



UNIVERSITY OF EDUCATION, WINNEBA



19th Congregation
**Research &
Publications**



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UNIVERSITY OF EDUCATION, WINNEBA

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Research & Publications

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PREFACE

The University of Education, Winneba is Ghana's premier solely teacher education university. It has the mandate of producing professional educators who will spearhead a new national vision of education aimed at redirecting Ghana's efforts along the path of rapid economic and social development. With its vision of becoming an internationally reputable institution for teacher education and research, the university attaches great importance to research activities that contributes to the attainment of its vision, mission and mandate.

We are pleased to introduce the work done by staff during the 2013/14 academic year. It contains titles and abstracts (where available) of publications as well as conference papers. This edition contains 194 publications (178 journal articles, 7 books, 9 book chapters) and 57 conference presentations. Where available, links (handle identifiers) are provided to enable readers go to the full document. We invite you to read this compilation with the hope that you would find useful information in it.

Prof. Akwasi Asabere-Ameyaw
Vice-Chancellor

November 2014

CONTENTS

Faculty of Agriculture Education	1
Faculty of Science and Environment Education	19
Faculty of Business Education..	28
Faculty of Education and Communication Sciences	35
Faculty of Technical Education.	40
Faculty of Vocational Education	71
School of Creative Arts.....	73
Faculty of Educational Studies	83
Faculty of Languages Education	95
Faculty of Science Education....	106
Faculty of Social Sciences Education	116
Institute for Educational Development and Extension	130
Institute for Educational Research and Innovation Studies	133



FACULTY OF AGRICULTURE EDUCATION

Atta Poku, P., Agyarko, K., Dapaah, H. K. & Dawuda, M. M. (2014). Influence of *Mucuna pruriens* green manure, NPK and chicken manure amendments on soil physico – chemical properties and growth and yield of carrot (*Daucus carota* L.). *Journal of Agriculture and Sustainability*, 5 (1), 26 – 44.

ABSTRACT

Field experiments were conducted during the 2010 and 2011 growing seasons at the University of Education, Winneba, Mampong-Ashanti campus, located in the forest-savanna transitional zone of Ghana. The study evaluated the influence of *Mucuna pruriens* (MP) green manure, NPK (15:15:15) and chicken manure (CM) or their combinations on soil physical and chemical properties; and growth and yield of carrot. The six treatments, which were arranged in a RCBD included: 250 kg NPK ha⁻¹, 20t CM ha⁻¹, 30t MP ha⁻¹, 125kg NPK ha⁻¹ + 15t MP ha⁻¹, 10t CM ha⁻¹ + 15t MP ha⁻¹ and no amendment (control). The application of MP green manure, CM, MP + CM, and MP + NPK fertilizer combinations significantly improved soil total porosity and gravimetric moisture content than the control. Soil bulk density was high in the control plots than the manures and their combinations with NPK. Compared with the control, the application of CM, MP green manure, NPK + MP and CM + MP significantly increased soil organic carbon, N, P, K, Ca, Mg, ECEC and percentage base saturation levels. Organic matter content, NH₄-N, NO₃-N and SO₄-S were high in the amended plots than the control. Plant height, number of leaves per plant and canopy spread per plant for the 20t CM ha⁻¹ treatment were significantly ($P < 0.05$) higher than the other five treatments in both 2010 and 2011 seasons.

*All the amended plots produced longer carrot roots with larger diameter than the control in 2010 and 2011 seasons. The 20t CM ha⁻¹ produced the highest root yields with the 10t CM ha⁻¹ + 15t MP ha⁻¹ following as the second highest in the 2010 and 2011 seasons. Root yield, and harvest index for all the amended plots were significantly higher than the control. The use of *Mucuna pruriens* green manure, chicken manure and the MP + NPK as well as the MP + CM combinations are recommended for improving soil fertility and increased yield of carrot.*

Agyarko, K. Kannuba, S. J., Boamah, R., Kusi, M. T. & Iddi, S. A. (2014). Views of preventing *Borassus aethiopum* from extinction among four communities in Ghana. *Journal of Natural Sciences Research*, 4 (2), 83 – 89.

ABSTRACT

*An investigation into how *Borassus aethiopum* might be prevented from extinction among farmers was carried out in four communities (Fiaso, Oforikrom, Nyamebekyere and Bayerenkwanta) in the transitional vegetation zone of Ghana, from April 2013 to July 2013. The farmers were randomly selected from the communities. Data were collected from the farmers using questionnaire supplemented with interviews. In addition to the crops grown for food, farmers also obtained food from the wild/non domesticated plants of which *Borassus aethiopum* was one. Farmers also used *Borassus aethiopum*, as a timber source, for the production of wine, for roofing and for making fan, as fire wood and as a medicinal plant. No education had been received on the plant or even on any other non domesticated plant. All the farmers agreed that the plant should be preserved, however, only few (Fiaso – 44%; Oforikrom – 48%; Nyamebekyere – 40%; Bayerenkwanta – 20%) had some ideas on how the plant might be preserved. The few farmers considered cultivation (Fiaso – 40%; Oforikrom – 33%; Nyamebekyere – 50%; Bayerenkwanta – 60%) as a means of preventing the extinction of the plant. Other preservation methods were; prevention of bush burning and indiscriminate felling of the tree, and enacting laws on the usage of the plant. It was recommended that all communities with the support of governments should create community forest reserves/parks made up *Borassus aethiopum*/non domesticated plant food species, and also enact laws to preserve these plants.*

Atakora, K., Agyarko, K. & Asiedu, E. K. (2014). Influence of grasscutter, chicken manure and NPK Fertilizer on the physical properties of a Chromic Luvisol, growth and yield of carrot (*Daucus carota*). *International Journal of Plant & Soil Science*, 3 (2), 197-204.

ABSTRACT

A field experiment was conducted to evaluate the effect of grasscutter manure (GM), chicken manure (CM), and NPK on soil physical properties, growth and yield of carrot. The treatments were; no fertilizer or manure (control), 300kgNPK/ha (15:15:15), 10tCM/ha, 3 levels of grasscutter manure (10t, 15t and 20t/ha), laid out in a randomized complete block design with 3 replications. Soil bulk density was highest in the control plot while the sole manure treatments had low soil bulk densities, with the 20t/haGM3 having the lowest value. The 20t/haGM3 treatment also recorded the highest values for the gravimetric moisture content and the total soil porosity. Plant height, number of leaves, root length, root diameter and root yield in the amended treatments were better than the control. Values for the growth and yield parameters of the carrot plant from the 20t/haGM3 treatment were in most cases significantly ($P=.05$) higher than the rest of the treatments, and the 10tGM/ha treatment had better impact on the parameters than the 10tCM/ha treatment. The highest economic benefit was realized for the 20t/haGM3 treatment.

Agyarko, K., Dapaah, H. K., Buah, S. & Frimpong, K. A. (2014). Sweet potato (*Ipomoea batatas*) yield parameters, soil chemical properties and cost benefit ratios following incorporation of poultry manure and inorganic NPK fertilizers in low nutrient Ghanaian soils. *International Journal of Plant & Soil Science*, 3 (2), 129-138.

ABSTRACT

The impact of sole poultry manure (6t PM ha⁻¹), sole NPK (200kg NPK ha⁻¹) and their combinations (3t PM + 100kg NPK ha⁻¹ and 1.5t PM + 150kg NPK ha⁻¹) on sweet potato yield parameters and soil nutrients was assessed at Adiembra and Fiaso in Ghana between June, 2011 to November, 2011 using RCBD. Nutritional levels of the sweetpotato tubers and the amended soils were analysed with standard laboratory procedures. The 3t PM + 100kg NPK ha⁻¹ produced significantly ($P=0.05$) the highest tuber yield (tonnes ha⁻¹), tuber length and diameter, and also had the highest percentage of marketable tubers. The total percentage soil nitrogen, organic matter, Total Base Saturation (TEB) and Effective Cation Exchange Capacity (ECEC) were significantly ($P=0.05$) highest

in the 6t PM ha-1 treatment. The 6t PM ha-1 treatment had the highest tuber nutrient values for Ca, Mg, P, S and N. The 3t PM + 100kg NPK ha-1 had the highest cost benefit ratios of 1:4.38 and 1:8.15 at Adiembra and Fiaso respectively. The results demonstrated that combined application of PM and NPK increased sweet potato tuber yield and soil nutrient levels in a cost effective manner.

Dapaah, H. K., Amoh-Koranteng, J. G., Darkwah, K. & Borketey-La, E. B. (2014). Influence of poultry manure and NPK fertilization on growth, yield and storability of onion (*allium cepal.*) grown under rain-fed conditions. *American Journal of Experimental Agriculture.* 4 (8), 866-878.

ABSTRACT

The design used was a 2 x 5 factorial arranged in a Randomized Complete Block Design (RCBD) with four replications. Field experiments were conducted at the University of Education, Winneba, Mampong-Ashanti campus research fields from October 2009 to February 2010 and March to July 2010. Two onion varieties (Bawku Red and Texas Grano) and five soil amendments (10 t ha-1 poultry manure (PM); 15 t ha-1 PM; 20 t ha-1PM; 450 kg/ha NPK fertilizer and no fertilizer) were studied. The results showed that, on the average, Texas Grano produced higher number of leaves per plant, plant height, total dry biomass, bulb dry biomass, mean bulb weight, bulb diameter and 40-72% greater fresh bulb yield than Bawku Red in both seasons. The soil amendments also had higher number of leaves per plant, 43-83%, 38-90%, 40%, 42-63% and 13-73% greater total dry biomass, dry bulb biomass, mean bulb weight, bulb diameter and fresh bulb yield, respectively, than the control. On the average, the PM treatments produced 7-60% higher fresh bulb yield than the NPK treatment. The Bawku Red variety had lower percentage sprouted and rotten bulbs than Texas Grano, while the control unfertilized check onions stored better than the soil amended treatments. There was no difference between storing onions on the bare concreted floor and in a canebasket. Growing Bawku Red with application of 10 t ha-1PM or 450 kg ha-1 NPK and Texas Grano with application of 15-20 t ha-1PM are recommended for possible adoption by farmers or further testing on-farm in the transition agro-ecological zone or similar environments.

Kwenin, W. K. J., Seidu, J.M. and Boadi-Amoah, F. (2013). Nutritional profile, sensory properties and microbial quality of solar-dried tilapia (*Oreochromis niloticus*). *International Journal of Engineering and Innovation Technology*. 2 (7), 285-288.

ABSTRACT

*Traditional methods of preserving fish in Ghana is by smoking or drying, but open-air drying exposes fishes to contaminants resulting in poor quality products. The study was conducted to investigate the effect of using six different locally constructed solar dryers on the nutritional qualities of unsalted tilapia (*Oreochromis niloticus*). The experiment was carried out in March and April and repeated in June through July at the Department of Agricultural Engineering and Mechanisation of the University of Education, Winneba (Mampong-Ashanti). The solar panels were constructed using hard wood, nails, nylon net, chicken mesh and black and white polyethylene sheets. Eight samples of whole tilapia (265 - 315 g) were arranged in each panel in a completely randomised design. Solar panels recorded 45.4oC while the control panel (open air) recorded 34.0oC. Drying was completed by the fifth day but much more effective in the solar panels than the control. Tilapia in solar panels recorded less moisture but higher concentrations of nutrients on dry basis (db) than open-air dried salted tilapia. The solar-dried tilapia (db) recorded 8.44 to 14.76% moisture, 68.17- 75.98% protein, 6.21- 6.95% fat and 9.08-10.34% ash. Bacteria identified and isolated were *Escherichia coli*, *Staphylococcus spp* and *Salmonella spp*. with 2.322 log cfu/g and mould count of 3.015 log cfu/g. The highest sensory attribute scores were recorded in solar-dried tilapia, followed by fresh, frozen and dried salted tilapia. Fish mongers should be encouraged to solar-dry their catch to protect already depleted forests and preserve fish at reduced costs to maximise profits and improve upon standards of living.*

Kagya-Agyemang, J. K. & Speakman, J. R. (2013). The relationship between food intake, basal metabolic rate and morphology in reproducing mice (, *Mus Musculus*) *Asian Journal of Science and Technology*, 4 (8), 14- 18.

ABSTRACT

Sixty virgin female (MF1) mice were used as model to study the relationship between food intake, basal metabolic rate and morphology in reproducing animals. The mice were divided into three (3) experimental groups made up of a control group that were not mated, a mated group allowed to proceed to peak gestation, and a mated group allowed to proceed to peak lactation. Fifteen (15) female mice were selected at random from

each of the three experimental groups and these were used for basal metabolism (oxygen consumption) measurements. Thereafter, the animals were weighed and killed by carbon dioxide inhalation. The animals were dissected and the wet masses of the heart, lungs, liver, spleen, kidneys, visceral fat, uterus, stomach, small intestine, large intestine and pelt were measured. The mean body mass of the control animals was not significantly different ($P > 0.05$) from the animals in the other two groups immediately after mating. At peak gestation, body mass averaged 53.17 g, immediate postpartum body mass was 39.87 g and by the end of lactation it was 37.65 g. Basal metabolic rate (BMR) of the control animals (0.317 W) was significantly lower ($P < 0.001$) than the BMR of both pregnant (0.810 W) and lactating (0.971 W) animals. Food intake of the control mice was significantly lower ($P < 0.001$) than food intake of mice at peak gestation and peak lactation respectively. Again, the food intake of mice at peak gestation was significantly lower ($P < 0.001$) than food intake of mice at peak lactation. This is because lactation is a physiological state characterised by a large energy demand due to milk production that increases greatly the nutrient needs of the lactating animals. The morphological changes associated with reproduction included increases in the masses of the heart, lungs, liver, kidneys and small and large intestines. The results indicate that as the mice progressed through reproduction, their increasing demands for food were beyond the capacity of their digestive tracts to supply them so there was hypertrophy of their digestive tracts and the associated organs and that resulted in an increase in their BMR.

Koranteng, S. L. & Awuah, R. T. (2013). Ridging *Phytophthora palmivora* cultures of contamination by *Colletotrichum gloeosporioides*. *Journal of Microbiology and Antimicrobials*, 5 (3), 25-28.

ABSTRACT

Zero, 75, 100, 125 and 150 ppm a.i. concentrations of benomyl in Green Cocoa Mucilage Agar (GCMA) plates were evaluated for suppression of *Colletotrichum gloeosporioides* in *Phytophthora palmivora* plates contaminated by *C. gloeosporioides*. To do this, GCMA plates amended with the above concentrations of benomyl were seeded with mycelia plugs from a contaminated *P. palmivora* culture and radial growth rates of the resulting *P. palmivora* colonies were recorded. Mycelial bits from the centres, middle and peripheries of such colonies were examined at 7 days interval for *P. palmivora* and the contaminating *C. gloeosporioides*. Growth rates of pure *C. gloeosporioides* cultures were also studied on benomyl plates. Growth rates of 7.15, 3.10, 2.30, 2.05 and 1.60 mm/day were obtained for *P. palmivora* on plates, respectively, containing 0, 75, 100, 125 and 150 ppm benomyl. Growth rates of 2.95, 1.65, 1.60, 1.60 and 1.55 mm/day were respectively, obtained for the pure cultures of *C. gloeosporioides* indicating that on contaminated plates, growth of *C. gloeosporioides* will lag behind that of *P. palmivora*. On plates with 0 to 125 ppm

benomyl, P. palmivora was detected at the centres, middle and peripheries of all colonies within the first week but *C. gloeosporioides* was restricted to the centres and middle portions of such colonies due to its slower growth rate. When subcultures were made at day 7 from the peripheries of colonies on 0 to 125 ppm benomyl plates onto benomyl-free plates, *C. gloeosporioides* was not detected from the resulting cultures which were clean.

Attigah, A. S., Asiedu, E. K., Agyarko, K. & Dapaah, H. K. (2013) Growth and yield of Okra (*Abelmoschus esculentus* L.) as affected by organic and inorganic fertilizers. *ARPN Journal of Agricultural and Biological Science*, 8 (12), 766-770.

ABSTRACT

A study on the effect of poultry and cattle manures on the growth and yield of okra (Abelmoschus esculentus L.) was carried out in the transitional zone of Ghana in 2008 and 2009 in a randomized complete block design experiment with three replicates. The treatments were; 350 kg NPK ha⁻¹, 8t Poultry Manure ha⁻¹, 12t Cow dung Manure ha⁻¹, 175 kg NPK + 4t Poultry Manure ha⁻¹, 175 kg NPK + 6t Cow dung Manure ha⁻¹ and No treatment of manure (control). The combined treatments of 175 kg NPK + 4t Poultry Manure ha⁻¹ and 175 kg NPK + 6t Cow dung Manure ha⁻¹ produced higher levels of the growth and yield parameters than the rest of the treatments in both seasons. The 175 kg NPK + 4t Poultry Manure ha⁻¹ recorded the highest figures of the parameters which were not significantly ($P=0.05$) different from the figures of the 175 kg NPK + 6t Cow dung Manure ha⁻¹ treatment. The combined treatments were found to be economically profitable. The treatment combination of 175 kg NPK + 4t Poultry Manure ha⁻¹ was more superior in the areas assessed.

Oduro-Okyireh, G. (2013). Testing practices of Senior High School teachers in the Ashanti Region of Ghana. *Journal of Counselling, Education and Psychology*, 3 (1), 76 – 87.

ABSTRACT

The study was an attempt to ascertain whether Senior High School teachers in the Ashanti Region of Ghana followed the basic principles in the construction, administration and scoring of their classroom achievement tests. It involved 265 teachers of Core Mathematics, English Language and Integrated Science drawn from 26 schools in 10 districts of the Ashanti Region. The descriptive research design was used. A 52-item

questionnaire which centered on principles of test construction, administration and scoring was used for data collection. Three research questions guided the study. Data analysis was by the binomial test of proportions and percentage tables. It was found that to a great extent, teachers followed the basic principles in test construction, administration and scoring. Teachers applied seven out of 10 principles in test construction, 12 out of 18 principles in test administration and six out of nine principles in test scoring. It was recommended that the practical aspects of the educational measurement course must be well emphasized during pre-service training of teachers. Non-professional teachers must be given in-service training in educational measurement. Osei-Owusu, B., Osei-Owusu, E & Effah, B. (2014). Job satisfaction among Senior High School teachers in Ashanti Mampong Municipality: The International Journal of Humanities and Social Studies. 2 (2), 188 – 195.

ABSTRACT

The purpose of this study is to investigate the factors that are associated with teachers' job satisfaction. There were three major issues that the study sought to examine namely; levels of teacher job satisfaction, factors that lead to teachers' jobs satisfaction or dissatisfaction and teachers' job characteristics. The research design was a descriptive survey. Through a probability sample method, 4 out of 5 Senior High Schools were chosen for the study with a total sampling size of 200 respondents. A questionnaire was designed for the study involving thirty-six (36) questions and a five point likert scale type. Descriptive statistical techniques were employed to calculate the means and standard deviations for each of the data collected. The reliability coefficient of the questionnaire was 0.85. The study showed that; teachers have low levels of satisfaction and high levels of dissatisfaction. Half of the respondents supported the measures and policies taken by government currently to help teachers achieve job satisfaction and the other half was dissatisfied. Almost all the respondents were satisfied on the issue of teacher job satisfaction and job characteristics based on findings. It is recommended that policy makers and the Ghana Education Service should help to design policies that would make the income of teachers now and future very attractive Other allowances, bonuses and fringe benefits in the teaching service in this current state be reviewed upward and funds located to the Ministry of Education in the annual budget should be reviewed upward to help implement all seminars workshops and programmes planned.

Pongo, N. A.; Effah, B.; Osei-Owusu, B.; Obinnim, E. & Sam, F. K. (2014). The impact of TVET on Ghana's socio-economic development: A case study of ICCES TVET skills training in two Regions of Ghana. *America International Journal of Contemporary Research*, 4 (1), 185-192.

ABSTRACT

Integrated Community Center for Employable Skills (ICCES) is an agency under the Ministry of Employment and Social welfare with policy objective of filling the gap in employment generation by developing the young human resources in line with the poverty alleviation goal of the government of Ghana. The purpose of the study was to find out how the ICCES training programmes are achieving their purpose of increasing access of young person's to skills acquisition and empowerment for productive employment. To harness the needed information, questionnaire, interview and observation, were employed in gathering data for the subjects. The results suggest that participants in the survey had all conferred that the programmes have being helpful to the communities and as such their social and economic status has being impacted positively.

Sam, F. K., Effah, B. & Osei-Owusu, B. (2014). Exploring issues of teacher retention and attrition in Ghana. A study of Public Senior High Schools in Kwabere East District of Ashanti region of Ghana. *Journal of Education and Practice*, 5 (1), 83 – 89.

ABSTRACT

Teacher attrition and retention in the education sector is a matter of concern for all Ghanaians and as such the study was conducted to explore issues concerning teacher retention and attrition in Ghana. The study was descriptive survey in nature, and sought to establish factors that militate against the retention of teachers, as well as their satisfaction of the conditions of service in the public schools. The study was conducted in four senior high schools and a sample of 116 teachers was randomly selected for the study. A questionnaire was used to collect qualitative data. Findings revealed that most of the senior high school teachers may leave the teaching profession in the future if their conditions of service and salaries, as well as school and classroom environment are not improved. Also the problem of teacher attrition in senior high schools in the districts is partly attributable to non-compliance of the conditions service for teachers by Ghana Education Service. Based on findings, the study made the following recommendations: As a matter of urgency, the state should review the conditions of teachers and ensure their full implementation. Moreover, the state should take immediate steps to improve infrastructure in senior high schools, especially, those located in the rural communities, to create environment for teaching and learning.

Sam, F. K., Amartei, A. M., Osei-Owusu, B. & Antobre, O. O. (2013). Female leadership stereotypes: The perception of the leadership of female heads of senior high schools in Ashanti region. *Educational Research*, 4 (10), 702-709. doi: <http://dx.doi.org/10.14303/er.2013.229>

ABSTRACT

The study discussed the perception of the female leadership stereotypes of heads of selected Senior High Schools in Ashanti Region. A census survey was conducted to select eighty-eight heads of Senior High Schools. A descriptive survey design was employed and focused on administering of open and closed ended questionnaires to 80 headmasters and headmistresses. The reliability coefficient of the questionnaire was 0.826. SPSS was used to analyze the data and the results were presented in tables and graphs. The study revealed that majority of the respondents disagreed on all the stereotypes associated with women on traditional beliefs/practices. Moreover, family responsibility is a leading factor that impedes female advancement to attaining leadership positions. In addition, the appointment to headship was rather based on professional and academic qualification rather than on gender as the perceived stereotypes will engender. Consequently, women also need to strive to higher positions like their male colleagues.

Osei-Owusu, B., Effah, B., Sam, F. K., & Agyeman, K. O., (2013). Students assessment of Internship Programme. A case study of College of Agriculture Education, Mampong Ashanti of University of Education, Winneba. *Journal of Emerging Trends in Educational Research and Policy Studies*, 4 (3), 499-504.

ABSTRACT

The paper is a descriptive survey which sought to assess the internship programme by students. This study was conducted in the Department of Interdisciplinary Studies of the Faculty of Agriculture Education, a campus of the University of Education, Winneba. The sample comprised of 208 students who were on teaching practice (internship) programme for 2011/2012 academic year. These students were drawn through simple random sampling. Three research questions and one hypothesis guided the study. The instrument for data collection was a 45- item questionnaire developed by the researcher. The instrument was validated and an internal consistency of 0.89(89%) was calculated using Cronbach Alpha techniques. Data was analyzed using means and analysis of variance (ANOVA). The findings revealed that the adoption of all the effective strategies for improving students' internship programme, such as , practical preparation of mentees for teaching; innovative strategies to solve the challenges faced by the programme,

will positively affect teachers' practical preparation for internship programme. Based on the findings, the following recommendations were made: that partnership schools should be more accessible to the mentee and the supervisor; that the government should subsidize the cost involved in undertaking the programme. The study established the need for the University to provide regular mentorship training for mentors and to create the awareness to provide adequate motivation for mentors. Lastly, the collaboration of the University and partnership schools to provide good accommodation and adequate teaching and learning materials will make the interns capable professionals to impact on their future delivery of teaching that will be effective and comprehensible to all students in educational institutions.

Dapaah, H. K., Mohammed, I. & Awuah, R. T. (2014). Phenological Development and yield of three groundnut varieties as influenced by plant density in a Forest-savanna Transition Zone. *International Journal of Agricultural Research*, 9 (2), 87-98.

ABSTRACT

Field experiments were conducted at the research fields of the University of Education, Winneba, Mampong-Ashanti campus during the 2009 and 2010 seasons to evaluate the influence of plant densities on the phenological development, pod and seed yields of three groundnut varieties. The design used was a 3x4 factorial arranged in a randomized complete block design with three replications. Azivivi, Nkosour and Shitaochi groundnut varieties were sown at 14.29, 16.67, 20.0 and 33.33 plants m⁻². Azivivi and Nkosour cvs. are improved 120 day maturing Virginia bunch type, while Shitaochi cv. is a widely grown local 95-100-day maturing Spanish type. Crop emergence, flowering and podding expressed in calendar days, differed significantly among the groundnut varieties in both seasons. Shitaochi cv. emerged faster, flowered and podded earlier than cvs. Azivivi and Nkosour. The thermal duration from sowing to emergence differed among varieties in both seasons with Shitaochi having the least thermal duration. In 2009, cvs. Azivivi and Nkosour produced similar but higher pod (83-113%) and seed (71-95%) yields than that produced by cv. Shitaochi. The 33.3 plants m⁻² treatment generally produced greater pod and seed yields in 2009 under low rainfall situations. In 2010, Nkosour and Shitaochi cvs. increased seed yield by only 7-8% more than Azivivi cv. and the 16.67 and 20.0 plants m⁻² treatments impacted better on the groundnut yields. It is recommended that Nkosour cv. at 33.3 plants m⁻² be sown during the minor season and Nkosour or Shitaochi cv. at 16.67 or 20.0 plants m⁻² during the major season.

Bonsu, F. R. K., Donkoh, A., Osei, S. A., Okai, D. B. & Baah, J. (2014). Direct-fed microbial supplementation on the health status, productive performance and internal egg characteristics of layer chickens under hot humid environmental conditions. *African Journal of Agricultural Research*, 9 (1), 14-20.

ABSTRACT

Dietary direct-fed microbial (DFM) and antibiotics supplementation on health status, egg laying performance and internal egg characteristics under hot humid environmental conditions were studied. Three hundred (300) layer birds at point of lay (22 weeks old) were used for the study in a completely randomized design. There were four dietary treatments which are; Basal diet (BD), BD + DFM at the rate of 1.5 ml/kg, BD + antibiotics at the rate of 10 mg/kg feed and BD + DFM+ antibiotics at the same rate as above. Feed intake was significantly ($p < 0.05$) lower for birds fed the DFM diet as compared with the control. However; body weight gain of DFM fed birds was not negatively affected and was relatively more efficient in converting feed into body weight and eggs. Hen-day and hen-housed production and egg shell thickness were not significantly ($P > 0.05$) influenced by dietary treatments. Eggs laid by birds fed DFM diet were significantly ($P < 0.05$) heavier and consistent throughout the experimental period. Serum and egg cholesterol concentration were significantly reduced by DFM supplemented diet (64 and 409 mg) as compared with the control (75 and 483 mg), antibiotics (74 and 481 mg) and DFM+ antibiotics combined diet (70 and 430 mg). Intensity of yolk colour was higher for eggs laid by birds fed DFM supplemented diet. It was concluded that DFM could be a suitable alternative to antibiotics supplementation for improved health status and productive performance of layer chickens under hot and humid environmental conditions.

Bonsu F. R. K., Kagya-Agyemang J. K., Kwenin W. K. J., Hope K. N. & Sekyere F. O. (2013). Growth performance, haematological indices and carcass characteristics of broilers fed diet containing different levels of *Chromolaena odorata* leaf meal. *Egerton Journal of Science. & Technology*. 13, 115-125.

ABSTRACT

A 5-week study was carried out to determine the effect of Chromolaena odorata leaf meal (COLM) on growth performance, haematological parameters and carcass characteristics of commercial COBB-500 broiler chickens. The study was set up as a completely randomized design with four (4) treatments replicated three (3) times. The four dietary treatments contained 0, 10, 20 or 30 g kg⁻¹ of COLM. There were no

significant differences ($P > 0.05$) among treatments in feed intake, water consumption, final body weight, weight gain and carcass characteristics. Feed conversion ratio was significantly influenced ($P < 0.05$) in favour of birds fed the control and 2% COLM diet. Haematological indices including haematocrit (HCT), haemoglobin (Hb), red blood cells (RBC) and white blood cells (WBC) were significantly influenced ($P < 0.05$) by the inclusion of COLM. However, mean corpuscular haemoglobin concentration (MCHC), mean corpuscular volume (MCV), and Platelet (PLT) were not significantly different ($P > 0.05$) among treatments. Inclusion of COLM significantly reduced serum cholesterol concentration from 101.6 mg dl⁻¹ of the control to 81.8 mg dl⁻¹ in 3% COLM. It was concluded that COLM could be included in broiler finisher diets up to a level of 30 g kg⁻¹ without any deleterious effects.

Kwenin, W. K. J., Assan, J. & Dzomeku, B.M. (2013). Collaborative disciplinary measures between teachers and pupils in improving academic performance: A case study of Mmofraturu Girls' School, Kumasi. *Journal of Educational Sciences and Psychology*, 3, 32-39.

ABSTRACT

Indiscipline in general adversely affects academic work and this has led to a decline in academic performance of pupils in Junior Secondary Schools in Ghana. This study was conducted to assess the extent of indiscipline in Mmofraturu Girls' School and its adverse effects on pupils' academic performance so as to provide solutions. The study sample included pupils and teachers of the Junior Secondary School Department. The study used mixed method of data- observation, interviews, test items, examination records and questionnaires for teachers and pupils. Results showed that pupils' misbehaviour included talking, lateness to class, absenteeism and rudeness. Others were eating in class, quarrelling, deliberate refusal to answer teachers' questions, carelessness and inattention. With respect to teachers, laziness, lateness/absenteeism, poor teaching methods and unfriendliness were some common attributes. Other behavioural problems associated with teachers were discrimination, use of abusive language, flirting with pupils, improper dressing and lack of self-discipline. Varieties of interventions were employed to improve the situation. They included guidance and counseling, setting of rules and conduct in class, remedial tuition, adequate preparation by teachers before lessons, self discipline and use of polite words by teachers. There was a need for consistent in-service courses on classroom indiscipline in Junior Secondary Schools. Instituting a vibrant guidance and counseling unit in all Basic schools to deal with disciplinary problems was necessary.

