

**DELTA STATE UNIVERSITY,  
ABRAKA**

**POSTGRADUATE SCHOOL**

**ABSTRACTS OF Ph.D.  
THESES**

**FROM  
2013 - 2017**

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## **FACULTY OF AGRICULTURE**

**GUNN, Hollinshead Holly**  
**PG/08/09/512312**

### **PHENOTYPIC CHARACTERIZATION AND GENOMIC POLYMORPHISM OF THE NIGERIAN LOCAL CHICKENS IN THE NIGER DELTA** **Ph.D. in Animal Science (2015) 158 pp.**

The effect of oil pollution on plants, animals and humans in the Niger Delta region of Nigeria has become a growing concern. This research was therefore conducted to investigate the effect of oil pollution on the body composition, haematological characteristics and genome, of the Nigerian Local Chicken (normal feathered) found in this region. A total of 1,280 adult local chickens (640 males and 640 females) from communities in Bayelsa, Delta, Akwa Ibom and Rivers States were used for this study. Molecular, haematology and morphological data were subjected to statistical analysis using SAS 2010. Results revealed that morphological parameters were significantly ( $P < 0.05$ ) affected by environment as well as sex. The correlation matrix generally revealed morphological parameters studied were positive. The weights of liver, kidney, ovaries and abdominal fat were highest for non-oil producing area (NPA) against their counterparts from oil producing area (OPA). Carcass-traits were significantly ( $P < 0.001$ ) influenced by sex whereas organ weights were not statistically ( $P > 0.05$ ) affected by sex. Haematological and biochemical parameters, with the exception of red blood cells urea, mean cell haemoglobin (MCH) and mean cell volume (MCV) were not significantly ( $P > 0.05$ ) affected by environment. Parameters such as mean cell haemoglobin (MCH) and mean cell volume (MCV) were significantly ( $P < 0.05$ ) affected by sex with males having highest mean values. Heavy metal studied with the exception of copper and chromium were not significantly ( $P > 0.05$ ) affected by environment. With the exception of zinc (Zn), lead (Pb) and cadmium (Cd), other parameters were found to be affected by sex. The genomic assessment showed a variation in allelic and heterozygote frequencies of chicken thyroid hormones responsive-spot 14 Alfa Gene (THRSP $\alpha$ ). The highest allelic frequency (0.700) was observed for allele 2 in NPA while the lowest allelic frequency of 0.300 was observed for allele 1 also in NPA. Chickens reared in the OPA recorded the highest average heterozygosity of 0.6522 compared to non-oil spillage areas of 0.4667. F-statistic revealed a negative value of -0.2352 for  $f$  and -0.2276 for  $F$ . the Theta value, however, was 0.0062. The genetic distance between oil spillage area and non-oil spillage areas was found to be 0.0128. Hardy Weinberg Equilibrium for both alleles in chickens from OPA and NPA, the mean genotypic and allelic frequencies for both alleles were not significant ( $P > 0.05$ ) for the entire population. It was observed that females reared in the OPA recorded the highest average heterozygosity of 0.5000 as compared to 0.4444 for NPA. The genetic distance between males and females in the OPA is 0.0189. In conclusion, variability was observed in the various parameters studied in this research but no significant mutations in the genome of these chickens could be

revealed by the rapid amplified polymorphic DNA (RAPD), and by the chicken thyroid hormones responsive-spot 14 Alfa Gene (THRSP $\alpha$ ) analysis. The variations could be as a result of some other environmental factors. However, oil pollution should be discouraged and polluted environments be cleaned up to conserve our flora, fauna human lives in the region. (490)

**EYOVWUNU, Dafe**  
**PG/10/11/190261**

**EFFECTS OF SEASON AND GENOTYPE ON GROWTH PERFORMANCE AND REPRODUCTIVE TRAITS OF WEANERS PIGS**  
**Ph.D. in Animal Science (2015)**

The study was carried out at the Piggery Research Unit of the Delta State University Farm, Asaba Campus, Nigeria. It was conducted to evaluate the effects of season and genotype on growth performance of pigs. A total of 24 weaner pigs made up of 18 females and 6 males of Landrace (LR), Duroe (DU), and Large White (LW) constituted the experimental stock. 24 offspring made up of 18 females and 6 males in the first parity were also used for the study. Data were taken continually every two weeks in the four sub-seasons of the year: Late dry season (October – December): Early dry season (January – March): Early rainy season (April – June); and Late rainy season (July-September) in two replicate years. The data generated were subjected to variance, stepwise regression, and product-moment correlation analyses accordingly using (SPSS) statistical packages. Growth performances of the pigs were investigated using standard methods. The results indicated that genotype and season effects were significant ( $P < 0.05$ ) on body weight. The interaction effect of genotype x season was also significant ( $P < 0.05$ ). The DU followed by the LR were superior to the LW in weight gain; while the LW gave the largest litter size of the three groups of sows. Phenotypic correlations were positive and significant ( $P < 0.05$ ) between body weight (BW), and Linear body measurements recorded. Coefficients of regression of live body weight (BW) on season, genotype, and sex were significant ( $P < 0.05$ ) and remarkably high. Growth performance varied with the period of the year, while the rainy season was found to be superior to the dry season. Reproductive traits of the female pigs were also investigated. The findings showed that season had not significant ( $P > 0.05$ ) effect on all the reproductive traits evaluated, while genotype groups had significant ( $P < 0.05$ ) effects on litter size of sows at farrowing (LSF). Litter birth weight (LBWT), litter weaning weight (LWWT) and pre-weaning gain parameters, respectively. Semen characteristics of boars were evaluated. Genotype and seasonal effects were significant ( $P < 0.05$ ) on most of the traits measured except pH and percent primary abnormality, Genotypic effects varied across the semen characteristics monitored, but no genotype group excels in all the semen traits monitored. While semen quality varied with season, with high production of spermatozoa in the raining season and low production in the dry season. Haematological characteristics of pigs were also investigated using six females and six male pigs. Genotype had no

significant ( $P>0.05$ ) effect in all the parameters. Although seasonal effect was important ( $P<0.05$ ) for most of the blood chemical parameters evaluated, interaction effect of genotype x season was not ( $P>0.05$ ), implying that season alone rather genotype or combined with genotype was the most dominant factor affecting pigs. Generally, while season and genotype influence were important in the growth, reproductive, and semen characteristics, seasonal effect was the most crucial factor affecting haematological characteristics of the pigs. (470)

**NWANKWO, Scholastic Ukamaka**  
**PG/10/11/190447**

**GENETIC ANALYSIS OF THE GROWTH AND REPRODUCTIVE PERFORMANCE TRAITS OF PIGS DERIVED FROM THREE BREEDS**  
**Ph.D. in Animal Science (2015)**

The study was conducted to analyze genetically the growth and reproductive performance traits of pigs derived from Duroc, Landrace and Large White, at the Piggery Breeding and Genetics Research (PBGR) unit of the Department of Animal Science Teaching and Research Farm, Delta State University, Asaba Campus. A total of 18 weaner gilts and 6 weaner boars derived from the 3 breeds were used as parent stocks for this study. The stocks comprised 6 weaner gilts and 2 weaner boars per breed which were randomly selected and placed in two replicate pens of 3 weaner gilts and a weaner boar of each breed which were bred to raise the  $F_1$  population for this study. The progeny ( $F_1$ ) piglets were housed in three replicates of 8 animals per replicate pen and across breed. Data were collected from the growth and reproductive traits. Significant breed effects were recorded in most of the growth and reproductive traits. The mean birth weight per piglet across breeding groups were ( $P<0.001$ ). Breed difference was recorded in the farrow weights of sows. High significant ( $P<0.01$ ) breed effect was recorded among the breeding groups in the mean sow weaning weight with the Large White topping the others. The heritability ( $h^2$ ) estimates of body weight and litter traits were generally between low to medium for most age groups and estimation methods and higher in magnitude from the dam component of variance across breed. The variance component ( $\sigma^2$ ) estimates of weights showed values that were generally between low to medium for most age groups and estimation methods in the three breeds. There were generally low dam variance component estimates in all the weeks across breed. Estimate of genetic, environmental and phenotypic correlations between reproductive and Growth traits showed that all the estimated values were positive and ranged from low to high and also higher from dam variance component across breed. In the curve estimation regression analysis  $R^2$ -values were recorded using the 6<sup>th</sup> week body weight to predict the weights at 8, 12, 16, 20, 24, 28, 32 and 36 weeks of age. Using the 6<sup>th</sup> week body weight data to make predictions with various models, it was found that the Quadratic model gave the best fit in the curve estimation at the 8<sup>th</sup> week and the Cubic followed by the Quadratic, Linear and Exponential model gave the best fits for body weight at 28-36 the weeks (prime age for

best pork). The growth and reproductive traits of the three genotypic groups were affected by factors such as breed, sex, age and generation. It is recommended that intense genetic and breeding programmes be mounted on a fairly long term. This will equip scientists to unravel the potential capabilities of the pig in the traits examined and to facilitate attainment of quick and dependable improvement of this animal under Nigeria tropical conditions. (470)

**ABOJEL, John Ofiaju**  
**PG/08/09/160313**

**LABOUR DEMAND AND PROFITABILITY OF SMALL SCALE ARABLE CROP FARMS IN DELTA AND EDO STATES, NIGERIA**  
**Ph. D. in Agricultural Economics (2015) 169 PP**

Farm labour is an essential factor of production in small scale arable crop farming in Nigeria. In view of the importance and relative availability of farm labour, this study was carried out to assess labour demand and profitability of small scale arable crop farms in Delta and Edo States, Nigeria. The study specifically estimated the demand function and supply function for farm labour among the small scale arable crop farms, determined farm labour productivity; determined the determinants of farm labour productivity; established the relationship between profitability and labour cost (wage) and examined the effects of socio-economic characteristics of small scale arable crop farmers on farm labour demand. Multi-stage sampling technique was used to select the sample for the study. In stage 1, the study area was identified based on agricultural zones. In stage 2, two local government areas were selected from the 6 Agricultural Zones. In stage 3, 40 farmers were selected at random from the 12 local government areas to give a total 480 respondents for the study. Data for the study were collected from January to December, 2013. Primary data for the study were obtained using structured questionnaire administered to 480 small scale arable crop farmers at random in Delta and Edo States. Descriptive statistical tools were used to determine the socio-economic characteristics of small scale arable crop farmers. Two-stage least squares multiple regression model was used to estimate the functional models of farm labour demand and supply. Partial factor productivity estimation was used to determine labour productivity; ordinary least squares multiple regression analysis was used to find the determinants of farm labour productivity. Net farm income analysis was used to determine profitability and simple regression model was used to establish the relationship between profitability and labour wages. Multiple regression model was used to determine the effects of socio-economic characteristics of small scale arable crop farmers on farm labour demand labour wage, farm size, capital available, family labour and the value of farm output significantly influenced the farm labour demand while labour wage, off-farm wage, labour unions and

labour status had significant influence on labour supply. Labour was productive in the study area since 97.3% of the farmers had labour productivity of 2.97 or 59.4% labour productivity, Age of farmers, farm size, capital available, labour wage and the value of farm output significantly determined farm labour productivity. Labour wage significantly (-0.644) influenced the profitability of arable crop farmers negatively and this accounted for 42% of the variation in profit. Family size, farm size, capital available, family labour and labour wage were the socio-economic characteristics of small scale arable crop farmers that significantly affected demand for farm labour. One recommendation proffered towards improving the lot of small scale arable crop farmers included designing light, simple and affordable labour-saving machines and implements that can reduce the quantity of manual labour demanded, reviving of agricultural loan schemes of Delta and Edo states governments to increase the volume of load given to farmers. (491)

**OVHARHE, Oghenero Joseph**  
**PG/09/10/178279**

**EVALUATION OF THE PERFORMANCE OF FADAMA III AGRICULTURAL PROJECT IN THE NIGER DELTA AREA OF NIGERIA**  
**Ph.D. Agricultural Economics and Extension (2016) 180 PP**

The study evaluated the performance of Fadama III agricultural project (2010 – 2013) in the Niger Delta Area of Nigeria. It ascertained the difference in performance between before and during Fadama III project and computed the achievement index of Fadama III project activities. Stratified and simple random sampling techniques were used in the selection of 360 farmers from Akwa Ibom, Bayelsa and Delta States. Questionnaire was used for primary data collection. Data collected were analyzed by descriptive and inferential statistics. Results of the study revealed that the average age of respondents was 51 years, while they had an average farm size of 1.6ha. The study found out that cassava farmers exhibited the highest adoption score of 4.65, while poultry and aquaculture farmers had 4.39 and 4.27 respectively. Fadama III activities in which beneficiaries had the most favourable perception were gender inclusiveness of the project ( $\bar{x}$  =3.42), training sessions conducted by Fadama III officers ( $\bar{x}$  =3.36), and increased farmers' income by about 40% ( $\bar{x}$  =3.32). Using Wilcoxon Test to analyze 27 performance indicators, it was found that significant difference existed between before and during Fadama III project implementation with better performance observed during Fadama III era in the Niger Delta ( $Z_{cal} = 4.44$ ,  $Z_{tab}@ p \leq 0.05 = 1.65$ ). On achievement Index, Fadama III performed well in capacity building and productive assets acquired by Fadama Users' Groups, but did not performed well in number of groups reached with advisory services and input support. The overall achievement index was 56.33%. On farmers' contribution to Fadama Users' Equity Fund, Delta and AkwaIbom States achieved 232% and 101% of the set targets respectively. It was found that Bayelsa State achieved 75% of the set

targets for farmers' financial contributions, thus falling below the expected bench mark. Inadequacy of funds, storage facilities, advisory services and input support were the main constraints to Fadama III project. Regression result revealed that educational level, farming experience, farm size and contact with local facilitators made significant contributions to farmers' perceptions on achievement of Fadama III activities ( $p < 0.05$ ). There was no significant variation in constraints that faced the project among the three States in the Niger Delta. This study recommended that opportunities should be given to younger folks to participate in the project and more female-oriented agricultural projects are needed to increase women participation in Fadama III. This study has established the importance of the inclusion of beneficiaries in the planning and execution of developmental projects in communities. (406)

