based on their perception, preparation and personal experience. This study investigated some of the institutional and personality variables that could predict retirement adjustments among the senior staff of three public universities in Ghana. Using the mixed method approach of research with the descriptive survey as the research design, the study employed the stratified sampling technique to select the universities, and the availability technique to select a sample size of 111 respondents (who had less than 60 months to attain the compulsory retirement of 60 years in Ghana) out of which 15 were through a consensus. The study made use of two instruments comprising a self-report questionnaire (Retirement Adjustment Questionnaire) and semi-structured interview sessions. Both the descriptive and inferential statistical tools were used to analyse the quantitative data using the cronbach co-efficient internal consistency of 0.872. The qualitative data was transcribed

into text and subjected to thick narrative descriptions from which thematic categories with explanations emerged throughout the study for conclusions and recommendations to be made. Findings from the study revealed that one main consideration or adjustment process for retirement was the financial implications on the retiree. The study thus recommends among other things pre-retirement workshops/seminars on socio-economic, political and institutional factors that could influence retirement adjustment processes.

Yizo, P. & Wilson, K. N.

10th Annual Decolonizing the Spirit International Conference.. Embu University College, Kenya 19th -21st July, 2016

Paper presented:

Awareness, Attitude and Practice of Contraceptive use among in-school and out-of-school adolescents in the Sunyani Municipality of Ghana

Abstract

The study examined the awareness, attitude and practice of contraceptive use among in- school and out- of- school adolescents in Sunyani Municipality of Brong Ahafo Region of Ghana and the extent to which this can influence their use or non-use of contraceptives. The instrument used for data collection was questionnaire. Simple random sampling technique was used to select sixty (60) in-school adolescents and convenient and purposive sampling techniques were used to select sixty (60) out- of- school adolescents. Both descriptive and inferential statistics were used in analysing the data. The construct validity was established using reliability Cronbach's alpha of 0.78. The results indicate that there was no significant difference among in- school and out- of- school adolescents' awareness, and practice of contraceptive use however, there was significant difference of attitudes and faiths of in -school and out -of- school adolescents of contraceptive use. Also, they have problem of accessing the contraceptives and that might lead to low usage of contraceptives. The study again revealed that the faiths of some respondents influence their use or non-use of contraceptives. Generally, there was significant difference of attitudes of contraceptive use and the faith of adolescents in contraceptive use among in-school and out- of- school adolescents. However, there was no significant difference in their

awareness and usage of contraceptive use among in- school and out- of- school adolescents. Based on the findings, it is recommended that access to reproductive health services needs to be improved especially among the in-school adolescents. There is the need to incorporate the right contraceptive information in the school curriculum. Finally, out-of-school adolescents should receive periodic dissemination of appropriate Behaviour Change Communication (BCC) on the relevance of contraception. Key Words: Awareness, Attitude, Practice, Contraceptive Use, In-School, Out-Of-School & Adolescents

Kwao, G & Wilson, K. N

1st "No Yawa National Youth Sexual and Reproductive Health and Rights Summit." Theme "Activating Youth SRHR Voices for Change". Kofi Annan International Peace Keeping and Training Centre (KA IPTC), Accra, Ghana 8-9th June, 2016

Paper presented:

Adolescent Sexual Behaviours: The Case of J.H.S Students in Yilo Krobo District in the Eastern Region of Ghana

Abstract

The research was on Adolescent Sexual Behaviours of Junior High Students in Yilo Krobo District in Eastern Region of Ghana. Its purpose was to investigate the causal factors of sexual behaviours among adolescents, the problems associated with adolescent sexual behaviours and the possible antidote to reduce or control the situation. The study sample was made up of one hundred and twenty (120) respondents ranging from 14 -17 years. Questionnaires was the main instrument used to collect the data. The results of the study revealed that adolescents who engaged in premarital sex have social, psychological, health, financial and management problems, the findings again revealed some remedial measures for changing the sexual behaviour patterns of the students. The most common source of adolescent sexual behaviours was curiosity and Pornography. Guidance and counseling services was lacking in the schools although sex education was taught, it was not given enough time. Parental neglect was a causal factor of adolescent sexual behaviours coupled with less information on sex education at home. Most teenage were at a greater chance of contracting STIs. The study showed that the following measures should be undertaken; sex education should be given to the teenagers to remain chaste until they marry, the government should enforce laws on the media to limit circulation of pornographic material, girls clubs in school should be well resourced and look attractive and also proper parental care for children should be given to help minimize the problem of sexual behaviours among adolescents. Family life education programmes which are seen as a tool for helping the youth to lead a healthy, socially acceptable life at all times should be encouraged by parents. This can be done through wards involvement in the programmes.