Nyadanu, D., Dapaah, H., & Agyekum, A.D. (2014). Resistance and post-harvest microbial rot in yam: Integration of genotype and storage methods. *African Crop Science Journal*, 22 (2), 89-95.

ABSTRACT

Post-harvest microbial rot is an important disease that causes severe losses in yam (Dioscorea spp.) storage. Rot from microbial infection of healthy yam tubers reduces their table quality and renders them unappealing to consumers. A study was carried out at Bimbilla in the Nanumba North District of Ghana to evaluate possible interactions of yam genotypes and storage methods for controlling internal rot in yam. Four local varieties (Labalkor, Kplondzo, Olordor and Fushiebila) were studied with four storage methods (barn, pit, platform and heap methods) in a 4 x 4 factorially arrangement. There were significant ($P < 0.001$) differences among genotypes for resistance to internal rot, with Olordor and Kplondzo recording the lowest internal microbial rot, suggesting their potential in resisting the disease. There were also significant differences ($P < 0.05$) among the storage methods, with barn and platform being most suitable in reducing the incidence of internal rot in yam. The interaction between yam genotypes and storage methods was not significant ($P > 0.05$).

Abunyuwah, I. Onumah, E. E. & Acquah, H. D-G. (2013). Modelling non-linear spatial market integration and equilibrium processes in hidden Markov framework. *Journal of Economics and Behavioural Studies*, 5 (8), 535-545.

Annor, S.Y., Ahunu, B.K., Aboagye, G. S., Boa-Amponsem, K. & Cassady, J.P. (2014). Non-genetic factors affecting fitness traits in the grasscutter (*Thryonomys swinderianus*) in Ghana. *International Journal of Livestock Production*, 6 (6), 103-111.

CONFERENCES/WORKSHOP/SYMPOSIA/SEMINAR

D. Nyadanu & E. Dikera

3rd International Conference on neglected and underutilized species for a food – secure Africa, Accra, Ghana, September 25-27, 2013.

Paper presented:

Yield components analysis of sorghum (*Sorghum bicolor* L. Moench) for improvement of nutrition and livelihoods in Ghana.

ABSTRACTS

Sorghum is an important staple food crop in the northern regions of Ghana. The crop is used locally to prepare several meals such as 'tuo zaafi', porridge, cake and to brew a local beer known as 'pito'. Despite the important role of sorghum in nutrition and economy of Ghana, it attracts little research attention and recently low economic yield of sorghum is a great disincentive to farmers. Understanding of yield components of sorghum is needed to improve yield of existing local varieties. This study investigates the yield components of four local varieties of sorghum; Banina, Kadaga, Naga red and Kapala. The study was carried out at Navrongo in the Kassena-Nankana district of the Upper East region of Ghana. The varieties were evaluated for yield traits using Randomized Complete Block design with four replications. The results revealed that, significant variations were recorded among the yield traits studied. High values for phenotypic coefficient of variation (PCV) and genotypic coefficient of variation (GCV) was recorded for harvest index and number of grains per panicle. High heritability accompanied with high genetic advance (GA) was observed for number of days to flowering, number of primary panicles, weight of grains per panicle, and days to maturity. Banina variety produced the highest number of leaves, panicle height, panicle width, plant height, number of grains per panicle, weight of grains per panicle, economic yield and biological yield. There was also significant and positive correlation between characters studied. Principal components analysis revealed that Banina was the highest yielding variety and number of grains per panicle was the principal contributing factor to the high yielding character of this variety. This indicates that local farmers could cultivate Banina to increase their yield and genetic improvement of number of grains per panicle by plant breeders could help to develop higher yielding varieties for enhancement of nutrition and livelihoods of the rural poor in the northern regions of Ghana.

D. Nyadanu

3rd International Conference on neglected and underutilized species for a food – secure Africa, Accra, Ghana, September 25-27, 2013.

Paper presented:

Market chain analysis of velvet tamarind (*Dialium guineense* Willd.) products in Ghana,

ABSTRACT

Underutilized crops are now being presented as ‘new crops’ by virtue of the fact that commercial companies and researchers are only recently working on them. They are important as they allow improvement of livelihoods by generating income, supporting food security and improving nutrition. People in Ghana depend on a number of tree species such as velvet tamarind. The overall objective of this research was to obtain insight in the structure and functioning of the markets of velvet tamarind products in Ghana. The present study first identified all chain actors involved in the market of velvet tamarind in Ghana namely gatherers, traders, processors and consumers and described their characteristics, activities, problems and linkages. Secondly, the markets of three different velvet tamarind products traded in Ghana were mapped. Then the different market chains and their characteristics were analysed at local and national levels. Finally, recommendations were formulated on how local chain development should build linkages and enhance trust between actors in the market chain. Once the major domestic limitations have been tackled, commercialization of velvet tamarind products could be developed and expanded.

D. Nyadanu

National stakeholders meeting on achievements of RUFORUM Project on building of human and institutional capacity for enhancing the conservation and use of NUS Crops in West Africa, Eastern and Southern Africa, January, 9, 2014, CSIR-INSTITI, Accra

Paper presented:

Key note address: Status of Research Activities and Capacity Building on NUS at College of Agriculture Education (CAGRIC)-Asante Mampong, University of Education, Winneba.

H. K. Zanu, M. K. Azameti & D. Asare

International conference on research, innovations and sustainable development, Accra-Ghana. March 10-13, 2014

Paper presented:

Response of Broiler Chickens to Cassava Flour-Based Diet Supplemented with Lysine and Methionine

ABSTRACT

A 6-week study was carried out to evaluate the growth response of ninety broiler chickens (Cobb strain) to two diets. The control diet contained maize at 58% while the other totally replaced maize with cassava flour (58%). The two diets were tested from 2 to 8 weeks of age of the birds. The diets were isonitrogenous and isocaloric. A Complete Randomized Design was used and each diet was replicated three times. Each replicate comprised 15 birds with initial mean live weight of 273.3 g per bird. Variables measured included feed intake, weight gain, feed conversion efficiency, mortality, feed cost, and haematology. Feed and water were provided ad libitum. Feed intake reduced ($P>0.05$) when maize was totally replaced with cassava flour. There was depression ($P<0.05$) in final weight, weight gain, feed conversion efficiency by birds fed the cassava flour based diet. Dietary treatments did not affect the haematology of the birds. Feed cost was significantly ($P<0.05$) reduced with the inclusion of cassava flour in the diet. It was concluded that the total replacement of maize with cassava flour in broiler chicken diets has deleterious effect on growth, but reduced the cost of feeding thereby resulting in higher net revenue.

H. K. Zanu N. A. Awini & C. Adzima

28th Biennial Conference of the Ghana Science Association held at the University of Ghana. July 14-19, 2013

Paper presented:

Effect of Maize Bran Based-Diet on the Performance of Broiler Chickens

ABSTRACT

A 4-week study was carried out to evaluate the growth response of ninety broiler chickens (Cobb strain) to two diets. The control diet contained wheat bran at 14% while the other totally replaced wheat bran with maize bran (14%). The two diets were tested from 4 to 8

weeks of age of the birds. Diets were isonitrogenous and isocaloric. Complete randomized design was used and each diet was replicated three times. Each replicate comprised 15 birds with initial mean live weight of 580g per bird. Variables measured included feed intake, weight gain, feed conversion efficiency, mortality, feed cost, and haematology. Feed and water were provided ad libitum. Feed intake, final weight, weight gain, feed conversion efficiency were not significantly affected ($P>0.05$). Dietary treatments did not affect ($P>0.05$) the haematology of the birds. Feed cost was reduced when maize bran was included in the diet. It was concluded that the total replacement of wheat bran with maize bran in broiler chicken diets had no deleterious effect on growth. Cost of feeding was reduced, resulting in higher net revenue.

Coffie, I., S.Y. Annor, J. K. Kagya-Agyemang, F.R.K. Bonsu & M. Issifu.

18th Biennial Conference of the Ghana Society of Animal production, 24-27th July, 2013, College of Agriculture Consumer Science, University of Ghana, Legon, Accra-Ghana.

Paper presented:

Effect of breed and non-genetic factors on milk yield of dual-purpose cattle in Ashanti Region.

ABSTRACT

The objective of this study was to determine the effect of breed, parity, season of lactation, udder and teat sizes, and feed supplementation on milk yield of dual-purpose cattle in four districts of the Ashanti Region. A total of 267 cows kept under farmers' own management that calved and lactated were involved. Milk yield was measured in litres per cow for three times at four weeks interval in three seasons. All the fixed factors, except udder size influenced ($p<0.01$) milk yield. Average daily milk yield per cow across breeds was 2.2 litres. Average daily milk yield per cow for West African Shorthorn, Sanga, White Fulani, Sokoto Gudali and Sanga-Gudali crossbred were 1.9, 2.1, 2.1, 2.7 and 3.1 litres ($p<0.01$), respectively. Milk yield increased with increasing parity and started dropping in the seventh parity. Average daily milk yield for small, medium and large teat size were 2.0, 2.5, and 2.7 litres ($p<0.01$), respectively. Average daily milk yield per cow receiving regular and occasional feed supplementation, and no feed supplementation were 2.8, 2.2, and 2.1 litres ($p<0.01$), respectively. It was concluded that regular feed supplementation is one of the surest way of maximizing milk yield. Sanga and Gudali/White Fulani crossbred cattle could be used for the dual-purpose dairying in Ashanti Region, and cows with reduced milk yield after the 6th parity should be replaced for higher economic returns.



FACULTY OF SCIENCE AND ENVIRONMENT EDUCATION

Mensah, E. E. & Amponsah, E. K. (2014). Variation of Soil PH using Circularly Polarized Light. *Journal of Biology, Agriculture and Healthcare*. 4 (3), 163 -166. ISSN 2224-3208 (Paper) ISSN 2225-093X (Online)

ABSTRACT

The use of a commercial circular polarizer to produce polarized light from a 85W conventional source and its influence on the pH of sandy loam soils is presented. The role of soil pH in the determination of plant nutrient requirements has made its monitoring important for plant growth and development. The study was designed to determine the effectiveness of using circularly polarized light to amend the level of soil acidity and alkalinity. Samples of acidic and alkaline sandy loam soils were exposed to a collimated beam of the circularly polarized and the pH and temperature measured at 1 - hour intervals for 8 hours in a dark room. The control was soil samples exposed to unpolarized light from another 85W conventional source. All the samples were replicated three times. The results show that circularly polarized light has the ability to significantly increase the pH of sandy loam acidic soil while it had no appreciable effect on the alkaline soil. This could provide an alternate non - chemical means of managing highly acidic sandy loam soils.

Agyarko, K., Dartey, E., Amankwah Kuffour, R. & Sarkodie, P. A. (2014). Assessment of trace elements levels in sediment and water in some Artisanal and Small-Scale Mining (ASM) localities in Ghana. *Current World Environment*. 9 (1), 7-16.

ABSTRACT

The concentrations of eight trace elements, Cadmium (Cd), lead (Pb), iron (Fe), zinc (Zn), manganese (Mn), copper (Cu), mercury (Hg) and arsenic (As) in sediment and water were assessed in four artisanal and small-scale mining (ASM) localities in the Amansie West District (6°28'22" N 1°53'32" W) of Ghana along two river courses from May 2011 to July 2011. Triplicate water and sediment samples were randomly taken at five different points at each of the localities and the elements determined using Atomic Absorption Spectrophotometer (AAS). Using the Geoaccumulation Index (I_{geo}) assessment, the sediments were found to be polluted to different degrees with Cu (Uncontaminated to moderately contaminated/Moderately contaminated), Hg (Uncontaminated to moderately contaminated/Moderately contaminated) and As (Moderately contaminated/Moderately to strongly contaminated). The Enrichment Factor (EF) indicated human influence - artisanal mining activities on the sediment concentration of Cd and Pb for all the localities and only some of the localities for the rest of the trace elements. The elements are major sediment pollutants (EF > 2) in one or more of the localities. The I_{geo} and EF gave diverse status of the sediment qualities of the localities. Cd, Pb, Hg and As water concentrations in the four artisanal mining localities were all found to be above the WHO maximum acceptable of levels for drinking water. Inhabitants in the mining localities face the risk of getting various diseases by drinking the waters contaminated with the trace elements.

Tiimub, B. M. & Mercy, A. D. A. (2013). Determination of heavy metals and Iron concentration in two common fish species in Densu River at Weija District in Greater Accra Region of Ghana. *American International Journal of Biology*, 1 (1). 45-55. www.aripd.org/journal/aijb

ABSTRACT

The concentrations of heavy metals namely; Manganese, Cadmium, Lead, Mercury and Arsenic (Mn, Cd, Pb, Hg and As) including Iron (Fe), were determined in catfish and tilapia samples from Densu River at Weija in 2012. The fish Muscles were carefully dissected for digestion and the levels of heavy metals were determined using Microwave Milestones Ethos 900 double beam Atomic Absorption Spectrophotometer (AAS). Concentrations of heavy metals in the fish samples analyzed in descending order of Fe > Mn > Cd were

detected, but, the rest (Pb, Hg and As) were not detected. The highest concentration of Cadmium (0.808mg/kg) was detected in the muscles of Catfish while the lowest value (0.129mg/kg) in Tilapia. The lowest concentration of Mn (0.78mg/L) and Iron (44mg/L) were detected in catfish whereas the highest Mn = 1.74mg/L, Fe = 53mg/L were in the Tilapia samples. Cadmium and Iron accumulated by the two fish species exceeded the maximum permissible limits prescribed by the World Health Organization guideline well as the Food and Agriculture Organization standard. Higher levels of heavy metals accumulated by the fishes might be due to increase in the agricultural influx waters, domestic wastes and some anthropogenic activities which merit further investigation.

Monney, I., Oparebea, S.M., Asampana, A.M. and Marfo, A. (2014). Assessing hand hygiene practices in schools benefiting from the Ghana School Feeding programme. *Science Journal of Public Health*, 2 (1), 7-14.

ABSTRACT

School Feeding Programmes have been shown to impact positively on nutritional status and cognition of school children as well as hunger and poverty alleviation. There is however, dearth of information regarding hand hygiene in schools benefiting from these programmes. This study assesses hand hygiene practices, barriers and compliance to proper hand hygiene in schools benefiting from the Ghana School Feeding Programme (GSFP). Quantitative and qualitative data were collected through the administration of structured questionnaires and extensive field observation respectively. Fifty three (53) GSFP beneficiary schools were selected from four different locations in Ghana; Winneba (6), Mpraeso (10), Mampong-Ashanti (17) and Bolgatanga (20). Findings from the study indicate availability of hand washing facilities (HWFs) in most schools (79%; n = 53); high pupil-to-HWF ratio resulting in poor hand washing practices (Range: 15-372; average: 105); availability of soap for handwashing (83%; n = 42) but extensive use of shared containers (53%; n = 42); delays in acquisition of HWFs, fragmented private sector efforts in hand hygiene promotion and non-compliance with conventional hand washing practices. The study observes that the incorporation of schools into the GSFP without concurrently instituting a comprehensive hand washing programme is rather a retrogressive step considering the possible health repercussions on pupils. To avert this, it is proposed that hand washing with soap should be a mandatory practice in schools benefiting from the GSFP. This requires institution of a sustainable, impact-driven school hand hygiene programme involving both public and private sector agencies to be instituted along with the GSFP.

Monney, I., Odai, S. N., Buamah, R., Awuah, E. and Nyenje, P.M. (2013). Environmental impacts of wastewater from urban slums: case study - Old Fadama, Accra. *International Journal of Development and Sustainability*, 2 (2), 711-728.

ABSTRACT

The burgeoning of slums in the developing world poses an urgent environmental threat due to insanitary conditions and rampant disposal of wastewater. To assess the potential environmental impacts, domestic wastewater from Ghana's biggest urban slum - Old Fadama was characterised throughout the dry and wet seasons. The study drew on a comprehensive assessment of the general sanitary conditions in the community to determine the sources of pollution and water quality monitoring. BOD5 levels of wastewater from the study area were 545.63 ± 99.88 mg/L and 645.94 ± 331.43 mg/L in the dry and wet seasons respectively whereas COD levels were 1100.45 ± 167.16 mg/L and 1415.12 ± 722.83 mg/L in the dry and wet seasons respectively. E-coli levels were $4 \pm 1 \times 10^6$ CFU/100mL and $4200 \pm 2400 \times 10^6$ CFU/100mL in the dry and wet seasons respectively whereas total coliform levels also showed the same trend with $9 \pm 2 \times 10^6$ CFU/100mL and $16800 \pm 5100 \times 10^6$ CFU/100mL in the dry and wet seasons respectively. The study identifies that wastewater from this community has potential deleterious environmental implications due to high levels of nutrients, oxygen-demanding substances and faecal coliforms. Pollutants were identified to be emanating predominantly from open defecation and indiscriminate waste disposal. Efforts should thus be directed towards improving sanitary conditions viz. access to toilet facilities, waste disposal mechanisms and best management practices for wastewater.

Monney, I., Agyei, D. and Owusu, W. (2013). Hygienic practices among food vendors in educational institutions in Ghana: The Case of Konongo. *Foods*, 2 (3), 282 – 294.

ABSTRACT

With the booming street food industry in the developing world there is an urgent need to ensure food vendors adhere to hygienic practices to protect public health. This study assessed the adherence to food hygiene practices by food vendors in educational institutions in Konongo, Ghana. Structured questionnaires, extensive observation and interviews were used for the study involving 60 food vendors from 20 basic schools. Attributable to the influence of school authorities and the level of in-training of food vendors, the study points out that food vendors in educational institutions generally adhered to good food hygiene practices, namely, regular medical examination (93%), protection of food from flies and dust (55%); proper serving of food (100%); good hand hygiene (63%); and the use of personal protective clothing (52%). The training of food

vendors on food hygiene, instead of the level of education had a significant association ($p < 0.05$) with crucial food hygiene practices such as medical examination, hand hygiene and protection of food from flies and dust. Further, regulatory bodies legally mandated to efficiently monitor the activities of food vendors lacked the adequate capacity to do so. The study proposes that efforts should be geared towards developing training programmes for food vendors as well as capacity building of the stakeholders.

Monney, I., Tiimub, B. M. & Bagah, C. H. (2013). Characteristics and management of household solid waste in urban areas in Ghana: The case of Wa. *Journal of Civil and Environmental Research*, 3 (9), 10-21.

ABSTRACT

This paper presents the characteristics (composition, bulk density and generation rate) of household solid waste and waste management practices in Wa; an urban community in Ghana. The study approach involved an assessment of the physical characteristics approximately 2.3tons of solid waste generated by 15 households in the study area over a 30-day period. Structured questionnaires were administered to residents, the Waste Management Department and the only private waste management company in Wa. The results indicate that the waste generation rate for the Wa is 0.68 ± 0.24 kg/cap/day with the average bulk density of 44.9 ± 28 kg/m³. Household solid waste is dominated by organic waste (48%) and inert materials (33%). Plastics/rubber and metals make up an average proportion of 5% each whiles textiles/fabric, paper/cardboard and miscellaneous constitute 4%, 3% and 2% respectively. The characteristics of the solid waste management system include disparities in waste collection services, lack of waste recovery mechanisms, disposal of comingled waste and lack of regulation and monitoring of the private waste collection company. The study identifies that, waste recovery can reduce to almost a third of the amount of household solid waste that end up at the landfill. The study recommends the pay-as-you-dump method as a cost recovery mechanism to offset waste collection costs.

Monney, I., Odai, S. N., Buamah, R. & Awuah, E. (2013). Evaluating access to potable water and basic sanitation in Ghana's largest urban slum; Old Fadama, Accra. *Journal of Environment and Earth Science*, 3 (11), 72 – 79.

ABSTRACT

Access to potable water and basic sanitation in urban poor communities remains a critical issue in the developing world. This paper examines access to potable water and basic sanitation in Ghana's largest urban slum and the level of commitment by stakeholders to improve the current conditions. It drew on an extensive field survey, interviews, focus

group discussions and drinking water quality analyses. The study revealed that the community depends entirely on vended water for their daily water supply needs. Apart from being sold at exorbitant prices, the source of drinking water is also contaminated with attendant health risks. Household toilets are non-existent in the community and thus residents rely exclusively on public latrines; KVIP and pan latrines which are also inadequate. This partly accounts for the practice of open defecation in the community with possible health effects such as diarrhea and cholera. Indiscriminate dumping of refuse, choked drains and pools of stagnant water are ubiquitous thereby posing health threats. There is a low level of commitment to improving access to water and sanitation in the community by major stakeholders in spite of the glaring health effects. The outcomes of this study will be useful to relevant stakeholders and authorities in developing suitable strategies for improving access to water and sanitation for urban poor communities.

Monney, I., Boakye, R., Buamah, R., Anyemedu, F. O. K., Odai, S. N. and Awuah, E. (2013). Urbanization and pollution of surface water resources in the two largest cities in Ghana. *International Journal of Environmental Monitoring and Analysis*, 1 (6), 279 – 287.

ABSTRACT

Pollution of freshwater resources draining urban centres in the developing world poses a threat to human health and environmental sustainability. This, apart from inadequate infrastructure, is primarily propelled by explosive urban populations. The study seeks to determine the level of pollution and sources of pollution in selected surface water resources in Accra and Kumasi. Water samples from specific locations of the Aboabo river in Kumasi and the upper reaches of the Korle Lagoon in Accra were collected and analysed for their physico-chemical and microbial quality during the study period. The results from the study pointed out that the upper reaches of the Lagoon is rendered anaerobic during the dry season and with appreciably low DO even during the wet season. Drastic depreciation in DO levels in the Aboabo river as it flows through highly populated areas (Aboabo, Moshie Zongo and Anloga) were depicted through the study. Elevated BOD (upper reaches of the Korle Lagoon: 27.7 - 200mg/L; Aboabo river: 38.25mg/L - 260mg/L) and E. coli (upper reaches of the Korle Lagoon: 5.0×10^6 - 2.8×10^9 CFU/100mL; Aboabo river: 4.0×10^6 CFU/100mL - 1.3×10^8 CFU/100mL) levels were also recorded in both waterbodies generally attributed to disposal of organic wastes and faecal matter into them. An integrated approach that takes cognizance of both technical and socio-economic factors behind this phenomenon is proposed by the study.

Oduro-Kwarteng, S., Nyarko, K. B., Dwumfour-Asare, B., Adjei, A. K., & Agyekum, E. K. (2014). Indicators for benchmarking water supply to the urban poor in Ghana. *International Journal of Innovative Research and Studies*, 3 (4), 724-737.

ABSTRACT

Benchmarking urban poor access to water supply service is being promoted as an effective tool to improve the performance of water utilities in serving the poor. This study has developed and tested pro-poor indicators for measuring progress of water supply to the urban poor in Ghana. The study was conducted in the two largest cities, Kumasi and Accra. The study used indicators covering three perspectives: pro-poor policy, pro-poor tools, and service provision and quality to track water service delivery to the urban poor. The study has demonstrated that it is possible to use benchmarking to track urban water service delivery to the urban poor. The testing of the benchmarking indicators shows that there have been targeted investments for the urban poor and promulgation of pro-poor policy statements in Ghana but the Urban Water Utility and Public Utility Regulatory Commission have no existing measures for tracking any progress towards urban poor access to water and improving service provision. The study recommends the need to institutionalize pro-poor benchmarking as a tool to improve water service delivery to the urban poor in Ghana.

Dwumfour-Asare, B., & Kwapong, M. A. (2013). Anaemia awareness, beliefs and practices among pregnant women: A baseline assessment at Brosankro community in Ghana. *Journal of Natural Sciences Research*, 3 (15), 1-9.

ABSTRACT

Anaemia in pregnancy is among the top health threats in developing countries. Ghana has adopted several strategies over the years against anaemia but it remains a major cause of infant and maternal deaths. This paper assesses anaemia awareness levels, beliefs and practices among pregnant women of an endemic community. A baseline survey was conducted on 28 pregnant women randomly selected from first 100 consistent antenatal attendees from August to October 2011 at Brosankro Health Centre. The results show high anaemia consciousness with few respondents claiming no knowledge of the causes (3%) and effects (14%). The easily known cause of anaemia is poor diet (63%) followed by malaria (26%), worms (5%) and others (6%). Meanwhile, food sources that can fight anaemia are poorly known (18%). Cultural and religious beliefs in food restrictions exist and fairly a significant number of women (38%) are denied potential

dietary nutrients. There are potential health risks (including anaemia) associated with existing practices since barriers to parasitic infections like malaria and worms via use of insecticide treated bed nets, intermittent preventive treatment, improved drinking water sources and effective handwashing are compromised. Respondents' understanding on effective barriers against anaemia in pregnancy needs to be deepened.

Dwumfour-Asare, B., & Asiedu, S. R. (2013). Awareness of the Factories, Offices and Shops Act 1970 (Act 328) at KNUST, Ghana. *Developing Country Studies*, 3 (10), 1-10.

ABSTRACT

This paper establishes the awareness levels of the Factories, Offices and Shops Act 328 (FOSA), which relates to occupational safety and health (OSH) in Ghana. Data collection involved administering questionnaires to sampled individuals and key informants from the campus of KNUST. Questionnaires were designed to capture data on FOSA awareness levels, compliance and respondents' perception of its effectiveness. There is generally low awareness level of FOSA and other existing laws on health and safety. Less respondents, between 40% and 25% from the general and key informant surveys respectively were aware of OSH laws. There is relatively high awareness level associated with the Labour Act 651 representing 60%, followed by FOSA (27%) and finally Workmen's Compensation Law 187 (13%). On compliance, while over 90% have access to sanitary facilities, findings on fire-detecting and fire-fighting equipment availability, and reporting of incidents to authorities are worrying. Also most emergencies exits have no inscriptions to guide premises users in case of any emergencies. It is recommended that nationwide study should be conducted to establish the extent of low OSH awareness levels. Discussions on exploring the opportunities to incorporate OSH into Ghana's educational and job trainings should be stimulated.

CONFERENCES

J. Dwomoh Abraham & J. F. Takrama

Tropentag, September 17-19, 2013, Stuttgart-Hohenheim. Germany.

Paper presented:

“Agricultural development within the rural-urban continuum” Morphological and Genetic Diversity of *Persea Americana* Mill. (Avocado) in two Regions of Ghana

ABSTRACT

Persia americana Mill (Avocado) is a tree crop which originated from the tropics of the western hemisphere and has developed races, adaptable to a wide range of climatic conditions. It has three general ecological races: Mexican, Guatemalan and West Indian. Its fruit is pear-shaped and the edible part is a thick layer of greenish-yellow pulp, high in protein and fat. The avocado plant is important for economic, nutritional and medicinal reasons. The fruit is eaten for nutrients and also for export for foreign exchange. Studies have shown that, its leaves could be used to manage high blood pressure. In Ghana, avocado it is widely grown in the closed forest region. However, cultivation is in all regions. Despite the high nutritional content of avocado, malnutrition is prevalent in most rural communities in Ghana and the potential medicinal use has not been fully investigated. Avocado has the potential to contribute immensely to the economy of Ghana if cultivated on commercial scale. We therefore investigated the distribution, uses, morphological and genetic diversity of avocado in the Ashanti and Central Regions of Ghana. Ethnobotanical surveys were carried out in 14 districts, while morphological and genetic diversities were determined among the accessions in eight districts. Microsatellites markers were used for genetic diversity studies. Growth of avocado was better in the Ashanti region than the Central region. It thrived best in old cocoa farms and was cultivated on small scale. The plant was used for various medicinal and economic purposes. Morphologically, they were mainly of Western Indian origin. However, accessions from the Ashanti region were more diverse in plant and fruit characters than those from Central region. Microsatellites analyses revealed 115 different amplification fragments, ranging from 5 to 22 alleles per locus, with an average of 11.5 alleles per locus. All microsatellites were highly informative with both genetic diversity and polymorphic informative content higher than 0.5. Using the unweighted pair group method with arithmetic averages, the genotypes were clustered into seven major groups. The wide genetic diversity among the accessions indicates a wide genetic base for improvement of avocado through breeding and selection in Ghana.



FACULTY OF BUSINESS EDUCATION

Ibrahim, M., Nyame, R. K., & Kumah, A. (2014). Quality service delivery among telecommunication service operators In Ghana: A case of Vodafone-Ghana. *International Journal of Economics, Commerce and Management*, 2 (5), 1-18.

ABSTRACT

This study examined quality service delivery in the telecommunication industry in Ghana with Vodafone Ghana as the case company. The study adopted a single case study design. Data for this study was obtained through a structured questionnaire with some selected customers of Vodafone Ghana at the University of Education, Winneba. The study found that telecommunication customers in Ghana expect in order of importance reliability, responsiveness, assurance, tangibles and empathy with regards to quality of service provided by telecom service operators. The study further found a significant relationship between the service quality dimensions (assurance, tangibles, responsiveness, empathy and reliability) and customer satisfaction. The study also revealed a wider gap on all the five service quality dimensions with regards to customers' perception of quality service delivery as against customer service expectations.

Ibrahim, M., & Ssendiwala, A. (2014). Service Recovery and Customer Satisfaction: A Case of Uganda Telecom. *European Journal of Business and Management*, 6 (4), 197-209.

ABSTRACT

This study sought to explore service recovery strategies adopted by telecommunication companies operating in Africa with Uganda Telecom as a case study. The study adopts a quantitative approach design. A sample size of 250 respondents was used for this study comprising 100 Uganda telecom Staff and 150 subscribers of Uganda telecom in Kampala central business district. Findings of the study revealed a significant positive relationship between service recovery based on firm's understanding of customer complaints, firm's fair treatment of customer complaints and customer satisfaction. Furthermore, the study also found a positive correlation between service recovery and customer satisfaction. The study contributes to extant literature on service recovery from developing country perspective.

Madichie, N., Hinson, R., & Ibrahim, M. (2013). A Re-conceptualization of Entrepreneurial Orientation in an Emerging Market Insurance Company. *Journal of African Business*, 14 (3), 202-214.