**OVHARHE, Oghenero Joseph**  
**PG/09/10/178279**

**EVALUATION OF THE PERFORMANCE OF FADAMA III AGRICULTURAL PROJECT IN THE NIGER DELTA AREA OF NIGERIA**  
**Ph.D. in Agricultural Extension (2017) 191 pp.**

This study evaluated the overall performance of Fadama III agricultural project (2010-2014) in the Niger Delta Area of Nigeria. The specific objectives were to: ascertain changes in property acquisition before and during Fadama III project; and calculate achievement index of project activities. The stratified and simple random sampling techniques were used in the selection of 360 farmers from Akwa Ibom, Bayelsa and Delta State. Questionnaires were used for primary data collection. Data collected were analyzed with descriptive and inferential statistics. Results of this study showed that the average age of respondents was 51 years; 50.3% of the respondents had secondary education and average farm size of 1.6ha. farmers had more contacts with Fadama local facilitators on monthly outreach (48%). Than Agricultural Development Programme (ADP) extension workers and others. The study found that cassava farmers had the highest mean adoption score of 4.65, followed by poultry (4.39) and aquaculture (4.27) farmers. Fadama III activities in which beneficiaries had the most favourable perception were gender inclusiveness of the project ( $x = 3.42$ ), training sessions conducted by Fadama III officer ( $x = 3.36$ ), and increased farmers' income 40% ( $x = 3.32$ ). A significant difference was found in property acquisition before and during Fadama III project implementation ( $Z_{cal} = 4.44$ ,  $p < 0.05$ ). On Achievement Index, Fadama III performed satisfactorily in capacity building and productive assets acquired by Fadama Users' Groups, but performed poorly in the number of groups reached with advisory services and input support. The overall achievement indices was 0.56. on farmers' contribution to Fadama Users' Equity Fund, Delta and Akwa Ibom States achieved over 100% of the set targets respectively. It was found that Bayelsa State achieved 75% of the set targets for farmers' financial

contributions, thus falling below the expected bench mark of average annual task and targets. Inadequacy of funds, poor storage facilities, advisory services and input support were the main constraints to Fadama III project. Educational level, farming experience, farm size and contact with local facilitators made significant contributions to farmers' perceptions on achievement of Fadama III project activities ( $p < 0.05$ ). There was no significant variation in the level of satisfaction on project objectives achievement as perceived by the beneficiaries of Fadama III agricultural project in the Niger Delta. There was no significant variation in constraints to the project implementation among the three states in the Niger Delta. From the results of this study, it is recommended that opportunities should be given to younger people to participate in the project and gender should be properly mainstreamed into agricultural projects to ensure equal gender participation which will bring about holistic development. This study established that Fadama III intervention project activities made positive impact on the livelihoods of the beneficiaries as a result of increase in income as well as farm and household assets. (453)

**EWODODHE, Akpotu Abel Chukwuka**  
**PG/13/14/221596**

## **LARGE SCALE FARMLAND ACQUISITION AND LIVELIHOOD STATUS OF DISPLACED SMALLHOLDER FARMERS IN DELTA AND EDO STATES, NIGERIA**

**Ph. D. Agricultural Economics (2017) 176 PP**

This study investigated the impact of large scale farmland acquisition (LSFA) on the livelihood status of displaced smallholder farmers in Delta and Edo States. Information was sourced on large scale farmland outcome, farmers annual incomes, effect of farmland acquisition on farmers livelihood indicators, livelihood security status of displaced farmers and, factors that influence displaced farmers livelihood security. This study considered farmland acquisition that is above 200 hectares. Data were collected from 600 farmers (households) who have experienced displacement from their farmlands from 2005-2015, using purposive and simple random sampling techniques in multiple stages. Household Livelihood Security (HLS) developed for each household were used as proxy to basic requirements of food, water, education, nutrition, shelter, sanitation and participation in social and community activities. Data collected were analysed using logistic regression, Z-test, JarqueBera test, composite index model, ANOVA and factor analysis. The findings showed that the logistic regression model was statistically significant,  $X^2(8) = 28.607$ ,  $p < .0005$ ; with 31% Nagelkerke  $R^2$ , and 72.2% correctly classified cases as landgrab. It was found that the difference in farmers annual farm income before and after land acquisition in Delta State is ₦ 97,966 and for Edo State is ₦117,244. The effect of farmland acquisition on farmers' livelihood was very high with coefficient values on deforestation rate (302.83) and time spent to fetch fuelwood (104.093). It was found that displaced farmers in Delta and Edo States were insecure given that the Sustainable Livelihood Security Index (SLSI) of displace farmers in Delta

State was 0.54 before land acquisition and 0.49 after acquisition, while in Edo State it was 0.57 before farmland acquisition and 0.48 after acquisition. However, Delta North agricultural zone is secure at 0.51 value with respect to ecological change indicator. Significant index values of factors influencing displaced farmers livelihood security included migration ratio (0.501), gender population composition (0.520), human development index (0.510) and education level of children (0.542). It was recommended that farmers should be given autonomy in land tenure and existing contracts; displaced farmers should be employed and incorporated into the skilled parts of the production mix; government should promote policies and design intervention programmes that will address the issue of migration tendency, gender composition in population, readily clean water availability and improvement in human development index. The contributions of this study to knowledge are that the study established and applied a methodology for classifying large scale farmland acquisitions into land grab or development initiative; the magnitude and direction of livelihood indicators which were affected by large scale farmland acquisition were established for policy intervention; it was established that displaced farmers in Delta and Edo States were insecure in respect of livelihood status; while distance to portable water, means of income generation, education of children, migration and human development were found to affect livelihood status of displaced farmers. This calls for better-specified corporate social responsibility in contractual agreement. (472)

**ALLANAHA, Theresa Ononuju**  
**PG/10/11/190360**

**EFFECTS OF ORAL ADMINISTRATION OF CLOMIPHENE CITRATE ON EGG PRODUCTION, SEMEN AND EGG QUALITY CHARACTERISTICS OF BLACK NERA CHICKEN**

**Ph.D. in Animal Science (2017) 152 pp.**

The effects of clomiphene citrate on egg production, semen and egg quality characteristics were evaluated. The experiment was in phases, the first was on the effects of clomiphene citrate and ejaculation frequency on semen characteristics using 36 Black Nera cocks aged 24-28 weeks, and weighing 1.96kg to 2.39kg in a 4x3 factorial experiment, with clomiphene citrate dose at four levels 0mg, 5mg, 10mg and 15mg and ejaculation frequency at three levels, (once, twice and thrice weekly) as factors. Clomiphene citrate was administered orally every day for one week, and semen collection started from week two by lumber massage technique. 15mg group showed significant ( $p < 0.05$ ) difference among treatment means in all the parameters measured, there were significant variations in the mean ejaculation volume, with 15mg being significantly ( $p < 0.01$ ) higher than other groups in numerical values. The interactions between clomiphene citrate x ejaculate frequency on semen characteristics revealed that concentrations of spermatozoa increased progressively with increase in clomiphene citrate administration. Semen colour was assessed visually, and scored as creamy, opaque

and watery, and was not affected by frequency of semen collections. Semen pH, percent live and abnormal semen were not affected ( $p > 0.05$ ) significantly by frequency of semen collections. Experiment (11) was on the effects of clomiphene citrate and mating ratio on egg production, egg quality characteristics, fertility and hatchability. It was carried out using 120 point of lay pullets aged 24 weeks and weighing 1.60kg to 1.98kg. It was a two factor factorial experiment with clomiphene citrate dose at four levels (0mg, 5mg, 10mg, and 15mg) and mating ratio at three levels (1:5, 1:10 and 1:15) cock to hens as factors. The result indicated that Egg production was significant ( $p < 0.05$ ) on 1:5 and 1:10 cock:hens ratio on 10mg and 15mg. egg quality characteristics were affected positively by the increase levels of clomiphene citrate, 10mg and 15mg doses except for yolk index, where 0mg had higher numerical value. Effects of clomiphene citrate was highly observed in percent fertility and 10mg and 15mg doses being significant than 5mg and 0mg doses. Experiment (111) was on the effects of clomiphene citrate, semen dilutions and insemination frequency on egg production, fertility and hatchability, using 96 point of lay pullets assigned to forty-eight treatments combination in a 4x4x3 factorial experiment with clomiphene citrate at 4 levels, semen dilution at 4 levels and insemination frequency at 3 levels as factors. Semen from clomiphene citrate treated cocks were mixed with the diluents. The result revealed that comid had significant effects in all the traits evaluated with 15mg and 10mg groups on dilution, 0 and 1:1 semen: diluents and insemination frequency twice weekly performed better than others except for % hatchability were 0mg and 5mg had higher numerical values than other treatments. The study has established that clomiphene citrate a human fertility drug can improve semen quality characteristics of cock and 15mg comiphene citrate in combination with insemination frequency of twice a week led to production of more fertile eggs. (492)

## FACULTY OF ARTS

EMIEMOKUMO, Augustine-Neto Adakaigbe  
PG/05/06/8/2/93582

**CULTURAL IDENTITY IN MODERN NIGERIAN VISUAL ART TRADITION:  
1960 – 201**  
**Ph.D. in Art History (2013) 170 pp.**

Modern African art has been considered by some scholars such as Fagg (1963), Murray (1943) and Beier (1961) as not being sufficiently African to bear the name African art. In some quarters, there is the view that globalization has made it unnecessary to begin classifying art as African. The ill-intention is to completely submerge Africa's new and evolved cultural history in the visual arts. But this is not possible as strong African tendencies still exist in the works of modern African artists. This is particularly true of modern art in Nigeria. In spite of this, not much was known of these African tendencies till the turn in this century. Many foreigners decry a break in cultural continuity caused by economic and social changes in Africa. They fail to see the natural stylistic mutations in modern Nigerian art, as continuity. They would have preferred to see stereotypical ancient forms, to give credence to their advertised stylistic rigidity of Nigerian art. Generally, this study examines art-works by selected college-trained Nigerian artists from 1960 – 2010. The emphasis is to show the relatedness of the art-works to Nigerian tradition and culture, as cultural identity. The specific objectives among others are; to look at *Naturalism*, *Abstraction* and *Expressivism* as stylistic tendencies and reflect on their symbolic significance in the works studied, and highlight the philosophical, religious, social, political and aesthetic concerns that serve as inspiration and motivation for the artistic creations, attempt a reconstructive history of the entire phenomenon of cultural identity. Two interrelated methods were used in this study: Iconographic and Stylistic Analytic methods under the auspices of the object-centred approach. Modern Nigerian artists use diverse techniques and media that have ancestry from Africa and Europe to enhance the power of expression in their works. Their art-works are vibrant and rich with traditional symbols, motifs and patterns. There is an evolution in the form and content of modern Nigerian art which is cognizant of global developments while not completely rejecting local heritage. This means therefore, that what is erroneously seen as alienation is actually synthesized mannerism of adored traditional creative values with the state-of-the-art development in art making worldwide. As a consequence, anything contrary to the foregoing, rules out the dynamism in Nigerian art. The sum-total of the study supports the fact that modern Nigerian art is an expression of cultural identity and a means by which the Nigerian people speak to the rest of the world. In terms of contribution(s) to knowledge, the study reveals the true identity of modern Nigerian art. As a tradition though modified, it is absorptive of other influences and is reflective of its tradition and environment. It establishes that all the three general stylistic tendencies – *naturalism*, *expressivism* and *abstraction* – spread across all the decades in modern

Nigerian art. The study has also contributed to our understanding that modern Nigerian artists did not follow any strict ethnic style in their borrowing of form. This study has undoubtedly complemented the few works that interpret the Africinity of modern Nigerian art. (500)

**OMENOGOR, Happy Dumebi**  
**PG/06/-7/118949**

**A CONTRASTIVE INQUIRY INTO THE SOUND PATTERNS OF ENGLISH  
AND UKWUANI**

**Ph.D. In English Language (2014)**

This thesis is focused on a contrastive inquiry into the sound patterns of English and Ukwuani. The general objective of the study is to discover the areas of divergence in the sound patterns of the two languages and to predict the phonological difficulties likely to be encountered by the Ukwuani L<sub>1</sub> speakers and learners of English as L<sub>2</sub>. Solutions to such difficulties are proffered. The research method adopted involves observation of respondents, class analysis of the variables in the research and the random sampling technique which ensured that the findings are reliable and biases eliminated. The findings of this study reveal significant difference in the phoneme inventories as well as speech sound distributions of the two languages and the application of supra-segmental features which differs in both languages. The study contributes to the knowledge in the following areas. It will definitely improve the spoken English of Ukwuani L<sub>1</sub> speakers and learners of English as L<sub>2</sub> in particular and those of other Nigerians in general. This work will further develop the phonetics and phonology of Ukwuani as well as provide relevant guides for English Language teachers teaching Ukwuani L<sub>1</sub> learners of English as L<sub>2</sub>. It will also aid curriculum planners on the facts to be included in the area of spoken English at all levels of education. Finally, it corrects some misleading notions about Ukwuani language. (225)