Addai-Mununkum, R
American Educational Research Association (AERA) Meeting. San Antonio, TX, USA April
27 - May 2, 2017

Paper presented:
Educational Access "With Strings Attached": Exploring the Role of Religion in Promoting
Educational Inequity

Abstract

Literature is replete with reports of missions contributing immensely towards bridging the gap between access and provision of education. However, little work has examined religious practices that exist in such mission sponsored schools and their contribution to inequity in educational access. Using a qualitative case study which employed interviews, observations and focus groups, I examined the experiences of religious minorities in pseudo-religious public schools in Ghana. I observed that such schools make students into a captive audience to religious instruction, thereby encouraging students to adopt less honorable tactics, and falsifying behavior, in order to peaceably access public education. If schools in Africa are to remain this religious, we stand the risk of denying students their rightful access to public education.

Addai-Mununkum, R
American Educational Research Association (AERA) Meeting 2017. San Antonio, USA April
27 - May 2, 2017

Paper presented:
Misrepresentation of Religion in Curriculum of Ghanaian Schools: Mapping Educational
(In)equity to Official Knowledge

Abstract

Little research has conceptualized official knowledge and its connections to (in)equity in educational opportunity. Subjecting religious education curricula of Ghanaian schools through a qualitative discourse analysis, this work seeks to highlight official knowledge as a "hidden" medium by which educational inequity is manifested. In examining the dual role of religion as an identity maker and content of study, I identify, who is studied, who is (mis)studied, and who is not studied. I suggest that achieving the promise of equal educational opportunity, requires the redirection of research attention to curricular representations and the inequities they endorse

Esia-Donkoh, K., Bentil, J., Quashigah, A. Y.
Images of Childhood and Future: Cross-cultural Perspectives. Flensburg, Germany June
29, 2017 - July 1, 2017

Paper presented:
Childhood and Study Habits: Perceptions of the Present and the Future

Abstract

Based on Bakare's (1977) study habit theory, this study investigated the perception of children in public basic schools in Ekumfi District in the Central Region of Ghana, on their study habits considering the present (nature and challenges) and the expectations for the future. The descriptive survey design in the form of mixed methods was used. Through stratified random sampling technique 380 children were obtained for the quantitative aspect of the study while ten children were conveniently sampled for the qualitative aspect. Data were collected using questionnaire and semi-structured interview guide. Quantitative analysis was done by using descriptive (mean, standard deviation) statistics while qualitative data was analysed using thematic approach. It was revealed that the dominant study habit practiced by the children was examination related, followed by homework and assignment, concentration, reading and note-taking, and time management. Inability to recollect information learnt, poor reading ability, poor spelling, high text/examination anxiety, studying many subjects at a time, and lack of parental support were identified as some of the challenges the children faced in their studies. The children were of the view that regular symposia on strategies (including time management) to learn effectively, remedial lessons by teachers on reading skills, and bye-laws by School Management Committee (SMC) and Parent Teacher Associations (PTAs) to monitor and prevent children from loitering and watching videos at night will help improve their study habits. It is thus recommended that Guidance and Counselling programmes in public basic schools in the District should be strengthened by the Ghana Education Service (GES) so that children will be counselled on the need to develop effective and appropriate study habits. In-service training should be organized by GES for teachers to adopt teaching techniques that suit the children's study habits. Key words: childhood, perceptions, study habits, nature, challenges, future strategies

FACULTY OF FOREIGN LANGUAGES EDUCATION AND COMMUNICATION



CONFERENCES/WORKSHOP/ SYMPOSIA/SEMINAR WITH PRESENTATIONS

Owusu, S.