ABSTRACT

The authors examine how entrepreneurial firms gain competitive advantage and hence entrepreneurial success by optimizing their dynamic capabilities. Using a single case design, incorporating in-depth interviews with key informants within an insurance company in Ghana, the authors attempt to highlight the limitations of an existing model. Their key proposition is that the growth and profitability exhibited in the case study are largely attributable to its ability to leverage its entrepreneurial orientation. They argue, therefore, that despite the ability of the resource-based view to translate into competitive advantage at the firm level, it falls short of longer-term competitive advantages and entrepreneurial success—especially in the financial services sector with homogeneous product offerings.

Ibrahim, M., Rahman, A. D., & De Heer, F. (2013). Interrogation of University Websites in Ghana. *Information Development*, 1-12. <http://idv.sagepub.com/content/early/2013/12/09/0266666913510167>

ABSTRACT

The purpose of this paper is to examine the dialogic features of university websites in Ghana and their potential for interacting with existing students while wooing potential students. This study was executed via a content analysis of university websites in Ghana. The results of the study show that Ghanaian universities adequately utilize the dialogic principles as proposed by Kent and Taylor (1998) in designing their websites. The findings show a preponderance use of the dialogic loop principle by the sampled institutions in Ghana. However, the results also show poor performance by the sampled institutions on return visit principle. The research paper contributes to the scarce literature on dialogic potential of websites in a developing country context.

Bondinuba, F., Nimako, S.G., & Karley, N.K. (2013). Developing Student Housing Quality Scale (SHOQUAL) in Higher Institutions of Learning: Factor Analysis Approach. *Urban Studies Research*, vol. 2013, Article ID 383109, 11 pages, 2013. doi:10.1155/2013/383109.

ABSTRACT

The researchers developed an instrument for measuring student housing quality (SHQ) in Higher Institutions of Learning (HIL) in Ghana. The paper sought to validate the student housing quality scale (SHOQUAL) through factor analysis approach. 700 respondents were sampled from two public HIL in Ghana in a cross-sectional survey that used a self-administered structured questionnaire for data collection. Confirmatory factor analysis (CFA) was conducted to detect the underlying latent variables that significantly determine SHQ in Ghanaian HIL. The findings indicate that four emerged SHQ dimensions relevant to the research context were labelled as follows: core facility quality, enabling facility quality, support facility quality, and cost of housing. The constructs in the derived model possess high reliability and validity. Student housing service providers could conveniently use the derived instrument items for measuring SHQ in HIL. Implications are discussed and limitations are noted. The paper contributes to the literature in the areas of models of service quality in student housing management in HIL.

Nimako, S.G. & Ntim, A. B. (2013). Construct Specification and Misspecification within the Application of Push-Pull-Mooring Theory of Switching Behaviour. *Journal of Business and Management Sciences*, 1 (5), 83-95. Doi: 10.12691/jbms-1-5-2.

ABSTRACT

This paper principally addresses the issue of construct specification and misspecification within the context of the application of Push-Pull-Mooring (PPM) theory of consumer switching behaviour (CSB), and what implications it has for practicing marketing researchers. Despite the prospects of the PPM framework as a dominant paradigm for current and future research, there is evidence of divergent specification of constructs for the PPM framework in empirical studies. This study addresses this problem by applying empirical guidelines to determine the correct specification for the PPM framework, and uses an empirical illustration to demonstrate the potential consequence of misspecifying the PPM constructs in business. The findings indicate that about 67% level of construct misspecification exist in available research applying the PPM model in CSB literature. Pull, Push, and Mooring effects are identified as multi-dimensional construct that should follow a first-order reflective, second-order formative specification in the application of the full model. The findings also indicate that misspecification has potentially negative consequence on the validity, content and parsimony of measurement models in the PPM framework. Recommendations for practicing researchers are discussed. The paper furthers our understanding of construct specification and misspecification in theory development in business research.

Nimako, S.G., Danso, H., & Donkor, F. (2013). Using Research Workshop to Assist Senior Members Develop Competence in Academic Writing in a Public University. *Journal of Studies in Social Sciences*, 5 (2), 301-327.

ABSTRACT

Academics are expected to have good academic writing expertise since writing scholarly articles and getting them published in scholarly journals is a core activity in the career of an academic. The paper reports an intervention to assist senior members (SMs) who have limited experience in academic writing to improve upon their academic writing expertise. The main intervention was the use of a five-day research workshop. Fifteen SMs of the College of Technology Education, Kumasi of the University of Education, Winneba in Ghana participated in the workshop. Interviews and structured questionnaire were used to collect data on perceived improvement in respondents' academic writing expertise

after their participation in the workshop. The results showed that, through the workshop, there was significant improvement in participants' motivation for academic writing and their ability to write effectively, the main sections of a research paper (e.g., Introduction and the problem statement, literature review and hypotheses, data analysis, methodology, discussion and implications, and conclusion). Implications and recommendations for management have been discussed and limitations have been noted. The study contributes to the literature in the area of faculty development in higher education.

Nimako, S.G., & Ntim, A. B., Mensah, A. F. (2014). Effects of Mobile Number Portability Adoption on Consumer switching intentions. *International Journal of Marketing Studies*, 6 (2) 117-134. doi:10.5539/ijms.v6n2p117

ABSTRACT

The paper proposes a model that helps to explain consumer behaviour towards Mobile Number Portability (MNP) policy and the influence of MNP adoption factors on consumer switching intention process in the telecommunication industry. The proposed model was tested using data from a cross-section of 736 subscribers of six global companies in Ghana's mobile telecommunication industry, where MNP has been introduced. The findings indicate that MNP adoption can positively influence consumer switching. The effects of MNP adoption on switching intention is realised through three main channels; directly through MNP-induced self-efficacy (or switching efficacy) and indirectly through perceived switching costs and attitude towards switching. The proposed model helps explain about 50% of switching intention. The paper discusses implications of the findings to marketing theory and practice and provides directions for future research. The paper advances our knowledge in the impact of government/industrial policy on consumer behaviour in marketing.

Nimako, S., G. & Mensah, A. F. (2014). Exploring Customer Dissatisfaction/Satisfaction and Complaining Responses among Bank Customers in Ghana. *International Journal of Marketing Studies*, 6 (2), 58-71.

ABSTRACT

The paper explores the relationship between customer dissatisfaction/satisfaction and complaining responses among bank customers in Ghana banking industry. The study was a cross-sectional survey that used a self-administered structured questionnaire to collect primary data from 448 customers from ten selected banks in Ghana. The findings are that, though dissatisfaction causes customer complaining, dissatisfaction was more

prevalent among non-complainers than complainers. Again, frequency of complaining is more likely to increase overall satisfaction if managed effectively. The most likely to be used complaining responses are complaining in person and refraining from using the bank's services, while the least likely to be used complaining responses are complaining to the mass media and consumer associations. Moreover, public bank customers are more likely to complain by refraining from using the bank's services and warning family and friends than private bank customers do. There was significant correlation between complaining responses and frequency of complaining, and between complaining responses and overall satisfaction. Theoretical and managerial implications are discussed. In spite of its limitations, the paper contributes to the body of knowledge in the area of consumer complaining behaviour in banking industry in emerging economies.

Nimako, S. G., Bondinuba, F.K, Owusu, K. E. (2014). The Impact of PLS-SEM training on faculty staff intention to use PLS software in a public university in Ghana. *International Journal of Business and Economics Research*, 3 (2), 42-49.

ABSTRACT

The paper empirically assesses the impact of Partial Least Squares Structural Equation Modelling (PLS-SEM) training on academic staff's intentions to adopt PLS-SEM software in their future research work. Our original contribution to knowledge is the application of the Technology Adoption Model (TAM) to study faculty intention to adopt SEM data analysis software in an under-researched context of developing country Higher Institution of Learning (HIL). Building upon the TAM, we developed a research model that conceptualises PLS-SEM training as an external variable that affects the technology adoption process. The research model was tested using data from 34 faculty members who fully participated in a PLS-SEM training workshop at the College of Technology Education, Kumasi (COLTEK) of University of Education, Winneba. The data was analysed using SmartPLS 2.0 for PLS-SEM analysis. The findings indicate that PLS-SEM training has a positive impact on faculty members' intentions to use the PLS-SEM software in future research. Moreover, the findings confirm the applicability and efficacy of the TAM framework that it can predict about 86% of faculty members' intention to adopt data analysis software. This paper is one of the initial studies into the adoption of SEM data analysis software by the research community in developing countries HIL context. Despite its limitations, the paper offers important theoretical and managerial contributions. It contributes to the literature in the area of adoption of SEM data analysis software in the information systems literature.

SEMINAR

S. G. Nimako

A PhD Seminar Presentation at Accra Institute of Technology, Accra, 18 January, 2014.

Paper presented:

Modelling the Antecedents and Consequence of Consumer Switching Behaviour in Ghana Mobile Telecom Industry.



FACULTY OF EDUCATION AND COMMUNICATION SCIENCES

Sarfo K. F., Elen J., (2014) Towards an instructional design model for learning environments with limited ICT resources in higher education. *African Educational Research Journal*, 2 (2), 85-95.

ABSTRACT

This paper provides grounds for creating an integrated instructional design model that can be used to guide the design of quality classroom instruction in higher education also in countries with limited resources. To achieve its purpose the paper investigates various projects on integration of ICT in education in developing countries and identifies that limited ICT resources and financial constraints are major difficulties they face. The paper further elucidates, based on the findings from the literature that limited ICT resources are considered as a major barrier to successful integration of ICT in teaching and learning. In line with the literature on instructional design and technology, the paper argues that it is the effective use of the real principles of instruction rather than ICT that makes learning effective. Based on this proposition and the deficits of the current instructional design models, the paper presents theoretical and practical justifications for testing the generalizability of the basic instructional design models in the context of higher education classrooms with limited, moderate, and adequate ICT resources.

Sam, F. K., Amartei, A. M., Osei-Owusu, B. & Antobre, O. O. (2013). Female leadership stereotypes: The perception of the leadership of female heads of senior high schools in Ashanti region. *Educational Research*, 4 (10), 702-709. doi: <http://dx.doi.org/10.14303/er.2013.229>

ABSTRACT

The study discussed the perception of the female leadership stereotypes of heads of selected senior high schools in Ashanti Region. A census survey was conducted to select eighty-eight heads of senior secondary schools. A descriptive survey design was employed and focused on the administering of open and closed ended questionnaires to 80 headmasters and headmistresses. The reliability coefficient of the questionnaire was 0.826. SPSS was used to analyze the data and the results were presented in tables and graphs. The study revealed that majority of the respondents disagreed on all the stereotypes associated with women on traditional beliefs/practices. Moreover, family responsibility is a leading factor that impedes female advancement to attaining leadership positions. In addition the appointment to headship was rather based on professional and academic qualification rather than on gender as the perceived stereotypes will engender. Consequently women also need to strive to higher positions like their male colleagues.

Osei-Owusu, B., Effah, B., Sam, F. K. & Agyemang, K. O. (2013). Students' assessment of internship programme. A case of College of Agriculture Education, Mampong-Ashanti of the University of Education, Winneba. *Journal of Emerging Trends in Educational Research and Policy Studies*, 4 (3), 499-504.

ABSTRACT

Teaching is the key to all successes in our educational system, especially as it encapsulates all that that to do with the training of human resource in various fields to meet the work force base of every country. That is why the teacher needs to be properly educated and trained for professional efficiency, and inculcated with not only a positive attitude that will enable an individual go through the training properly but also come out well equipped to assume his/her responsibilities in educational facilities. In this regard Internship Programmes have to be thoroughly studied due to their import in the facilitation of learning to teach. The paper is a descriptive survey which sought to assess the internship programme by students. This study was conducted in the Department of Interdisciplinary Studies of the Faculty of Agriculture Education, a campus of the University of Education, Winneba. The sample comprised of 208 students who were on teaching practice (internship) programme for 2011/2012 academic year. These students were drawn through simple

random sampling. Three research questions and one hypothesis guided the study. The instrument for data collection was a 45- item questionnaire developed by the researchers. The instrument was validated and an internal consistency of 0.89(89%) was calculated using Cronbach Alpha techniques. Data was analyzed using means and analysis of variance (ANOVA). The findings revealed that the adoption of all the effective strategies for improving students' internship programme, such as, practical preparation of mentees for teaching; innovative strategies to solve the challenges faced by the programme, will positively affect teachers' practical preparation for internship programme. Based on the findings, the following recommendations were made: that partnership schools should be more accessible to the mentee and the supervisor; that the government should subsidize the cost involved in undertaking the programme. The study established the need for the University to provide regular mentorship training for mentors and to create the awareness to provide adequate motivation for mentors. Lastly, the collaboration of the University and partnership schools to provide good accommodation and adequate teaching and learning materials will make interns capable professionals to impact on their future delivery of teaching that will be effective and comprehensible to all students in educational institutions.

Sam, F. K., & Osei-Amankwah, L. (2013). Practicing effective supervision: Towards a big change. *International Journal of Basic Education*, 3 (1), 105-112.

ABSTRACT

Supervision is a management tool that ensures effectiveness in school administration. The study was designed to ascertain the kind of supervisory practices head teachers provide in the basic schools and whether the supervision impact on teachers' teaching. Mixed method approach was considered appropriate. Using Kumasi Metropolis as an area for the study, 62 head teachers and their assistants, and 20 teachers of 31 schools formed the accessible population for the study. Thus, a sample of 82 respondents was used for the study. The heads and teachers were randomly selected. Interview guide was used to elicit responses from teachers. Frequencies of responses were aggregated and converted into percentages to know what was obtained with respect to head teachers' supervisory practices. Thematic analysis was used for the interview data and the results were utilized for cross-validation. The study revealed that organization of school based in-service training, organizing conference to discuss and analyze work problems of teachers, and clarification of school rules were not practiced by the heads. From these findings, some policy measures were suggested to ensure that effective and adequate supervisory practices be adopted to enhance teaching and learning and also promote efficiency in administration.

Pongo, N. A., Effah, B., Osei-Owusu, B. Obinnim, E., Sam, F. K. (2014). The impact of TVET on Ghana's socio-economic development: A case study of ICCES TVET Skills in two regions of Ghana. *American International Journal of Contemporary Research*, 4 (1), 186-192.

ABSTRACT

Integrated Community Centre for Employable Skills (ICCES) is an agency under the Ministry of Employment and Social Welfare with policy objective of filling the gap in employment generation by developing the young human resources in line with the poverty alleviation goal of the government of Ghana. The purpose of the study was to find out how the ICCES training programmes are achieving their purpose of increasing access of young person's to skills acquisition and empowerment for productive employment. To harness the needed information, questionnaire, interview and observation, were employed in gathering data from the subjects. The results suggest that participants in the survey had all conferred that the programmes have being helpful to the communities in securing suitable employment that allows them to generate income within the social, family and financial constraints that they face in their communities and as such their social and economic status has being impacted positively.

Edwards, A. K., & Sam, F. K. (2014). Strategic thinking with 'Brain Powers' by considering leadership in appreciative inquiry. *Global Education Review*, 2 (4), 58-67.

ABSTRACT

Changes in higher education are driven by the growing market-based knowledge global economy of which universities find themselves. Strategic thinking in change requires smaller 'I'-leadership and the maximum contributions from all 'brain powers'. The problem is institutional leaders concentrate more on management of resources than human capital. Human capital requires participative leadership to energize, envision, and inspire people to challenging destinations. The purpose of this concept paper is to recommend full utilization of human resources as a 'brain power' by Appreciative Inquiry (AI) method of change. Reviews show that AI is a simple process of 4-Ds to engage minds (brain power). Strategically, five recommendations are for Offices of Institutional Advancement to create synergy, avoid group inertia, and enrich ownership strategies through contributions by faculty 'brain power'.

Adogpa, J. N. (2014). The use of Ghanaianisms in Aidoo's *Changes*, Djoletto's *Money Galore* and Nyantakyi's *Ancestral Sacrifice*. *The International Journal of Humanities & Social Studies*, 2 (2), 68-82.

ABSTRACT

*What is linguistically appropriate and acceptable in one geographical area may be proven a linguistic misfit in another geographical location. This is always evidenced in second language situations where the second language seems inadequate in expressing the culture and belief systems of the people. The result is for the people to resort to localized lexical items or to 'bend' some of the foreign lexical items so as to let them acquire meaning quite different from their original or dictionary meaning. The Ghanaian creative writer (GCW) does this by Ghanaianising the lexical items by means of indigenization, pidginization, transliteration, code switching and other means. The work sets out to find out Ghanaian lexical items known as Ghanaianisms in Aidoo's *Changes*, Djoletto's *Money Galore* and Nyantakyi's *Ancestral Sacrifice* by categorizing the lexical items under the creativity category, interference category and deviation category. Each category has local classification markers out of which the various Ghanaianisms are grouped. The findings are that creativity category carried the greatest number of Ghanaianisms followed by interference category and finally deviation category. Taboos influenced the tilting of English lexical items to acquire meaning according to the Ghanaian culture. Also, GCWs use Ghanaianisms not for lack of vocabulary but for the sake of self-identity and avoidance of circuitous expressions.*



FACULTY OF TECHNICAL EDUCATION

Amoah, M., Kwarteng, F. O. & Kessels P. D. (2014) Bending properties and joint efficiency of some tropical hardwoods finger-jointed in green and dry states. *Journal of the Indian Academy of Wood Science*, 11 (1), 57-64 DOI 10.1007/s13196-014-0118-y

ABSTRACT

This study investigated the bending properties and joint efficiencies of some tropical hardwoods finger jointed in green and dry states. Two groups of finger jointed pieces were produced from mill off-cuts of four different tropical timber species using PVA (protovil D3). One group was produced from pieces initially kiln dried to approximately 12 % MC while the other group was produced from green pieces (approx. 25 % MC). Solid wood test samples, treated to similar MCs as the finger jointed samples, served as a reference group. The results showed that the joint efficiencies in MOE of test group finger jointed in dry state ranged between 58 and 89 % for medium and low density species, respectively. A much lower joint efficiencies in MOE were recorded for test groups finger-jointed in green state: 49.4 and 54.7 % for medium and low density species, respectively. For MOR, the minimum and maximum joint efficiencies for test group finger jointed in dry state were 14.5 and 50.7 %, respectively compared to 12.9 and 40.1 %, respectively for test group finger jointed in green state. The results show that the joint efficiency in stiffness appears to be much higher than that in strength. Low density tropical timber species appear to exhibit higher joint efficiency than medium density ones. The synergy between density and moisture condition of wood prior to finger jointing affects the joint efficiency in MOE while only the density of species affects the joint efficiency in MOR. Finger jointing lumber with PVA may be used for non-structural applications. Further research is required to obtain enough data to confirm the possibility of using low density tropical timber species finger jointed in dry state with PVA for structural applications

Wiafe, D. E., Amoah, M. and Bih, F. (2014). Determinants of Choice of Cane Furniture as Household Commodity among the Elites in Ghana. *International Journal of Ecological Economics & Statistics*, 34 (3), 83-92.

ABSTRACT

This study evaluated choice of people with higher level of education on cane furniture in Southern Ghana to provide information that could guide decisions of manufacturers and marketers of furniture. Data were collected using structured questionnaires administered on 712 selected respondents between June and August, 2013. The respondents were chosen from educated people with highest qualification ranging from HND to PhD levels. The questionnaire structured with rating scale of importance, excellent to poor ranking and strongly agreed to strongly disagreed statements on issues concerning factors that determine the choice of furniture in general and cane furniture to be specific. The results indicate that about 93% of the respondents considered the durability of the furniture material as paramount factor before they purchase it. But in terms of cane furniture, respondents ranked naturalness of the material first, secondly by attractiveness before durability as third among other factors. Kendal's coefficient of concordance indicated significant differences in the factors that determine the choice of cane furniture ($X^2 = 661.59, p=0.000$). The significance of the attributes that determine the choice of cane furniture varied according to the gender, age, highest education, programme of study and net salary level. The results support recommendation of adding value to and promotion of non-timber forest products and lesser known furniture materials.

Martin Amoah and Peter Kessels Dadzie. (2013) Preference for Wood and Plastic-Based Ceiling Panels by Homeowners in Ghana: Implications for Tropical Forests Conservation and Prospects for the Local Wood Industry: *Journal of Environmental Science and Engineering*, 2 (10), 637-650.

ABSTRACT

This study investigated the preference for wood and plastic-based ceiling panels by homeowners in Ghana, the implications for the conservation of tropical forests and prospects for the local wood processing industry. Questionnaire was used to solicit information from 758 homeowners sampled from three cities in Ghana. The results showed that even though wood-based panels continue to enjoy strong patronage among homeowners plastic-based panels appear to be the future material for ceiling. The findings suggest that, by 2030, homeowners in Ghana will use more plastic-based ceiling panels than wood-based panels, ceteris paribus. Attractiveness, durability and pleasantness are the key attributes of plastics that influence homeowners' decision to patronize the material. Additionally, the concern about the depletion of forest resources in Ghana has

shaped homeowners decision to patronize plastic-based ceiling panels. While the shift to the use of plastic-based panels has the potential to moderate the consumption levels of timber and therefore could contribute to the conservation of tropical forests, it has a negative implication on the development of local wood processing industry. One area where manufacturers of wood products such as wood panels can explore in order to increase or maintain the market share of wood-based panel products is sourcing raw timber from certified forests.

Mitchual, S. J., Frimpong-Mensah, K., & Darkwa, N. A. (2014). Evaluation of fuel properties of six tropical hardwood species for briquettes. *Journal of Sustainable Bioenergy System*, 4 (1), 1 - 9. Doi: 10.4236/jsbs.2014.41001

ABSTRACT

The fuel potential of six tropical hardwood species namely: Triplochiton scleroxylon, Ceiba pentandra, Aningeria robusta, Terminalia superba, Celtis mildbreadii and Piptadenia africana were studied. Properties studied included species density, gross calorific value, volatile matter, content, organic carbon and elemental composition. Fuel properties were determined using standard laboratory methods. The result indicates that the gross calorific value (GCV) of the species ranged from 20.16 to 22.22 MJ/kg and they slightly varied from each other. Additionally, the GCV of the biomass materials were higher than that of other biomass materials like; wheat straw, rice straw, maize straw and sugar cane. The ash and volatile matter content varied from 0.6075 to 5.0407%, and 75.23% to 83.70% respectively. The overall rating of the properties of the six biomass materials suggested that Piptadenia africana has the best fuel property to be used as briquettes and Aningeria robusta the worse. This study therefore suggests that a holistic assessment of a biomass material needs to be done before selecting it for fuel purpose.

Mitchual, S. J., Frimpong-Mensah, K., & Darkwa, N. A. (2014). Relationship between physico-mechanical properties, compacting pressure and mixing proportion of briquettes produced from maize cobs and sawdust. *Journal of Sustainable Bioenergy Systems*, 4 (10), 50 - 60. Doi: 10.4236/jsbs.2014.41005

ABSTRACT

This study examined the relationship between selected physico-mechanical properties, compacting pressure and mixing proportion of briquettes produced from combination of maize cob particles and sawdust of low, medium and high density timber species. Particle sizes of maize cobs and sawdust used for the study were ≤ 1 mm. The two materials were combined at mixing percentages of 90:10, 70:30 and 50:50 (Sawdust: maize cobs).

*Briquettes were produced at room temperature (28°C) using compacting pressures 20, 30, 40 and 50 MPa. The results suggested that combining maize cob particles with sawdust of low, medium and high density wood species could significantly enhance the relaxed density, compressive strength in cleft and impact resistance index of briquettes produced from agricultural biomass residue like maize cobs. The results further indicated that the physical and mechanical characteristics of briquettes produced from combinations of sawdust of low density species and maize cobs were exceptionally higher than that produced from combinations of maize cob particles, and medium density and high density timber species. The R values for the regression model between the independent variables (mixing percentage and compacting pressure) and relaxed density, compressive strength in cleft and impact resistance index of briquettes produced from combinations of maize cob particles and sawdust of low density species (*Ceiba pentandra*) were 0.966, 0.932 and 0.710 respectively. This study provides a hope for briquetting maize cobs at room temperature using a low compacting pressure.*

Mitchual, S. J., Frimpong-Mensah, K., Darkwa, N. A. & Akowuah J. O. (2013). Briquettes from combination of maize cobs and *Ceiba pentandra* at room temperature and low compacting pressure without a binder. *International Journal of Energy and Environmental Engineering*. 4(38), 7 pages. Doi: 10.1186/2251-6832-4-38.

ABSTRACT

*This paper reports the findings of densifying ground maize cobs and *Ceiba pentandra* sawdust at room temperature using low compacting pressure without a binder. The maize cobs were crushed using a hammer mill. Particle sizes of maize cobs and *C. pentandra* used for the study were ≤ 1 mm. The two materials were combined at mixing percentages of 90:10, 70:30 and 50:50 (*C. pentandra*/maize cobs). Briquettes were produced using a laboratory hydraulic press. Compacting pressure was varied from 20 to 50 MPa at an interval of 10 MPa. The results indicated that the relaxed density of briquettes produced from particles of maize cobs only ranged from 541 to 659 kg/m³ whilst that made from a mixture of maize cobs and *C. pentandra* ranged from 565 to 774 kg/m³. Compressive strength in cleft of briquettes produced from maize cobs only ranged from 0.12 to 0.54 N/mm whilst that produced from a combination of maize cobs and *C. pentandra* ranged from 7.72 to 59.22 N/mm. Additionally, at all compacting pressure levels, briquettes*

made from maize cobs only had an impact resistance index of 0%. Whilst those made from a combination of maize cobs and *C. pentandra* ranged from 115% to 500%. Thus, briquettes with adequate physical and mechanical characteristics could be produced from maize cobs at room temperature using low compacting pressure when maize cobs are combined with sawdust of *C. pentandra*. These findings could enhance the existing technology for densifying agricultural residues, for example, maize cobs, especially in rural communities.

Mitchual, S. J., Frimpong-Mensah, K., & Darkwa, N. A. (2013). Effect of species, particle size and compacting pressure on relaxed density and compressive strength of fuel briquettes. *International Journal of Energy and Environmental Engineering*. 4 (30) 6 pages. Doi:10.1186/2251-6832-4-30.

ABSTRACT

Densification of biomass waste materials has provided a great boost to the utilization of wood and agricultural waste for domestic and industrial fuel. However, the processes involved in the production of this fuel make it more expensive than fossil fuel. This is because densification of wood waste into fuel briquettes is not simple. This paper reports the results of research conducted to determine the effect of species, particle size and compacting pressure on relaxed density and compressive strength in cleft of briquettes produced from sawdust of tropical hardwoods. Briquettes were made using a laboratory hydraulic press. Compacting pressure was varied from 10 to 50 MPa at an interval of 10 MPa. Species used were *Triplochiton scleroxylon*, *Ceiba pentandra*, *Aningeria robusta*, *Terminalia superba*, *Celtis mildbreadii* and *Piptadenia africana*. The results indicate that species, compacting pressure and particle size of sawdust at 5% level of significance have significant effect on the relaxed density and compressive strength in cleft of briquettes produced. The multiple correlation coefficient (R) and adjusted R² for the regression model between relaxed density of briquettes, and species density, particle size and compacting pressure were 0.93 and 0.87, respectively. Additionally, the multiple correlation coefficient and adjusted R² for the regression model between compressive strength of briquettes, and species density, particle size and compacting pressure were 0.83 and 0.69, respectively. The regression models suggest that species density, particle size and compacting pressure are good predictors of relaxed density and compressive strength in cleft of briquettes produced from sawdust of tropical hardwoods.

Yalley, P. P. and Manu, D. (2013), Strength and durability properties of cow dung stabilised earth brick. *Journal of Civil and Environmental Research*. 3 (13), 117-125.

ABSTRACT

This research, reports on the investigation into the strength and the durability properties of earth brick stabilized with Cow dung. A local earth was stabilised chemically by Cow dung. A better compressive strength at the dry state and after 10 minutes of immersion in water was obtained with cow dung stabilisation at content of 20% by weight of earth. Bricks stabilised with 20% Cow dung contents by weight of earth has a dry and wet compressive strength of 6.64 and 2.27MPa respectively. There is an increased of about 25% in the dry compressive strength of bricks stabilised with 20% cow dung content over that of the plain earth brick without stabiliser The 20% cow dung content resulted in lower migration of water into the brick (i e. lower permeability). Also the abrasive resistance increased with increase in the cow dung content up to 20%. The highly decreased in compressive strength after 10 minutes of immersion in water, even with optimum Cow dung content, indicated that appropriate building design that would prevent stabilised earth bricks from coming into direct contact with rainwater is important. The study recommends that appropriate construction specification is necessary to prevent cow dung stabilised earth bricks from coming into any prolonged direct contact with rainwater.

Yalley, P. P. & Kwan, A. S. K (2013) Use of waste and low energy materials in building block construction. *International Refereed Journal of Engineering and Science*. 2 (11), 1-5.

ABSTRACT

A newly proposed concept of a plastic carton soil blocks as masonry units for low-cost environmentally friendly construction is proposed. A test system was designed to perform rigorous and comprehensive measurements on seven types of soil block specimens encased in thermoplastic cartons. The cartons were similar to “ice cream tubs” of dimensions 165x60x120mm, thus making a building block/brick of reasonable handling size. Some of the test specimens also had soil mixed with palm or plastic fibres. The soil content was placed in the plastic cartons and compacted with compaction table and then with a compression machine before testing for strength. Thermoplastic carton soil blocks without the addition of fibres as an enhancement were measured with a minimum compressive strength of 17.5MPa. In the case of the fibre enhanced soil block, the compressive strength increased with increase in fibre content. With fibre addition of 1.5% (by weight), the compressive strength of the thermoplastic cartons increased by 28.5% and 38% respectively for palm and plastic fibres, over the plain thermoplastic carton soil block without fibres. Additionally, stiffness is also greatly improved.

Yalley, P. P. and Asiedu, E, (2013), Enhancing the Properties of Soil Bricks by Stabilising with Corn Husk Ash, *Journal of Civil and Environmental Research*, 3 (11), 43-52.

ABSTRACT

A study was conducted to investigate the potential of corn husk ash as an enhancer for the production of soil blocks for low cost housing. Five different levels of stabilisation (0%, 5%, 10%, 15% and 20%) using corn husk ash were adopted for this study. Fifteen blocks were moulded for each stabilisation level. In all a total of 75 blocks were moulded and subjected to the compressive strength, abrasion resistance and water absorption by capillarity tests after curing for 28 days and compared with the relevant standards of compressive earth blocks. In general, there was a significant improvement in the compressive strength characteristics of the stabilized soil blocks. From the compressive strength test results, compressive strengths of 4.177MPa, 4.380MPa and 4.053MPa were obtained for blocks admixed with 0%, 5% and 10% corn husk ash respectively. Soil blocks mixed with 20% corn husk ash had the highest compressive strength of 5.311MPa followed by blocks which had corn husk ash addition also with a compressive strength of 4.917MPa. The water exclusion and the abrasion resistance properties also showed significant improvement as the quantity of corn husk ash increases. There was a significantly strong negative correlation of 0.754 existed between the abrasion coefficients and the water absorption coefficients of the soil blocks. Stabilizing of soil with corn husk ash can improve the properties of soil and soil blocks making the suitable for use as a building material for the construction of load bearing walls.