**EFAJEMUE, Ovetowai**  
**PG/07/08/139644**

**DESIGN AND CONSTRUCTION OF MODIFIED INKLE AND JACK LOOMS  
FOR THE NIGERIAN COTTAGE INDUSTRY**

**Ph.D. in Studio Arts (2014) 138 pp.**

Weaving is one of the primary stages in the production of textiles. The basic equipment that is used in weaving is the loom, which is a framework that stretches threads to allow for easier and faster interlacing of the warp and weft yarns in weaving. One of the major problems affecting the cottage textile production in Nigeria is the non-availability of

basic looms to weave structural fabrics for the public. Many weavers do not possess the technical skill to design and construct the looms and the costs of commercial looms are beyond reach. In the literature review, it was discovered that weavers have problems with loom construction because of the lack of fund and technical ability. The research reveals that over 80% of the looms used in Nigeria are imported and very expensive. This is an exploratory research on the design and construction of two modified basic looms, namely the Inkle and the Jack loom. Literature, observation and practical production methods have been used to arrive at the conclusion of this experiment. A technical software (Revit Arch) was also used in the design of the two looms. The technical tools and the wood for the execution of this experiment were also purchased. With the aid of the technical specifications, the wood was cut into various sizes, grooved and fixed with bolts and screws. The designs were modified to fit the calibration of the collapsible pattern of the Inkle and Jack looms. A test run was carried out on the various weave structures and all the defects were certified. Local materials like metals and wood were collected to construct the looms. The looms are collapsible, light in weight, occupy little space, potable for easy movement and convenient for cottage industry weavers. The Inkle loom has two beam rollers which help to increase the length of the woven fabric to over fifty metres. The collapsible Jack loom is smaller in shape and size and can be used to weave plain, twill and the gooze eye weaves. The success of the construction of these looms is based on the technical need and aspirations of the researcher to provide an alternative design and construction of Inkle and Jack looms for weavers. Weaving practitioners can be trained on basic drawing skills to enable them construct their looms. Governments all over the world have realised the importance of cottage industries and has formulated comprehensive industrial policies to encourage, support and fund the making of tools and equipment for the textile industry. This challenge has been treated in this research to enable the Nigerian government encourage textile practitioners to undertake a practical realization of the fabrication and maintenance of their personal looms. (445)

**OSAIGBOVO, Theresa Uvbi**  
*PG/07/08/142787*

**AN EXPLORATION IN WARP AND WEFT COLOUR ALIGNMENTS FOR WEIGHT REDUCTION OF NIGERIAN TRADITIONAL WOVEN FABRICS**  
**Ph.D. in Studio Arts (Textiles) (2014) 370 pp.**

Nigerian traditional woven textiles have over the years excelled locally and internationally because of the traditional weavers' expertise, ingenuity and dexterity in the manipulation of designs. But a cross-examination of most Nigerian traditional woven textiles reveals that the weavers see the plain weave as a ground weave to hold the multiple weft units on one face of the woven fabric. In doing this, they have ignorantly subdued the design potentials and possibilities inherent in the ground weave. This inhibits the endless design potentials and possibilities of warp and weft colour alignment. This technique of designing makes most Nigerian traditional woven textiles heavy and

coarse, thereby limiting their usage. It also makes them adhere to the traditional looms because information about their designs is very difficult to be fed into modern looms. Furthermore, the nature of the traditional loom and the technique of designing have made it very difficult for the weavers to keep the records of their designs. The main objective of this research, therefore, is an exploration of the manipulative possibilities of the warp and weft colour alignments for Weight Reduction of Nigerian Traditional Woven Fabrics. The specific objectives are to: identify, select, combine and arrange two or more colours in the warp and weft of a two-shaft table loom, produce some pattern drafts of warp and weft colour alignments for weight reduced. Woven samples transfer the produced pattern draft of warp and weft colour alignments unto the two-shaft table loom for creation of weight reduced woven fabrics, record the technical details of the warp and weft colour alignments into a glossary of weaves for reference purposes. Finally, the researcher presented the technical details of all the woven samples into a glossary of weaves for reference purpose. The findings of this research are: limitless design potentials and possibilities are inherent in the plain weave used as ground weave by the Nigerian traditional weavers. Nigerian traditional weavers do not produce a technical pattern drafting before they weave their fabrics; information about Nigerian traditional woven fabrics is difficult to be fed into the modern loom and exploring into warp and weft colour alignments could improve on the weight and texture of Nigerian traditional woven fabrics. (364)

**AJIGINNI, Irobunor Margaret**  
*PG/07/08/142373*

**EXPLORING FOUR-SHAFT LOOM FOR THE PRODUCTION OF  
STRUCTURAL DRAFT IN WEAVING FABRICS**  
**Ph.D. in Studio Arts (2014) 155 pp.**

Textile practitioners and students of tertiary institutions utilize a limited set of decorative techniques which include inlay techniques, pile weave and weft inserts; thereby limiting the ability to develop new symbols or co-opting existing ideas into previously organized designs. Recent fashion trends from western cultures show that Nigerian fashion/textile practitioners can transcend these limitations by utilizing the four-shaft loom to produce innovative structural drafts toward understanding and interpreting them. However, available weaving textbooks by such practitioners do not provide step-by-step procedures or in-depth illustration of how to produce, understand and illustrate structural draft patterns to encourage would-be textile practitioners. As a result of these limitations, many textile students and practitioners prefer print and dyed options to clothing construction. This trend has led to a predominance of printed textiles as compared to woven fabrics without taking into consideration that structural drafts produce limitless design possibilities in pattern drafting through the four-shaft loom equipment. The main objective of this research is to produce and present structural drafts that can be

documented and interpreted for meaningful understanding in a learning institution. The specific objective is to produce over 30 weave patterns from the structural drafts evolved in this research, using a four-shaft loom to facilitate more decorative techniques in fabric construction. The research finally opines that documenting the step-by-step approach in creating structural drafts will provide an in-depth knowledge of weaving structural drafts. It is hoped that this will also serve as a reference source to offer limitless structural design possibilities. The practice-led research adopts the experimental technique complemented by the literary to source for data. The entire effort is for the sustenance of a more advanced weaving culture amongst textile practitioners and students of the arts. (284)

**UBANI, Anozie**  
*PG/07/08/136761*

**AN ANALYSIS OF THE COMPOSITIONAL TECHNIQUES OF DANIEL CHRISTIAN CHIKPEZIE AGU**  
**Ph.D. in Music (Analytical Musicology) (2014) 283 pp.**

This study focuses on the life and works of Daniel Christian ChikpezieAgu. The study surveys his compositional styles, the philosophy that forms the basis for his choice of theme(s) and musical resources. It further includes the transcription and translation of texts followed by the analysis and discourse. Ten of his works were duly analysed with special attention to the following: his harmonic styles, scale mode, tonal application, melodic structure, rhythmic motives, phrasing, melodic contour, typology, *tessitura*, frequency graph, musical forms and range. The media for the compositions are the voice, some with piano and African instrumental accompaniments. Some of the works are set for four parts, three parts and two parts respectively. The thesis begins with an elucidation of the historical background of music creation in Africa. This served as a pivot on which the original compositions of Dan Agu rotate. The themes of the vocal works are based on the traditional concepts for the Nigerian audience. The researcher, as much as possible, employed the following methods such as historical, sociological, analytical, personal interview, review of related literatures and structural analysis which enabled him to critically examine the devices that were logically woven into the motivic and thematic circles of Agu's work. The works reveal the following findings: adherence of melodic lines to the tonal inflection of the texts, use of short melodic motifs, repetition, application of antiphonal and unison techniques etc. This study has presented the relevant techniques and principles of music composition/analysis to serve for referencing and as a resource material for teaching and learning composition. Both sacred and secular works encourage active participation; these have motivated educated musicians and composers to show greater interest in widening their musical scope for different interest groups. In conclusion, it is hoped that the documentation of this study would stimulate young music scholars to develop their compositional styles/techniques, which become a working tool for future composers and music analysts. (318)

**OJARUEGA, Enajite Eseoghene**  
**PG/07/08/139606**

**WOMEN AS VICTIMS AND AGENTS IN NIGERIAN CIVIL WAR NOVELS**  
**Ph.D. in Literature-in-English (2014) 186 pp.**

As a subgenre of modern Nigerian literature, Nigerian civil war novels have been subjected to copious scholarly reviews. However, there appears to be a relative critical silence on the impact of the war on women. This thesis is an effort to fill that gap by focusing on female characters' experiences resulting from the war. Six war novels; written by three male and three female novelists have been selected for detailed examination in this study. They are: Chukwuemeka Ike's *Sunset at Dawn* (1976), Elechi Amadi's *Estrangement* (1986), Isidore Okpewho's *The Last Duty* (1976), Flora Nwapa's *Never Again* (1975), Buchi Emecheta's *Destination Biafra* (1982) and Chimamanda Ngozi Adichie's *Half of a Yellow Sun* (2006). The choice of these particular novels lies in the fact that of the many fictional narratives on the Nigerian Civil War experience, these ones best address the main issues under focus in this research. The selection has also been done to achieve a balanced assessment of the portrayal of female characters in Nigerian civil war narratives. Feminism/African Womanism is the preferred theory used in this study. It comes to play naturally in a study of the portrayal of female characters since it is a literary theory that appropriately deals with issues pertaining to women. This study reveals useful insights into the effects of war on a significant section of the human populace - womenfolk. In the course of examining the images or roles of women during war, this research invariably touches on the rippling effects of war on others, like men and children, the woman associates with during this period of conflict. It also reveals a detailed sociological and psychological evaluation of the events of the war on women as depicted through selected war narratives. While many wartime experiences show women's vulnerability as they suffer victimization, other war circumstances have brought out women's activism as they exercise their individual and collective potentials as agents of affirmative actions and positive change. This research adopts a fresh analytical approach to the subject of women and war by contrasting their dual circumstances. It also throws a more comprehensive light on an important aspect of war narratives—war and its effects on women. By focusing on the portrayal of female characters, this study not only gives voice to the silenced but also rectifies an imbalance by some writers and critics that results from focusing on only those in the warfront and not paying adequate attention to those in the critically important home front. In addition, this study embraces the totality of the human experience of the Nigerian civil war by recognizing the female aspects of that experience and bringing to the scholarly discourse the opportunity to share the diverse roles of female characters out of the ordinary in a literature informed by national history. From the conditions of women in the selected war novels, this research makes it clear that war does not ameliorate the initial cause nor does it reduce the devastating effects and aftermaths. (494)

**ENIOLAWUN, Olusola Idowu**  
**PG/08/09/155878**

**THE DEVELOPMENT AND FUNCTIONS OF YORUBA CHURCH MUSIC IN THE SOUTH WEST ZONE OF THE NIGERIAN BAPTIST CONVENTION: 1983 - 2013**

**Ph.D. in Music (African Musicology) (2015) 430 pp.**

Yoruba music in the South-West zone of the Nigerian Baptist Convention churches has experienced growth in performance practices, human and material resources, and in the quality of musical works that derive from the indigenous musical culture. This has made the synthesis of musical elements from both Western and Yoruba idioms to be evident in the compositions and performance practices in most of the Baptist churches in the area. Though there is a plethora of books and journal articles on Yoruba music, they have not sufficiently addressed the roles music can play in the Nigerian Baptist Convention churches in the south-West. Likewise, the contributions of notable Music Directors among the Nigerian Baptists in the South-West have not been reviewed, analysed, nor documented from a holistic musicological perspective. This study, therefore attempts to fill the gap to review, expose, and document the development of Yoruba church music, its compositional and performance techniques, highlighting its functions and philosophy in the area from 1983 to 2013. Much emphasis is placed on this period of thirty (30) years within the scope of study because it witnessed more training for Yoruba church music leaders and greater emphasis on the use of Yoruba church music in the liturgy. The study applies appropriate research methods, using a three-dimensional approach, namely historical, descriptive, and analytical approaches. The historical approach examines the development of Yoruba church music and factors responsible for its growth in the Baptist churches. Descriptive approach analyzes the melodic, rhythmic, and textual character of the music; and analytical approach accesses the effectiveness of the compositional components and performance techniques of Yoruba church music in the area. Data were collected through interviews and participant observation. The study reveals continuity and changes in the peculiarities of music adapted from various dialectical Yoruba sub-groups and reveals that the use of culture-oriented musical expressions in the Baptist churches fosters its development. It notes that Yoruba church music functions as a medium of expression of praise and worship to God, embracing faith, truth, unity and social-moral uprightness among worshippers. (337)

**DICK-DUVWAROVWO, Ereforo**  
**PG/08/09/155876**

**AN ETHNOMUSICOLOGICAL STUDY OF INDIGENOUS RECREATIONAL MUSIC OF THE URHOBO IN DELTA STATE**

**Ph.D. in Music (African Musicology) (2017) 258 pp.**

This study is based on the indigenous recreational music of Urhobo people in Delta State of Nigeria. Music is an important aspect of the cultural practices of any group of people; it is an oral art and fades away when not performed regularly. Recreational music activities which normally take place in the evenings are gradually disappearing and are being substituted with western forms of recreation. This trend is gradually affecting Urhobo music culture especially the recreational types which are being threatened out of existence. Thus, there is the need to document the recreational music of the Urhobo to Preserve it for posterity. The research employs the ethnographic method which features the field work and desk work components. The primary source for data collection is oral interview, while secondary source is on Bibliography publications on the Urhobo as a people. Forty-four songs were collected through field investigation using the interview, recording and participant observation techniques. This study attests to the fact that the Urhobo indulge in recreational music performance in their leisure period. The recreational music is found during storytelling session; children games, and wrestling festival. The songs collected include children game songs, storytelling songs and wrestling songs. The songs were subjected to textual analysis using the thematic approach, in order to understand the belief of the Urhobo about life, and social moral values, as reflected in the songs. In addition, the songs were analyzed structurally using the transcription method to highlight their sound properties. It was discovered that most of the melodies are in two sections of cantor and chorus; they varied in their ranges from major third to above the octave hovering around the tritonic, tetra-tonic, pentatonic and hexatone scale system. The analysis also attests to the use of the iambic (short-long), trochaic (long-short) and the spondee (long-long) rhythmic meter in the songs. This work is of great significance as it has provided a way forward in documenting some of the Urhobo indigenous recreational music in written form and has also provided music teachers with varieties of indigenous songs for the purpose of teaching music concepts. The work has contributed to knowledge as it has informed contemporary art composers on effective ways of handling traditional music idioms through the highlighted relationship between the sonic and textual features of the songs. (381)