30th West African Languages Congress & 10th Linguistics Association of Ghana Conference.
University of Education, Winneba, Ghana July 31 to August 5, 2017

Paper presented:

Language Anxiety and its Effect on Oral Performance Of Students during Post-Internship Seminar Presentations at The Faculty of Ghanaian Languages Education, UEW

Abstract

Language anxiety has been found to have an adverse effect on oral performance. Many second/foreign language learners often experience the feeling of unease, nervousness, apprehension, and intimidation when they are performing in a second/foreign language, a phenomenon known as xenoglossophobia. It was hypothesised that the students at the Faculty of Ghanaian Languages Education, University of Education, Winneba would experience language anxiety during the post-internship seminar presentations. Many of them are native speakers of the languages they are studying at the University. With the exception of the general courses which are taught and assessed in English, teaching and assessment of the departmental courses are done in Ghanaian languages. However, the post-internship seminar presentations are done in English in the presence of their lecturers and lecturers from other departments. The students may be intimidated by the presence of their professors because of the fear of negative evaluation. This may cause language anxiety in the students which may also have negative impact on their oral performance. Using the Foreign Language Classroom Anxiety Scale (FLCAS), the paper investigated the effects language anxiety on oral performance of students during the post-internship seminar presentations at the Faculty of Ghanaian Languages Education. The objective of the paper was to answer the question: How does language anxiety affect the oral performance of students during the post-internship seminar presentations? 200 level 400 students were purposively selected for the study. The results indicated that the respondents experienced language anxiety during the post-internship seminar presentations, and that language anxiety was the major cause of the students' poor performance during the seminar presentations.

UNIVERSITY LIBRARY



ARTICLES IN JOURNALS

Ukachi, N. B., Dr., & Ayiah, E. M. (2017). Exploration of Appropriate Media for Satisfying the Information Needs of Future Community of African Farmers. *Library Philosophy and Practice*. Retrieved June 10, 2017, from <http://digitalcommons.unl.edu/libphilprac/1513/> ISSN 1522-0222

Abstract

The purpose of this paper was to explore the factors responsible for publication preferences among a select group of researchers attending a research writing workshop in Ghana. The objectives were to investigate the specific motivations for publishing; to explore the factors that influence researchers' journal selection decisions; and availability of in-house programmes for journal publishing. The population of the study consisted of researchers from several academic institutions in Ghana who attended a research writing workshop. The research made use of the convenience sampling method to select a total of 67 researchers to participate in the study. The study used a self-administered closed-ended questionnaire consisting of 13 items and analysed using the mean test, standard deviation and simple percentages. The study found that researchers consider "contribution to scholarship" as the main motivation for publishing even though job mobility is a major source of motivation. Again, the major factor influencing journal selection decision is journal reputation. However, many researchers indicated a high preference for journals that does not charge publication fees. Finally, most respondents do not benefit from in-house research development programmes. The study recommends the development of in-house academic publishing programmes that are researcher-centred; the development of new or enhancement of existing research mentoring schemes, the issuance of "standalone" low quality journals; and the need for researchers to consider both intrinsic and extrinsic factors in their quest to become quality researchers.

Afful-Broni, A., Owusu-Ansah, C.M. & Takyi, L.N (2016). Impact of ICT on the use of electronic information resources by graduate students: leadership lessons. *International Journal of Educational Leadership*, 6, (1), 117-127.

Abstract

The study is a survey of the impact of leadership on graduate students' use of electronic resources. The study employed a questionnaire-based survey consisting of 24 questions to determine ICT skills; method of awareness and purpose of use of electronic resources; as well as the impact of leadership on the use of electronic resources among graduate students. The total population was 725 graduate students of which a random sample of 100 (13%) used for the study with a 100 per cent response rate. The retrieved data was inputted into the Statistical Package for Social Sciences (SPSS) version 16.00 for the analysis of the results. The variables were subjected to in-depth data analysis and presented through descriptive statistics in the form of tables. The

findings have important implications for leadership mainly on the role of academic staff and librarians. The study also demonstrates a high commitment of key academic stakeholders in supporting quality research through the formulation and implementation of favourable policies on the use of quality electronic resources for graduate research.