Yalley, P. P. and Zievie, P. (2013), Stabilisation of Bricks with Shea Butter Residue for Housing, *International Journal of Civil Engineering Research*, 4 (3), 213-222.

ABSTRACT

Investigations were conducted on the bricks without stabilisation and with chemical stabilisation by adding 2%, 4%, 6%, and 8% of shea butter oil processing residue "shea butter residue" weight of soil and its effect on the dry density, compressive strengths, abrasive resistance and water absorption coefficients at different moistures contents were analysed after 28-days of air curing. A local Kaleo-Wa, Ghana soil was chemically stabilised by shea butter residue. A better compressive strength was obtained with shea butter residue stabilisation, and best values were obtained at shea butter residue content of 4%. Optimal water content was sought to get higher strength and higher durability.

Abrasive resistance increased with increase in the shea butter residue content. This then implied that the shea butter residue in the brick helped to reduce wear of the bricks from external factors. shea butter residue stabilisation reduced substantially the absorptivity from 3.06% for 0% shea butter residue content to 2.79%, 2.53%, 2.36% and 2.22% when the shea butter residue content was 2%, 4%, 6% and 8% respectively. shea butter residue content in the blocks thus resulted in lower migration of water into the bricks (i.e. lower permeability). Bricks stabilised with shea butter residue are largely dependent on local readily available raw materials and labour and are appropriate building materials which should be a viable alternative to the more expensive building materials such as shea butter residue stabilised soil blocks currently used in Ghana for walling of low cost housing.

Ababio -Ohemeng, E and Yalley, P. P. (2013). Models for predicting the density and compressive strength. *Journal of Construction and Building Materials*, 47, 656-661.

ABSTRACT

The influence of rubber content within the range of 0–60% as the replacement for sand volume and water cement (W/C) ratio of (0.20–0.35) on the density and compressive strength of concrete pavement blocks (CPBs) was investigated. All the mixtures were proportioned with a fixed aggregate/cement ratio of 5.25. Based on the experimental results, the density and transformed compressive strength for rubberized concrete pavement blocks (RCPBs) were calculated by considering the dependent factors of rubber content and W/C ratio. Models derived based on the results from experimental work are proposed to predict the density and compressive strength of RCPBs. A model was developed to predict the density of Rubberized concrete pavement blocks. Water–cement ratio was found to have significant effect in predicting the density of concrete pavement blocks. Rubber content was found to have significant effect in predicting the density of concrete pavement blocks.

Kheni, N.A. (2014). Sustainable Waste Material Management: The role of HND programmes in Ghana. *International Refereed Journal of Engineering and Science*. 3 (1), 15-23.

ABSTRACT

Sustainable waste management is important for achieving sustainable construction. The increasing rate of deterioration of the environment coupled with the need for basic developmental needs underscore the need for sustainable construction waste materials management (SCWMM).

A survey was conducted with the aim of examining knowledge requirements of Higher National Diploma (HND) programmes in relation to sustainable waste material management in construction alongside construction professional training with Tamale Polytechnic in Ghana as a case study. Questionnaires were administered to a sample of 34 continuing students, 11 graduates employed in the construction sector, and 7 teaching staff. The results demonstrate that training does not adequately address key sustainable waste material management practices such as design solutions to waste materials generation, recycling and sorting of waste materials. Also, graduates perceive this aspect of their role challenging with their training offering them little knowledge to solve practical problems bordering on issues relating to sustainable waste material management. The paper makes recommendations for implementing measures that will address the requirements of SCWMM at the HND level of polytechnic education in Ghana and other developing countries practicing similar educational system.

Kheni, N. A. & Braimah, C. (2014). Institutional and Regulatory Frameworks for Health and Safety Administration: Study of the Construction Industry of Ghana. *International Refereed Journal of Engineering and Science*. 3 (1), 24-34.

ABSTRACT

The construction industry contributes to a significant proportion of industrial accidents and ill health. An enabling institutional and legal environment is necessary to enhance the health and safety performance of any occupational setting, particularly the construction industry. The study examines the institutional and legal environments relating to health and safety management in the construction industry of Ghana. Questionnaires were administered to a sample of contractors followed by semi-structured interviews involving factory inspectors, labour officers and consultants of the built environment. The results suggest five key factors contribute to ineffective health and safety management within the construction industry namely; lack of adequate resources for enforcing agencies, lack of empowerment of construction operatives to participate in health and safety management, several government departments responsible for occupational health and safety management, fragmented regulations relating to construction health and safety management and lack of education on relevant occupational health and safety regulations. The paper concludes by making recommendations based on the analysis of the institutional and legal environments within which Ghanaian construction companies manage health and safety.

Danso, H. (2013). Building Houses with Locally Available Materials in Ghana: Benefits and Problems. *International Journal of Science and Technology*, 2 (2), 225-231. http://www.journalofsciences-technology.org/archive/2013/feb_vol_2_no_2/feb_2013.php

ABSTRACT

The purpose of this paper was to empirically examine the major benefits and problems with houses constructed with local materials in a developing country. The study was a cross-sectional survey of fifty respondents using structured questionnaire. The study found promotion of cultural heritage, abundance of material in the locality, provision of cool room temperature and availability and affordability of local building materials as the major benefits of houses built with locally available materials in Ghana. However, low strength, lack of maintenance, requirement of increased labour work and easily wearing or erosion of the materials were found to be the major problems associated with houses built with locally available materials in Ghana. Recommendation for adoption and improvement of the locally available materials for building houses are made. This paper contributes to the body of knowledge in the area of building materials in developing country context.

Danso, H. & Manu, D. (2013). High cost of materials and land acquisition problems in the construction industry in Ghana. *International Journal of Research in Engineering & Applied Sciences*, 3 (3), 18-33. <http://www.euroasiapub.org/IJREAS/mar2013/3.pdf>

ABSTRACT

The main purpose of the study was to investigate the major causes of high cost of building materials and land acquisition problem which was part of a larger study that assessed the problems in the construction industry in Ghana. Data were collected from 16 contractors, 36 engineers/architects and 16 consultants through self-completion questionnaire. The findings reported were based on five-point Likert-type items relating to causes of land acquisition problem and high cost of building materials problem. Descriptive statistics, one-way analysis of variance at 0.05 level of significance and Gabriel's post hoc test were used to analyse the data. The results indicate that the highest ranked item of cause of land acquisition problem was sale of land to multiple users, and the highest ranked cause of high cost of building materials was high cost of manufacturing of materials in the construction industry in Ghana. Recommendations for Government and Authorities in the construction industry have been discussed. The study contributes to the literature on construction management in the context of developing countries.

Danso, H. & Nimako, S. G. (2013). Examining the undergraduate Construction Technology Students' use of computer and Internet in UEW: A Structural Equation Modelling Approach. *International Journal of Scientific & Technology Research*, 2 (4), 90-98. <http://www.ijstr.org/research-paper-publishing.php?month=apr2013>

ABSTRACT

This paper empirically examines the use of computer and Internet facilities among the undergraduate construction technology students in UEW, Ghana. The study was a cross-sectional survey of 499 respondents using structured questionnaire personally administered. A usable 358 questionnaire were returned, representing 71.7% response rate and analysed using Structural Equation Modelling approach. The findings indicate that access to Internet, classroom based learning with Internet and non-classroom based learning with Internet could be influenced by students' computer use. It also provides important implications for educational management in higher education level. This paper contributes to the body of knowledge in the area of computer application in education.

Danso, H. (2013). Construction students' awareness of CAD programs of polytechnics in Ghana. *Global Journal of Engineering, Design & Technology*, 2 (3), 19-23. <http://www.gifre.org/admin/papers/gjedt/CONSTRUCTION.pdf>

ABSTRACT

Today, computers are being used by nearly everyone in the construction industry, be it fresh graduates or experienced construction professionals. It has become therefore imperative that at the higher education level, students would be introduced to computer application software relevant in their area of specialization. The purpose of this study was to assess the level of awareness and usage of CAD programs by students in Polytechnics offering Civil Engineering and Building Technology programs in Ghana. The study was a cross-sectional survey of 247 respondents using structured questionnaire. It found that 76.9% of the respondents knew at least one CAD software program, while shockingly 23.1% of the respondents did not know any of the CAD programs at all. In addition, it found AutoCAD as the dominant CAD program among the Polytechnic students in Ghana. Another worrying finding was that, 27.1% of the students do not use any of the CAD programs at all as against 72.9% who used at least one of them. The study concludes that though majority of the students knew and used CAD programs, much needs to be done to ensure application of the CAD software by all students.

Gyadu-Asiedu, W., Danso, H. & Asubonteng, J. A. (2013). Assessment of the Performance of Local and Foreign Road Construction Firms in Ghana. *The International Journal of Construction Management*, 13 (4), 53-73. http://www.bre.polyu.edu.hk/ijcm_Abstract/Abstract_2013.htm

ABSTRACT

The apparent imperfect competition that exists between local and foreign construction firms, coupled with the perception that governments give most of the big projects to the foreign firms has brought about the need to undertake a comparative study. The aim of this study was to determine whether there is a significant difference between the performance of local and foreign road construction firms in Ghana. The study involved a cross-sectional survey that used structured questionnaire administered to 69 respondents of road construction professionals. The results ranked foreign firms significantly higher than their local counterparts in terms of effective cost management, time management and quality management practices at 95% confidence level. Therefore, the study found the foreign road construction firms more efficient in terms of performance (cost, time and quality) than their local counterparts in Ghana.

Nimako, S. G., Danso, H. & Donkor, F. (2013). Using research workshop to assist senior members development competency in academic writing in a public university. *Journal of Studies in Social Sciences*, 5 (2), 301-327. <http://infinitypress.info/index.php/jsss/article/view/436/229>

ABSTRACT

Academics are expected to have good academic writing expertise since writing scholarly articles and getting them published in scholarly journals is a core activity in the career of an academic. The paper reports on an intervention to assist senior members (SMs) with limited experience in writing research papers to improve upon their academic writing expertise. The main intervention was the use of a five-day research workshop. Fifteen SMs of the College of Technology Education, Kumasi of the University of Education, Winneba in Ghana participated in the workshop. Interviews and structured questionnaire were used to collect data on perceived improvement in respondents' academic writing expertise after their participation in the workshop. The results showed that, through the workshop, there was significant improvement in participants' motivation for academic writing, and writing effectively the main sections of a research paper (e.g. Introduction and the problem statement, literature review and hypotheses, data analysis, methodology, discussion and implication, and conclusion). Implications and recommendations for management have been discussed and limitations have been noted. The study contributes to the literature on faculty development in higher education.

Amedorme, S. K., & Fiagbe Y. A. K. (2013). Challenges Facing Technical and Vocational Education in Ghana. *International Journal of Scientific & Technology Research*, 2 (6), 253-255.

ABSTRACT

Technical and vocational education and training (TVET) in Ghana is facing a number of challenges. The problems ranging from the limited number of technical institutes available in the country, lack of facilities and materials for training students, inadequate technical teachers or facilitators, limited number of training institutions for technical teachers and difficulty in career progression to the negative public attitudes and perceptions towards technical and vocational education and training in Ghana. In this paper, these challenges confronting TVET and the pertinent issues are discussed with the aim of recommending ways of addressing them.

Amedorme, S. K., & Fiagbe, Y. A. K. (2013). Investigation of Braking System (Efficiency) of Converted Mercedes Benz Buses (207). *International Journal of Science and Technology*, 2 (11) 754-762.

ABSTRACT

Road accidents as a major cause of misery, morbidity and mortality in Africa particularly in Ghana have been of considerable concern to the general public. More worrying is the accidents involving Benz 207 buses. Mercedes Benz “207” bus when brought into the country is converted to passengers’ bus by artisans in ‘fitting workshops’ in and around the country. This conversion increases the gross weight, affects the suspension and the stability of the vehicle. Also, a serious effect is that the performance of the braking system may be affected. This paper highlights the braking efficiency of the converted Mercedes Benz 207 bus as against that of the original and compared to the safest degree of efficiency required for the buses. The gross weight of the original bus was increased by an average of 20% after conversion. The results show that 60% of the buses have no parking brakes and between 20%-30% were having defective or no rear brakes. Also, 70% of the converted buses have their braking efficiencies decreased whilst 20% had increased braking efficiency with rest remaining unaffected. It was again observed that 60% of the original buses tested fell within the standard value required for the front imbalance and 50% of the converted buses exceeded the maximum value for the front imbalance.

Amedorme, S. K., & Agbezudor, K. (2013). Investigation of Vehicle Alterations and Modifications at Suame Magazine in Kumasi, Ghana. *International Journal of Mechanical Engineering Research & Applications*, 1 (4), 48-53.

ABSTRACT

This research paper highlights on various modifications done to vehicles at the Suame magazine in Kumasi, Ghana and describes with their specifications the suspension (leaf spring) alteration, chassis frame modification, construction of seats and fixing of glass modifications done on the vehicles. The average ground height of the vehicles were increased and were found to be between 60.9 cm to 76.2 cm (2 to 2.5 feet) due to suspension alteration. It was observed that most of the modification processes done to the vehicles in Suame magazine were done from the experience the artisans acquired over the years. The artisans do not follow the laid down procedure in engineering design during the alteration process. It is recommended among others that the Driver, Vehicle and Licensing Authority (DVLA) should stop licensing the converted vehicles or at best license those that are tested or approved by the Authority or by the vehicle manufacturers before the modifications.

Amedorme, S. K., Apodi, J., & Agbezudor, K. (2013). Design and Construction of Forced Convection Indirect Solar Dryer for Drying of moringa leaves. *Scholars Journal of Engineering and Technology*, 1 (3), 91-97.

ABSTRACT

Drying of moringa leaves is a preservation activity done by farmers and herbal practitioners. The most common way to do this is to place the leaves on a mat, floors etc. and leave it in the open to dry. This process takes a long time and makes the leaves subjected to attack by the weather, animals and insects. It also affects the quality, nutritional values and the potency level of the leave when exposed to the direct sunlight. This paper outlines systematic design and construction of indirect forced convention solar crop dryer for drying moringa leaves and presents the results of calculations of the design parameters. A batch of moringa leaves 2 kg by mass, having an initial moisture content of 80% wet basis from which 1.556 kg of water is required to be removed to have it dried to a desired moisture content of 10% wet basis, is used as the drying load in designing the dryer. A drying time of 24-30 h is assumed for the anticipated test location (Kumasi; 6.7oN, 1.6oW) with an expected average solar irradiance of 320 W/m² and ambient conditions of 25oC and 77% relative humidity. A minimum of 0.62 m² of solar collection area, according to the design, is required for an expected drying efficiency of 25%. The dryer was constructed using locally available materials. It is recommended

that a test under full loading conditions should be carried out in order to know if all the design parameters have been met and laboratory experiment should also be done to know the effects on the nutritional values of the moringa leaves when sun dried and solar dried.

Agbezudor, K., & Amedorme, S. K. (2013). Construction of a Vertical Axis Sail Windmill for Pumping Water for Irrigation Purposes in Ghana. *Global Journal of Engineering, Design & Technology*, 2 (6), 1-6.

ABSTRACT

Wind pumping in many instances represents the most effective and economic alternative in areas where other forms of energy are difficult or expensive to obtain. In a developing country like Ghana there exists many opportunities for which wind power can be used effectively and economically to pump water. This paper highlights the construction of a sail windmill with a view to converting the kinetic energy of the wind into reciprocating or rotating motion at the end of the handle of a hand pump which is to be used for pumping underground water from a hand-dug well or bore hole and where possible to generate some amount of electrical power. The technical and economic problems encountered in the construction and steps taken to solve these have been reported. The present construction which has a mechanism that enables the mill to work at very low wind speeds is also capable of delivering a high starting torque. The windmill was locally made using the local materials, skills and tools. The durability and reliability of the windmill was ensured by using quality and chemical-resistant materials.

Amedorme, S. K., Agbezudor, K. & Sakyiama, F. K. (2014). Converting Polytechnics into Technical Universities in Ghana Issues to Address. *International Journal of Education and Research*, 2 (5), 523-528.

ABSTRACT

Ghana has been grappling with unemployment for some time now especially among the tertiary school graduates. One problem contributing to this is the lack of requisite practical and job oriented training in the tertiary schools. This problem has called for the entrenchment of polytechnic education so that graduates can acquire self-employable skills before leaving school. But the polytechnics in Ghana has not been able to achieve this target fully since they are confronted with a lot of problems including poor and inadequate machines and equipment to train students, lack of qualified lecturers, ill-defined academic progression and career advancement pathways, as well as unfair salary and remuneration packages for lecturers. Others are poor infrastructural development

and facilities, societal attitude towards polytechnics and poor funding. This paper discusses and analyses the problems in the polytechnics education in Ghana and the attempt by Ghana government to change the polytechnics to technical universities and come out with some recommendations.

Opoku-Mensah, E., Abilimi, A. C., & Boateng, F. O. (2013). Comparative Analysis of Efficiency of Fibonacci Random Number Generator Algorithm and Gaussian Random Number Generator Algorithm in a Cryptographic System. *Computer Engineering and Intelligent Systems*, 4 (10), 50 – 57.

ABSTRACT

Random Numbers determine the security level of Cryptographic Applications as they are used to generate padding schemes in the encryption and decryption process as well as used to generate cryptographic keys. The more randomness in the numbers a generator generates the more effective the cryptographic algorithm, and the more secured it is to be used for protecting confidential data. Sometimes developers find it difficult to determine which Random Number Generators (RNGs) can provide a much secured Cryptographic System for secured enterprise application implementations. Two of such random number generators include the Fibonacci Random Number Generator and the Gaussian Random Generator. The researchers sought to determine, between these two, the better to be used for improving data security in cryptographic software systems. The researchers employed statistical tests like Frequency test, Chi-Square test, Kolmogorov-Smirnov test on the first 100 random numbers between 0 and 1000 generated using the above generators. The research concluded that Fibonacci Random Number Generator is more efficient than the Gaussian Random Number Generator and therefore recommended the choice of Fibonacci Random Number Generator when choosing between the two for use in a cryptographic system for better data security.

Antwi, P. K., Nyame, G., & Boateng, F. O. (2013). Participatory Community-Based Management Information System: The Rural Enterprises Project in Perspective. *International Journal of Science and Technology*, 2 (12), 869 – 878.

ABSTRACT

Rural Enterprises Project (REP) is an integrated Micro and Small-scale Enterprise (MSE) development package aimed at involving beneficiary communities in monitoring and evaluating interventions supported by the district assemblies so as to make local people own and sustain these projects. This paper assesses the mediating role of a Participatory

Community-Based Management Information System (PCBMIS) for the management of rural enterprises project in the context of assisting both project management and clients to monitor and evaluate business growth performance. The Asuogyaman District Assembly (ADA) was purposively selected for the study because it is a participating project district of the Rural Enterprises Project in the Eastern Region of Ghana. This permitted an assessment of the rural entrepreneurial poor as both object of poverty and agent of poverty reduction. 115 survey questionnaires were sent to REP clients and District Assembly staff. A sample size of 106 was used, given a margin of error of 7% and a population size of 219. The PCBMIS was used and this constituted software tools such as the Graduated Colour Evaluation (GRACE), the Rural MSE Growth (RUMSEG) application, and Geographic Information System (GIS). The study established that there was low level stakeholder participation in REP monitoring and evaluation activities, resulting from lack of a computer-based mechanism for generating adequate data for effective policy direction on growth performances of rural micro enterprises, and hence a negative effect on revenue mobilization. Thus, the PCBMIS is a recommended tool to support the planning and control functions of all stakeholders involved in rural micro enterprises project.

Nyame, G., Boateng F. O., Gyamfi, N. K., & Asabere, N. Y. (2013). ICTs and Supply Chain: The Competitiveness of Small and Medium Scale Enterprises (SMEs). *International Journal of Innovative Technology and Exploring Engineering*, 3 (2), 203 –209.

ABSTRACT

The number of Small and Medium Enterprises (SMEs) operating in the Adum Central Business District (CBD) of Kumasi, Ghana continues to grow at an increasing rate, but still they do not conform to the right standards and appropriate parameters. No matter what business activities they embark on some Information and Communication Technologies (ICTs) can be effectively used to enhance their operations. This paper finds out the adequacy of dissemination of ICTs and its level of deployment in the operations of SMEs of trade businesses in the Adum CBD and establishes the level of awareness of computers and their related technologies among owner-managers. In order to do an in-depth assessment of the situation, the CBD was put into zones A, B, and C and enterprises were selected at random. Interview procedures and administered questionnaires were used to obtain data for analysis. In effect, the study established that though the level of awareness is high, only 23% of these SMEs use computers whilst 49% use mobile phones to support their businesses. Also, 54% of these enterprises do not have access to the Internet. Thus, the exploitation and deployment of ICTs remain a greater challenge to

these enterprises. It is recommended that the Ministry of Trade and Industry and other stakeholders organize programmes to enlighten owner-managers on the prospects of using ICTs to gain competitive advantage. In addition, the ICT industry must be revamped and freed from bottlenecks surrounding access to hardware and software.

Abagale, F. K., Kyei-Baffour, N., Ofori, E. and Mensah, E. (2013). Types and seasonal diversity of helminth eggs in wastewater used for peri-urban vegetable crop production in Tamale Metropolis, Ghana. *Journal of Current Research*, 5, (11), 3354-3359 <http://www.journalcra.com> ISSN 0975-833X

ABSTRACT

*Thirteen (13) different types of helminths were identified for both the wet and dry seasons with the dry season recording eight (8) different helminths and the wet season recording nine (9) different helminths. The typical fertile *Ascaris lumbricoides* and *Strongyloides stercoralis* as well as *Schistosoma mansoni* were observed to be the most predominant types of helminths in both seasons and this may be due to their environmental tolerance and resistance. *Ascaris lumbricoides* was the most predominant species recorded with arithmetic mean population of 12 and 17 for wet and dry season respectively. Exceeded the recommended level of <1 egg/liter for unrestricted irrigation (WHO, 1989). Variable concentrations of helminth eggs were recorded for the dry season and wet season for the period of study. During the current study, all the recorded helminths were noted to have a population density ranging from 2 to 17 eggs with a coefficient of variation being between 0 and 85%. Commonly observed dominant species of *Ascaris lumbricoides* and *Strongyloides stercoralis* for both seasons, a higher dominance index of 0.58 for the wet season was recorded compared to 0.52 for the dry season. Also, environmental factors such as temperature, sunshine amount and duration, rainfall, and so on, have been noted to impact greatly on the occurrence and concentration of helminth eggs in wastewater of a particular locality. These were noted to have contributed largely to a high number of helminth eggs in the wet season as compared to the dry season.*

Atta-Darkwa, T., Kyei-Baffour, N., Ofori, E., Mensah, E. and Agyare, W. A. (2013). Quantification of groundwater recharge in the River Oda catchment using the watertable fluctuation method. *Global Journal of Engineering, Design and Technology*, 2 (1): 96-103. www.gifre.orgISSN 2319-7293

ABSTRACT

Quantification of groundwater recharge differs in their methods of estimation and therefore gives variable recharge estimates whenever a groundwater system is evaluated. Quantifying the fraction or the percentage of infiltrated water which reaches the watertable is a key factor in any sustainable planning scheme for groundwater resource management. The watertable fluctuation method was used to evaluate the seasonal and annual variations in water level rise and to estimate the groundwater recharge. The results showed that annual water level rise ranged from 1105-3115 mm in 2009 and from 397-3070 mm in 2010. A range of specific yields have been extracted from the values determined from the soil textural classification triangle. The estimated recharge for the study area ranged from 133-467 mm for the fourteen (14) piezometers installed for the study, representing 9-31% of the 2009 annual rainfall and 47.6-427.9 mm, in 2010 representing 4-34 % of the annual rainfall. The area-weighted mean recharge was 341 mm in 2009, representing 21 % of the mean annual rainfall and 276 mm in 2010, representing 22 % of the mean annual rainfall. Also results of groundwater recharge rates for three monthly periods showed that March-May experienced the highest recharge rate in 2009 and April-June in 2010. The lowest recharge rate was showcased from November-January with 26.4 mm and December-February with 26.9 mm. The recharge rates show that in the drier season around December, irrigation water should be applied based on the cropping season to obtain optimal moisture content and watertable levels.

Atakora E. T., N. Kyei-Baffour, E. Ofori & B. O. Antwi. (2013). Simulation of sediment transport to *Sawah* rice fields by applying the water erosion prediction project (WEPP) model to a watershed in Ghana. *Journal of Soil Science and Environmental Management*, 4 (3), 46–53. ISSN 2141-2391 Academic Journals

ABSTRACT

*Inland valleys are being used under the *Sawah* technology for rice production to reduce rice imports to Ghana. *Sawah* technology is assumed to benefit from geological fertilization. However, there is no quantitative information on runoff and sediment flows in the agricultural watershed of Ghana. This study was carried out at Biemso in the southern part of the country. The aim was to estimate runoff and sediment transport*

using the water erosion prediction project (WEPP) model (version 2006.500), from hillslope to the valley bottom where rice is cultivated using the Sawah technology. A digital elevation model (DEM) was created from ground survey and used to select the various plots (hillslopes) and to select slope input parameters. Four plots (hillslopes) were selected for the model simulation. Data on local daily values of rainfall and on minimum and maximum temperatures were used to set a CLIGEN model station file to determine climate input parameters for the model. Rainfall characteristics (erosivity and distribution) were analysed. Soil erodibility was also determined. Soil and crop management input parameters required by the model were identified and or estimated from field measurements and secondary sources. The model was run for two management scenarios: Fallow and continuous maize systems. The results of the simulation showed that 2.9-3.9 and 6.8-10.2 t/ha/y of sediments were eroded from upper catchment to valley bottom under fallow system and maize, respectively. The range of values for runoff produced under fallow was 17.4-40 mm whereas that under maize system was 158.7-233.62 mm. The study has shown that landuse system in the study area has a great influence on geological fertilization. In addition, the valley bottom where rice is produced under the Sawah system is enriched with organic matter from upslope.

Kotei, R., Kyei-Baffour, N., Ofori, E. and Agyare, W.A. (2013). Establishment of rainfall-intensity-duration (IDF) curves for Mampong-Ashanti Municipal area of the Ashanti Region. *APRN Journal of Engineering and Applied Sciences*, 8 (9), 693-698. www.aprnjournals.com ISSN: 1819-6608

ABSTRACT

The paper presents intensity-duration-frequency (IDF) curves developed for the Mampong-Ashanti Municipal area using autographic rainfall data. The intensity-duration-frequency relationship is a mathematical relationship between the rainfall intensity, the duration and the return period commonly required for planning and designing of various hydrological resource projects. Many sets of relationships have been developed and used in several parts of the world. This relationship was determined through statistical analysis of samples of records collected from the catchment's meteorological station. Mampong-Ashanti Municipal area in the Ashanti Region of Ghana has a daily rainfall recording rain gauge. A total of six different durations ranging from 5 minutes to 60 minutes for return periods of 1, 2, 3, 4, 6, 7, 11 and 22 years were analyzed. The IDF curves for the area were developed using the available rainfall data, Weibull plotting position and empiricism.

Kotei, R., Kyei-Baffour, N., Ofori, E. and Agyare, W.A. (2013). Changes in the Sumampa streamflow flashiness in the forest-savannah transitional zone, Mampong-Ashanti, Ghana from 1985-2009. *APRN Journal of Engineering and Applied Sciences*, 8 (9), 770-778. www.aprnjournals.com ISSN: 1819-6608

ABSTRACT

The Sumampa stream is located in the Municipal capital of Mampong-Ashanti in the forest-savannah agro-ecological zone of the Ashanti Region in Ghana. The study investigated the changes in the flashiness of the Sumampa stream as a result of increasing human activities in the catchment by assessing the stream's path length and Richards-Baker's new flashiness Index (R-B Index), annual and decadal variation in the flashiness Index using daily flow data from 1985 to 2009. The daily flow data was generated from the stream's daily stage data using the stream's rating curve developed by the Department of Hydrology, Kumasi, Ghana. The landuse change scenarios and the rainfall trend coupled with 43.8% of catchment land on 5-10o slope represent a potentially high erosion risk and an important factor to influence flashiness in a fast expanding urban catchment. The stream R-B Index dropped by 12.15% and the flow pathlength by 13.89% in 2000-2009 decade. The total decadal stream discharge also decreased by 35.22% in the 2000-2009 decade. The daily stream flow hydrograph shows a decrease in the stream's flashiness between 1989 and 2006 after which it increased above the mean period flashiness index. The increase in R-B Index after 2006 was due to rapid expansion and rehabilitation of urban facilities and is regulated by a sharp increase in agricultural activities for livelihood

Kotei, R., Ofori, E., Kyei-Baffour, N. and Agyare, W.A. (2013). Landuse changes and their impacts on the hydrology of the Sumampa catchment in Mampong-Ashanti, Ghana. *International Journal of Engineering Research & Technology*, 2 (8), 2533-2549. www.ijert.org ISSN: 2278-0181

ABSTRACT

The study determined changes in landuse and cover characteristics and their impacts on the hydrology of the Sumampa catchment. Maps used in the study were prepared by the Arc View GIS dataset. Landuses identified in the area were urban, agricultural and forests. The streamflow was partitioned by means of PART and RORA software programmes. Monthly, annual and decadal streamflow data were generated from daily stage data using the stream's rating curve. Annual vigorous regrowth of the vegetation after lumbering, firewood harvesting, agricultural activities and bushfire coupled with increased mean monthly Eta were found to be the major reasons for the 12.25% decrease

in the annual mean streamflow. Also, 35.22% degraded forest, 110.46% increase in urban area, 139.20% increase in arable land area, 104.09% increase in the area of secondary forest and temperature rise of 1.16% were found to be responsible for the increase in daily mean Eta by 10.2%, and the mean decadal major seasonal flow by 36.32%.