**NATHAN DOUTIMIWEI DUINBAINIMIBOFA THIKAN**  
**PG/08/09/156062**

**A STUDY OF CHURCH MUSIC IN EGBEMALAND IN EDO AND DELTA STATES OF NIGERIA, 1938-2014**  
**Ph.D. in Music (Sacred Musicology) (2017) 300 pp.**

This thesis is a study of church music in Egbema land between 1938 and 2014. Egbema comprises of several towns and villages in Edo and Delta States of Nigeria. The work examined the use of musical instruments in the churches and the religious music repertoire since the advent of Christianity in the area. The objectives of the study were to investigate the usage and roles of indigenously derived music in the churches in Egbema

land; identify the differences and similarities in the purpose and location of music in the various churches in the period under review; highlight the contribution of music to the growth of churches in Egbema land; discuss the appropriateness and effectiveness of indigenously derived music in the worship of churches in the area; identify the textual, poetic and structural features of the music; analyze the textual, contextual and theological contents of the music; and transcribe and present the music in staff notation. The research design employed the historical, descriptive and hermeneutical methods. The researcher, employing the historical method, used both quantitative and qualitative variables in the collection of historical information from primary and secondary sources. The descriptive research method was used to derive the characteristics of the phenomenon being studied. The hermeneutical method was used in the interpretation and analysis of the texts of the repertoire. A total of thirty churches, amongst which are Orthodox, Pentecostal and Organization of African Indigenous Churches made up the population for the study. A combination of both the stratified and cluster sampling techniques was employed. The investigation established that church music in Egbema land had both differences and similarities which existed in the choral and congregational singing and instrumental groups. It found that the interest, expression, vitality and value which music adds to worship contributed to the growth of the churches in Egbema land. It further established that more indigenously derived music is appropriate and effective in the religious worship of the Christian churches in the area. It identified call and response, solo and chorus, verse and refrain, strophe and round as vocal forms. It established that the Period of Foundation (1938-1963) saw the emergence of the first Christian Churches in Egbema land with very solemn, cold, sparse and minimal use of music. It also established that the Period of Nationalism (1963-1988) was the beginning of translation and transliteration of English hymns into Ijaw language for worship. It further established that the Period of Interculturalism (1988-2014) saw a blend of indigenously derived music with the music of other cultures. The study has enhanced the development of sacred musicology through the interpretation of musico-theological elements in the church music of Egbema land. It has also provided a novel body of scholarly information on the structural features of indigenously derived church music in Egbema land. Recommendation is made for churches in a homogenous setting like Egbema to employ more indigenous music in their worship services and activities and to also use more of the local language than any other.

(496)

**OKOGWU, ANTONIA ASIKABULU**  
**PG/08/09/156200**

**ECO-AESTHETICS IN SCULPTURE PRACTICE: A STUDY  
ON WASTE METALS, PLASTICS AND FIBRES**  
**Ph.D. Studio Art (Sculpture) (2017) 192 PP**

Churning out of mass produced goods ushered in by industrial revolution since 1760 has led to quantum wastes and discards in the environment globally. This continuous and continuing mass production of manufactured goods in metals, plastics and fibres origin has led to indiscriminate liter of solid wastes in the environment. Eco-aesthetics in Sculpture practice locates a problem in the present global ecological crisis (Adams, 2014). This menace recognized in the twenty first century studies has engaged this problem from different angles as stated by a Russian philosopher, Rebeshchenkova as eco-ethics, eco-esthetics, eco-psychology, eco-philosophy, eco-history, eco-politology, and eco-ethnology. In Nigeria, economic growth and urbanization has led to the generation of wastes in several places within the country which are equally causing environmental hazards. A new purpose of engaging the wastes becomes pertinent. It is in the light of this that this study tries to investigate in the sculpture studio solid non-degradable waste materials of metals plastics and fibres that are a menace in the Nigerian environment and re-engaging same in the spirit of pro-environmental behaviour which is sensitive towards man and his relationship with nature . The qualitative and exploratory module of investigation is engaged which are further explained within descriptive monologue as the methodological design. More so the research is two pronged; the theoretical philosophy and sculpture studio led practice. Within these the study equally engage studio practice methods of welding, casting, assemblage, weaving, knotting, stringing and dicing. This research has explored on these three waste materials of metal, plastics, fibres in over thirty pieces of sculptures (both in relief and in the round). New sculptures are attempted underlined with Dada philosophy and Gadamer aesthetics in projecting Eco-sculptures as “Daga” sculptures. (282)

**OPONE, Paul Oshagwu**  
**PG/07/08/134134**

**WESTERN IGBO-BENIN KINGDOM RELATIONS, C. 1400-1949**  
**Ph.D. in History (2017) 241 pp.**

This is a study of Western Igbo relations with the Benin Kingdom from c. 1400-1949. Earlier works on this subject have created popular but wrong impression that the Benin kingdom dominated the Western Igbo communities for many centuries. The tendency is to describe these communities generally as people from Benin and treat them as refugees thereby distorting their history. The general objective of this study is to reconstruct the history of Western Igbo relations with the Benin kingdom over time. In order to do this, it depended on primary and secondary source materials on the subject. The research deployed the historical methods of narration, description and analysis. It begins by examining the dominant narrative against some of the factors that sustained relations between the two groups. These include trade, kingship ritual, war and religious cult. In the analysis that followed, the Study made some fundamental findings. First, the blanket

ascription of Benin origin to the Western Igbo communities is not supported by evidence the available evidence suggests that population movements were from and to both sides. Second, claims of origins from the Benin kingdom, now popular among some Western Igbo communities earlier known to have been founded from communities East of the Niger, is a recent contraption resulting from feedback in oral tradition. Third, is that the Benin kingdom's influence on the Western Igbo communities was political, by way of copying some ideals while the latter's influence on the former were more economic and cultural than political. Fourth, nature imposed interdependence on the two societies expressed through trade which ensured free movements of peoples and goods across boundaries. All these are pointers to the fact that relations between the two societies were a two-way traffic, each giving and taking from the other. Additionally, this study established that the Western Igbo communities received immigrants from many cultures which included Benin, Esan, Igala, Yoruba and Isoko, and that the Igbo groups were the largest and the earliest to occupy that part of Nigeria and integrated the later immigrants into the Igbo socio-political system. It also established that the monarchical institutions were indigenous to the Western Igbo communities and were not an imposition by the Benin kingdom. The researcher concludes that the popular one-sided interpretation of Benin Western Igbo relations is not in consonance with the evidence. It is time, therefore, for scholars to embrace a balanced picture which the evidence presented in this study upholds. (403)

**OKEREMETA, Matthew Eruoto**  
**PG/03/04/9/02/67622**

**INDIGENOUS GIN INDUSTRY AMONG THE IJAW OF BAYELSA AND DELTA STATES OF NIGERIA, 1950 - 1960**

**Ph.D. in History (2017) 155 pp.**

A meaningful study of pre-colonial economy must take into cognizance how indigenous industries utilized available local resources to produce food, drink, tools and weapons to improve and sustain man's living conditions. This research on indigenous gin industry among the Ijaw of Bayelsa and Delta States explores the ability of the people in the fresh water swamp in harnessing the abundant natural resources in their environment for gin distillation. Indigenous gin (Ogogoro) production is one of the most common economic activities among the Ijaw as they distill gin from fermented palm-wine of raphia palm (*raphiavinifera* and *raphiahookeri*) that adorn the freshwater vegetation of the Niger Delta. It aims at investigating the origin and underlying science of gin distillation, the techniques used by the early distillers, the factors responsible for gin distillation among the Ijaw, and the usefulness of the product to the people. The reasons for colonial authorities' regulations and prohibition of gin production, the socio-cultural and economic benefits, and the future of gin industry among the Ijaw of Bayelsa and Delta States are issues that necessitate this research. To achieve the latter, historical descriptive method with emphasis on oral evidence, observations, oral interviews and

interdisciplinary method were utilized to elicit information and materials study. The observation of distillation process shows that the use of indigenous tools and equipment in gin distillation among the Ijaw is an aspect of their indigenous knowledge systems that form part of their cultural heritage. It also revealed the use of innovative thinking and environmental adaptation to enlist change and development through cultural modes, proverbs, production system, traditional institutions and value systems in the Ijaw society. Finally, it reveals that the gin industry provides a stable economic fulcrum for the family and has also opened a new vista in historical reconstruction and the contributions of the common folk to society. (304)

## **FACULTY OF BASIC MEDICAL SCIENCES**

**ANIBOR, Ese**  
**PG/11/12/206681**

### **THE DISTRIBUTION OF GENETIC AND MORPHOLOGICAL TRAITS AMONG PEOPLE OF THE NIGER DELTA REGION OF NIGERIA Ph.D. in Human Anatomy and Cell Biology (2015)**

The purpose of this study was to determine the distribution of morpho-genetic traits namely ABO blood groups, Rhesus (Rh) factors, cerumen type, tooth occlusion pattern, earlobe attachment, widows peak, dimples, tongue rolling and tongue folding traits among the Niger Deltans in Nigeria. The study adopted a combination of observational research and experimental design. The research involved two thousand three hundred and four subjects. Multistage sampling was employed in this study. A list of the ethnic groups in Niger Delta was made. Six ethnic groups (Igarra, Etsako, Urhobo, Isoko, Ika and Efik) were randomly selected. ABO and Rh blood grouping were carried out by the open slide method of ABO blood grouping testing. A data form was used to obtain the details of each subject such as ethnicity, age and gender. The cerumen types (dry and wet) were determined by visual examination. The subjects' tooth occlusion patterns were classified following Eveleth's four fold models. The two distinct categories (free and attached earlobes) were considered as the two fold classification of earlobe attachment types were followed in the study. The dimple and widow's peak status of the subjects were determined by physical examination. Standard methods were applied in recording the ability for tongue folding and tongue rolling. Statistical analysis were performed using SPSS version 18. Results were arranged according to gender to ascertain the occurrence of sexual dimorphism. Chi-square test was useful in the regard. The morpho-genetic traits were compared between the ethnic groups. Values at  $P < 0.05$  were considered significant. The research on the blood group distribution in the present study revealed that blood group O occurred more frequently. It was highest in the Efiks (57.2%) and lowest in the Igarra (28.9%) and Rhesus positive factor appeared in maximum frequency, 97.7% being highest as seen in the Ikas. Blood group B has its highest frequency in Etsako ethnic group. The Niger Deltans have incidence of Rhesus negative yielding frequency in the range of 2.1 to 22.4% for the phenotype. The Isokos and Igarra portray incidence of tongue rollers and tongue folders higher in females when compared with the male counterparts in the studied population. The incidence rate of cheek dimples in Niger Delta is 37.2%. The analysis of data on ear lobe revealed an incidence of attached ear lobe of 58.98%. The frequency of dry cerumen was shown to be low (37.5%) in the sampled Niger Delta population. The cheek dimples occurred more frequently in females and males. The frequency of severe overbite type of tooth occlusion was the highest (male = 29.00%, female = 24.20%) which was closely followed by mild overbite type of tooth occlusion (male = 26.13%, female = 25.39%). The incidence of the edge to edge, bit was observed more in females (18.75%) than males (16.28%). This research has

elucidated human variability of genetic and morphological traits in the Niger Delta region of Nigeria. (476)

**ENAOHWO, Mamerhi Taniyohwo**  
**PG/08/09/188800**

**ANGULAR PHOTOGRAMMETRIC ANALYSIS OF THE SOFT TISSUE  
FACIAL PROFILE OF URHOBOS AND ANIOMAS INDIGENES OF DELTA  
STATE**