Nutsukpui, E. & Owusu-Ansah, C. (2017). Awareness and Use of Serials in an African University Library: Faculty and Students' Perspective. *Information Management and Business Review*, 9, (1), 39-48. <http://https://ifrnd.org/journal/index.php/imbr/article/view/1595>.

Abstract

The purpose of this study was to examine the use of print serials by students and faculty members of a satellite campus of the University of Education, Winneba. Specifically, this study sought to determine the level of awareness and use of serials among faculty and graduate students, and how this affect their perception of the value of print serials in teaching and learning. The study made use of survey research methods through the use of questionnaires. The population of the study consisted of 165 faculty members and 97 graduate students, with an eventual return rate of 66% each, respectively. The findings of the study revealed that both faculty and graduate students were, relatively, aware of the print serial collection in the library. However, despite this awareness, they used print serials, relatively, less frequently. Again, the study established that both faculty and students have significant positive perceptions on the usefulness of print serials in their teaching, learning and research roles. We recommend to librarians to create awareness of print serial collections while updating the collection, and enhance the positive perception of print serials by demonstrating, through outcome measures, how the use of print serials can be beneficial to the academic and research community. **Keywords:** Academic Libraries, Journals, Research and Publications, Serials, University of Education, Winneba

Owusu-Ansah, C. M., Yebowaa, F. A., Katsekor, S. A. (2017). Newspaper reading behaviour in academic libraries: a survey of two satellite university libraries in Ghana. *UDS International Journal of Development [UDSIJD]*, 3, (2), 85-101. <http://www.udsijd.org>.

Abstract

The purpose of the study was to explore the newspaper reading behaviour of university students of the Kumasi campus of the University of Education Winneba (UEW-K) and the Wa campus of the University for Development Studies (UDS). The study made use of the survey design. A total questionnaire of 730 was self-administered to randomly selected students yielding an overall response rate of 558 (76.4%). Among others, the findings of the study showed that most students have a positive attitude to reading in the library; most students have a positive attitude to reading newspapers in the digital format; and most students believe reading newspapers can improve their current awareness of national issues and vocabulary. In respect of challenges, the study found inadequate copies of newspapers as the main challenge when students are reading newspapers in the library. Recommendations for academic libraries include adjusting newspaper collection

development policies to include electronic newspaper subscriptions; conducting needs assessment to drive newspaper collection development; and setting up separate newspaper services unit with reading rooms. Keywords: Academic Libraries; Information Behaviour; Newspapers; Satellite Campuses

Owusu-Ansah, C.M. and Takyi, L.N. (2017). Performance Management in Academic Libraries: A Balanced Scorecard Approach for Digital Services. *Journal of Balkan Libraries Union*, 5, (1), 1-10. <http://dergipark.gov.tr/jblu>.

Abstract

The purpose of this article is to demonstrate how the Balanced Scorecard could be used as a performance management tool in academic library digital services at a large multi-campus University in Ghana, the University of Education, and Winneba. Despite the fact that it was initially designed for private sector commercial organisations, the Balanced Scorecard has been found useful by non-profits such as libraries. The study demonstrates the contribution of digital library services to the strategic goals of universities by aligning strategic digital library initiatives to the four Balanced Scorecard perspectives which are: customer; finance; internal processes; and learning and organisation. The study is expected to contribute to efforts at finding strategic measures to sustain digital library services in academic libraries. Keywords: Balanced scorecard, Digital libraries, Performance measurement, University of Education, Winneba.

Yeboah, P., Dadzie, P. S., & Owusu-Ansah, C. M. (2017). Information access and evaluation skills of secondary school students in Ghana.. *Library Philosophy and Practice*, 1552, <http://digitalcommons.unl.edu/libphilprac/1552/>.