Ofori E, E. T. Atakora, N. Kyei-Baffour and B. O. Antwi. (2013). Relationship between landscape positions and selected soil properties at a Sawah site in Ghana. *African Journal of Agricultural Research*, 8 (27), 3646-3652. <http://www.academicjournals.org/AJAR> ISSN 11991-637X

ABSTRACT

A study was conducted at a Sawah site in Ghana to examine the relationship between landscape position and some selected soil properties with the aim of generating adequate data for modelling landscape relationships and to aid both researchers and farmers in taking critical management decisions. Soil properties namely total porosity, moisture content, infiltration rates, hydraulic conductivity, sand content, silt content, clay content, gravel concentration, bulk density, soil pH, total nitrogen, soil organic matter and cation exchange capacity were collected and analysed. Data were collected at the foot slopes, middle slopes and at the upper slopes from four major landuses (maize, oil palm, natural vegetation and plantain) in the study area. Simple statistical parameters such as mean and standard deviation were used to analyse the data. Moisture content, total porosity, soil pH, organic matter and carbon and total nitrogen increased downslope whilst sand content, clay content, bulk density occurred at upper slopes decreased downslope. Management practices appeared to have influenced infiltration rate, hydraulic conductivity and silt content.

Kotei, R., Kyei-Baffour, N., Ofori, E. and Agyare, W.A. (2013). Rainfall trend, changes and their socio-economic and ecological impacts on the Sumampa Catchment for the 1980-2019 period. *International Journal of Engineering Research & Technology*, 2 (6), 578-590 www.ijert.org ISSN: 2278-0181

ABSTRACT

The study investigated trend and variability of rainfall in the Sumampa catchment by assessing daily, monthly, annual and decadal changes from 1980 to 2009. Monthly, seasonal and annual data were computed from the daily data series and graphically and statistically analysed to detect trend, changes and variability. The mean daily rainfall for the dry, minor and major seasons increased respectively by 63.9%, 17.57% and 11.84%

in the 2000-2009 decade. The mean daily and decadal rainfalls respectively increased by 11.07% and 6.24% in 2000-2009. 56.33% and 32.44% of rainfall were respectively recorded in the major and minor cropping seasons. The Augmented Dickey-Fuller Test (ADF test) shows statistical evidence of stationary series ($p = 0.01$); the ARIMA model and the Holt-Winters method forecasted maximum amount of rainfall in the month of June and the minimum in January with no general trend of increase or decrease over the ten year period.

Kyei-Baffour, N. E. Ofori, E. Mensah, W. A. Agyare and T. Atta-Darkwa. (2013). Modelling groundwater flow of the Besease Inland Valley Bottom in Ghana. *Global Journal of Biology, Agriculture and Health Sciences*, 2 (1), 52-60. www.gjfre.org ISSN 2319-5584

ABSTRACT

The harsh climate, shallow and erodible soils of low fertility uplands have led to farmers extending their cultivable areas to wetlands for optimal crop production since these systems have the potential for irrigation in the dry season. Inland valleys have been cited as having high potential for development of rice-based, small-holder farming systems at the village level, due to their specific hydrological conditions and relatively high soil fertility. This paper applies a 3D groundwater flow model, PM-WIN MODFLOW to simulate the groundwater heights of the two layered alluvial aquifer of the Besease Inland Valley Bottom. Groundwater recharge estimates from the watertable fluctuation method was used as the recharge input into the model. The results showed that groundwater levels ranged from 259.10-259.97 m in the wet season and 258.19 -258.86 m in the dry season for the simulation period. It also exhibited a form of interaction between the inland valley wetland and the bordering Oda River which varied over time depending on the river stage. The values for storage from the model were substantial and indicated the temporal variability in the watertable with continuous movement of water to and from storage over an annual cycle. Sensitivity analysis was performed, and model outputs were found to be highly sensitive to the catchment parameters such as horizontal hydraulic conductivity, specific yield and specific storage. The model helps to unravel the relationship between recurrent spatial and temporal patterns of watertable response within the inland valley bottom and their controlling factors.

Ofori, E., Ayer, J., Mensah, E., Kyei-Baffour, N. & Sosa, I. A. (2013). Assessing the impact of long-term *hevea brasiliensis* (para rubber) plantation on soil dry bulk density and porosity in a semi-deciduous forest environment in Ghana. *International Journal of Engineering Research and Science & Technology*, 2 (2), 123-136. www.ijerst.com ISSN 2319-5991

ABSTRACT

Areal distribution of soil dry bulk density and porosity were assessed for a 1.82 ha field that has been under Para rubber (hevea brasiliensis) plantation for over 47 years. Cylindrical cores measuring 5 cm x 5 cm were used to take soil samples at depths 0-5 cm, 5-10 cm, 10-15 cm and 15-20 cm. Inverse distance weighting interpolation method Global Positioning Systems (GPS) and Geographic Information Systems (GIS) were used in the mapping. Coefficient of variation and Wilding's measure of variability, were used to assess the extent of the variability. The dominant dry bulk density and porosity values are in the 0.00-1.30 g/cm³ and 0.5-0.7 range respectively. The total land area occupied by the dominant dry bulk density and porosity values for each of the four layers are distributed as follows: 92% and 73% (0-5 cm), 84% and 82% (5-10 cm), 83% and 84% (10-15 cm) and 82% each for the 15-20 cm layer indicating a very loose soil. The coefficient of variation for the porosity was 0.12-0.125 indicating low variability. That for the dry bulk density was 0.161-0.209 indicating moderate variability. The outcome of the study will guide in future use of the land

Ofori, E., Owusu-Ansah, E., Kyei-Baffour, N., Dontwi, I. K. and Atta-Darkwa, T. (2013). Parameter estimation in rainfall-watertable relationship using Kalman Filter. *Global Journal of Engineering, Design and Technology*, 2 (1), 86-95. www.gifre.org ISSN 2319-7293p

ABSTRACT

Employing a proper groundwater recharge estimation technique is extremely important for efficient water resource development in a groundwater basin. This paper describes the estimation of groundwater recharge in the Besease basin using the linear Kalman filter mathematical model. The physical model estimated the watertable levels and subsequently derived the infiltration parameters from rainfall inputs and groundwater levels data. The Kalman Filter method used as a recharge estimate resulted in a fit between the simulated hydraulic head and observed sub-surface water level fluctuation. The results show that the infiltration parameter varied considerably over the period of time when it was assumed as time dependent with the recharge values ranging between 0.0-1.27 % for P4 and 0.0-16.5 % for P14 of the incident rainfall. A very high infiltration

factor α was obtained when considerable rain fell during June 2009, October 2009 and in June and July, 2010. However, during the periods from December 2009 to April 2010, the infiltration factor was zero which suggested that infiltrated water could not reach the watertable but was retained in the unsaturated zone to replenish moisture deficit. Therefore, efficient application of irrigation water; knowledge about the moisture regime and the cropping pattern in the basin is fundamental for ensuring optimal moisture content and watertable level management.

Oteng-Darko, P., Kyei-Baffour, N. and Ofori, E. (2013). Yield of rice as affected by transplanting dates and plant spacing under climate change simulations. *Wudpecker Journal of Agricultural Research*, 2 (12), 55-63 <http://www.wudpeckerresearchjournals.org> ISSN 2315-7259

ABSTRACT

*Climate change is impacting negatively on livelihoods in Africa as evidenced by the misery caused by floods and droughts which are occurring with increasing frequency and severity. Thus durable strategies should be devised that would assist African communities particularly rural communities to adapt to climate change-induced yield reductions in crop production. In view of the importance of rice (*Oryza sativa* L.) both as a food and cash crop in Sub-Sahara Africa, conducting research on the mitigating effects of varying planting dates and transplant ages on rice can have a dramatic effect on crop development and yield. This research was conducted to study the yield response of transplanted rice to different sowing dates and transplant ages. Simulations were conducted using the CERES-Rice model under prevailing weather conditions and future scenarios of climate. The simulation run for the climate change scenario showed adverse effects on crop yield. The rice crop model generally predicted yield reductions due to possible climate change in the future. After examining alternative management practices (transplant age and crop spacing), it became evident that changes in planting dates, crop spacing, and transplanting dates could improve grain yield. The increased maximum and minimum temperatures, irrespective of whether CO₂ concentration was increased or not, seemed to have more adverse effects on the rice yield.*

Asamoah, D., Arthur, Y. D., Asane, S. (2013) Evaluating the effect of logical drivers on cocoa supply chain in Ghana. The case of Transroyal Ghana limited. *International Journal of Business and Social Sciences*. 4 (3), 122-131.

ABSTRACT

This paper examined the cocoa supply chain in Ghana using Transroyal (GH) Ltd as well as producing a supply chain model that is peculiar to transroyal Ghana limited. The paper conducted with strong data reliability and found to address some pertinent factors affecting the logistical drivers of transroyal Ghana Limited. Some of the logistical drivers were found to be very significant and their correlations were found to be significant. The study revealed strong levels of interdependence between actors within the supply chain. It also revealed that, Transroyal (GH) Ltd has not been able to fully reap the benefit of procurement, transportation and internal systems integration. It also revealed that ICT is not fully embraced within the operations of the company but the most successful driver in the business was cash flow. The conclusion is that competition has shifted from individual efforts of companies to cooperation relationship with complex interdependence, so if Trans royal (GH) Ltd wants to grow in this business, then, pragmatic and cutting edge solutions and systems should be put in place to overcome competitive rivalry among LBCs in Ghana. The company should examine its operations, eliminate waste, inject efficiency and create wealth for its shareholders.

Mensah, E., Mensah-Brako, B., Agyare, W. A., Padi, F. and Kyei-Baffour, N.(2013). Production constraints in cocoa nursery in selected major cocoa producing areas in Ghana. *Global Journal of Engineering, Design and Technology*, 2 (2), 1-7. www.gjfre.orgISSN 2319-7293

CONFERENCES/WORKSHOP/SYMPOSIA/SEMINAR

S. J. Mitchual

28th Biennial Conference of Ghana Science Association on harnessing our natural resources for national development: The role of Science and Technology, Legon, Ghana. July 14-19, 2013.

Papers presented:

Producing briquettes from combination of *Piptadenia africana* and *Ceiba pentandra* at room temperature and low compacting pressure without a binder.

ABSTRACT

*The findings of densifying sawdust of *Piptadenia africana* and *Ceiba pentandra* at room temperature using low compacting pressure is reported in this paper. Particle sizes of sawdust used for the study were 1mm or less. The two materials were combined at mixing proportions: 80 : 20, 60 : 40, 40 : 60 and 20 : 80 (*Piptadenia africana* : *Ceiba pentandra*). The result indicates that at 5% level of significance the relaxed density, compressive strength in cleft and impact resistance index of briquettes produced were significantly affected by the biomass raw material and compacting pressure. The relaxed density of briquettes produced ranged from 534 to 766 kg/m³ whilst that of compressive strength in cleft ranged from 12.46 to 60.28 N/mm. At compacting pressure levels between 30 and 50 MPa all the briquettes produced had adequate compressive strength in cleft. The impact resistance index of briquettes produced was adequate and ranged from 128 to 500%. The compressive strength in cleft and impact resistance index of all the briquettes produced from the mixed species were better than those produced from *Piptadenia africana* only. Thus, production of briquettes from sawdust of mixed timber species should be encouraged since this could provide a solution to densifying sawdust from species for which hither too could not be densified at room temperature using low compacting pressure.*

*Producing briquettes from combination of maize cobs and *Ceiba pentandra* at room temperature and low compacting pressure without a binder.*

ABSTRACT

*This paper reports the findings of densifying ground maize cobs and *Ceiba pentandra* sawdust at room temperature using low compacting pressure without a binder. The maize cobs were crushed using a hammer mill. Particle sizes of maize cobs and *C. pentandra**

used for the study were ≤ 1 mm. The two materials were combined at mixing percentages of 90:10, 70:30 and 50:50 (C. pentandra/maize cobs). Briquettes were produced using a laboratory hydraulic press. Compacting pressure was varied from 20 to 50 MPa at an interval of 10 MPa. The results indicated that the relaxed density of briquettes produced from particles of maize cobs only ranged from 541 to 659 kg/m³ whilst that made from a mixture of maize cobs and C. pentandra ranged from 565 to 774 kg/m³. Compressive strength in cleft of briquettes produced from maize cobs only ranged from 0.12 to 0.54 N/mm whilst that produced from a combination of maize cobs and C. pentandra ranged from 7.72 to 59.22 N/mm. Additionally, at all compacting pressure levels, briquettes made from maize cobs only had an impact resistance index of 0%. Whilst those made from a combination of maize cobs and C. pentandra ranged from 115% to 500%. Thus, briquettes with adequate physical and mechanical characteristics could be produced from maize cobs at room temperature using low compacting pressure when maize cobs are combined with sawdust of C. pentandra. These findings could enhance the existing technology for densifying agricultural residues, for example, maize cobs, especially in rural communities.

Amoah, M. and Assafuah, F.

1st Bamboo Colloquium by Forestry Research Institute (FORIG) of the Council for Scientific and Industrial Research (CSIR), at CSIR-FORIG, Fumesua-Kumasi, April 29-30, 2014.

Paper presented:

Gender-based differences in the commercialization of rattan and bamboo as livelihood support option for rural and urban poor in Ghana: opportunities and challenges.

ABSTRACT

This study investigated the gender-based differences in the commercialization of rattan and bamboo in Ghana, the opportunities available to rural and urban poor communities engaged in the value chain of rattan and bamboo resource and the challenges they face in their quest to earn a living from the industry. Using snowball sampling, 106 actors in the value chain industry were sampled from rural and urban communities where rattan and bamboo are harvested, processed and marketed. Questionnaire and semi-structured interviews were the main data collection tools. The results showed that even though males dominate the value chain, females play two important roles: harvesting and supplying of raw rattan and bamboo to processors. Whereas rural males and females are mostly engaged in the harvesting of the resource their urban counterparts are engaged

in the processing and marketing of products from the resource. The limited role played by women in the value chain was partly due to their low self-efficacy resulting from gender stereotype and their traditional roles in the home. Those involved in all the stages of the value chain reported daily income of about USD8.00 and this diminishes to 19.8%, 23%, and 36% of it for harvesters, processors and marketers, respectively. The amount accrued to harvesters was found to be lower than the average daily wage of hired labour, suggesting that the commercialization of rattan and bamboo has not improved the economic status of rural of rural people. Economics of scale and product quality were the main inhibiting factors for successful commercialization of the resource. Policy interventions aimed at increasing rural participation in the value chain should include removal of gender stigmatization, providing rural artisans with technical and marketing support, and establishing cottage industry as part of effort to integrating rural businesses communities' into local tourism. International visibility of rattan and bamboo industry in Ghana, which thus far has remained poor, requires urgent attention from governmental and no-governmental agencies.

Danso, H. & Boateng, I.

5th West Africa Built Environment Research (WABER) Conference, 12-14 August 2013, Accra, Ghana

Paper presented:

Is the quality of cement a contributing factor for building collapse in Ghana?

ABSTRACT

Sub-standard (poor quality) materials have been mentioned as one of the major causes of building collapse worldwide. The main materials mostly identified as sub-standard are cement, reinforcement bars, timber and aggregate. This Paper assesses whether the quality of Type I Portland cement use in Ghana - contribute to the recent building collapse in Accra and Kumasi. This was achieved through experimental study by comparing the properties of Ghana cement with that of UK cement. The study found that the dry density of Ghana Grey cement was higher than both the UK Grey and UK White cements. Furthermore, the Ghana Grey cement performed better in resistance to water absorption than UK Grey cement, while the UK White was better than both Ghana Grey and UK Grey cements. In addition, while UK White cement performed better in compression than Ghana Grey and UK Grey cements, the Ghana Grey was better than the UK Grey cement. The results of the experiment clearly reveal that the quality of Ghana's cement is comparable to that of UK. Therefore, the paper concludes that the

quality of Ghana's cement might not be the factor causing building collapses in Ghana. Further studies are therefore recommended for the identification of the sub-standard materials that contribute to building collapse in Ghana.

Boateng, I. & Danso, H.

33rd Cement and Concrete Science Conference. 2-3 September 2013, University of Portsmouth, United Kingdom

Paper presented:

A comparative Study of the quality of Portland cements from UK and Ghana.

ABSTRACT

The quality of cement has strong linkage between cement particle size distribution (PSD), chemical composition and compressive strength. This study sought to compare the PSD, colour analysis and chemical composition of Type I Portland cements from UK and Ghana. Three cement samples from UK and Ghana were used for the study. Three tests were carried out, namely: PSD test, colour analysis test and chemical composition test. The study found that UK Portland cements (White and Grey) particles were the fineness, with the White being finer than the Grey. In addition, the UK Grey cement was deeper in colour than Ghana Grey cement. Furthermore, the Alkali ($\text{Na}_2\text{O} + \text{K}_2\text{O}$) content in Ghana cement was more than UK cements while the Calcium oxide (CaO) content in UK cements exceeded that of Ghana cement. Paired-samples t-test revealed that there is no statistically significant difference between the chemical composition of UK and Ghana cements. Recommendations are made for application of the cements and future studies. This paper contributes the body of knowledge in building materials, specifically in cement and concrete context.

Arthur, D. Y.

Inter Faculty Seminar, Faculty of Technical Education. Kumasi-Ghana. 2013.

Paper presented:

Conceptual principal component analysis model of Facebook activities among Ghanaian Tertiary students. The Case of Christian Service University College.

ABSTRACT

The purpose of this paper is to pinpoint and deliberate on the factors as well as formulating a conceptual model of factors that keep tertiary students on the social media specifically Facebook in Ghana. The study randomly sampled 380 undergraduate students from first to final year across all departments who validly responded to a number of variables. Descriptive statistical analysis was used and their cumulative response was used to generate their relative importance index (RII) of these factors tertiary students spend their time on when they log onto Facebook. The factor analysis was conducted and the principal component of these factors was extracted using spss. The result of the study provided three components which tertiary student in Ghana spent when logged on Facebook. These are the communication component, entertainment component and the business component. The further analysis showed that, the most important factor that tertiary student spends most of their time on Facebook is 'looking for old friends' while playing games was the least important factor. This is the conceptual model on social media in Ghana and the world at large will give way for further research on student loyalty to social media.



FACULTY OF VOCATIONAL EDUCATION

Olu, E. L. F., & Ghanney, A. R. (2014). Work practices and impact of distance education students teachers: Experiences from the University of Education, Winneba. *Journal of Education and Curriculum Development Research*, 2 (2), 64-70.

ABSTRACT

Distance Education (DE) can be a convenient means of teacher training since it focuses on the principle of flexibility; teachers remain in the classroom and continue to offer their services while upgrading their skills; female teachers can combine family commitments with higher learning . DE thus aids; disadvantaged groups who hitherto could not access further education. In view of this scenario, over the past decade, the University of Education, Winneba has been admitting teachers from all regions in Ghana into its DE programme in order to train more qualified teachers and at the same time upgrade the qualification of existing ones. However, it is not clear what challenges they encounter as they study and teach simultaneously. Against this background, the study explored teachers work practices and examined how their engagement with DE affects their teaching. Adopting a qualitative model, the major instruments were interviews, observations, and regular visits. Key findings were that challenges these teachers experience in their communities notwithstanding, they are able to engage with DE. Furthermore, the programme has made a positive impact on their domestic and professional lives. In terms of basic school pedagogy, the programme has helped teachers to develop new teaching strategies. The study concludes that the quality of basic education can be improved markedly through DE, especially as student teachers potentially pass on knowledge and skills.

Olu, E. L. F., & Ghanney, A. R. (2014), The challenges of distance education to rural teachers experiences from the University of Education, Winneba. *Journal of Education and Practice*, 5 (11), 159-161.

ABSTRACT

In 2005, the ministry of education (MOE) ruled that the minimum teaching qualification in public basic school should be a diploma at the time, the majority of teachers at this level poses the minimum teaching qualification of a Certificate "A" and some have received no training at all. The University of Education, Winneba has been admitting teachers from all regions of Ghana into its Distance education (DE) programme for the past decade. However it is not clear what challenges they encounter as they study and teach simultaneously, often in remote and isolated communities. Although the programme has been running for some time, no such study has been conducted. Against this background this is the first study to explore the challenges of DE to rural teachers. The study employed a qualitative methodology using the social constructivist model of seeking to build knowledge with the respondents. Thus, the major instruments employed were interviews and observations. The study found that being adult learners, the teachers had strong intrinsic motivation to succeed but also faced challengers arising from University administrative circumstantial support system. The study concludes that such systemic support should be revisited if the DE programme is to truly serve the needs of its participants.

Ababio, P.F., Adi, D. D. & Commey, V. (2013). Traceability: Availability and efficiency among food industries in Ghana. *Food and Nutrition Sciences*, 4, 131 – 135.

ABSTRACT

Food traceability systems availability and efficiency was investigated using 74 food businesses along the food chain in Ghana. Questionnaire with closed and open ended questions were given to purposefully sampled staff in key positions in the food businesses to answer on qualification of technical personnel, availability of documentation procedure and how these businesses were controlling traceability systems. Most food businesses were using Higher National Diploma graduates in the technical/supervisory positions. Documentation was poor and although there was awareness on traceability across the food businesses, implementation and maintenance was not effective. Only 23.8% manufacturing/processing units, 20% hospitals, 16.7% hotels and 14.8% schools could complete traceability test within 4 hours. It was recommended that more short training programmes on quality and safety be designed for workers in the food industry by appropriate institutions while science students from the Senior High Schools are encouraged to enroll on food science and food manufacturing technology programs to improve on the current situation.



SCHOOL OF CREATIVE ARTS

Ebeli, E. (2013) Aesthetic experience of African music articulated in *ɔmpɛ* music of the Effutu. *Journal of African Arts & Culture*, 1 (1), 1-20

ABSTRACT

Traditionally, the aesthetics of music is concentrated on the quality and study of the beauty and enjoyment of music. Through the writing of Kant, the ancient term aesthetics (sensory perception) received its present day connotation. The paper discusses the notion of aesthetic experience in an African context without overlooking the western concept of the beautiful and the sublimem The paper also suggests the utility of aesthetics in the classroom. The purpose of this paper is to explore the aesthetic experience in ɔmpɛ as an analytical tool. It looks at the choices or preferences that are exercised by music makers and music users and the ideas behind them. Data for the study was collected using observations, oral interviews and informal interactions. The research question that directs the discussions in this paper is: how does the ɔmpɛ music maker and user interpret the music in aesthetic terms. Findings indicate that the enjoyment and appreciation of music is conveyed diversely, and aesthetic experiences in music are tied to people's values and tastes.

Amuah, J. A. & Acquah, E. O. (2014). Music analytical presentation of Newlove Annan's *mɔbɔdawur* (I will tell it to the world) *International Journal of Asian Social Studies*, 2 (4), 100-111.

ABSTRACT

MɔbɔDawur (I will tell it to the world) is an SATB work of Newlove Annan, a Ghanaian prolific choral music composer and organist. In Annan's MɔbɔDawur, he explores varied choral compositional styles. In this paper the writers attempt to provide an analysis of

Mɔ̀bɔ̀Dawur using musical analytical parameters such as; scale, melody, vocal ranges, harmony, rhythm texture, form, compositional techniques, dynamics and text, to unravel the various compositional styles that have been utilized by the composer. The outcome of the paper is to provide an analytic presentation of a choral piece that utilizes varied compositional dimensions to serve as the basis for the study and composition of choral works.

Acquah, E. O. & Amuah, J. A. (2014). Thematic categorization, text interpretation and melodic relationship of songs of Ajumako Mando Kyirem Asafo No. 1. *Asian Journal of Research in Social Sciences and Humanities*, 4 (3), 115-122.

ABSTRACT

Asafo song themes have purely been militant and provocative while some of the melodies defile the tonal inflections of the language of the cultural bearers. This paper identifies the various themes that characterize Asafo songs of KyiremAsafo No.1 of AjumakoMando. It presents how the people of Mando understand the linguistic materials of asafo songs taking into considerations the poetic images. Through critical analysis of selected songs the study unravels the relationships which exist between the song texts and the musical sound. The result is to provide a framework for an analytic study of indigenous traditional music.

Amuah, J. A., Ocran, D. S., & Acquah, E. O. (2014). Liturgical changes in the repertory of the Methodist Church Ghana. *International Journal of Innovative and Applied Research*, 2, 18-25.

ABSTRACT

The growth of Christianity in Ghana has led to the proliferation of liturgical changes leading to conflict of religious ideologies within the traditional (orthodox) and the modern (charismatic) churches. These liturgical modifications are seen not only in their worship, prayers and offerings but also in their music. This paper explores the changes that have taken place in the musical liturgy of the Methodist Church, Ghana. Through qualitative data collection, the paper investigates the factors leading to these changes and brings out the impact made in the Methodist church in general. It uses two epistemological frameworks: The separatism and the syncretism. The former looks at the liturgy in retrospect whereas the latter dwells on the changes culminating different beliefs as a result of the different movements in the Christendom in Ghana. To satisfy the varied congregational taste in this modern world, it is important that the shift in the musical liturgy of the Methodist church is well embraced by all.

Acquah, E. O. (2013). New Trends in Asafo Music Performance: Modernity Contrasting Traditions. *Journal of African Arts and Culture*, 1 (1), 21-32.

ABSTRACT

This paper considers the new trends that have taken place in asafo musical performance, taking KyiremAsafo No. 1 of AjumakoMando, Ghana, as a case study. It seeks to examine the interplay between tradition and innovation and the sociocultural impact. The study describes the retrospective aspect of asafo music performance some decades ago and goes on to bring to the fore some changes that have been brought to it to sustain and modernize it. It is seen that education and social change are powerful forces influencing most innovations of asafo music. It calls for a concerted effort of all traditional music makers to embrace the changes pertaining to asafo musical performance and use them to modernize other existing musical genres in their areas.

Amuah, J. A. & Acquah, E. O. (2013). Twenty five years of choral music performance: Contribution of Winneba Youth Choir (WYC) in the socio-economic development of Ghana. *Journal of International Institute for Science, Technology and Education*, 3 (19), 105-112.

ABSTRACT

This article investigates the beginnings, performance setting, challenges and the benefits derived from the activities of Winneba Youth Choir in the socioeconomic development of Ghana. This descriptive qualitative study highlights how the activities of Winneba Youth Choir have yielded positive results in terms of employment, education and social recognition (identity) among the youth in Winneba and its environs. The paper addresses the need in preserving the authenticity of the choral musical Art as one of the avenues in developing the cultural values of an individual. It is therefore recommended that every youth experiences any of the musical arts in his/her life time.

Mereku, C .W. K. & Mereku, D. K. (2013). Ghanaian case study of singing games in ethnomathematics. *Journal of African Culture and International Understanding*, 2 (6), 16-24.

ABSTRACT

All cultures have generated mathematics ideas just as they have generated language, religion, morals, customs and games. In the last three decades, researchers have tried to establish that mathematical ideas exist in every culture. The Brazilian mathematician,

Ubiratan D'Ambrosio, termed such mathematics ideas as ethnomathematics, which he explains is the application of mathematical ideas and practices to problems that confronted people in the past or are encountered in present contemporary culture. Though researchers have indicated that several fundamental and universal activities exist in all cultures, which can be used to make mathematics learning more meaningful in schools, in Ghana such activities are generally taken for granted and ignored in school mathematics. This paper discusses how such mathematics ideas, particularly rhymes and singing games can be integrated into teaching topics in schools mathematics.

Mereku, C .W. K. (2014). Implementation of music education policy and practice in contemporary Ghana. *West African Journal of Musical Arts Education*, 2 (2), 21-31.

ABSTRACT

This paper examines the implementation of music education policy and practice in basic schools in contemporary Ghana. It argues that, since independence to the end of the last millennium, music had a significant position in the curriculum until the advocates of teaching music from a purely African perspective proposed policies that eventually relegated the subject to the background in schools. Advocacy for a strong return to the bi-musical school music curriculum is recommended based on current best creative arts practices. If our children are to meet the challenges and the increasing complexities of the 21st century, music education should extend beyond the cultural boundaries of children.

deGraft-Yankson, P. (2013). Saying it the Artist's way: An aesthetical discourse on selected works of Art from the Department of Art Education, U.E.W. *Journal of African Arts and Culture*, 1 (1), 159-169.

ABSTRACT

This paper is intended to project the inherent beauties and communicative essentials of the creative works produced by students and lecturers of Department of Art Education in the University of Education, Winneba. These works are poorly displayed at obscure corners of the University and are accorded the least of regards in the University's inventory. Through aesthetic discourse, this paper brings out the value of three selected works of art – one conceptual painting, one abstract painting (that follows minimalist conventions) and one sculpture in the round. The revelations of the kind of beauty these works exude coupled with the messages they put across give justification to the need, not only to take good care of these works, but to really find ways of putting them within the public domain.

Opoku-Mensah, I. & Essel, O. Q. (2012). Voyage of Excellence. *Journal of Art and Design*, 1 (1), 147 – 157.

ABSTRACT

Through an art-historical context, the paper takes a close-up view of the emblematic frieze that clothes the Amphitheatre located at the south campus of the University of Education, Winneba. It gives an aesthetic appreciation account of the horseshoed frieze revealing its multi-sectional aesthetic dimensions. The paper brings to the fore that the frieze is an embodiment of the plethora academic disciplines of the University and serves as a living reminder of the quality services the nation requires from the products of the University. It also views the frieze as an indelible imagery of the history of Winneba fishing folks and portrays the distinctive ‘Aboakyer Festival’ of the Effutu traditional area.

Kpodo, C. S. (2012). Hybrid dimensions in sculpture: A courtship and accidental off-springs resulting from the matrimony of organic and inorganic elements. *Journal of African Arts and Culture*, 1, (1), 113-126.

ABSTRACT

Traditionally, the word hybrid has been associated with science to mean the fusion of two different elements to generate an often improved version. The term ‘hybrid’ as employed by some sculptors to define what they do is never-ending in meaning. Different sculptors from different backgrounds give diverse meanings to what they put together to denote hybridity in sculpture. In this practice-based research, the sculptor prefers to use the term Hybrid Sculpture, to describe forms that emanated from a fusion of a variety of organic and inorganic materials; namely wood, metal, plastics and fabric, using a blend of both conventional and innovative approaches to making sculpture. These included carving, welding, assemblage/construction and scorching.

Avoke, E. K. (2013) The exposure of teacher interns to the Out-Segment component of the Internship Programme at the University of Education, Winneba: *African Journal of Interdisciplinary Studies*, 6 (1), 61-72.