**Ph.D. in Human Anatomy and Cell Biology (2015)**

Variations in craniofacial morphometric indices is the result of fundamental biological and environmental processes, and is an important trait in ensuring the vitality of species, their ability to adapt to changing environments and even their very survival. Craniofacial anthropometry has assumed much significance in recent times as a result of the relevance which measurement of parameters of the face has on the evaluation of certain syndromic conditions. Reconstruction of the canthus following deformities of the orbit, congenital or acquired, is based on existing measurements of canthal distances, if anatomic restitution is to be achieved. Anthropometric measurements of craniofacial forms especially in the first days after birth are important for the assessment of neonatal health status, results obtained from such measurements are used in paediatrics, orofacial surgery and diagnostic comparative studies between patient and normal populations. Craniofacial anthropometry has also evolved as an important tool in genetic counselling, reconstructive surgery and forensic investigation – the nose is considered one of the best clues to racial origin. The aim of this study was to develop angular facial photogrammetric standards from lateral cephalograms of adult Urhobo and Anioma subjects, and compare these cephalograms for possible ethnic variation and gender dimorphism. A random sample population of 2000 subjects (1000 Urhobo and 1000 Anioma) was selected for photogrammetric angular evaluation of their facial, nasofacial, nasofrontal, nasolabial, nasomental and mentocervical angles. Urhobo males presented mean values of  $100.43^{\circ} \pm 4.43$  for facial angles,  $39.81^{\circ} \pm 4.81$  for nasofacial angles,  $119.44^{\circ} \pm 8.80$  for nasofrontal angle,  $123.78^{\circ} \pm 5.86$  for nasomental values,  $78.03^{\circ} \pm 10.56$  for nasolabial angles and  $89.53^{\circ} \pm 4.77$  for mentocervical angles. Urhobo females had mean values of  $100.11^{\circ} \pm 3.78$  for facial angles,  $39.45^{\circ} \pm 4.04$  for nasofacial angles,  $124.97^{\circ} \pm 7.92$  for nasofrontal angle,  $124.52^{\circ} \pm 5.21$  for nasomental values,  $76.31^{\circ} \pm 11.18$  for nasolabial angles and  $88.59^{\circ} \pm 4.76$  for mentocervical angles. Facial, nasofacial, nasofrontal and nasolabial angles obtained for Anioma male subjects were  $100.22^{\circ} \pm 5.08$ ,  $37.86^{\circ} \pm 3.22$ ,  $121.09^{\circ} \pm 6.41$  and  $80.82^{\circ} \pm 11.35$  respectively. The mean values of nasomental and mentocervical angle among studied Anioma males were  $126.36^{\circ} \pm 4.67$  and  $88.48^{\circ} \pm 6.50$  respectively. The Anioma females showed mean values of  $98.75^{\circ} \pm 6.31$  for their facial angle and  $36.30^{\circ} \pm 3.89$  for their nasofacial angle as well as mean values of  $126.26^{\circ} \pm 5.99$  and  $79.12^{\circ} \pm 11.35$  for the nasofrontal and nasolabial angles respectively. Mean values of  $126.68^{\circ} \pm 5.8$  and  $87.26^{\circ} \pm 6.83$  were obtained as the nasomental and

mentocervical angles among Anioma female subjects. While mean value of all angles investigated were within normal range expected for age, statistical test only demonstrated significant ethnic variation and gender dimorphism in some studied craniofacial angles. Results of this anthropometric study will be of beneficial application in ergonometry and industrial research for the design of fitting facial tools, including eye glass frames, and also in the field of engineering, to design for instance, helmets, aeroplane cockpits and space capsules. Anthropometry data generated in this study about the distribution of craniofacial angular dimensions among the Urhobo and Anioma sample populations can therefore be used to optimize ophthalmologic and mandbulofacial medical products.  
(490)

**OVUAKPORAYE, Simon Irikefe**  
**PG/11/12/206689**

**A STUDY OF GAS FLARE ON CARDIOPULMONARY PARAMETERS OF  
RESIDENTS IN GAS FLARING COMMUNITIES IN SELECTED NIGER  
DELTA STATES**

**Ph.D. Physiology (2016) 162 PP**

The study is aimed at evaluating the impact of gas flare and its effect on cardiovascular and pulmonary parameters of residents in some states of the Niger Delta by specifically determining how gas flare impacted on blood pressure, pulse, peak expiratory flow and respiratory rate and associated changes of these parameters with time of exposure and possible gender variation induced by gas flare. Two locations (an experimental and a control) were used in five different states across the region under study– Edo (Oben and Ekiadolor), Rivers (Oshi and Ahoada), Akwalbom (Ibeno and Ikot Ekpene), Bayelsa (Immiringi and Ogbia) and Delta (Agbaro-otor and Eku).The two communities in each state are with similar socio economic and cultural characteristics and the residents are essentially artisans, traders, farmers, students and civil servants. The study adopted the direct administration of questionnaire, observation/recording and free medical check-up methods. The stratified random sampling method was used. The sample size was 1008 participants (504 in gas flared area and 504 in control area) this comprises of 686 adults and 322 children. The sample is made up of 564 males and 444 females. The electronic blood pressure kit assessed blood pressure and pulse rate of participants. Respiratory and peak expiratory flow rate of participants were observed and recorded by manual method and peak flow metre respectively. Questionnaire was given physically to obtain personal details needed for analysis. Data obtained were subsequently subjected to statistical analysis. Significance difference between means was evaluated by student t-test and one-way analysis of variance (ANOVA). Findings show that gas flare increases mean pulse, respiratory and blood pressure of residents living in the gas flare areas. There was an associated reduction in average peak expiratory flow rate among inhabitants in the gas

flared communities. A similar finding from the result is that gas flare impacted more on systolic component of blood pressure when compared to diastolic of residents. Findings also show that these cardiopulmonary parameters increases with prolonged exposure except peak expiratory flow rate that decreases with longer exposure time. Gender of residents affected the impact level of gas flare on some cardiopulmonary parameters. As contribution to knowledge, this study has offered valid information that unprotected exposure to gas flare can impact negatively on pulse, respiratory, peak expiratory flow rate and blood pressure of residents in the study area. This study has also shown that the level of impact of gas flare on these human cardiovascular and pulmonary parameters of people residing in this region is gender dependent. The study has also shown that the longer the time of exposure to gas flare the more the severity of changes in the cardiopulmonary parameters. The outcome of this study show that gas flare impacted more on systolic segment of blood pressure than diastolic blood pressure. This study has added to the existing literature on the evaluation of the health implication of flared gas on the socioeconomic environment in this region. (484)

## **FACULTY OF EDUCATION**

**NWAOKOCHA, Maria Ngozi**  
**MAT. NO. PG/06/07/121106**

### **PERSONALITY SUPERTRAITS AND PARENTING STYLES AS CORRELATES OF PSYCHOSOCIAL ADJUSTMENT AMONG UNDERGRADUATES IN THE NIGER DELTA REGION**

**Ph.D. Guidance and Counselling (2013) 186PP**

The aim of the study was to examine the level of relationship among personality supertraits, parenting styles and psychosocial adjustment; mediating influence of parents-child relationship and peer group influence. As a result of this, fifteen research questions were raised and fifteen null hypotheses formulated as a guide for the study. A total of four states out of the eight states in Niger Delta Region were used for the study. The Niger Delta Region is made up of eight states which are: Cross River, Rivers, Bayelsa, Abia, Akwa-Ibom, Delta, Edo, and Ondo. Four universities were sampled using simple random sample technique. 100 respondents were drawn using stratified random sampling and multi-stage random sampling techniques. Questionnaire type of instrument titled personality supertraits, parenting styles and psychosocial adjustment scale (PSPSPS) was administered by the researcher. Almost all the sections of the questionnaire were self made except the personality supertraits scale which was adapted from Coaster and McCrae (1992). The instrument was divided into five sections with a total of 100 items. The reliability coefficients are as follows: personality supertraits  $r = .74$ , parenting styles  $r = .82$ , parents-child relationship  $.87$ , peer group  $.75$  and psychosocial adjustment  $r = .80$ . At the end, 943 respondents were used and the data collected was analysed by using Multiple Correlation and Multiple Regression Analysis and Path Structural Models. At the end of the study, the findings revealed that there was significant relationship among personality supertraits, parenting styles and psychosocial adjustment among undergraduates in Niger Delta Region. Parents-child relationship did not mediate the relationship while peer group influence mediated among the variables. Gender and age did not moderate among the variables. The study also discovered that personality supertraits had the highest correlational influence followed by parenting styles influence. It was further discovered that emotional stability, extraversion, conscientiousness and authoritative parenting styles correlated with psychosocial adjustment. Based on the conclusion reached in this study, the following recommendations were made. Prominent among them are: That personality supertraits of emotional stability, extraversion, conscientiousness should be encouraged and improved upon by the parents and the undergraduates, making sure that the positive traits in them are upheld while those negative traits are eliminated. That authoritative parenting style of being warm and caring should be applied effectively on the undergraduates by their parents for excellent psychosocial adjustment. (382)

**IMOBIGHE, Mabel Uleburin**  
**PG/06/07/128779**

**GROWTH AND REPRODUCTIVE PERFORMANCE OF AFRICAN LAND GIANT SNAILS (*Archachatinamarginata*) FED ON CRAYFISH WASTE: IMPLICATIONS FOR VOCATIONAL SKILLS DEVELOPMENT**  
**Ph.D. in Agricultural Education (2014) 174 pp.**

This study examined the growth and reproductive performance of African land giant snail (*Archachatinamarginata*) fed on crayfish waste and determined implications for vocational skill development. Most snail feeds are seasonal and very expensive but crayfish waste can be collected from women crayfish dealers at very low cost. Seven research questions and seven null hypotheses guided the study. The study adopted both the experimental and survey research designs. The experiment was carried out in Delta State University Experimental Farm. Experimental diets were formulated using adjustable Pearson's square method of feed formulation to contain crayfish waste at 0%, 5%, 10% and 15% inclusion levels respectively. Proximate analyses of the feeds were determined using the procedure developed by the Association of Official Analytical Chemists (1995). There were four treatment groups replicated three times giving a total of twelve replicates. A total of one hundred and twenty juvenile snails were used for the study based on recommended density for snail per square meter. Simple random sampling technique was used to assign the snails to four (4) treatment groups with four (4) different dietary treatments. The study adopted the Completely Randomized Design (CRD). The growth rate was measured using sensitive weighing balance. Length and width were measured using Vernier Callipre calibrated in centimeters. Feed intake was measured using weighing back techniques. Egg laying performance and hatchability levels were done through observation and recording the number of eggs laid and number hatched. Data collected were subjected to one-way Analysis of Variance (ANOVA) to test the hypotheses. Mean and standard deviation (SD) were used to answer the research questions. Duncan Multiple Range Test was used to separate the mean. The survey design was used to identify the vocational skills needed in feeding African land giant snails. The 5-point scale instrument was used to collect data from a sample of 375 Agricultural Science teachers in Delta State on the skills needed in feeding African land giant snails. All stated hypotheses were tested at 0.05 level of significance. Based on the analysis of data collected, the results showed that 10% and 15% (T4 15% and T3 10%) inclusion of crayfish waste resulted in the highest weight gain, increase in the length, width and feed intakes of snails and that crayfish waste inclusion has no effect on egg laying and hatchability level. The study inferred that crayfish waste could be fed to snails at 15% and 10% level inclusion thus providing a cheaper source of feeding snails and utilizing the crayfish waste to create wealth. The control (zero treatments at 0%) and 5% crayfish waste inclusions in diet resulted in higher egg laying and hatchability level respectively. The study recommended that Agricultural Science teachers should embark

upon mass sensitization and intensive training on snail rearing and how to compound snail feed using crayfish waste to reduce cost. (467)

**GBADA, JULIET OPHA**

PG/05/06/9/3/93724

**SCHOOL ADMINISTRATORS' SUPERVISION TECHNIQUES ON PRINCIPALS' AND TEACHERS' JOB PERFORMANCE IN SECONDARY SCHOOLS IN DELTA AND EDO STATES**

**Ph.D. Educational Administration (2014) 242PP**

Over time educational stakeholders have expressed their views on the poor state of public secondary schools and the continual decline in the standards of education in the country. They have attempted to revamp and reform the supervision services. Such involved monitoring and controlling, regular inspection and continuous supervision of instructions. Such degree of efficiency and effectiveness in the school system has become an illusion by the various attitudes of teachers and school heads towards supervision and application of its techniques. School administrators' supervision behaviour must be adequately positioned for effectiveness to enhance job performance. Thus, there are inadequacies of physical and human resources. Against this background, this study investigated the school administrators' effective use of supervision techniques on principals' and teachers' job performance in Delta and Edo States, Nigeria. Literatures were reviewed and the theoretical framework was based on McGregor theory X and theory Y and supervision models. The research design was a descriptive survey. The population consists of all inspectors, principals and teachers in public secondary school in Delta and Edo States amounting to 20,927, with a sample size of 2,090 consisting of 70 inspectors, 120 principals and 1,900 teachers. The multi-stage cluster sampling technique was employed. The research instrument for the study was a self-designed questionnaire captioned inspector principal supervision techniques (IPSTQ). It was divided into eight sessions with four responsive options. The instrument content and construct validity were standardized using the Principal Component Analysis (PCA) which showed correlational coefficient of .330-.853. The reliability of the instrument were established using the Cronbach Alpha statistics to determine the coefficient of internal consistency with a scale as high as 0.84. The study was guided by eight research questions and eight null hypotheses. The research questions were answered and analyzed using arithmetic mean, while the null hypotheses were tested using ANOVA at 0.05 level of significance. The results showed the most frequently used supervision techniques were full inspection, surprising visits, classroom visitations and staff meetings. Effective utilization of inspection and instructional supervision techniques will enhance principal administrative effectiveness and teacher's classroom performance by keeping accurate school records communicated to parents, for decision making and educational planning, ensure teachers notes of lessons are assessed, teachers are punctual to class and carefully planned their lesson notes. The problems of school supervision

include inadequate funds and facilities, poor policies implementations, lack of access roads, crowded classrooms and teacher's poor condition of service. On account of this, the researcher recommends that inspectors should utilize more of the supervision techniques like special visits and recognition visits. Provide adequate funds, manpower and facilities, education policies implementations and improve teachers' condition of service so as to improve job performance. (440)

**EGWANWOR, Williams Ifeanyi Joel**  
**PG/06/07/123416**

**EFFECTS OF COOPERATIVE LEARNING STRATEGY ON STUDENTS' ACHIEVEMENT IN BASIC SCIENCE IN RIVERS STATE**  
**Ph.D. Science Education (2014) 195 PP**