Abstract

Information Literacy (IL) is a necessary skill needed by students to survive in the dynamic information environment of the 21st century. This study explored the IL skills of secondary school students in Ghana with specific focus on students' abilities in finding and evaluating information. The study was conducted in two "first-class" secondary schools in the Kumasi Metropolis of the Ashanti Region of Ghana; Opoku Ware Senior High School and Yaa Asantewaa Girls' Senior High School. A survey instrument was developed to assess the skills of the students in that regard. Questionnaires were distributed to an overall sample size of one hundred and seventy (170) students in the two schools. In addition, four teaching staff of the schools were also interviewed to corroborate the findings from the students. The findings revealed that students in the two schools lack the ability to effectively access information for their academic work. The study also discovered that students in the participating schools lack the basic skills to differentiate good information from bad ones. The study recommends, among others, the integration of IL into the secondary school curriculum in Ghana; and collaboration between librarians, teaching staff and the Ghana Education Service to promote IL among students to promote lifelong learning.

Fiawotoafor, T. & Agbeh, A. (2016). An Assessment of Information Literacy Skills of Undergraduates: Implication for Instructional Programming.. *Ghana Library Journal*, 26, (1), 66 - 80. ISSN: 0855-3033

Abstract

The study assessed information literacy skills of undergraduates of the College of Agriculture Education, University of Education, Winneba, Mampong Campus. Descriptive survey method was used in this study and the sample size was 400 students who were randomly selected. The data was collected using a survey instrument. The results of the study clearly revealed a serious deficiency of knowledge in all the main areas of information literacy by the respondents. Majority of the respondents had inadequate knowledge of the basic elements characterizing information seeking process. The respondents seriously lacked the skills to identify the most efficient search strategy, inadequate knowledge and skills to evaluate internet information and how to use information ethically. It was recommended that a course in Information Literacy be integrated into the curriculum to improve the situation.

Yeboah, P., Dadzie, P.S., & Owusu-Ansah, C.M. (2017). Information access and evaluation skills of secondary school students in Ghana. *Library Philosophy and Practice (e-journal)*. 1552.

Adjei, K.O.K and Owusu-Ansah, C.M. (2016). Publishing Preferences among Academic Researchers: Implications for Academic Quality and Innovation. *Library Philosophy and Practice (e-journal)*, , (1349),

CONFERENCES / WORKSHOP / SYMPOSIA/SEMINAR WITH PRESENTATIONS

Katsekpor S. A. Information access: e-resource Databases. Presented at the Orientation of newly members' of faculty of UEW-K. March 13, 2017

Boateng, K.A., Owusu-Ansah, C.M., & Ayiah, E.M. (2016, September). *Librarians' perceptions of research data management as a professional development tool: A Norwegian perspective*. A paper presented at the 2nd CARLIGH International Conference on the theme: *Transition from information management to knowledge management: The role of the information professional*, held at the CSIR-INSTI, Accra, 26-30 September, 2016.

Owusu-Ansah, C.M. (2017). *Opening up research for Ghana's development: Some strategies & solutions*. Paper presented at the GRASAG Week Celebrations, 2017 on the theme: *Mobilising for Ghana's future: The role of graduate students*, UEW-Kumasi, 11th May, 2014.

Owusu-Ansah, C.M. (2017). *Quality research for national development: The role of the Academic Library*. Paper presented at a GRASAG Seminar on the theme: *Quality Research and Practice for National Development: The Role of the Graduate Student*. UEW-Kumasi, 23rd March, 2017.

REGISTRY



ARTICLES IN JOURNALS

Brew, A. K. and Oppong-Frimpong, D. (2015). Occupational Health and Safety: An Assessment of the Situation at University of Education, Winneba (UEW). *Scholars Journal of Arts, Humanities and Social Sciences*, 3, (3), 663-673. <http://sasjournals.com/sjahss>. ISSN: 2347-9493 (Print) 2347-5374 (Online)

Abstract

The writers took a look at occupational health and safety at University of Education, Winneba (UEW). The Wikipedia's categorisation of hazards at the workplace was adopted in the discussions. Common occupational hazards and associated risks in the work environment in UEW as well as the categories of staff who are prone to the identified hazards were discussed. It was observed that the University had instituted measures to safeguard the health and safety of its employees. The health and safety measures the University had instituted to manage occupational health were also evaluated. But how adequate and/or appropriate were those measures? Did those measures compare favourably with accepted standards like the World Health Organisation's (WHO) objectives for occupational health and safety for example? In the opinion of the writers, the University was mindful of the well being of its staff but a lot more remained to be done, if the working environment of the University was to be judged as safe and meeting enviable international standards.



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