ABSTRACT

This study is on Out-Segment Programme of the University of Education, Winneba. The study is undertaken based on a desire to explore the following objective, namely the intern’s experiences during the internship. The methodology was dominantly qualitative.

Even though some quantitative data were utilized, these were given a qualitative gaze. Descriptive survey in addition to a case study design was utilized. The sample is made up of 230 interns, including, 13 students from within the Art Education Department who had completed their internship. The sampling strategy was mainly random sampling for the interns. Purposive sampling was also deployed in the selection of students from the Art Education Department. The main findings from the study included the fact that: the internship is very useful in inculcating relevant teaching skills in the interns, and they have a better appreciation of the importance of their own philosophy of teaching and see the internship as an opportunity to test some of the theories of teaching acquired while studying at the University. Pre-internship exposure of students was useful, but the relationship between the mentor and mentees was something problematic. In general, there was consent regarding the one year duration of the internship at the University of Education, Winneba, which is considered too long. A number of recommendations were put forward.

Brew-Riverson, H. E. (2013) Celebration Innovators of the Total Theatre Scene Design, Stage Architecture and Space. *Journal of African Arts and Culture*, 1 (1), 93-99.

Yirenkyi, S. M. (2013). Indigenous Entertainment Forms for Participatory and Sustainable Development in Ghanaian Community. *Journal of African Arts and Culture*. 1 (1), 33-44.

Amponsah, K. E. & Yirenkyi, S. M. (2014). Kwaku Ananse: Profiling the Ageless Hero of Ghanaian Folktales. *West African Journal of Musical Arts Education*, 2 (2), 82-88.

Yirenkyi, S. M. & Amponsah, K. E. (2014). Theatre and Social Change: Reasserting Traditional Values through Theatre: The Role of Kobina Sekyi. *American Journal of Social Science Arts and Literature*, 1 (4), 1-8.

Amponsah, K. E. & Yirenkyi, S. M. (2013). The University versus Its Host Community: The Creative Artistes Position. In Distance Forum. *Multi-Disciplinary Journal of Academic Articles*. 3, 145-152.

Acquah, E. O, Amuah, J. A., & Annan, J.F. (2014). The contextual and performance dimensions of Asafo music from the perspective of annual *Akwambo* festival. *International Journal of African Society cultures and Traditions*, 2 (2), 50-60.

BOOKS

Ebeli, E. (2013) *Music for the Atenteben. Vol. II Creative Works for Atenteben with Piano Accompaniment*. Accra: Sundel Services.

deGraft-Yankson, P. (2013). *Information and Communication Technology Considerations for Visual Art (ICTC4VA): Framework for Integrating Information and Communication Technologies into the Ghanaian Senior High School Visual Art Curriculum*. Accra: DPI Print Limited.

Brew-Riverson, E.H (2013). *The truth and other plays (A Collection of 3 Plays)* Accra: Neffprint Multimedia Ghana.

Brew-Riverson, E.H (2013). *Mary my love and other plays (A Collection of 3 Plays)* Accra: Neffprint Multimedia Ghana.

CONFERENCE/WORKSHOPS/SEMINARS

Mereku, C .W. K.

Chief Judge at the 2nd African Choral Festival. The Choral Competition organized by the Ghana Tourist Board in collaboration with the Ministry of Chieftaincy and Culture for the ten (10) winning choirs from each region in Ghana. November 17, 2013, KNUST Central Lecture Theatre, Kumasi

I. Opoku-Mensah

Conference of Ghana Art Teachers Association, Ho Polytechnic, Ho - Ghana, August 16 – 20, 2013.

Paper presented:

Test-item writing: Ensuring its validity and authenticity.

ABSTRACT

This paper examines the way test item writing should be made in order to ensure its validity and authenticity. The main objective of this exercise is to equip teachers with good test item writing skills in order to avoid ambiguity in the test items they write. Test item is a systematic process of testing examinees to determine whether specific skills and competences are at a desired level. Test items answer the question “how well does the individual perform in comparison with others or in comparison with a domain of performance tasks”. Data was collected through primary and secondary sources. Primary sources were through interviewing some experts in research methods and some officials of Test Division of the West African Examinations Council. Secondary sources were assessing books on research item writing and questions set by some teachers. Convenience and snowballing sampling techniques were used to select some experts in the area of test item writing. Various types of tests were identified and some deficiencies of teacher - made tests which included ambiguous questions, excessive wording of questions, and lack of appropriate emphasis and use of appropriate test formats. It came to light that in order to enhance teachers’ skills in test item writing, it will be prudent for experts in the area to organize periodic workshops for teachers.

R. K. A. Glover, C. S. Kpodo, K. Z. Adzraku

Conference of Pan-African Society of Musical Arts Education (PASMAE), U.E.W., Winneba-Ghana, June 10-14, 2014.

Paper presented:

The artist’s right of paternity and integrity: some dialectical issues

ABSTRACT

The concept of special category of personality rights for artists originated in France in the eighteenth century. These rights have been termed, “Artist’s Moral Rights” because they presume an intimate bond between an artist’s personality and his or her creative product.

“Moral Rights” is derived from the concept “Droit Moral”. It is therefore perceived as an artist’s natural rights. This seemingly imbroglia concept can be of immense help to the promotion and growth of creative thinking. In this article, the researchers will attempt a discussion on the legal implications of moral rights as enshrined in the copyright Act 2005, Act 690 of the Republic of Ghana as a pathway guiding both the creative mind and the consumer in their dealings. We will also attempt to discuss the judicial propriety as to rightness or otherwise of the infringement of the artist’s moral rights. This article will assume a pragmatic and textualist posture in its analysis of the inherent challenges in the Act for the Artists and the general public.

C. S. Kpodo, R. K.A. Glover, K. Z. Adzraku

Conference of Pan-African Society of Musical Arts Education (Pasmae), U.E.W., Winneba-Ghana, June 10-14, 2014.

Papers presented:

“Nana Kome,” The legendary warrior: The History of Komenda Immortalized in Sculpture

ABSTRACT

History is often documented in text (history books) for the present and future generations to read and appreciate their ancestry so as to learn and project the future. It is often said that if you do not know where you are coming from, then you don’t know where you are going. Arguably, artistic accounts of histories of ancient civilizations and great empires have survived all manner of iconoclastic destructions. Sculpture has therefore proved to be a better way of immortalising history. Consequently, the chiefs and people of Komenda commissioned the researchers to immortalise the heroic conquest of Nana Kome, the legendary founder of Komenda in a heroic statue. This paper is a descriptive account of the project. The paper also discusses related challenges with such projects in Ghana.

C. S. Kpodo, R. K.A. Glover, K. Z. Adzraku

Conference of Pan-African Society of Musical Arts Education (PASMAE), U.E.W.,
Winneba-Ghana, June 10-14, 2014.

Paper presented:
Expressions upon Impressions

ABSTRACT

This experiment, consisting of over forty fist-size clay heads, explores facial impressions that express various moods of the “everyday” man. Often, such fleeting moods go unnoticed. The researchers, upon observation of people of all walks of life, captured impressions of “everyday” people, using clay as the medium. This paper employs the descriptive approach in appreciating the aesthetic appeal behind the seemingly vexed and disoriented faces.



FACULTY OF EDUCATIONAL STUDIES

Acquah, S., Eshun, E. S., & Afful-Broni, A. (2013). Towards a more effective education process In Ghana: Teachers' coping strategies in teaching Natural Science. *Journal of Education and Curriculum Development Research*, 2 (1), 81-92. <http://www.projournals.org/JECDR>, 0420131206

ABSTRACT

This study examined the application of the language of instruction policy in Science teaching. It also investigated the coping strategies of lower primary teachers' use of mother tongue in teaching Science concepts. It is believed that the mother tongue plays a crucial role in learning during the early years. The study was a descriptive survey that used the mixed methods approach. Focus group interviews and questionnaires were used to collect data from selected basic school teachers in the Effutu Municipality, of Ghana. Random sampling was used to select 12 basic schools from which a sample of 31 teachers was purposively selected. The results indicated that even though the language policy of education in Ghana directs that the local language be used to teach at the lower primary level, some teachers still used English to explain Science concepts of which, explanations did not depict their actual meaning. It was recommended that for the teaching and learning of Science at the lower primary level to be effective, there should be a provision in the language policy to cater for shortcomings in the teaching of Science and other subjects. Also, there is the need for rigorous in-service training on the use of the language policy to equip in-service and newly trained teachers for effective teaching and learning of Science in lower primary schools in Ghana.

Eshun, E. S. (2013). Effective Teaching of English as a Second Language to Public Basic Schools Pupils: A Case Study of Effutu Municipality in the Central Region of Ghana. *International Journal of Educational Leadership*, 5 (5), 120 -131.

ABSTRACT

This study seeks to identify and analyze problems surrounding teaching English as a second language in multilingual classrooms in Ghana. In recognising the essence of English as a tool for communication in a global world, the study sought to determine the factors affecting its effective teaching as second language in order to suggest appropriate solution for improvement. Based on a qualitative research design and drawing on semi-structured interviews, observation and focus group discussions, a sample 60 participants made up of 24 pupils, 12 teachers, 12 parents and 12 schools were sampled for the study. It emerged from the study that, mostly, teacher education institutions treat English language as “all known” language and thus send new teachers into the classroom with minimal pedagogical strategies regarding the teaching of ESL, thus paving way for language anxiety, communication nervousness, poor inter personal relationships and lack of motivations as factors contributing to poor teaching of English as a second language to public basic schools in the Effutu municipality. Among the recommendations are that the Ghana Education Service should post teachers according to specialised disciplines they focused on at the college of education. Municipal Chief Executives should help build communities libraries for pupils in the Effutu municipality and supply them with appropriate children’s literature and other educational materials to help basic students to develop reading, oral, and writing skills in English as a second language.

Acquah, S., Adzifome, N. S. & Afful-Broni, A. (2013). Ensuring Quality Education in Ghana: Experiences of Basic School Mathematics and Science Teachers. *Journal of Education and Practice*, 4 (25), 41-50.

ABSTRACT

The study investigated benefits which Basic school teachers in the Akuapem North District perceived to have derived from the Lesson Study Model. The study was a descriptive survey that used the mixed method approach. A 33-item semi-structured questionnaire rated using 5-points Likert scale, and focus group interviews were used to collect data. A combination of purposive and convenient sampling procedures was used to select 46 basic school teachers. Data obtained from questionnaire were analysed using means, standard deviation, and percentage while analysis of verbatim quotations from focus group interviews was used for triangulation. The results revealed that teachers felt their competences in the four thematic areas (knowledge in subject matter, lesson planning, lesson preparation and teaching material preparation and usage) which were the focus of the Lesson Study Model, had improved and in some areas much tremendously.

Acquah, S. & Hanson, R. (2013). Analysis of comprehension levels of hazard symbols in science: A case of pre-service basic school teachers in Ghana. *International Journal of Educational Leadership*, 5 (5), 142-149.

ABSTRACT

Laboratory safety is necessary to ensure the safety of all laboratory users. It is also to ensure that users do not harbour fears of uneventful circumstances so that they all work freely for optimum results. The study investigated the understanding of Ghanaian first year university chemistry teacher trainees' understanding of safety rules, symbols and colour codes which go to create a safe work environment. Data was purposively collected from 111 undergraduate chemistry teacher trainees. The findings indicated that only 31% of trainees understood the safety rules. About 45% successfully interpreted the safety symbols. However, only one-tenth interpreted both rules and symbols correctly which is too small a quota to let go without remediation. A semi-structured interview suggested that trainees hardly paid attention to warning symbols during experimental processes. These findings intimate that teachers will have to make the teaching of warning symbols and laboratory rules an introductory part of their laboratory instruction curriculum.

Acquah, S. (2013). Improvisation of Science teaching /learning materials by Basic School Teachers: The Praxis and Problems. *International Journal of Basic Education*, 3 (1), 86-94.

ABSTRACT

The non-availability of teaching learning materials for the teaching and learning of science in most basic schools in developing countries has contributed greatly to the poor performance of students in the subject. Improvisation of teaching materials is advocated to be the panacea to the problem of scarce or non-available materials for the teaching of science in basic schools in Ghana. This research work was carried out to unearth the praxis of improvisation among basic school teachers. The study employed the mixed method approach and instruments used were a questionnaire and focus group interview. A self-designed five-point Likert scale twenty-item questionnaire was used to collect data from 56 purposely sampled student teachers of the Department of Basic Education of the University of Education, Winneba. Descriptive statistics were used to organise data collected into frequencies, means and standard deviations. These were used to systematically evaluate variables on student teachers' praxis and challenges of improvising science teaching Learning Materials (TLMs). Although majority of student teachers (90.3%) agreed that improvisation is a good way of getting unavailable or scare TLMs for science lesson, only 40.4% of them indicated they improvised TLMs for their

science lessons. Lack of practical/technical skills and know how among others, were blamed for their inability to improvise materials for science teaching. It was recommended that student teachers be given practical training in improvisation during initial training so that they can acquire practical/technical skills.

Abroampa, W. K. & Wilson, K. N. (2013). Teachers' self efficacy in improving schools: A comparative analysis of private and public Junior High Schools in the Takoradi Metropolis, Ghana. *US-China. Education Review*, 3 (12), 903-913. ISSN 2161-6248 www.davidpublishing.com

ABSTRACT

One construct of teachers' belief that has consistently been associated with the numerous qualities of an effective teacher, is teacher efficacy. Varying studies conducted have established relationships between teacher efficacy and motivation, learners' outcomes and job performance. More so, studies conducted have attributed the differences in the performance of public and private schools to supervision, school climate, availability of teaching, and learning materials among others. However, not much has been studied about the teachers' belief in these two working environments. The study therefore sought to examine teacher efficacy in public and private basic schools and how it influenced the general improvement of their schools. A correlational design was employed for the study. The stratified and simple random sampling techniques were used to select 15 public and private schools; a total of 134 teachers comprising 90 and 44 public and private basic school teachers respectively. A standard questionnaire for measuring teacher efficacy was used in gathering data. The study revealed that, among other things, though, there are more professional teachers in public schools than private schools, teachers in the latter have a slightly higher efficacy. More so, there was no relationship between teacher qualification and teacher efficacy. Thus, it was recommended that, in the short term, circuit supervisors and heads of schools should organize seminars for teachers on changing their mind-set about teaching in general and learners who go to public schools in particular, since this has serious implications for teachers' self-efficacy and school improvement.

Gadagbui, G. Y., Eshun, P., Abroampa, W. K., Noi-Okwei, C., & Wilson, K. N. (2013). An exploration of the experiences of female student leaders in public tertiary institutions in Ghana. In *Strengthening gender research to improve girls and women's education in Africa FAWE Research Series*, 3, 36-61. www.fawe.org

ABSTRACT

The study was conducted with the objective of examining the experiences of female student leaders on the campuses of public higher educational institutions in Ghana and exploring how best that platform can be used to groom and nurture more females for leadership positions in the future. A mixed method descriptive research design (quantitative and qualitative) was adopted for the study. A sample size of 54(49 female student leaders and five (5) male student leaders) was used. All the female Student Representative Council (SRC) and National Union of Ghana Students (NUGS) executives were selected for the study. The questionnaire and interview guide were used for data collection. A reliability co-efficient of 0.81 was obtained using the Cronbach Alpha. Descriptive and inferential statistics were used to answer the research questions, while data from the interview were analysed textually. The findings of the research revealed that immediate family members as well as 'prominent people' outside their institutions had directly or indirectly motivated female students to vie for positions in students' governance. Support available for female student leaders was very limited. Core recommendations made were; every tertiary institution should as a matter of urgency establish a functional gender unit with appropriate and qualified staff to focus on nurturing leadership potentials of female students by conducting symposia and seminars. Mentoring systems within the academic spheres should be extended into leadership realm of female students in the tertiary institutions. Gender directorates in tertiary institutions should liaise with gender base Non-Governmental Organizations (NGO) to offer financial and logistic support to potential female leaders.

Eshun, E. S., & Amihere, A. K. (2014). A Study of Teachers' Use of Language on Junior High School Students' Conceptual Understanding of Some Mathematics Concepts. *Journal of Education and Practice*, 5 (12), 10-17. <http://iiste.org/Journals/index.php.JEP/article/view/12652>.

ABSTRACT

The purpose of the study was to explore the influence of language use on Junior High School students' understanding of the conceptual understanding of some mathematical concepts used by teachers in and out of Mathematics context. It is believed that acquisition of mathematical ability is a subtle process, but dialogue between the learner

and teacher is imperative and this depends on effective communication. The study was a descriptive survey that used the mixed methods approach. Direct classroom observation, focus group interview, as well as content analyses of the participants' verbatim classroom talk, and questionnaires were used for data collection. The findings have revealed that instructional language in mathematics classroom at the JHS can be a major influence on the level of students' understanding and retention of Mathematics concept; minus verses negative, simplify verses Congruence, etc which lead to misunderstanding and misinterpretation of mathematical tasks. It was recommended that rigorous in-service training on appropriate use of mathematical language should be organized for basic school teachers to equip them for effective teaching and learning of mathematics in Junior High Schools in Ghana. Mathematics experts with education background should also be employed by the government to write mathematics textbook with appropriate vocabulary of language. Keywords: language use, conceptual understanding, mathematics concepts, instructional approach.

Esia-Donkoh, K., Bampoh Addo, H., Afful, D. (2013), Making employee training and development a tool for efficiency and effectiveness in Ghanaian Universities. *Journal of Education and Practice*, 4 (24), 88-93.

ABSTRACT

Employee training and development are considered critical when it comes to employee efficiency, effectiveness and productivity. The proposition of this paper was that employee training and development could ensure efficiency and effectiveness in university administration. The paper focused on the benefits of training and development, and training methods. It also buttressed some training and development programmes in Ghanaian universities. The paper concluded that the success of every organization, including universities, depends heavily on quality human resources. It therefore follows that there is the need for universities in Ghana to ensure that programmes designed for training and development are holistic in nature to equip employees with the requisite knowledge, attitude, skills and experience for job effectiveness. It is thus recommended that management of universities, especially those in Ghana should make training and development programmes a continuous activity to maintain and appraise employees' skill levels, and motivate them to grow and improve professionally.

Esia-Donkoh, K., (2014). Attaining School and Educational goals; Duties of head teachers of public basic school in Ghana. *Journal of Education and Practice*, 5 (1), 64-72.

ABSTRACT

Education forms the foundation for the development of human resource, making it critical for national development. To ensure that children attain a minimum period of schooling, the government of Ghana has committed itself to a number of international protocols to provide basic education for all Ghanaian children. Hence, many basic schools have been built throughout the country to increase access and participation. These schools are administered in most cases by experienced teachers who serve as leaders. The subject of 'leadership' has gained considerable attention, discussion, and extensive study by theorists and researchers in a number of disciplines. This is so, especially in modern times when the concept has become complex as a result of globalization and technological advancement. School leaders are considered as pillars of the educational system, and also seen as the major agents in the promotion of school effectiveness. This is clearly seen in the numerous functions that they are expected to perform daily and often simultaneously, thereby showing the crucial role of school leaders in establishing, monitoring and maintaining the quality and standards in education. This paper examines the duties of headteachers of public basic schools in Ghana in attaining school and educational goals, and the challenge(s) they face in executing their duties. The paper recommends among other things that headteachers need to improve on their knowledge and skills in school and financial administration through learning and experience, and they must be effectively monitored, supervised. Again, the Capitation Grant (CG) policy should be evaluated, reviewed and revised so that its implementation could meet changing and current trends.

Esia-Donkoh, K., (2014). Stress coping strategies of 2012/2013 final year sandwich students of the Department of Basic Education, University of Education, Winneba. *International Journal of Education Learning and Development*, 2 (1), 54-67.

ABSTRACT

The study sought to investigate the type of stress that 2012/2013 final year sandwich students of the Department of Basic Education, UEW, Ghana, experience most and the type of coping strategies they adopt in managing stress. Four hundred and fifty-three (453) final year students were purposively sampled for the study. However, four hundred and six (406) students were used for the analysis because they correctly filled and returned their

questionnaire. The questionnaire used to collect the data for the study was adapted from Carver, Scheier and Weintraub (1989). The findings from the study revealed that 56.6% of the respondents mostly experience acute stress, 28.6% mostly experienced chronic stress while 14.8% mostly experienced episodic stress. The study also showed that restraint coping strategy (mean=4.07, standard deviation=0.95) was always used as a problem-focused coping strategy while positive reinterpretation and growth (mean=4.15, standard deviation=0.91) was always used as an emotion-focused coping strategy. It was found out that the students used more of problem-focused strategies (mean of means=3.53, standard deviation=1.03) in managing stress than emotion-focused strategies (mean of means=3.27, standard deviation=1.10). It is recommended among other things that the Counselling Unit of UEW, Ghana, in collaboration with the various faculties should organize regular seminars and workshops on Time Management and Stress Management for sandwich students in UEW. Again, the Sports Directorate of the University should formulate programmes on physical exercises and sporting activities that will benefit sandwich students in managing stress situations they go through while on campus.

Mensah, D.K & Kwao, A. (2013) “The Culture of Teacher Education and its Spinning Paradigm: *International Journal of Basic Education*, 3 (1), 41-46.

Acquah, S. & Hanson, R. (2013). Analysis of Comprehension levels of hazard symbols in science: A case of pre-service basic school teachers in Ghana. *International Journal of Educational Leadership*, 5 (5), 142-149.

Ghanney, R. & Aniagyei, D. (2014). “An investigation into the Academic Performance of Students at Selected Public School in Obuasi Municipality” *Research on Humanities and Social Science*, 4 (9), 8-17.

Fagbemi, L. & Ghanney R., (2014) “The Challenges of Distance Education on Rural Teachers: Experiences from the University of Education, Winneba”. *Journal of Education and Practice*, 5 (11), 157-160.

Ghanney, R., (2014) “The Impact of the Capitation Grant on Basic Education: Experiences from Gomoa West District, Ghana”. *PROJOURNAL of Humanities and Social Science*, 2 (1), 61-70.

Fagbemi, L & Ghanney, R., (2014) “Work Practices and Impact of Distance Education on Rural Student Teachers: Experiences from the University of Education, Winneba” *Journal of Education and Curriculum Development Research*, 2 (2), 64-70.

Eshun, E. S., & Acquaye, V. N. A. (2014). The Influence of Female Protagonist on the Basic School Girl Child’s Education: An Appreciation of Lawrence Darmani’s Ayisha and Peggy Oppong’s End of the Tunnel. *Pro Journal of Humanities and Social Science*, 2 (2), 92-101. <http://www.projournals.org/PHSS/1320140507.pdf>.

Eshun, E. S., Acquah, S., & Acquaye, V. N. A., (2014). School Sanitation and Hygiene Education: A Focus on Rural Community Basic Schools in Ghana. *Journal of Education and Practice*. 5 (13), 148-156. <http://iiste.org/Journals/index.php/JEP/article/view/12727>.

Afful-Broni, A. & Duodu, E. A. (2013). Effective Leadership through Efficient Utilization of educational Facilities: A Ghanaian Case Study. *Journal of Education and Practice*. 4, (24). 42 – 49.

Afful-Broni, A. (2013). Time Management Behaviour Among Academic and Administrative Staff of the University of Education, Winneba. *Journal of Education and Curriculum*. 1, (3) 67 – 78.

Kusi, H. & Afful-Broni, A. (2013). Challenges faced by Junior High School Head-teachers in Sunyani-West Municipality in managing Teachers and Students. *International Journal of Basic Education*, 3, (1). 8 – 17

Ammah, C., Amos, P. M., Mahu, S. K. (2013). Stigmatization and social reintegration of liberated trokosi women in Ghana. *Journal of Education and Practice*, 4, (11), 146-153.

Bedu-Addo, P. K. A. & Akinade, E. A. A. (2013). Work-related stress among Ghanaian bankers. Implications for counselling. *The Counsellor*, 32, (1&2) 1-12.

Bedu-Addo, P. K. A. (2013). Balancing work related stress and family interaction: A Banking perspective. *Ife Psychologia*, 21 (2), 133-140.

BOOKS

Afful-Broni, A. (2013). *Theory and Practice of Educational Leadership in Ghana. A Revised Edition. Accra: Adwinsa Publications*

CONFERENCES/WORKSHOP/SYMPOSIA/SEMINAR

Wilson, K. M.

Capacity-Building Workshop for HIV/AIDS Focal Persons of UEW Satellite Campuses. 6th February 2014, North Campus, Winneba, Ghana.

Paper Presented:

Strategies to reach Key Populations in Higher Education Institutions in Ghana; the case of UEW’:

National HIV/AIDS Research Conference (NHARCON). Theme: “Utilizing Strategic Information for Effective National HIV and AIDS Response” Physicians and Surgeons office, Ridge Accra, September 10-13, 2013.

Paper presented:

Adopting HIV/AIDS Preventive Measures: Perceived Problems for In-School and Out-Of School Adolescents in the Akuapem North District, Ghana

ABSTRACT

The research was carried out in the Akuapem North District on the in-school and out-of school adolescents about the ABC method of HIV/AIDS prevention. The opinion of 200 respondents, made up of 140 in-school and 60 out- of school adolescents were sampled about the ABC method of HIV/AIDS prevention in the Akuapem North District of Ghana. A 5-part questionnaire was used to obtain information from the respondents. Cronbach's alpha was used to estimate the reliability of the pilot survey used to pre-test the instrument. The reliability co-efficient was 0.78. Descriptive statistics such as frequency and percentages were used to answer the research question. Also inferential statistics such as chi-square was used to test the hypotheses. The study revealed that most adolescents don't go by the ABC method of prevention due to so many myths. The results also showed that adolescents resent the use of condoms as a preventive measure because they are uncomfortable using them. Based on the findings the following recommendations; first, adolescents should be encouraged to use ICT gadgets in educational sectors to teach the various preventive measures. Second, more NGO's should participate in educating adolescents about the HIV preventive measures. Finally, religious bodies should play their part by educating adolescents in their religious sects

Esia-Donkoh K.

International Summer School on Social Protection in Developing Countries and Qualitative Research Methods, UCC, Cape Coast, May 12-25, 2013.

Paper presented:

Leadership styles of principles and job satisfaction among tutors of colleges of education in Ghana. (PhD Thesis Proposal).

Ngman-Wara E. (Dr.),

Distance Education for Teacher in Africa (DETA) Conference, Nairobi, Kenya, July 30
-1st August, 2013:

Paper Presented:

Ghanaian Junior High Science Teachers' Reflections on the Implementation of TESSA
Secondary Science Modules.

Ali A. C.

International Conference on Development Strategies, Nigeria Bayelsa, December 12,
2013:

Paper Presented:

Using Bayelsa Analysis to Model the Incidence of HIV/AIDS in Upper East.

Ammah, C.

10th regional research workshop for early career scholars. September 25-27. 2013,
Pretoria, South Africa.

Parenting styles and Ghanaian adolescents' depression, self-concept and self-esteem.
Poster presented at the International Society for the Study of Behavioural Development
(ISSBD)



FACULTY OF LANGUAGES EDUCATION

Atintono, S. A. (2013). The Semantics of the three Posture Verbs *gã* 'be lying', *zĩ* 'be sitting' and *ze* 'be standing' in Gurene: A cognitive Linguistics Perspective. *Journal of African Cultures and Languages*, 1 (1), 189-199.

ABSTRACT

*This article discusses the meaning and use of three human posture verbs *gã* 'be lying', *zĩ* 'be sitting', and *ze* 'be standing' in Gurene (Gur, Niger-Congo) spoken in northern Ghana, West Africa. The article specifically analyses the meanings of these posture verbs from a cognitive linguistics perspective. It is shown in this article that apart from their central meanings of sitting, lying and standing these posture verbs encode spatial relational properties that reflect the experience of the speakers of the language. It also discusses the extension of the meanings of the three posture verbs to express the location of other inanimate figures such as bottles, sticks, clothes and balls. It is argued in this paper that this extension of the central meaning of the posture verbs reflects the conceptualization of the speakers in categorising other entities with respect to human postures. The data comes from the use of positional verb picture stimuli sets designed by experts at the Max Planck Institute of Psycholinguistics (MPI) supplemented with real objects, my own Gur stimuli set, and spontaneous tokens collected from natural speech contexts.*

Issah, A. S. (2013). "The function of the postverbal *la* in Dagbani". *Studies in African Linguistics*, 42 (2), 153-174.

ABSTRACT

This paper investigates the function(s) of the post verbal particle la in Dagbani, a Gur language spoken in Northern Ghana. I contend that the particle marks neither imperfective aspect nor contrastive focus on NP objects and adjuncts, as suggested by earlier researchers. Here, I refine the existing analyses and put forth an alternative proposal in which the particle la marks presentational focus. I suggest that la could mark presentational focus on NP complements, adjuncts or the entire VP. I demonstrate that full NPs follow la, while object pronouns precede it, suggesting that object pronouns either undergo object shift or are syntactically bound to the verb. I also discuss ka and n, which have been proposed to have functions similar to la. More information on the interaction of these elements will be relevant for the understanding of the latter's function. I further show that there is a co-occurrence restriction between ka/n and post verbal la, as has been claimed by earlier research. I show that although we can have la that co-occurs with the focus markers ka/n, that la is probably a deictic discourse particle and not the presentational focus marker. I propose that when the deictic la co-occurs with ka/n, it appears only clause finally. I conclude that the use or non-use of the post verbal la is due to discourse-pragmatic considerations.

Issah, A. S. (2013). "The structure of the Dagbani simple noun Phrase". *South African Journal of African Languages*, 33 (2), 203-212.

ABSTRACT

This article discusses the structure of the Dagbani simple noun phrase. It is shown that, structurally, the Dagbani simple noun phrase is made up of the obligatory head noun and several optional elements. These optional elements generally follow the head noun of the simple noun phrase and so are labeled as post head modifiers. The adjective, the numeral, the demonstrative determiner and the quantifier are analyzed as the modifiers of the simple noun phrase in Dagbani. These modifiers give certain grammatical or semantic information about the noun they modify. Though the Dagbani noun phrase may take several post modifiers, these modifiers are strictly ordered since each modifier has a prescribed syntactic slot.

Issah, A. S. (2013). "Focus and constituent question formation in Dagbani". *Ghana Journal of Linguistics*, 2 (1), 39-62.