This study investigated the effects of cooperative learning strategy on students' achievement in basic science in Rivers State. It also investigated the moderating effects of gender and ability on students' achievement in basic science. The purpose of this study is to determine if cooperative learning method when used for instruction could influence students' achievement in basic science; to determine how the intervening variables such as gender and ability affect students' achievement in basic science in a cooperative learning classroom; to determine if there is any difference in achievement between the students exposed to the cooperative strategy and those taught with the lecture method; to determine the difference between the achievements of male and female students exposed to the cooperative learning strategy; to determine if there is difference in achievement among the varying ability students with respect to the different methods of instruction. Nine research questions and nine null research hypotheses were formulated and tested at 0.05 level of significance. A 2x2x2 non-randomized pretest, post-test control group quasi-experimental design was adopted, this consisted of two instructional methods of cooperative learning strategy and lecture method, gender at two levels of male and female, and varying abilities at two levels of high and low. The population for the study consisted of all 259 government-owned (UBE-9) secondary schools in Rivers state with a population of 35,251 students. Six hundred and seven students from six junior secondary schools selected by simple balloting technique from the three senatorial districts in Rivers State were involved in the study. The descriptive and inferential statistics were used to analyze the data collected for the study; and these include the mean, standard deviation, analysis of covariance (ANCOVA). The results showed that there was significant difference in students' achievement between the students exposed to cooperative learning strategy and those taught with lecture method. However, the effect of gender and ability were not significant on students' achievement for students exposed to cooperative learning strategy; but there were significant effect of gender and ability on students' achievement among the students taught with lecture method. The varying ability students of the cooperative learning group performed significantly better than their varying ability counterpart in control group (lecture method). Based on these findings, it was

recommended that cooperative learning strategy be adopted in the Nigerian secondary schools. As a result of the findings of this study it is recommended that, basic science and science teachers in general should expose the students to cooperative method to encourage social interaction among learners. Also, workshops should be organized for science teachers to emphasize the use of cooperative learning. (429)

**JACK, Uzezi Gladys**

**MAT. NO.: PG/07/08/141860**

**ANALYSIS OF SENIOR SECONDARY SCHOOL STUDENTS' EXPERIENCED DIFFICULTY IN SCIENCE PROCESS SKILLS ACQUISITION IN CHEMISTRY  
Ph.D. SCIENCE EDUCATION (2014) 151PP**

The general objective of the study was to determine Chemistry students' perceived difficulty in the acquisition of science process skills. Seven research questions and seven hypotheses guided the study. The design adopted for the study was descriptive survey design. The population of the study comprised all senior secondary school III (SS III), Chemistry students in the three senatorial districts of both Adamawa and Taraba States in Nigeria. Seven hundred and twenty (720) respondents were involved in the study through multi-stage random sampling. Twenty students were randomly selected from each of the 36 schools. The research instrument was a test called 'Science Process Skills Knowledge Test in Chemistry' (SPSKTC). The test consisted of Section A which demanded personal information on the school and respondent (bio data); and Section B which consisted of 70 objective questions having 15 items on test of knowledge on science process skills. The items on SPSKTC were extracted from WAECSSCE Alternative to practical Chemistry past questions (2002-2011). The SPSKTC was validated by three experts in science education, two in test and measurement; and two secondary school Chemistry teachers. The data obtained was subjected to Kuder Richardson formula 21 to obtain the correlation coefficient of 0.78, which was considered adequate for the study. The SPSKTC was administered with the help of the Chemistry teachers and the researcher. After the administration of the SPSKTC, students' answers were collected and scored. The percentages, frequencies, means scores and standard deviations were used to collate the data. The level of difficulty of a particular process skill was determined by the value of means as follows: means scores less than 50 (<50) were classified as difficult, and means scores equal to or above 50 ( $\geq 50$ ) as simple. The hypotheses were tested using means and t-test at  $t \leq 0.05$  level of significance. Hypotheses 1-7 were tested with descriptive t-test statistic using SPSS 16.0 statistical package. Each student was scored on each of the science process skills before the individual scores were aggregated to form a composite score for each student. The major findings of the study showed that 12 science process skills (80%) were found difficult by students in acquiring which includes: observing, identifying/controlling variables, inferring, predicting, using number relationships, formulating hypotheses, experimenting, communicating, recording, defining operationally, interpreting data, and classifying; with a total mean scores of

39.35 out of the 15 science process skills. The study also indicated that sex, school location and school type have negligible influence on students' acquisition of science process skills; while large class size, students' negative attitude towards Chemistry and laboratory inadequacy have great influence on students' acquisition of science process skills. The study concluded that most students in Nigerian schools experience difficulty in the acquisition of process skills, arising from the persistent use of the lecture method of teaching Chemistry which is not student-activity-oriented. The study recommends that the reduction of student-teacher ratio, training of teachers on science process skills and equipping all secondary school laboratories enable teachers adopt methods that lead students to have the appropriate skills. (498)

**OVWROMO, Angelina Oyogagan**  
**PG/04/05/92754**

**TREND ANALYSIS OF PRIMARY AND SECONDARY EDUCATIONAL FUNDING AND EXPENDITURES IN DELTA STATE (2000-2007)**  
**Ph.D. Educational Administration (2014) 154 pp.**

This study analyzed the trend in educational funding and expenditure in Delta State from 2000 to 2007 with a view to determining whether there was an upward or downward trend in the educational funding and expenditure for the period under study. Six research questions were raised. The study adopted the descriptive survey design. The population of the study comprised all heads of primary and secondary educational institutions, chairmen, secretaries' chief inspectors of education in the 25 local government areas and chairmen of education boards in Delta State. A sample size of 159 respondents from the three senatorial districts of Delta State was selected through stratified random sampling technique. Instruments used for this study included the state annual budget and structured questionnaire. The data collected were analyzed using the descriptive statistics of mean, graph and percentages. The findings from the study, amongst others, showed that there was a downward trend in the allocation of fund to the education sector generally, and specifically to primary and secondary subsector of education in Delta State. Based on these findings it was concluded, that there was a downward trend in actual financial allocation of fund to education from 2000 to 2007; and the actual financial allocation did not meet the Asian tiger criteria of 26 percent of annual budget being allocated to education. On the basis of this conclusion, it was recommended among others that there is the need to increase funding of education in Delta State in the areas of human and material resources. (250)

**OKONTA, Vinella**  
**PG/07/08/135314**

**EVALUATION OF ACADEMIC AND NON-ACADEMIC STAFF NEED IN  
UNIVERSITIES IN THE NIGER DELTA REGION**  
**Ph.D. in Educational Planning (2014) 179 pp.**

This study was carried out to ascertain the number of academic and non-academic staff available as well as determine the additional need or excess academic and non-academic staff in universities in the Niger Delta region for the 2010/2011 academic session using the National Universities Commission (NUC) Benchmark as a yardstick. Twelve research questions were raised and answered in the course of this study. The sample comprised of nine federal, state and private universities. The NUC standard student/teacher ratio per faculty was used to calculate the required number of academic staff from which the required number of non-academic staff was derived based on the NUC stipulations for the various categories. Descriptive statistics was used to answer the research questions raised to guide the study. The major findings of the study were as follows: There were 5,865 academic and 13,960 non-academic staff in all sampled universities for the 2010/2011 academic session; 5,589 academic and 7,013 non-academic staff were required for the period under study; discrepancies in the form of excesses of 276 (4.94%) academic and 6,947 (49.76%) non-academic staff existed in all sampled universities; the academic to non-academic staff ratio were strictly not in conformity with the NUC standards; discrepancies existed in the number and structure of available academic and non-academic staff; as such, there was no strict conformity to the standards; and it was established that additional academic staff were mostly needed in certain critical faculties such as Administration/Management, Engineering/Technology, Medicine, Science, Social Sciences, while excesses abound in the Faculties of Agriculture, Arts, Law and all categories of non-academic staff in sampled universities except two private universities where additional junior staff were needed. Based on these findings, it was recommended amongst other things that university administrators should strive to source for senior academics to fill the areas of shortfalls; and that senior non-academic staff who have the prerequisites, interest and zeal for academic pursuits should be encouraged to enrol for Ph.D.'s in the established programmes of need in order to curb the enormous wastage occasioned by their excess numbers. (338)

**ENYIMBA, Nwamaka Justina**  
**PG/05/06/9/38167**

**AVAILABILITY AND UTILIZATION OF HUMAN AND MATERIAL RESOURCES FOR TEACHING PHYSICS IN COLLEGES OF EDUCATION IN SOUTH-SOUTH GEOPOLITICAL ZONE OF NIGERIA**  
**Ph.D. in Curriculum Studies (Science Education) (2014) 248 pp.**

The study sought to investigate the availability of human and material resources, the extent of use of a variety of instructional materials in teaching of Physics, their adequacy and the hindrances to their use in colleges of education in south-south geopolitical zone of Nigeria. Descriptive survey design was adopted in the study. The focus was on academic and non-academic staff in Physics departments of the colleges. The teacher requirements in terms of age, experience and qualification, the quality and quantity of teachers supplied and needs were examined alongside the problems that affect human resources utilization and retention. The south-south geopolitical zone which the study covered is made up of six states from which four were selected based on location by systematic sampling technique. The four states have seven colleges of education. The population comprised 37 Physics lecturers which include heads of department (HODs) of Physics, six (6) laboratory attendants and two (2) technicians in the colleges. The instrument used to collect data for the study was a questionnaire, subdivided into three sections. Section A was for all respondents and HODs, Section B is a checklist for only laboratory attendants and technicians, while Section C is for all respondents. To guide the study, ten (10) research questions were raised and analyzed using percentages and mean scores. Graphs were also used to show some trends and relationships. The result of the study revealed that: There is a difference between NCCE requirements and actual requirements of colleges; therefore, real staff need exists in colleges of education. The supply of academic staff to some of the colleges is inadequate, some of the lecturers have no professional qualification, and most of the colleges lacked some of the required material resources, thus the number available falls below NCCE standard. Poor condition of services and poor salaries were the major factors that affect human resources utilization and retention. On these findings, recommendations were proffered as follows: that the federal government and NCCE accreditation team should emphasize the need for the colleges to employ professionally qualified staff, material resources required should be provided and installed in appropriately designed laboratory for practical activities. Financial benefits should be reviewed occasionally to encourage the staff. Conclusions were drawn and suggestions for further studies were made. (374)

**AKAJAGBOR, Uyovwiewwo Veronica**  
**PG/10/11/190195**

**TYPES, CAUSES, EFFECTS AND MANAGEMENT STRATEGIES OF CONFLICTS AMONG UNIVERSITY ADMINISTRATORS IN SOUTH-SOUTH GEOPOLITICAL ZONE OF NIGERIA**

**Ph.D. in Educational Administration (2014) 147 pp.**

This research was on types, causes, effects and management strategies among university administrators in south-south geopolitical zone of Nigeria. The purpose of the study was to find out the extent to which conflict occur among the university administrators, the types, causes, effects, and management strategies of conflict among University administrators in federal, state and private universities of south-south geopolitical zone of Nigeria. The study adopted an ex-post-facto design using a descriptive survey approach. Nine research questions were raised and eight hypotheses were formulated. The study population comprised of 638 university administrators from 17 universities in south-south geopolitical zone of Nigeria as at 2012/2013 academic year out of which 322 university administrators from 11 universities were sampled representing 50% of the population, using stratified random sampling. The instrument used for the study was types, causes, effects and management strategies of conflict questionnaire to solicit responses from 322 senior university administrators, that is, 118 federal, 122 state and 82 private. The reliability of the instrument was established using the test-retest method, and a coefficient of 0.70 was obtained using Pearson correlation moment. The data collected were statistically analyzed, using frequency count, mean, percentages and standard deviation for the research questions while one way analysis of variance for the hypotheses formulated and tested at 0.05 level of significance. The findings in the research revealed that conflicts occur frequently among the university administrators, especially conflict between academic administrators and the university authorities, followed by interpersonal conflict among the principal officers of universities, conflict between the non-teaching administrative staff and the government, conflict between the non-teaching staff and the university authorities among others. While the major types of conflicts identified among the university administrators were competition for positions, competition for scarce resources, drive for autonomy, hostile behaviour. The study also revealed the following as the major causes of conflict among the university administrators: the refusal of management to honour agreements reached with workers union, followed by denial of rights, and when government circulars on staff welfare were not implemented. The findings of the study established that there are unresolved conflicts in the universities among the administrators and it is dysfunctional; there is a significant difference among the administrators in the types, causes, effects and management strategies in federal, state and private university administrators in conflicts. However, there was no significant difference in the experienced and less experienced administrators in conflict resolution effectiveness. A collaborative management style enhances conflict resolution effectiveness more than the Experience of the administrators. Dialogue was the most

frequently used management strategy while Negligence was the least used management strategy. Others were mediation, collective bargaining, prevention, participatory decision-making, withdrawal, force and avoidance. The researcher concluded that conflict management strategies are situational. Based on the findings, recommendations were made on how conflict can be prevented, managed and resolved among others, all stakeholders should identify conflict situations early, to prevent its antecedents before it will escalate into crises. (484)

**EGWANWOR, Williams Ifeanyi Joel**  
**PG/06/07/123416**

**EFFECTS OF COOPERATIVE LEARNING STRATEGY ON STUDENTS' ACHIEVEMENT IN BASIC SCIENCE IN RIVERS STATE**  
**Ph.D. Science Education (2014) 198 PP**

This study investigated the effects of cooperative learning strategy on students' achievement in basic science in Rivers State. It also investigated the moderating effects of gender and ability on students' achievement in basic science. The purpose of this study is to determine if cooperative learning method when used for instruction could influence students' achievement in basic science; to determine how the intervening variables such as gender and ability affect students' achievement in basic science in a cooperative learning classroom; to determine if there is any difference in achievement between the students exposed to the cooperative strategy and those taught with the lecture method; to determine the difference between the achievements of male and female students exposed to the cooperative learning strategy; to determine if there is difference in achievement among the varying ability students with respect to the different methods of instruction. Nine research questions and nine null research hypotheses were formulated and tested at 0.05 level of significance. A 2x2x2 non-randomized pretest, post-test control group quasi-experimental design was adopted, this consisted of two instructional methods of cooperative learning strategy and lecture method, gender at two levels of male and female, and varying abilities at two levels of high and low. The population for the study consisted of all 259 government-owned (UBE-9) secondary schools in Rivers state with a population of 35,251 students. Six hundred and seven students from six junior secondary schools selected by simple balloting technique from the three senatorial districts in Rivers State were involved in the study. The descriptive and inferential statistics were used to analyze the data collected for the study; and these include the mean, standard deviation, analysis of covariance (ANCOVA). The results showed that there was significant difference in students' achievement between the students exposed to cooperative learning strategy and those taught with lecture method. However, the effect of gender and ability were not significant on students' achievement for students exposed to cooperative learning strategy; but there were significant effect of gender and ability on students; but there were significant effect of gender and ability on

students' achievement among the students taught with lecture method. The varying ability students of the cooperative learning group performed significantly better than their varying ability counterparts in control group (lecture method). Based on these findings, it was recommended that cooperative learning strategy be adopted in the Nigerian secondary schools. As a result of the findings of this study it is recommended that basic science and science teachers in general should expose the students to cooperative methods to encourage social interaction among learners. Also, workshops should be organized for science teachers to emphasize the use of cooperative learning. (440)

**OMUMU, Florence Chiedu**  
**PG/2000/2001/9/3/38285**

**RATIONAL EMOTIVE BEHAVIOUR THERAPY AND MODELLING TECHNIQUES ON ANGER MANAGEMENT OF SECONDARY SCHOOL STUDENTS IN DELTA STATE**  
**Ph.D. Guidance and Counselling (2015) 113 pp.**

The purpose of this study was to investigate the Effectiveness of Rational Emotive Behaviour Therapy and Modelling Counselling Techniques on the anger management of secondary school students. It was also aimed at finding out whether age, gender and location of students will interact with the effectiveness of the two treatment techniques. Seven research questions and seven null hypotheses were raised to guide the study. A Quasi experimental 3x2x2x2 factorial design was adopted in the study. The population consisted of 2,800 Senior Secondary Schools in Delta State. The sample used for the study comprised of 240 students who identified as having anger management problems through the pre test administration of temper and tolerance screening test by Odebunmi (1992). The stratified proportionate sampling technique was used based on location and gender. The study accommodated all social demographic variables used in the study such as age, gender and location. Through simple balloting system, the 240 participants were assigned into two experimental groups and one control group. The scale for the study was validated using the principle component analysis (PCA) to determine the content and construct validity. The content validity estimate was 65.97%, while the construct validity was explained by the factor loadings matrix that range between .43 and .72. The reliability of the instrument was established using the Cronbach Coefficient Alpha. The data was analyzed using mean ratings and ANCOVA statistical method. It was found that there was a significant difference in the anger management of students treated with Rational Emotive Behaviour Therapy and Modelling Counselling Techniques. The findings also revealed that there was no significant interaction effect of age, gender and location on the anger management of students. Based on the findings of the study, the following recommendations were made: counsellors should use Rational Behaviour Therapy to manage students' anger emotion irrespective of their age, gender or location.

Rational emotive behaviour therapy proved to be more effective than Modelling therapy as is evidenced by the mean difference of 17.04 and 3.64 for modelling therapy. Therefore it is a better option. Seminars and workshops should be organized for counsellors, teachers and social workers, so that they can master the treatment techniques and their efficacy. Counsellors and university lecturers should conduct more researches and make more publications on the use and efficacy of rational emotive behaviour therapy and Modelling counselling techniques. (386)

**UYANWANNE, Andrew Onuwa**  
**PG/07/08/139874**

### **EFFECTS OF TEACHERS' TASK-PROMPTS ON LEARNERS' ACHIEVEMENT IN SENIOR SECONDARY SCHOOL CHEMISTRY IN DELTA STATE**

**Ph.D. in Science Education (2015)**

This study is aimed at determining the effects of Teachers' Task-Prompts (TTP) on learners' achievement in senior secondary school chemistry. Seven research questions and seven hypotheses were formulated to guide the study. Thinking tools based on educational theories of learning formed the model on which learners structures in the study were based. The population of the study embraced all Secondary Schools (SS1) students in the twenty-five Local Government Areas of Delta State. The sample of one thousand, four hundred and fifty-five (1,455) students from the six (6) schools selected using sample random technique were used for the study. The design of the study was a quasi-experimental research made up of non-randomised control group pre-test-post-test design using intact classes. Three different research instruments were developed for the study. They include Chemistry Learning and Thinking Instrument (CLTI) Organic Chemistry Concept Inventory (OCCI), and Chemistry Achievement Test (CAT). The reliability co-efficients of the three instruments are 0.72, 0.78 and 0.81 respectively using Kuder – Richardson Formula 21, the data collected were analysed using mean, standard deviation and analysis of covariance (ANCOVA). The findings revealed that deep learners performed better than surface learners using strategies of teachers' task-prompts. Learners who showed understanding of chemistry concepts (deep learners) did it through critical examination of new facts and ideas, are deep learners. The surface learners were lacking in such coordination and their achievements were retarded. Moreover; learners taught using teachers' task-prompts performed better than those learners taught with the traditional lecture method. However, those taught with teachers' task-prompts had their intellectual and manipulative skills raised as they became active participants but learners taught with the traditional lecture method could not achieve much due to their being passive and could not handle much equipment. It can be concluded that teachers' task prompts was superior and more effective in improving learners, achievement in chemistry than the most widely used lecture method. Based on these findings it was recommended that chemistry teachers should combine thinking tools and task-prompts in their day-to-

day teaching of the subject. Secondly, chemistry teachers should focus learners to adopt deep learning study habits instead of surface since it results in poor academic achievement. (357)

**ABAMBA, Emmanuel Ikechuku**  
**PG/08/09/160926**

**EFFECTS OF 5E LEARNING CYCLE ON STUDENTS ACADEMIC ACHIEVEMENT IN SECONDARY SCHOOL PHYSICS IN DELTA STATE**  
**Ph.D. in Science Education (2015)**

This study examined the effects of 5E learning cycle on students' academic achievement in secondary school Physics in Delta State. The design of the study was a non-randomized pre-test, post-test control group quasi-experimental design. The factorial matrix representation is  $2 \times 2 \times 2$ . The population of the study comprised sixty-six thousand three hundred and forty-five (66,345) students. The sample of the study was two hundred and forty-three (243) SS II Physics students selected from six schools across the three Senatorial Districts of Delta State. Eight research questions were raised and eight research hypotheses tested at 0.05 level of significance. Mean and standard deviation were used in answering the research questions while t-test of difference and Analysis of Covariance (ANCOVA) were used in testing the hypotheses. The results amongst others showed that there is a significant difference between the students taught with 5E learning cycle and those taught with lecture method ( $F_{246} = 360.59$ ;  $P < 0.05$ ). Gender had a significant effect on students' achievement and location had no significant effect on achievement on students. Also, there was no significant interaction found between gender, location and method on achievement. In general, the findings show that 5E learning cycle is more effective in promoting students' achievement in Physics. Based on these findings, it was recommended, among others, that workshops and seminars be organized by the Ministry of Education to educate teachers on the effectiveness of 5E learning cycle model in the teaching-learning process and the need to employ it as a method of teaching; and that 5E learning cycle be adopted in Nigerian Physics classrooms. (261)

**UMUDI, Akpore Benjamin**  
**PG/09/10/176984**

**SOCIOECONOMIC STATUS, FAMILY SIZE AND FAMILY TYPE AS CORRELATES OF ACADEMIC PERFORMANCE OF SOCIAL STUDIES STUDENTS IN SOUTH-SOUTH, NIGERIA**  
**Ph.D. Social Studies Education (2015)**

The study was prompted by the assumption that a child's performance in school subjects is correlated by the variables of socioeconomic status, family size and family type. How these variables correlate students' achievement test score in Social Studies was the main objective of this study. The study is fashioned in the context of family life education, which is a component of Social Studies curriculum. Socioeconomic status is examined in this study to mean an individual's standing in society in terms of income, occupation and educational qualification. In order to investigate these identified problems, seven null hypotheses were formulated. The hypotheses were used to provide a tentative answer to the seven research questions stated to guide the study. The investigation involved Social Studies students in Upper Basic Secondary Schools in South-South, Nigeria. Parents as well as students will benefit from the outcome of the study. Parents will gain the necessary information about the essential support children need to achieve better test score in Social Studies when students are exposed to examination. Students will gain knowledge that could equip them to make the right choice in the size and type of family to have when they enter their own family life. Review of related literature was hinged on the conceptual framework of human ecology. The concept indicates that available resources determine the well being, education and quality of life of the family. The subject matter in literature was studied as single variable correlating students' performance. Hence, a combination of these variables was investigated to find out how they correlate students' academic achievement test scores in Social Studies. The study adopted a survey design involving an ex-post facto approach. It was used to generate data from a sample of 589, being 10% of the target population of 5,891. A validated questionnaire titled: Socioeconomic Status, Family Size and Family Type of Students' Academic Performance Questionnaire (SESFSFTSAPQ) was the main instrument. The instrument obtained a reliability coefficient result of 0.63. Data collected were subjected to regression statistics. The analysis was performed at 0.05 level of significance. Tables of regression analysis were used in the presentation of results. Findings indicated that each of the variables alone does not determine a child's academic achievement test scores. Rather, it is when the combined variables of socioeconomic family size and family type are at work simultaneously against the child's learning ability, that his scores could be significantly correlated. Based on this conclusion, it was recommended, among others, that students' academic performance should not be measured alone on the basis of socioeconomic status of the child's family. The study revealed that academic performance is predicted by the combination of factors such as students' family size, family type, interest, maturity and peer influence. Also, correlating students' performance does not depend on a single variable measured. Finally, students are equipped to make the right choice in the size and type of family to raise when they eventually enter their own family life. (490)

**OKOGU, Joel Otiie**  
**PG/05/06/93887**

**RELATIONSHIP BETWEEN INSTRUCTIONAL COMPETENCIES OF SOCIAL STUDIES TEACHERS AND STUDENTS ACADEMIC PERFORMANCE IN DELTA AND EDO STATES**

**Ph.D. in Social Studies Education (2015)**

The study examined the relationship between instructional competencies of Social Studies teachers and students academic performances at the Upper Basic Secondary School level in Delta and Edo States of Nigeria. The purpose of the study is to examine the relationship between instructional competencies of Social Studies teachers and students academic performance of the Upper Basic Secondary School Students in Delta and Edo State. The study used both primary and secondary sources of data for the study. Primary data was obtained from the administration of a self constructed questionnaire on a sample of 461 Social Studies teachers representing 25% of an estimated targeted population of one thousand, one hundred and seventy-nine (1,179) teachers of Social Studies. The systematic sampling technique on gender basis was employed. The secondary data was obtained from classified journals, articles, books, catalogues, published and unpublished dissertations and theses, local and foreign. The ex-post facto design was used. Nine research questions were raised to guide the study and as well nine hypotheses as tentative solutions to the problem. The data was analyzed by using the Pearson Product Moment Correlation coefficient to determine the degree in which Social Studies teachers' academic performance. The investigation revealed that Social Studies Teachers' competencies have direct significant relationship with Social Studies students' academic performance. There was significant relationship between Social Studies teachers' and students evaluation at the value of ( $r = 0.58, P \leq .05$ ). Similarly there was significant relationship between Social Studies teaching methods and academic performance of the students at the value of ( $r = 0.68, P \leq .05$ ). The relationship between the use of instructional materials in teaching the students and students academic performance was significantly established at the value of ( $r = 0.53, P \leq .05$ ). In addition there was significant relationship in Social Studies teachers' preparation for teaching before classes are held and students' academic performance at the value of ( $r = 0.73, P \leq .05$ ). Consequently, the various ministries of education should retrain Social Studies teachers' to enable them acquire appropriate instructional competencies for the challenges of effective teaching of the students in terms of cognitive, affective psychomotor domain of learning. The study showed that Social Studies teachers' and Social Studies students evaluation enable the school authorities to assess the degree in which teachings have taken place in one hand and the degree of the students' level of understanding of the learning experiences. The use of suitable Social Studies teaching methods in teaching the students enable the teachers' to evaluate the quality of their effectiveness and the degree of students' active participation in learning. While teachers' preparation for teaching before classes are held enable them to teach the topic without

much digression. The study established that Social Studies teachers' instructional competencies are positively related to students' academic performance. The study further confirmed that evaluation component of Social Studies teachers significantly correlated with students' performance. The study brought to the fore other desired Social Studies teachers' instructional competencies for students' enhanced performance. (495)

**OGHOUNU, Ajirioghene Eric**  
**PG/04/05/9/3/92175**

**EFFECTS OF STUDY HABIT AND RATIONAL EMOTIVE BEHAVIOUR THERAPY ON EXAMINATION TAKING BEHAVIOUR OF SENIOR SECONDARY STUDENTS IN DELTA STATE**  
**Ph.D. in Guidance and Counselling (2015)**