ABSTRACT

This paper explores how constituent interrogativization and focus play out in Dagbani, a Gur (Niger-Congo) language. I show that in the formation of constituent interrogatives, the interrogative word enters into a syntactic configuration with the focus markers ka or n depending on the grammatical role of the argument that an interrogative word substitutes for. This involves putting the interrogative word clause initially, and immediately following it with the appropriate focus marker. This distributional property of interrogative words serves as evidence in favour of my argument that focused interrogative words and focused elements share morphosyntactic parallelism. The data used in the analysis are drawn from text-based sources and some are constructed by me as a native speaker. The data are examined in line with the proposal that the variation in the positioning of interrogative words in languages can be explained by assuming that movement of interrogative words is universally triggered by [+wh] and [+focus] features, both of which are [+interpretable] and can be specified as [±strong]. I conclude that interrogative words occur in in-situ when no strong [+focus] features are introduced in the syntax, suggesting that Dagbani has both focused and non-focused interrogative words.

Dorzie, G.B. (2013). The structure, style and uses of Dagaaba Proverbs. *Journal of African Cultures and Languages* (1) 1, 114-120.

ABSTRACT

Proverbs occur very frequently in everyday speech of most African people. They form an integral part of oral literature. Because of their discursive, structural and sharpness of poetic appeal, they might, to some extent, be the finer form of art than those longer and/or written forms. For this reason, native speakers of African languages are far more likely to encounter and use proverbs and thus sound eloquent and expressive because they form a communication system that preserves and transmits the accumulated culture and spiritual values of the people. Opoku (1999) says that the Yoruba of Nigeria emphasize the value of proverbs by saying "A proverb is the horse that can carry one swiftly to the discovery of ideas". They (proverbs) therefore, serve as salt, seasoning the speeches of a speech community. Olatunji (1984) observes that proverbs are the horses of speech. When the truth is elusive, it is proverbs that we use to discover it. This paper, therefore, looks at the structure, the origin, uses and the etiquettes that go with proverbs so as to shed light on the cultural and societal values of the Dagaaba proverbs.

Sanortey, T. D. (2013). The Literary Devices in Kɔntɔmbɔɔr Birifor Festival Songs. *Journal of African Cultures and Languages*, 1 (1), 121-131.

ABSTRACT

This study is an attempt to examine the Literary Devices in Kɔntɔmbɔɔr (Birifor festival) songs within the Utilitarian Theoretical framework. The study aims at adding to existing knowledge into the academic domain of literature, by critically examining the literary devices. Purposive sampling of one Kɔntɔmbɔɔr song is selected from three Birifor communities in Wa West district of northern Ghana after a critical examination over two decades. The researcher was a participant observer throughout the festivals' nights and days in order to assuage suspicion and enhance rapport among the lead singers, neophytes, celebrants and the community members. Data analysis to the study is purely descriptive. People considered knowledgeable in Kɔntɔmbɔɔr lore were interviewed to elicit more information and understanding.

Abdul-Rahman F. (2013). Tense and Aspect in Dagbani. *Journal of African Cultures and Languages*, 1 (1), 142-148.

ABSTRACT

This work attempts a descriptive study of tense and aspect marking in Dagbani. Dagbani can be said to be [-tense] language since there are no clear indicators of basic tense in the language. Reference to future is identified to be marked by an independent preverbal particle ni. The study has shown that two forms of aspect exist in Dagbani namely perfective and imperfective. A combination of the bare form of the verb and post verbal suffixes are used to mark these aspects in the language. Alongside aspectual marking, the language uses the time depth markers di, sa, and daa in the preverbal position. The use of this time depth markers can be optional or obligatory depending on the context. The study has also demonstrated that an aspectual form of Dagbani may or may not co-occur with the post verbal focus marker -la and the affirmative marker -mi. The paper concludes that Dagbani seems to be more aspectual since all the aspectual forms are clearly marked on the verb while same cannot be said about the marking of tense in the language.

Ababila, J. A. (2013). The Power of Silence as an effective communication Tool. *Journal of African Cultures and Languages*, 1 (1), 164-169.

ABSTRACT

The role of silence as a speech act is the focus of this paper. It argues that silence can be observed in various dimensions in different communicative settings. The general perception of some people has been that the spoken word is more potent than silence. Speech is a face-to-face behaviour between the speaker and the audience in which there is immediate feedback. This leads to the question as to what silence actually mean. Does it mean the mere absence of speech? This question is answered in this paper by taken silence to means the state of being silent (as when no one is speaking) or the absence of sound. Analysis in this paper manifests silence in various dimensions ranging from domestic to formal levels. It is taken as a necessary precondition and accompaniment of ritual acts among various speech community members. The dimension, the structure, the semantics, the semiotic and acquisition of silence are all discussed in this paper. The paper also explains silence within the context of the ethnography of communication. It is about social identity and society's social status which are hierarchically structured in terms of rank, role, sex, age and even familiarity. The paper observes that silence is a form which reveals its meaning against the background of speech and concludes that silence serves as a medium of communication in itself and as a context of communication through non-verbal modes.

Ofori-Birikorang, A. (2013). The rhetoric of medical migration in Africa: Mitigating the phenomenon within a complex matrix of citizens' rights, compensation, and societal obligation. *Distance Forum*, 3, 204-225.

ABSTRACT

This paper provides an analysis of a speech delivered by Dr. Kwame Addo Kufuor-a minister of state, to a gathering of medical professionals. The speech is seen as an important communicative text in relation to the changes it seeks to effect in the provision of health services in Ghana. The paper situates the analysis through Burke's position on Rhetoric and approaches the discussion by using the identification concept, framed around universal binary of rights/obligations, and anchored on the principles of gratitude and compensation. The paper contests that notwithstanding its locus as external to the cumulative literature on medical migration, the text is pregnant with the identification/ rights-obligations/gratitude-compensation concepts and principles and consequently introduces newer and broader dimensions into the discourse. Through a close analysis of the text, the paper argues that exemplar speeches of government officials and political leaders on health issues can contain tropes of rhetorical significance.

BOOK REVIEWS/NOTES

Atintono, A. S. (2013). Review of the book Pragmatics across languages and culture, *Handbook of Pragmatics 7*, Trosborg, Anna (ed.), Berlin: Mouton de Gruyter 2010. *Language in Society* 42 (4): 469-470.

Ofori, K, Asoeevi, F. and Quansah E (2013) *Basic Linguistics* (units 3 & 4). Winneba: Institute for Educational Development and Extension

Hammond C. & Yeboah S. (2013). Folk Media Usage and Sustainance through Participatory Communication: The Case of Two Communities in the Central Region, Ghana. In E. Adedun and Y. Sekyi-Baidoo, *English Studies in Focus: Readings in Language and Literature*: Akoka, Nigeria

ABSTRACT

In the last few decades, there has been a growing interest by communication researchers on the evolution of Folk media as a form of grassroots expressions to ridicule oppressors, present strategies for resistance, rally popular support for rationalist and independence movements and also to roll out health campaign messages. But the question still remains as to how these implemented folk media programmes are maintained and sustained in this dynamic era of social media overflow. This paper addresses this gap by analyzing data on folk media usage and sustenance for overt attitudinal and behavioural changes in 2 communities in Central Region, Ghana. The study is qualitative and is underpinned by Akashoro et al.'s (2010) framework on Theater for Development (TFD), and Freire's (1997) Participatory Communication Model. The paper argues that the two frameworks present the best approaches to addressing behavioral change in communities with rural settings and with no access to mass communication and the social media. The findings of the study tacitly reveal that participatory communication rooted in the Frerian and Akashoroain ideas empowers communities to visualize aspirations, discover and initiate solutions for sustainable developmental needs.

CONFERENCES, WORKSHOPS AND SEMINARS

Wornyo, A. A.

6th Linguistics Association of Ghana Conference, Cape Coast, Ghana, July 29th -31st , 2013

Paper presented:

Phonological Nativization of Ewe Loanwords: The Case of English Loanwords.

ABSTRACT

This paper gives an account of phonological integration of English loan words into Ewe - a Kwa language spoken in Ghana and some parts of Togo. This study examines loanword nativization at three levels: phonemic, phonotactic and prosodic levels. Phonemic nativization addresses the strategies used in adapting the foreign phonemes to the native phoneme system. Phonotactic nativization examines how the syllable structures of English loanwords which are phonologically illicit in Ewe are made to fit into the phonotactics of the Ewe language. Prosodic nativization considers how the suprasegmental feature of stress in the source language is adapted into the Ewe tonal pattern. With regards to the nativization of incoming sounds into the language, the study found out that Ewe replaces such foreign segments with native sounds which are auditorily closest to the foreign sounds. Ewe resorts to two main phonological strategies to nativize the syllable structure of English words that are foreign to Ewe. This involves the insertion of a segment or the deletion of foreign segments to make the loanword conform to the syllable structure constraints of the native system. The study concludes that English phonemes are directly mapped onto corresponding Ewe phonetic forms.

R. O. Caesar & Y. A. A. Ollennu

45th Annual Conference on African Linguistics (ACAL45), Kansas, U. S. A, April 17-19, 2014.

Paper presented:

A morphosyntactic analysis of adjectives in two Kwa languages: Ga and Dangme.

ABSTRACT

The adjective category normally serves as attribute for the nouns in languages that do have them. The paper investigates the morphosyntactic properties of adjectives in two Kwa languages, Ga and Dangme. Both languages have derived and non-derived adjectives. The paper which is mainly descriptive, examines the similarities and differences that exist between these two Kwa languages in terms of their morphological and syntactic features. The paper reveals that though similarities exist in the occurrence of adjectives syntactically, there exist differences in their morphological properties. Dangme does nominalise some adjectives to function as subject and object of a clause whereas Ga does not always nominalise the object. On the other hand, Ga and Dangme show agreement in terms of number with the head noun for all adjectives used attributively. The paper concludes with the findings revealed after the comparative analysis of these languages. Data for this paper were collected from both primary and secondary sources.

Y. A. A. Ollennu

3rd Annual Colloquium Language Literature and Communication contexts, Practice and Pedagogy, UEW, Winneba, Ghana, November 13–14, 2013.

Paper presented:

Adjective Sequencing in Ga among Winneba students

ABSTRACT

The paper aims to examine the syntactic rules governing the occurrence of several adjectives serving as modifiers of a single head noun. The order of these adjectives has not received detailed scholarly attention in most Ghanaian languages. I argue that the order of adjectives is not haphazardly arranged but follow a laid down syntactic prescription. Consequently, defying the arrangement in ordering of the adjectives result in ungrammatical forms. The paper focuses on the use of three adjectives used in attributive position for the head noun. Data is gathered from students studying Ga in University of

Education, Winneba. The findings will contribute to the existing literature on adjective sequencing in Ghanaian languages.

Lomotey, F. & Otoo, R.

Joint Conference of the West Africa Linguistic Society (WALS) and Linguistic Association of Nigeria, Nigeria, July 29-August 2, 2013.

Paper presented:

Beliefs and Attitudes of English Teachers on Native Language Pedagogic Use: Implications for Ghanaian SHS English Teachers.

ABSTRACT

The study investigates the beliefs and attitude of Ghanaian English Teachers towards the use of L1 in SHS classrooms. There have been differing opinions on the use of the child's first language (L1) in the second language (L2) teaching and learning due to the present language policy (Sarfo, 2011) which enjoins teachers to use the L1 only during the first three years of the child's basic education. From Basic four (4) to the University, English is to be used as medium of instruction. However, it is common knowledge that most of the students who move into high schools still have problems expressing themselves in English and even, understanding lessons taught. As a result, teachers are usually compelled to reluctantly use the L1 to explain concepts. The focus of the paper is to examine teachers' attitude towards L1 used in the L2 classroom especially in a multilingual society like Ghana.

Otoo, R.

3rd Annual Colloquium Language Literature and Communication contexts, Practice and Pedagogy, UEW, Winneba, Ghana, November 13–14, 2013.

Papers presented:

Argument Sharing Patterns Syntax: Serial Verb Constructions

ABSTRACT

The paper explores the various argument sharing patterns that serial verbs share in the Ga Kwa Niger Congo languages. The study reveals that (ISVCs) Integrated Serial Verb Constructions show object sharing and clause chaining serial verb construction on the

other hand reveals overt and covert referent sharing. We argue that, a distinction needs to be drawn between Integrated Serial Verb Constructions (ISVCs) and Clause Chaining Serial Verb Constructions (CCSVCs) in Ga due to the different argument sharing patterns exhibited by the constructions in the language. The findings of the study indicate that overt anaphora constructions are rendered ungrammatical when serial connector is added whilst subject object sharing allows serial connector in Ga.

The Syntax and Semantics of the Verbid Ye in Ga

ABSTRACT

The paper examines the syntax and semantics of verbid expressions in Ga. Ga belongs to the Niger – Congo languages. It is spoken in the southern part of Ghana. Verbid is a word in an intermediate stage of grammaticalization between verbs and preposition (Lord 1993), but this is seen as a verb in the Ga language. It is assumed that the verbs are realized in chain and times do not share argument with their pre-verb in a sentence. It is therefore the focus of the paper to find out (i) the various forms that ‘ye’ can be expressed. (ii) the kind of argument it shares. (iii) the normalization status of the verb in question. The Lexical Functional Grammar model (LFG) will be employed for the analysis of the work.

Ofori-Birikorang, A.

3rd Faculty of Languages Education Colloquium, Winneba, 13-14 November, 2013

Paper presented:

Depictions of Violence and Rituals in Nigerian Movies: A Content Analysis

ABSTRACT

This paper, using a quantitative content analysis on some Nigerian video movies, popularly known as ‘Nollywood’, contests some of the earlier studies done on Nigerian video movies that tend to appropriate isolated phenomena of violence and rituals in these video movies and present them as the very basis upon which their underlying plots and themes are constructed. I make the argument that the incidents of violence and rituals that characterize these movies pale out into insignificance in relation to other plots and themes, as well as the larger social significance of the entire videos. From data collected from seven sampled Nollywood video films this paper further argues that the portrayal of incidence of violence and rituals represent symbols of mediation of social processes for

elucidating and giving meaning to behavior and attitudes, and cannot become absolute symbols of replication in real lives. I conclude that the degree of the quantitative composition and qualitative analysis of the incidents and scenes of violence and rituals in the movies are quite marginal, and or contextual, and cannot be sound grounds upon which any aberrant acts of violence and ritual-dominated behavior on the part of society could be attributed.

Ofori-Birikorang, A. (2014).

Television viewing in public places: Popular Culture & American Culture Association Conference, Chicago, IL. April 16-19, 2014

Paper presented:

Television viewing in public places: Popular culture, identity construction and evolving urban spaces in the metropolis.

ABSTRACT

This study engages a post-colonial millennial public sphere activity: viewing of soccer on television in public places and the performances that characterize, promote and sustain audience viewership within such spaces. The study contends that while viewing of television in public places is not a new phenomenon, the live telecast of attractive European Leagues, especially the English Premier League, in several places in Africa, made possible through new media technology and its ancillary satellite and pay-tv programs and anchored on popular culture, newer constitution of quilted audiences transcendental of class, gender and demography have provided novel spaces for popular culture performances. Using theories on popular culture, identity construction and gender politics, and through series of in-depth interviews and participant observation through the viewing of several of the European and English Premier League games, the study argues that aside these arenas emergence as by-products of capitalist spectacle, audiences preference for these public locations for television viewing is deterritorializing discourses on popular culture, gender politics, and identity construction.



FACULTY OF SCIENCE EDUCATION

Annan, J. N. (2014) Growth and photosynthesis response of the green alga, *Picochlorum oklahomensis* to Iron limitation and salinity stress. *International Journal of Plant Physiology and Biochemistry*, 6 (1), 7 – 18.

ABSTRACT

The extreme environment of the Great Salt Plains (GSP) results in low algal biomass, such that natural selection is likely driven by survival of multiple abiotic stresses rather than rapid growth and biotic interactions. The objective of this study was to determine the effect of combined salinity stress and iron limitation on growth and photosynthesis in the green alga Picochlorum oklahomensis isolated from the GSP habitat. Algal cells were grown in batch cultures under iron sufficiency or iron limitation at salinities of 10, 50 and 100 ppt. in artificial seawater (AS 100) medium. Cells were physiologically characterized by growth rates, cell density, photosynthetic light-response curves (oxygen evolution), pigment composition, and the chlorophyll fluorescence parameters Fv/Fm , ΦPSII, qP and NPQ. P. oklahomensis cultured in no added Fe exhibit smaller inhibition by 100 ppt salinity relative to 10 ppt. Thus high salinity appears to be reduced under low nutrient conditions. Fe stress resulted in qualitative differences in physiological response. The interaction between salinity and low iron is consistent with a general stress response that concurrently protects against several abiotic stress factors.

Apawu, J. (2014). Teaching undergraduate course: Blended instruction versus traditional instruction. *Future Tech: An International Journal of Science and Technology*, 1 (1), 9-15.

ABSTRACT

The comparison of blended instruction and traditional instruction is very rare in Africa and for that matter Ghana. This study examines students' views on blended instruction mode as well as the comparison of the blended instruction mode and the traditional mode of instruction in terms of performance. This study adopted descriptive survey design. Purposive sampling was employed in selecting two different groups (Group A and Group B) of level 200 students who took Fundamentals of Computer Programming course in the Mathematics Education Department of the University of Education, Winneba. Sample size calculator was used to determine the sample size of 123 and 112 for Group A and Group B respectively with 5% margin of error, 95% confidence level and 50% response distribution. In order to avoid unbiased comparison between Group A and Group B in students' performance, Statistical Product and Service Solutions (SPSS) originally called Statistical Package for the Social Sciences (SPSS) version 16 was used to randomly select the sample size of 123 and 112 from the final semester results of the 2 groups. In addition, fifty-six (56) students were purposively selected from Group B to seek their views on the blended instruction. The instruments used in data collection were test and questionnaire. The questionnaire items had Cronbach Alpha value of .73. Data were analysed quantitatively using descriptive and inferential statistics. On students' view on blended instruction, the highest mean score of 4.27 corresponds to face-to-face meeting. The next four rating starting with the one with the highest mean score are Assessment (mean = 3.98), Content (mean = 3.68), Blended instruction in general (mean = 3.57) and Ease of use of Moodle (mean = 2.72) all showing medium ratings. The results also revealed that there was statistically significant difference in the mean scores between the two groups specified at .05 level, . Higher institutions in Ghana need to adopt the blended mode of instruction in order to enhance effective teaching and learning process.

Mereku, D. K. (2014). Diploma disease in Ghanaian distance education upgrading programmes for teachers, *Open Learning: The Journal of Open, Distance and e-Learning*, 29 (1), 45-58. <http://dx.doi.org/10.1080/02680513.2014.914430>

ABSTRACT

This research explores manifestations of 'diploma disease' in distance education (DE) upgrading programmes for basic school teachers in Ghana. A survey design which included document analysis was used to explore the emphasis in the contents of the

DE programme and the experiences of teachers who took the programmes. The study involved a sample of 230 students (140 males and 90 females) who were all teaching in public schools (66% in primary and 31% in junior high schools). The findings indicate that the programme was fulfilling its purpose of upgrading a large number of teachers so they acquired a diploma and/or degree qualification for teaching in Ghanaian basic schools. In spite of their average satisfaction with their experiences of several aspects of the DE upgrading programme, a substantial proportion of the participants indicated that they had great difficulties in carrying out such activities as 'teaching large classes' and 'teaching new content areas introduced into the syllabuses' because the programme provided little opportunity to develop these skills. Finally, since the DE programme is based on the official curriculum designed for the traditional face-to-face programme, the failure of the former to increase teachers' capacity to deliver as envisaged by the initiators of the programme can be attributed largely to inefficiencies in the official curriculum. The study concluded that the DE programme's inability to increase teachers' capacity to deliver better teaching is a manifestation of a 'diploma disease' resulting from inefficiencies in the nation's teacher education system. Suggestions are made for improving the quality of DE upgrading programmes.

Mereku, D. K. & Mereku, C. W. K. (2013). Ghanaian case study of singing games in ethnomathematics. *Journal of African Culture and International Understanding*, 2 (6), 16-24. Available at http://issuu.com/iaciu-oopl.org/docs/unesco-iaciu_journal-no._6__2013.

ABSTRACT

All cultures have generated mathematics ideas just as they have generated language, religion, morals, customs and games. In the last three decades, researchers have tried to establish that mathematical ideas exist in every culture. The Brazilian mathematician, Ubiratan D'Ambrosio, termed such mathematics ideas as ethnomathematics, which he explains is the application of mathematical ideas and practices to problems that confronted people in the past or are encountered in present contemporary culture. Though researchers have indicated that several fundamental and universal activities exist in all cultures, which can be used to make mathematics learning more meaningful in schools, in Ghana such activities are generally taken for granted and ignored in school mathematics. This paper discusses how such mathematics ideas, particularly rhymes and singing games can be integrated into teaching topics in schools mathematics.

Ba-Ama, E. & Ackah, P. Y. (2014). Causes of Neglect of the Aged in Sekondi-Takoradi Metropolis, Ghana. *International Research Journal of Arts & Social Science*, 3 (1), 8-16.

ABSTRACT

The study investigated 200 respondents comprising of 100 aged and 100 caregivers on the causes of perceived neglect of the aged by the family. The aged respondents were between 65 – 89 years while that of their caregivers were between 10 – above 60 years with majority (74%) being females. Interestingly, only 4% of the caregivers had been employed. There was significant difference ($p < 0.05$) between the ownership of residence of the aged and the people the aged lived with. From the study, 60% of the aged did not live with family members. Those who did not live with their family members attributed the situation to accommodation problem, economic hardships, migration among others. Sixty eight per cent affirmed that they were seldom visited by their children, other relatives or friends.

Ackah, P. Y. (2014). Clothing young children without stretching the family's resources. *Global Advanced Journal of Management and Business Studies*, 3 (1), 7-10.

ABSTRACT

The paper focused on meeting the clothing needs of young children considering their developmental stages and more importantly guiding parents to be resourceful by adopting proper management principles as they satisfy this basic need of life for quality living.

Donkor, J. A., Gavor, M. E. & Offei-Ansah, C. (2013). Management of credit by rural women in central region of Ghana. *Global Advanced Research Journal of Peace, Gender and Development Studies*. 2, 26-33.

ABSTRACT

The purpose of the study was to find out how women manage credit in rural district in Ghana and examine the relationship between credit management and age and educational level of women. One hundred and eighty-three respondents were randomly selected from four different groups of women engaged in small scale businesses in rural communities in Ghana. Data was collected with structured interview schedule. The results were analyzed and presented in frequency, percentage; mean, standard deviation, correlation and regression tables. Findings revealed that most of the women sourced credit from informal sources such

as friends, family members and credited items from wholesalers. The women lacked proper credit management skills and therefore managed credit sourced in their own informal ways such as through daily 'susu' contribution, kept sales of items sold in different containers and records of purchases and sales in memory. Also, they managed to honour repayment because it was upon regular payments agreement that more credit was given to keep them in business. Based on the findings, it is recommended that the micro-credit financial institutions and the local government who offer credit to such small scale businesses as well as the universities should organize credit management programmes as part of their community service to train the women on skills in record keeping, savings and the application of principles of credit management especially budgeting in order to effectively manage credit sourced.

Quarcoo, R., Gavor, M. E., & Tetteh-Coffie, D. (2013). challenges facing garment producing industries under AGOA in Ghana. *International Journal of Clothing Science*, 2 (1), 9-14. doi: 10.5923/j.clothing.20130201.02.

ABSTRACT

The general objective of the study was to look at the challenges facing garment producing industries under AGOA in Ghana. The study was conducted using 116 workers from four garment producing industries in Accra and Tema. Questionnaires and interview schedules were developed and used to collect data from the sampled workers. Statistical techniques such as means and percentages were used to analyse the data collected. The industries and workers have major challenges such as lack of motivation, inadequate facilities and amenities, lack of funding, and insufficient managerial ability. Strategies that will help improve operations in the industries were mentioned by workers and this were grouped in two i.e. welfare and factory running. The following recommendations were made: 1. The Ghana Trades Union should monitor the industries and make sure the workers are duly paid for what they work for and on time. 2. The Government should help the industries financially or help them assess loans or the US credit facilities that will enable them acquire modern equipment and pay their workers well.

Amu, M. E. K., Akaba, S. Oduro, I. A. A. & Quarcoo, R. (2014). Contribution of child labour to children's schooling in and around the University of Cape Coast. *Asian Journal of Educational Research*, 2 (1), 14 -27.

ABSTRACT

Child labour has become a global phenomenon especially in developing countries. Most discussants of the topic focus on rural Ghana where agriculture dominates economic activity with little or no attention given to the presence of child labour in educational institutions. This study set out to find out the contribution of child labour to the schooling of children in and around University of Cape Coast community. Structured interview and observation were used to collect data from respondents who were obtained through the snowball method. In all, fifty (50) respondents were involved in the study. It also found that, economic constrains, poverty and occupational background of parents compel children to get themselves involved in child labour mainly in the form of providing domestic services for students. The data shows that child labour has both positively and negatively contribution to the education of children in the study area. Positively, it enables some of the children to buy school items for themselves. On the contrary, the child labour takes most of the respondents' time making them get to school late among other. Based on these findings, it was recommended that the activities of these children be regulated to some extent to ensure that even as they engage in the labour, they do so in such a way to still have adequate quality time for their school attendance, and home work among others.

Mereku, D. K. (2013). Ghanaian educational institutions' capacity for, and approach to, ICT pedagogical integration. *International Journal of Technology & Management Research*, 1 (2), 27-30. Available at <http://koforiduapoly.edu.gh/journal/index.php/secondedition/issue/current>

Acquah, S. & Hanson, R. (2013). Analysis of level of comprehension of hazard signs in science lessons: A case for Ghana. *International Journal of Educational Leadership*, 5, 142-149.

Baba, J. A. (2013). The development of a national sports coaching diploma programme at the University of Education, Winneba: The need for a programme design process. *International Journal of Special and General Education, 1*, 83-88.

Omoregie, P.O. (2013). Effect of sports psychological therapy in checking susceptible athletes. *Journal of Current Trends in Sports, 1*, 190-209.

Omoregie, P.O., Fatoba, M.T. & Obajimi, G. A. (2013). Environmental influence on sport facilities usage and maintenance at workplace of Staff School Power Holding Corporation, Nigeria. *International Journal of Multi-Disciplinary Studies and Sports Research, 3*, 26-31.

Omoregie, P.O., Tetteh-Opai, A.A. & Akuru, B. G. (2014). Preparing athletes and ensuring optimum mental readiness for success outcome. *Benin Journal of Educational Studies, 22*, 15-34.

BOOK/BOOK CHAPTER

Ocansey, R., Sofu, S. & Baba, J. (2013). Perspectives on physical education and after-school sports in Ghana. In Jepkorir Rose Chepyator-Thomson & Shan-Hui Hsu (Eds.), *Global Perspectives on Physical Education and After-School Sport Programs* (pp. 13-35). Lanham, MD: University Press of America, Inc.

Asabere-Ameyaw A., Anamuah-Mensah, J., Dei, G. J. S. and Raheem, K. (2014): *Indigenist African Development and related issues: An introduction*. In: Asabere-Ameyaw A., Anamuah-mensah, J., Dei, G. J. S. and Raheem, K. (eds): *Indigenist African Development and related issues: Towards a transdisciplinary perspective*. 1-14, Rotterdam, Sense Publishers.

Asabere-Ameyaw A. (2014): Improving Education Standards in Africa: The Place of University of Education. In: Asabere-Ameyaw A., Anamuah-mensah, J., Dei, G. J. S. and Raheem, K. (eds): *Indigenist African Development and Related Issues: Towards a transdisciplinary perspective*. 79-90, Rotterdam, Sense Publishers.

Asabere-Ameyaw A. (2014): *Enhancing Scientific Literacy of the African Learner: Challenges and Possibilities*. In: Asabere-Ameyaw A., Anamuah-mensah, J., Dei, G. J. S. and Raheem, K. (eds): *Indigenist African Development and Related Issues: Towards a transdisciplinary perspective*. 101-118, Rotterdam, Sense Publishers.

Asabere-Ameyaw A., Anamuah-mensah, J., Dei, G. J. S. and Raheem, K. (2014): *Indigenist African Development and Related Issues from a Transdisciplinary Perspective Towards a Conclusion*: In Asabere-Ameyaw A., Anamuah-mensah, J., Dei, G. J. S. and Raheem, K. (eds): *Indigenist African Development and Related Issues: Towards a Transdisciplinary Perspective*. 217-222, Rotterdam, Sense Publishers.

Asabere-Ameyaw A. (2012): African schooling and education: the hopes, aspirations and challenges – critical dialogue. University of Ilorin 28th Convocation Lecture, Unilorin Press; 25pp

Madah, K. C. et al (2010) *Endangered Ghanaian Dishes & Cassava Products*. Accra: Yamens Press Ltd.

CONFERENCES, WORKSHOPS AND SEMINARS

Asabere-Ameyaw A.

1st International Conference, School of Technology Education, Federal University of Technology, Minna, Nigeria, October 6-9, 2013: xii-xix

Paper presented
Science, Mathematics and Technology education in the context of Africa

J. Nana Annan

A Seminar held at the Community Health Nurses Training School, Winneba on March 4, 2014.

Paper presented:
“Effective Communication - A Tool for Quality Health Care Delivery”.

J. Nana Annan

15th Congress of the European Society for Photobiology held in Liege, Belgium, September 2-6, 2013.

Paper Presented
“Effect of Solar Visible and UV Radiations on Photosynthesis and Pigmentation in the Cyanobacterium, *Lyngbya majuscula*”.

D. K. Mereku

2014 Biennial Regional Summit on “Harnessing Culture for Sustainable Development and Human Security in Africa”, February 28- March 5, 2014, organized by the UNESCO Institute for African Culture and International Understanding in partnership with the Centre for Human Security, Olusegun Obasanjo Presidential Library, Aboekuta, Nigeria.

Paper Presented
Scientific Perspectives to African Cultural Expressions

R. Hanson

Faculty Seminar, March 26, 2014.

Paper presented

Chemistry Teacher Trainee's interpretation of safety rules and symbols

R. Hanson & J. Nsiah Asante

International conference on computational and mathematical Methods in Science and engineering, at VAAL University, Vanderbijlpark, South Africa, (ICCMSE-VUT 2013), September 25-27, 2013

Paper presented:

An exploration of experiences in using the hybrid moodle approach in the delivery and learning situations at the University of Education, Winneba, Ghana.

Omoriegie, P. O.

55th World Congress Conference: International Council for Health, Physical Education, Recreation, Sport & Dance. December 19-21, 2013. Istanbul, Turkey.

Paper presented

Efficacy of exercise on depression, anxiety and mood state of individuals.

Obajimi, G. A., Omoriegie, P. O. & tetteh-Opai, A. A.

55th World Congress Conference: International Council for Health, Physical Education, Recreation, Sport & Dance. December 19-21, 2013. Istanbul, Turkey

Paper presented

Synthesis of research germane to motivational foundation of exercise and physical activity participants



FACULTY OF SOCIAL SCIENCES EDUCATION

Odumah, L. K. (2013). Investigating bullying as a violation of human rights among students in Ghanaian senior high schools. *Research on Humanities and Social Sciences*, 3, (17), 1 – 8.

ABSTRACT

This study examined bullying as a form of violence among Ghanaian senior high school students. The main purpose of the study was to ascertain the extent to which students violate the fundamental human rights and freedoms of their fellow students. Descriptive survey and quasi-experimental pre-test/post-test control group design were adopted for the study. Multi-stage sampling technique was applied to arrive at a sample of 180 for the study. Questionnaire was the main instrument used to collect the data. The test-retest method was employed to determine the reliability of the instrument. The data collected were subjected to both descriptive and inferential statistics. The research question was analyzed using frequency distribution and percentages. The hypothesis was tested at 0.05 level of significance, using a one-way analysis of covariance (ANCOVA). The findings of the study revealed that the treatment package administered to the experimental group produced a positive effect because bullying diminished among the participants who were exposed to treatment than those in the control group. It is, therefore, recommended that co-operative and pro-social ways of thinking must be promoted among students. In this way, the school ethos which contains elements that often foster intimidatory behaviours can be changed.

Ayaaba, D. A. (2013). The attitude of students towards the teaching and learning of Social Studies concepts in Colleges of Education in Ghana. *Research on Humanities and Social Sciences*, 3, (9), 83-89.

ABSTRACT

The study was structured within the framework of descriptive survey. Two hundred second year students drawn from four Colleges of Education constituted the sample. The simple random sampling technique was used to select fifty second year students from each of the four sampled colleges. The instrument of data collection was questionnaire. Ten items designed on a four-point Likert scale were used to collect data on research question 1. For research question 2, respondents were required to list some factors that facilitated, as well as those that hindered the teaching and learning of social studies. The study revealed that the college students had a positive attitude towards the teaching and learning of social studies. Factors such as the provision of instructional materials, including computers, and the use of resource persons enhanced the teaching, learning and internalization of concepts. It also came to light that the attitude of students towards the learning of social studies, lack of funds to organize fieldtrips and lack of well equipped libraries and social studies resource rooms hampered the effective teaching and learning of concepts in social studies.

Amoako, S. (2014). “Teacher Unions’ in Political Transitions: The South African Democratic Teachers’ Union (SADTU) and the Dying Days of Apartheid, 1990-1993.” *Journal of Asian and African Studies*, 49 (2), 148-163.

ABSTRACT

The negotiation to end apartheid – which was initiated in secret in the 1980s – solidified in the 1990s when FW de Klerk unbanned the African National Congress (ANC), South African Communist Party (SACP), Pan African Congress (PAC) and other political and social movements, as well as struggle icons, prominent among whom was Mandela. The South African Democratic Teachers’ Union (SADTU) emerged within the euphoria surrounding Mandela’s release and the negotiations to end apartheid. SADTU combined its educational struggles with the political struggle to end apartheid rule. Drawing on documentary (mainly archival), newspaper reports and oral evidence, this article examines SADTU’s struggles for recognition, its resistance against education restructuring, and its defiance campaign against inspection from 1990–1993. I suggest that SADTU’s contentions during the period were rooted in the political struggle to end apartheid rule since it regarded the apartheid education departments as illegitimate structures needing to be dismantled. In addition, the socio-economic undercurrents that characterized the transition were carried into education restructuring and thus pushed SADTU into militancy.

Amoako, S. (2014). Teaching and Labor: Teacher Unionism in Ghana, 1931-1966. *International Journal of African Historical Studies*, 47 (1), 55-75.

ABSTRACT

This article examines the development of teacher unionism in Ghana. It pays attention to the period from the early 1930s to the end of the first post-independent government under Nkrumah. It investigates the formation of teacher organisations, teacher organisations relations with the state, and the internal struggles among the teacher unions. It will be argued that the teacher unions remained confrontational towards the state, if the material conditions of teachers' deteriorated amidst general labour and political discontent. Even so, if the state was able to mediate their economic needs and improve their work conditions, teachers' agitations receded, even if there remained general labour discontent. However, the posturing of the state in resolving teacher grievances was in constant flux. While, the attitude of the colonial government in the 1940s in resolving teacher agitations remained conciliatory, the demeanour of the government during the period of the diarchy (1952-1957) was high-handed and authoritarian. The post-independent government (1957-1966) effectively co-opted the teacher union by interfering in its internal affairs even as it improved the wages and conditions of service of teachers. Amongst the teacher organisations, disagreements over whether teachers should form professional associations or trade unions and the disparity between mission and government teachers divided them.

Adu-Boahen., K. Sam, E. F., & 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.

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.

Adu-Boahen, K., Ceasar, J. A., Antwi, K. B., Inkoom, J. N., Mensah, E. A. & Kissah-Korsah, K. (2014). Assessment of management attitudes on Corporate Social Responsibility in Ghana: A case of some selected companies in the Tema Metropolis. *European Journal of Business and Social Sciences*, 2, (11), 102-113.

ABSTRACT

This explorative study examined how managers and executive directors regarded the ethical and social responsibility reputations of some selected companies and how this in turn influences their attitudes and behaviours towards corporate social responsibility (CSR) practices. Sixty (60) respondents were surveyed to evaluate how ethical and socially responsible they believed their companies to be, and their attitudes and ethics that shapes these practices. The results of this survey indicates that many managers and executive directors have clear understanding on the reputation and benefit corporate social responsibility brings to their respective companies. This company ethics overrides their personal ethics and intended behaviour towards CSR. The findings support the view in other research studies that the most important factor that influences a managers' attitude towards CSR is the companies ethical values. That notwithstanding, this outcome deviates from government institutional guidelines for CSR practices in Ghana. The nature of CSR practices amongst the companies have been dominated by environmental dimensions with less emphasis on human resource development, and product safety within the past five years. It is recommended that firms establish measurable objectives and, where appropriate, targets for improved corporate social responsibility, including periodically reviewing the continuing relevance of these objectives.

Adu-Boahen, K., Atampugre, G., Antwi, K. B., Osman, A., Osei, K. N., Mensah, E. A. & Adu-Boahen, A. O. (2014). Waste management practices in Ghana: challenges and prospect, Jukwa Central Region, *International Journal of Development and Sustainability*, 3, (3), 530-546.

ABSTRACT

The study sought to assess the challenges and prospects associated with waste management practices of the inhabitants of Jukwa. It employed a descriptive survey design and 600 house hold heads were targeted. Questionnaire/interview schedule, focus group discussion and observation checklist were used to collect data. The data obtained from the field was analyzed using SPSS (version 16). The study found that the dominant form of waste that the people generate were solid in nature. It was also revealed that considerable number of the residents disposed off their waste mainly by burning. The study recommends that education and awareness creation by environmental health officers and health professionals through community gatherings, durbars and other social meetings to improve sanitation, ensure healthy living and clean environment must be pursued with all the seriousness it deserves. Further, communal labour must be organized by assembly members and communities frequently in order to deal with the menace.

Adu-Boahen K., Mensah A. E, Kissah-Korsah, K, Adams, O. (2014). Socio - economic impact of Lake Bosomtwe shoreline changes on catchment residents in Ghana. *International Journal of Scientific and Research Publications*, 4 (2), 2250-3153.

ABSTRACT

This study examined the impacts of the shoreline changes on the livelihood of the surrounding communities along Lake Bosomtwe basin of Ghana. The study employed the mixed methods approach to undertake the research by triangulating primary and secondary source data. In-depth interview and questionnaire were used to solicit information from eighty seven (87) respondents on their knowledge and perception on Lake Bosomtwe shoreline change and its impacts on their livelihoods. The

main findings of the study are that the gradual depletion of the lake is being felt by the population who depend on the lake for their means of livelihood. It is recommended that committees be set up within the three districts to provide environmental education and proper management of the lake as it serves as the highest income generating venture.

Adu-Boahen, K., Antwi, K. B., Mensah, E. A., Atampugre, G., Osman, A., Osei, K. N. & Adu-Boahen, A. O. (2014). Role of rural infrastructural development in alleviating poverty in Ghana: A case of Jukwa, Central Region. *International Journal of Development and Sustainability*, 3 (4), 737-748.

ABSTRACT

The study assessed the state of infrastructural development on the quality of life of the inhabitants of Jukwa. The study employed a descriptive survey design and 600 house hold heads were targeted. Questionnaire/interview schedule, focus group discussion and observation checklist were used to collect data. The data obtained from the field was analyzed using SPSS (version 16). It was noted that a huge infrastructural gap exists within the Jukwa community which serves as a contributing factor to the socio-economic woes of the inhabitants. It is recommended that, the District Assembly see to the supervision and possible completion of all on-going and stalled projects captured in the District Assembly's Medium Term Development Plan (DMTD 2010-2013). This will ensure accountability and rural development and will serve as a catalyst for taking the people from the poverty cycle. The completion of these stalled projects will help reduce the infrastructural gap that exist in the area.

Adu-Boahen K, Adu-Boahen, A. O & Kissah-Korsah, K. (2013). Analysis of HIV and AIDS related behavioural practices, knowledge, and beliefs among public junior high school pupils in the Cape Coast Metropolis, *Distance Forum*, 3, 267- 295.

ABSTRACT

The study assessed knowledge, attitude, behaviours and practices among some selected Junior High School pupils in the Cape Coast Metropolis. It employed the non-experimental study design and was purely descriptive in nature. Simple random and purposive sampling techniques were employed to select 136 pupils from the schools to participate in the study. The research instrument used for the study was a questionnaire. It has been shown that the level of knowledge and awareness about HIV and AIDS on the average was very high among the respondents. The major source of information to the

pupils in the selected schools in the Cape Coast Metropolis was the mass media and these include the televisions, radio and the newspapers. It is recommended that the Ministry of Education programmes have to strengthen youth counselling, peer education, and HIV and AIDS as well as life skills education into the curricula of teacher training colleges in Ghana.

Adu-Boahen, A.O. (2014). Who becomes a history teacher in Ghana? Characteristics and experiences of UCC history student teachers upon entry into the university. *International Journal of Scientific and Research Publications*, 4 (2), 2250 - 3153.

ABSTRACT

The study explored the experiences and characteristics of history student teachers as they are admitted into the history teacher education programme in the University of Cape Coast. The study surveyed 16 history student teachers, 3 lecturers and Twenty four (24) practising teachers. A combination of purposive sampling and census methods, stratified sampling and snowball sampling techniques were respectively used for the study. The results showed that candidate who chose to pursue teacher education in history at the university of Cape Coast had some teaching experience mostly at the basic level and had taught history related subjects. Also student teacher candidates had good grades in history as well as good aggregates before enrolling into the programme. Again individuals who intended pursuing the programme also had interest in the study of history.

Brako, I. and Nofiu, O.A.(2014).“Uprooting the ugly blemish of corruption or fraudulent practices from the administration of local government”. *Ife Journal of Behavioural Research*, 6 (1), 25-36.

ABSTRACT

This paper examined the means of uprooting corruption or fraudulent practices at the local government level. Apart from discussing the general overview of corruption or fraudulent practices, focus was on this menace at the local government level in Nigeria while the examples were also taken from the Nigerian experience. Some factors that cause corruption or fraudulent practices as identified in the study include ethical bankruptcy, low-pay for the officials, cultural factors, social/societal pressure, weak legal framework as well as institutional weaknesses. It went on to suggest that the important requirements to fight bureaucratic and political fraud or corruption resides among other factors in strict adherence to ethical rules governing civil service procedure, well remunerated

workers, proper auditing of local government account as at when due by independent firm, banishment from appointment into the public service or holding public office, as well as, a viable legal and regulatory framework that will enforce the law and regulation without fear or favour.

BOOKS

Ngaaso, C. K., Abato, J. A., Owereko, M. & Henyo, I. (2011). Social studies atlas for basic schools. Accra. Adwinsa Publications (GH) Ltd.

CONFERENCES

Amoako, S.

3rd Social Science Conference – Bringing the Gown to Town: Academic Voices in a Global Village, University of Education, Winneba, Ghana 12-14 March, 2014.

Paper presented:

Striking where it Hurts: The National Association of Graduate Teachers (NAGRAT) Strikes of 2005 and 2006: A Study in the Political Economy of Labour Relations in Ghana's Public Education Sector.

ABSTRACT

This paper examines the 2005 and 2006 strike actions of the National Association of Graduate Teachers (NAGRAT). The paper seeks to investigate the bottom line of teacher grievances during the New Patriotic Party (NPP) government's administration; government responses to these agitations; and finally, highlight some significant contours of the political economy of labour relations in Ghana's public education sector. It will be demonstrated that, among other things, it was the lackadaisical attitude of government, the Education Ministry and the Ghana Education Service in resolving teacher grievances that resulted in the 2005 and 2006 strikes. I also argue that the posturing of the government and its institutions in resolving the teacher's grievances, once the strike had started, entrenched the attitudes of the striking teachers and prolonged the strike action. The government's failure to stifle the teacher's discontent into manageable proportion resulted in legal pressure and threats of dismissal aimed to compel the striking teachers to drop their action. The government also attempted to drive a wedge between the NAGRAT and the Ghana National Association of Teachers (GNAT), by hiding behind the technicality of the use of the collective bargaining certificate in the education sector, and presented the strike action as a rift between the GNAT and NAGRAT rather than between NAGRAT

and the government. Furthermore, the government sought subtly, to pitch the public, at least its sympathisers, against the striking teachers by constructing the strike action as politically inspired to discredit its administration. Primary sources used for the paper were drawn from personal interviews, newspaper reports, non-participant observations, and official union documents, which includes letters, memoranda, and press releases.

Amoako S.

Perspectives on Ghana: An International Conference organised by the Ghana Studies Association and hosted by Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, 23 -26 May 2013.

Paper Presented:

Black Board Struggles: Teacher Unionism under the ‘Democratic’ Rawlings Regime 1992-2000.

ABSTRACT

The transition to democratic governance in 1992/93 had mixed implications for teacher unionism. Firstly, the promulgation of PNDC Law 309 enabled teacher unions, just like other public sector unions, to negotiate directly with the state. However, the continuing economic atrophy of the nation, combined with the government’s lackadaisical attitude towards negotiating teacher grievances, pushed the teacher union to embark on strike actions and seek legal reliefs to force the government to address its grievances. Secondly, the 1992 constitution that allowed for trade union pluralism, combined with the dissatisfaction of some graduate teachers (those with university degrees) with the Ghana National Association of Teacher’s (GNAT) inability to fight to improve the conditions of service of its graduate members, provided an avenue for these disgruntled graduate teachers to breakaway to form the National Association of Graduate Teachers (NAGRAT), which registered as a trade union. In examining teacher unionism under the Rawlings regime, this paper seeks to highlight the causes of teacher agitation after Ghana’s transition to liberal democratic rule; investigate government responses to these grievances; examine the internal conflicts of organised teachers, and thus, shed light on some significant contours of the political economy of labour relations in Ghana’s public education sector during the period under review. The paper adopts a qualitative approach and uses primary data generated from interviews, newspaper reports as well as analysis of official union documents, which include memoranda, press releases, petitions, and official union correspondence.

K. Adu-Boahen, & Enoch F. Sam

3rd Social Science Conference, University of Education, Winneba, South Campus,
March, 12-14, 2014

Paper presented:

Assessing the factors that influence public transport mode preference and patronage:
Perspectives of students of University of Cape Coast (UCC), Ghana.

ABSTRACT

The study assessed 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.

A. O Adu-Boahen

3rd Social Science Conference, University of Education, Winneba, South Campus,
March, 12-14, 2014.

Paper presented:

Who becomes a history teacher in Ghana? Characteristics and experiences of UCC
history student teachers upon entry into the university.

ABSTRACT

The study explored the experiences and characteristics of history student teachers as they are admitted into the history teacher education programme in the University of Cape Coast. The study surveyed 16 history student teachers, 3 lecturers and Twenty four (24) practising teachers. A combination of purposive sampling and census methods, stratified

sampling and snowball sampling techniques were respectively used for the study. The results showed that candidate who chose to pursue teacher education in history at the University of Cape Coast had some teaching experience mostly at the basic level and have taught history related subjects. Also student teacher candidates had good grades in history as well as had good aggregates before enrolling into the programme. Again individuals who intend pursuing the programme also had interest in the study of history.

Weiler, J. & Akansor, J.

3rd Social Science conference: Bringing the gown to the town: Academic voices in a global village, University of Education, Winneba, Ghana, March 12-14, 2014

Paper presented:

University students' perception of history as a subject: A survey of University of Education, Winneba Social Science Education students

ABSTRACT

The focus of the study was to ascertain how social sciences students perceive History and how these perceptions affected students' interests and decisions in choosing to study (or not to study) History. A descriptive survey design that employed both qualitative and quantitative methods was adopted using questionnaires and focus group interviews. The sample included 447 of History major and minor students as well as other Social Science Education students of UEW in 2011 and 2013. Results indicated that students perceive history as a valuable subject and have interest in its study. However, there are factors militating against these interests. In general, they perceive history as a difficult subject that elicits poor marks. The subject is also seen as being abstract and not connected to current trends or realistic job opportunities. However, students who study history tend to have a different perspective. They are more likely to see the subject area as being more relevant to current issues, more engaging in critical analysis, and offering more prospective career opportunities. In conclusion, this study stands as a challenge to the Department of History, history lecturers, and students to reconceptualize how history is to be studied.

K. Asah-Asante & I. Brako,

3rd Social Science Conference, University of Education, Winneba, 15th-17thMarch, 2014

Paper presented:

Media Crusade against corruption in Ghana's Fourth (Republic (2004-2012))

ABSTRACT

The study is anchored in the agenda setting theory of the media. To achieve the set objectives, articles on corruption covered by three private newspapers in Ghana were picked for the study. It was evident the media has played its role in exposing corruption, but the lackadaisical attitude of government and the appropriate state institutions have failed to act, thus making the phenomenon to blossom. There is the urgent need for both government and the relevant institutions to demonstrate serious commitment to fight against this awful menace.

I. Brako & K. Asah-Asante

3rd Social Science Conference, University of Education, Winneba, 15th-17thMarch, 2014

Paper presented:

Single Spine, Double Spine or Multiple Spine: Solving the Matrices of Ending Labour Agitations for a Rewarding Compensation in Ghana

ABSTRACT

This paper traces various attempts both past and present governments have made to find a lasting solution to the protracted labour agitations for enhanced remuneration for a comprehensive, equitable and rewarding compensation package for public workers in Ghana. It enquires into other possible measures of solving the matrices of confronting the onslaught in the labour front to stem the tide of agitations over wages and salaries. The data were obtained from both primary and secondary sources. The primary data comprise reports of commissions and committees set up to review wages and salaries for the country's public sector which is supported with information from existing literature on the subject.

E. Amanor-Lartey

3rd social science conference on bringing the gown to town: academic voices in a global village, Winneba, Ghana March 12 – 14, 2014

Paper presented:

The former traditional and the later formal: An evolutionary analysis of social protection in Ghana

ABSTRACT

Social protection has been a phenomenon within societies since humans started living together in settlements. In the pre-colonial African societies traditional social protection was institutionalized in the extended family system, to take care of the vulnerable within each family. Social protection appeared in various forms to help alleviate poverty in traditional African societies. After the independence of African states and the quest for rapid socio-economic development, segments of the population have been left in the quagmire of poverty and deepening state of deprivation and desperation. Social protection offered by the extended family has been deficient as the demands of modernity have had a heavy toll on the traditional structures. The path of socio-economic development, have always left patches of poverty and suffering necessitating social protection programmes to mitigate the suffering of the masses. Governments are left with no choice but to intervene in the field of social protection and thereby, bringing a transition from 'traditional' social protection to 'modern' or 'formal' social protection

This paper seeks to trace the evolutionary path of social protection and to assess the perception of Ghanaians on the state of the formal social protection against the traditional social protection.

B. Asante

3rd social science conference on bringing the gown to town: academic voices in a global village, Winneba, Ghana March 12 – 14, 2014

Paper presented:
How should we live: An old question?

ABSTRACT

This paper was not an empirical study, but a re-examination of the old questions of life. The approach is philosophical, as it emanates from the reflections of a single mind. It argues that the lip-service paid to rules of office in preference for personal considerations accounts for much of the woes of Ghanaians. It bemoans the general tendency of Ghanaians to superimpose parochial concerns over the impartial application of rules of duty.

Poatob, S. & Adam, M.

The Third Social Science Conference, Winneba, Ghana, 12th – 14th March, 2014.

Paper presented:
Education and Ghana's development: The role of Social Studies in bringing the gown to town.



INSTITUTE FOR EDUCATIONAL DEVELOPMENT AND EXTENSION

Amoah, S. A. & Baiden, M. N. (2014). Managing indiscipline in Training Colleges in Ghana: Administrators perspectives. *International Journal of Educational Research and Development*. 3, 1-18.

ABSTRACT

Managing indisciplinary issues in schools and for that matter, training colleges by school leadership has been confronted with lots of challenges. This study investigated how indiscipline can be managed in training colleges. Three research questions guided the study. The study which was a descriptive survey, had a sample of 223 respondents comprising administrators, tutors and students from the training colleges were selected using the multi-stage sampling technique. Using questionnaires to elicit information, the analysis came out with results that included some act of indiscipline like students cheat during examination, flouting both the authority of staff and leaders, failing to submit assignments. On causes of indiscipline, the following came out strongly; inadequate orientation given to school leaders and newly admitted students, Change in curriculum. Some of the major recommendations are; Even though each school has code of conduct but schools should be able to get a Revised Unified Code of Conduct to enforce discipline among its staff and students at schools to reflect the changing needs of the society in which these schools are due to the technological explosion, Institutions as well as state organizations involved in ensuring discipline in the training colleges needs to be proactive to help curb the ever increasing unwanted behaviors.

Amoah, S. & Laryea, P. (2014). *Academically High Achieving Junior High School Students from Ghanaian Low Socio-Economic Backgrounds. International Journal of Educational Research and Development. 3, 19-38.*

ABSTRACT

This study investigated the influence of socio-economic status of student and their academic achievements. Specifically it explored the factors that contribute to high academic achievements of low socio-economic status of students in the Winneba Municipality. The study was guided by the Zeegers' model that looks at academic performance using three variable; antecedent, mediators and criterion. Two (2) hypotheses and one (1) research question were formulated to guide the study. Data was collected via interviews and questionnaires using a sample size of 100 students selected through cluster, stratified and purposive sampling techniques. From ANOVA, t-test and thematic approach analysis, the study revealed there was no significant difference in self-efficacy, internal locus of control and intrinsic goal orientation with regards to the type of family of pupils ($F = .207$, sig. = .891, $p > 0.05$), neither was there gender difference regarding self-efficacy, internal locus of control and intrinsic goal orientation ($t = .342$, $df = 97$, sig. = .733, $p > .05$). Factors influencing top academic performers regardless of their socioeconomic status include promoting active learning, developing thinking skills, enhancing motivation and accepting individual differences. Students with higher educational aspirations tend to have more positive academic self-concepts themselves. Irrespective of a student's home environment, the current study established that one major contributing factor underlying students' high academic performance is their intrinsic goal orientation. The study recommended that precaution should be taken when it comes to parental encouragement since unreasonably high demand and too much pressure for good performance made by some parents on their children may cause anxiety and fear of failure which may affect the child's academic achievement negatively.

Wilson-Tagoe J. E. (2013). Facilitating the teaching and learning of English in second cycle institutions in Ghana through ICT. *Distance forum. 3, 96 - 119.*

BOOK

Owusu-Mensah F., Opoku, F. K. & Yaokumah J. H. (2014). *Culture and National Institutions in Ghana. Distance Education Module, University of Education, Winneba, Institute for Educational Development and Extension*".

CONFERENCES / WORKSHOPS / SYMPOSIA / SEMINAR

Wilson-Tagoe J. E.

4th International Women's Leading Education Conference, University of Education, Winneba at Smayak Hotel, Apam. September 25 – 28, 2013.

Paper presented:

Female leaders in education: Reflections of pre-tertiary school heads in Ghana.

27th Annual Conference of University Council for Educational Administration (UCEA), University of Indiana, Indianapolis. November 4 – 9, 2013.

Paper presented:

Ghanaian women school heads and social justice.



INSTITUTE FOR EDUCATIONAL RESEARCH AND INNOVATION STUDIES

Edwards, A. K. & Francis, K. S. (2014) Strategic thinking with 'Brain Powers' by considering leadership in appreciative inquiry. *Global Education Review*, 2 (4), 58-67.

ABSTRACT

Changes in higher education are driven by the growing market-based knowledge global economy of which universities find themselves. Strategic thinking in change requires smaller 'I'-leadership and the maximum contributions from all 'brain powers'. The problem is institutional leaders concentrate more on management of resources than human capital. Human capital requires participative leadership to energize, envision, and inspire people to challenging destinations. The purpose of this concept paper is to recommend the full utilization of human resources as a 'brain power' by Appreciative Inquiry (AI) method of change. Reviews show that AI is a simple process of 4-Ds to engage minds (brain power). Strategically, the authors present recommendations for Offices of Institutional Advancement to create synergy, avoid group inertia, and to enrich ownership strategies through contributions by faculty 'brain power'.

Bilikpe, J. C. & Yelkperi D. (2013). Effects of the Capitation Grant on education delivery in public basic schools in Wenchi Municipality. *African Journal of Historical Sciences in Education*, 9, 292 – 304.

ABSTRACT

The Capitation Grant scheme was introduced by the Ministry of Education, Science and Sports (MOESS) in 2005 with the ultimate objective of abolishing all school levies which were hitherto, a hindrance for most children who want to have access to basic education. This study was conducted to verify; the disbursement of the grant, the impact it had on enrolment and quality of teaching and learning and the adequacy of the fund. The research design was a descriptive survey and the instruments used were questionnaire and structured interview guide for the data collection. The study population was made up of head teachers, teachers, circuit supervisors, the district accountants and the Auditors. A random sampling technique was employed in selecting all teachers from the various schools while purposive sampling was used to select head teachers, Circuit supervisors, accountants and auditors. In all, a sample size of 85 was used. The study revealed that a negligible proportion of the grant was allocated for improving teaching and learning. Nonetheless, the policy since its introduction has had positive effect on enrolment and retention of pupils in the public basic schools. However, the downside of the introduction of the policy is that the resultant increase in enrolment rates had led to the overstretching on existing educational infrastructure and resources. The study recommends that the Ministry of Education, Science and Sports reviews the accounting and documentation procedures for the disbursement of the grant.

CONFERENCES / WORKSHOPS / SYMPOSIA / SEMINAR

Edwards, A. K. & Baffour A. A.

39th International Conference of the AME at Universite du Quebec, Montreal, Canada, 24– 26 October, 2013.

Paper presented:

Otherness development model for harnessing multicultural competencies based on a pentagonal ‘3Rs and 2Ss’ concept

ABSTRACT

Otherness development model (ODM) provides an intentional, systematic and comprehensive approach to harnessing multicultural/diversity competencies through awareness, knowledge, and skill. ODM is an elaborate exposition on relationship, responsibility, respectability, sensibility, and sensitivity. Conceptually, ODM is based on a pentagonal intertwined principle termed the '3Rs and 2Ss'. These are five concepts of humanistic importance, juxtapositioned for otherness competency building. The model is significant in interventions for learning to value differences, otherness in schools and organizations, and strategic change initiative. Participants learn how to apply ODM for diagnosis, assessment, and teaching tolerance in schools, corporations, and institutions.

Paper presented:

Multicultural integration of pluralistic society for the common good: Lessons from the Ashanti Chieftaincy and the Golden Stool mythology.

ABSTRACT

The stability of the Ashanti Kingdom in Ghana is anchored on the hierarchical kingship pedigree (led by the Asantehene) and the Golden Stool. Traditionally, chiefs are obliged to pursue excellence in justice, vision, communication, and socio-moral values. Now the society is pluralistic due to migration and development. How are the chiefs prepared in leading for the good of the society? The paper highlights traditional philosophies, mythologies, worldviews, and indigenous systems that are all structured for the common good through community dialogue. The Ashanti chieftaincy (kingship) has something significant to offer when it comes to intercultural dialogue, socio-cultural integration, and deontological leadership.

Paper presented:

Learning to value others through friendship among middle school children.

ABSTRACT

The Children's Tolerance Development (CTD) project looks at adolescence development among Ghanaian children at fifth grade level. The main objective of CTD is to educate children on multicultural relationships through friendship. Friendship is seen as a way to bring ethnic tolerance, appreciation of 'others', and a vignette in multicultural competencies. Pilot data indicate children learn valuable lessons in human relations through friendship, framed in the social theory, ego development, and socio-moral constructs. Significant lessons include what is behind children's friendship; how friendship contributes to their self-concepts: identity, efficacy, and sexuality; and how friendship contributes to children's appreciation multiculturalism.

Adinku, G. , Kumah, P. Atuah., L.

14th Ghana Association of Horticulturists Annual Conference, University of Development Studies, Tamale.

Paper presented:

Fruits and vegetables consumption in tertiary institutions in Ghana. A case study of the University of Education, Winneba.

ABSTRACT

This study, therefore, sought to find out the levels and factors that influenced fruits and vegetables consumption among students in tertiary institutions in Ghana, with the four campuses of the University of Education, Winneba as the study area. Purposive and quota sampling techniques were used in selecting students (262), retailers (42) and producers (38) as respondents for the survey and simple random sampling for selecting respondents (43 students) for determining the most important sensory attribute that influenced choice and consumption of vegetables and fruits. Data gathered was analysed using SPSS (version 16). A chi-test and a Post-hoc test were also applied. The study showed that majority of the students had knowledge (89% for fruits, and 86% for vegetables) of the nutritional benefits from consuming fruits and vegetables. The location of campus and programme of study significantly ($p \leq 0.05$) influenced the knowledge on fruits and vegetable consumption. The basic knowledge of consumption for nutritional purposes was high on the Ashanti Mampong campus.



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