The study was carried out to investigate the effects of Rational Emotive Behaviour Therapy (REBT) and Study Habit (SH) on examination taking behaviour of students in senior secondary schools. The aim was to determine whether students exposed to study habits and rational emotive behaviour therapy would improve in their examination taking behaviour compared to those that were not exposed to any of the two treatments. The objective was to ascertain the efficacy of rational emotive behaviour therapy and study habit in fostering positive examination taking behaviour in students and to compare the effects of treatment with control group in order to ascertain if changes in examination taking behaviour was attributed to treatments. The study was quasi-experimental which adopted a 3x2x2 factorial design. The population of study was 1,128 senior secondary three (SS III) students distributed in 12 senior secondary schools in Warri South Local Government Area of Delta State. Multistage sampling technique was used to sampling technique was used to sample local government area, schools, classes, and assignment of treatment to groups. A sample of 112 students which represents 10% of the population was used in the study. Three SS III classes were randomly selected from three senior secondary schools in the Local Government Area and assigned to treatment variables which lasted five weeks, The student were used in their intact classes. Data collected were pre-test and post-test scores of the students in an Examination Taking Behaviour Scale (ETBS). Treatment groups I and II were exposed to Rational Emotive Behaviour Therapy and Study Habit respectively while the control group was exposed to discussion on current issues. The research questions were answered using descriptive statistics. The Analysis of Covariance (ANCOVA) was used for data analysis and the F-ratio was tested at 0.05 level of significance. It was found that the Rational Emotive Behaviour Therapy (REBT) and Study Habit (SH) were effective counselling strategies and that gender did not interact with the counselling strategies. However Rational Emotive Behaviour Therapy (REBT) was found to be superior to study habit. The study also revealed that there was no appreciable gain on the pre-test scores of students in the control group as

shown in their post-test scores. Again the pre-test scores of students in all groups indicated negative examination taking behaviour. It was recommended that counsellor in schools should apply REBT and SH as strategies to modify students with negative examination taking behaviour irrespective of their gender and that in situation where there is need for choice, rational emotive behaviour therapy is preferred to study habit. (421)

**OROGUN, Alexander Oghenechuko**  
*PG/08/09/176922*

**EFFECTS OF THREE METHODS OF TEACHING READING COMPREHENSION ON STUDENTS' ACHIEVEMENT IN READING COMPREHENSION IN SENIOR SECONDARY SCHOOLS IN DELTA STATE**  
**Ph.D. in Curriculum (Language Education) (2015) 226 pp.**

The study focused on the effects of three methods of teaching reading comprehension (traditional – basal), reciprocal teaching, and collaborative strategic reading (CSR). The study also examined the effects of school type and socio-economic status on senior secondary school students' achievement in reading comprehension. A sample of four hundred and thirty (430) SII students from three single sex schools and three mixed schools sampled from public secondary schools in the three senatorial districts of Delta State took part in the study. A quasi experimental design was adopted. Eighteen intact classes were selected and assigned to the three different instructional methods classes. Two instruments were used for data collection – a questionnaire tagged “Students’ Socio-economic Status Questionnaire” (SSESQ) and achievement test tagged “Reading Comprehension Achievement Test” (RCAT). The reliability for the achievement test in reading comprehension was calculated using Kuder Richardson’s Formula 21, which yielded a reliability coefficient of .69. The students’ socio-economic status questionnaire’s reliability was measured by Cronbach Alpha Formula and found to have a reliability coefficient of .75. The main effects of treatment, school type, and socio-economic status and their interactions were determined using descriptive statistics, Paired Sample t-test, Analysis of Covariance (ANCOVA), Independent Samples t-test and Analysis of Variance ((ANOVA). Post-hoc analysis of the direction of significance using Scheffe’s test was run for 0 hypotheses two and four. All the seven hypotheses were tested at 0.05 level of significance. The findings of this study showed that there was a significant effect of treatment (method) on students’ achievement in reading comprehension. School type and SES significantly affected students’ achievement in reading comprehension. There was no interaction effect of method by school type and SES on students’ reading comprehension. It was, however, concluded that instructional method is a major variable, which determines students’ achievement in reading comprehension, with the CSR method being the most effective. The study recommended, among others, that teachers of English Language should be encouraged to

teach reading comprehension using the best possible method, like the CSR method, which was found to be a very effective method of teaching reading comprehension in this study. The study has contributed to knowledge as the findings have shown that students' achievement in reading comprehension could be significantly improved with the use of Collaborative Strategic Reading method as one of the best instructional choices for teaching reading comprehension. (385)

**ENOMAH, Sylvester**  
**PG/06/07/118797**

**UNITY AND DIVERSITY IN ST. THOMAS AQUINAS METAPHYSICS AND THE IMPLICATIONS FOR NIGERIAN UNIVERSAL BASIC EDUCATION**  
**Ph. D. in Educational Administration (2015) 144 PP**

Today many Nigerian citizens are confronted with myriads of problems. One of these, which indisputably generates other problems, is the acute problem of lack of employment. Joblessness has led to massive movement of a lot of young people to the urban cities in search of jobs in the oil and gas companies. Confronted with the reality of insufficient vacancies, anti-social activities like stealing, robbery, cultism, militancy, violence, kidnapping, trafficking and prostitution become the alternative means of survival. These problems and their consequences are predicated on the ignorance of the necessary co-existence of the principles of unity and diversity in the Universal Basic Education. The lack of knowledge of the reality of the co-existence of the principles of unity and diversity in the UBE is elicited by the lack of knowledge of St. Thomas Aquinas Metaphysics of unity and diversity in being. This study is designed to expose, analyze, and apply St. Thomas Aquinas metaphysics of unity and diversity in reality to the Nigerian Universal Basic Education. For the possibility of achieving this goal, the researcher employed appropriate philosophical methods such as analysis, speculation, prescription, phenomenology, and application. The study reveals that unity and diversity co-exist in the UBE. The principle of unity in the UBE is the objectives of the UBE while the principle of diversity of the UBE that refers to the local contents of the curriculum of the UBE. The study recommends that the study of philosophy and metaphysics of education should be made compulsory in all faculties of education, colleges of education, and institutes of education; seminars, workshops and conferences on philosophy of education should be organized for educators and educational administrators; qualified teachers should be engaged to handle philosophy of education and the UBE in Nigerian educational institutions; there should be constant study of the local language, culture, tradition, and moral standards by educational administrators and educators; and the UBE should be reviewed periodically to meet emerging technological scientific, economic, job creation, and social challenges for rapid development in all ramifications. (335)

**EBOH, Rhoda Nkemdilim**  
**PG/09/10/178012**

**INSTRUCTIONAL SEQUENCING MODES AS DETERMINANTS OF  
ACADEMIC ACHIEVEMENT IN PRIMARY SCHOOL SOCIAL STUDIES IN  
DELTA STATE**

**Ph.D. in Social Studies Education (2015) 185 pp.**

The study investigated the effectiveness of instructional sequencing modes on the academic achievement of pupils in primary social studies. The objectives of the study are to: ascertain the mean effect of pupils taught social studies under the four sequencing modes; establish the sequencing modes that is more efficacious; compare the performance of students taught using tradition mode and experimental modes; examine the influence of gender on the efficacy of the four sequencing modes; examine the influence of location on the efficacy of the four sequencing modes. The study employed a quasi-experimental factorial design of 5X2X2. The study investigated three variables simultaneously namely; Instructional Sequencing Modes, gender and school location. To achieve this, eight hypotheses derived from research questions were formulated to guide the study. Social Studies Achievement test (SSAT) was developed and administered to 300 pupils selected through stratified sample techniques from ten primary schools in Delta state with a total population of three hundred and twelve thousand, six hundred and twenty pupils. The data obtained from the scores in Social Studies Achievement Test (SSAT) were quantified and subjected to Statistical Analysis of Variance (ANOVA) and t-text analysis of significance. Each of the hypotheses was tested to 0.05 level of significance. From the results of the hypotheses tested, it was discovered that IGI had a mean score of ( $\bar{X}$ 17.13) followed by GII with a mean score of ( $\bar{X}$ 12.43); IGE with a mean score of ( $\bar{X}$ 10.3), GIE with a score of ( $\bar{X}$ 7.91) and the least was CG with a mean score of ( $\bar{X}$ 6.67). Based on the research findings summarized above, the following conclusions were made. In this study, four sequencing modes were employed together with gender and location. The study revealed that pupils learn more when they are actively involved in the learning process. In a null shell, the study adopted instance generality inquisitor as the most superior mode of sequencing that enhanced academic achievement of pupils. Schools in both rural and urban should adopt appropriate mode of sequencing of instructions. Males and females should be made to develop positive attitude towards learning. Based on the findings and conclusion from the study, the following recommendations were made for improvement of the teaching and learning of Social Studies. Since instance generality inquisitory mode of sequencing has been found to be the most superior sequencing mode to enhance academic achievement in Social Studies, Social Studies teachers therefore, should be encouraged to employ this of mode sequencing (IGI) in the teaching of the subjects in order to increase the level of achievement in Social Studies. Authors of textbooks in Social Studies should familiarize themselves with different instructional strategies such as instance generality inquisitory

and generality instance inquisitory sequencing modes rather than conventional method, so that they can reflect in their text books. It is also necessary for curriculum planners to review the Social Studies content to accommodate the use of instance generality and generality instance inquisitory sequencing models to facilitate the academic achievement of pupils in Social Studies at the primary school level. (499)

**OLUGUA, Mary Omonigho**  
**PG/07/08/133545**

**EFFECTS OF STIMULUS CONTROL AND CONTINGENCY CONTRACTING THERAPIES ON TRUANCY BEHAVIOUR AMONG SECONDARY SCHOOL STUDENTS IN DELTA STATE**

**Ph. D. in Guidance and Counselling (2015) 237 PP**

The study examined the effects of Stimulus Control and Contingency Contracting in the treatment of truancy behaviour of students in the secondary schools. The study also identified two psychotherapies, namely stimulus control and contingency contracting, for the modification of truancy behaviour. Eleven research questions and eleven hypotheses were raised to guide the study. The study is quasi-experimental design. A sample of 60 students identified as truants through (TBS), out of a population size of 4551 junior secondary school students in Delta State were drawn. The stratified random sampling technique was utilized. Junior school students were administered with Truancy Behaviour Scale (TBS). The scale was validated using the multivariate statistics of Principal Components Analysis (PCA) to determine the content validity. A value of 72.58 was obtained. Through the SPSS computer analysis, a reliability index of 0.91 was established using Cronbach alpha. The 60 students identified as truants, using a mean base line of 150 were used for the experiment. The simple balloting procedure was used to assign subjects into the experimental groups and control group. The pre-test and post-test scores obtained from the subjects, were subjected to ANCOVA and descriptive statistics. The findings were made base on the data analyzed. The two therapies, stimulus control and contingency contracting are powerful and effective in the reduction of truancy behaviour, though stimulus control proved to be more effective. There is a significant difference in the reduction of truancy behaviour between experimental groups and control group. There is significant difference in the reduction of truancy behaviour between the experimental group A and the control group. There is significant difference in the reduction of truancy behaviour between the experimental group B and the control group. There is no significant difference in the reduction of truancy behaviour of male and female treated with stimulus control and contingency contracting, though male benefited more while in contingency contracting the female benefited more. There is no significant difference in the reduction of truancy behaviour base on age, though students from 18 years and above benefited more from contingency contracting while 12 – 17 years benefited more from stimulus control. There is significant difference in the

reduction of truancy behaviour of students from monogamous and polygamous homes treated with stimulus control and contingency contracting therapies. Students from polygamous homes gained more from the two therapies. There is significant difference in the reduction of truancy behaviour of students from Educated and non-educated parents treated with stimulus control therapy. Students from the educated homes profited more from the treatment. The control group was given placebo treatment. Based on these findings, it was recommended that counselling psychologists and clinicians should employ both stimulus control and contingency contracting in modifying truancy behaviour of students in secondary schools. (452)

**ILOGHO, Fegha Evelyn**  
**PG/07/08/149474**

**ANALYSIS OF TEACHERS ASSESSMENT OF ACHIEVEMENT OF THE OBJECTIVES OF THE UNIVERSAL BASIC EDUCATION PROGRAMME IN DELTA AND RIVERS STATES**

**Ph. D. in Measurement and Evaluation (2015) 146 pp.**

This study was undertaken to investigate teachers' assessment of the achievement of the objectives of the Universal Basic Education programme in Rivers and Delta States. The Universal Basic Education programme is an intervention programme as a positive and timely response to salvage the primary education and indeed the entire educational system from total collapse. Therefore, it is necessary to conduct periodic checks on the level of achievement of the objective. The research adopted an ex-post- facto design with nine research questions and nine hypotheses. The population of the study constitutes both male and female basic teachers. The sample of the study were made up of 1200 teachers drawn from twelve (12) LGAs of both Rivers and Delta States through stratified random sampling techniques based on location of schools. The instrument used to collect data in the study is a questionnaire. The questionnaire contains (30) thirty items and is divided into 5 sections with each sections yielding a reliability co-efficient alpha of 0.81, 0.82, 0.81, 0.89 and 0.77 respectively. Mean and standard deviation were used in analyzing the data while T-test was used in testing the null hypotheses at 0.05 level of significance. The results showed that the objectives of UBE were better achieved in Rivers than Delta State. The study also revealed that locations of schools and nature of schools affect the level of achievement of the objectives of UBE in Rivers and Delta State. Based on the findings of the study, it is recommended that there should be adequate staffing of schools, proper supervision and monitoring of primary schools and increased incentives of rural teachers in other to motivate them. (271)

**ONYIA, Gladys Ngozi**  
**PG/03/04/9/10/67478**

**CAUSES AND MANAGEMENT OF JOB RELATED STRESS AMONG STAFF OF POLYTECHNIC LIBRARIES IN SOUTHERN NIGERIA**

**Ph.D. in Library Science (2015) 135 pp.**

The study surveyed the causes, effects and techniques for managing job related stress among staff of polytechnic libraries in Southern Nigeria. Nine research questions and nine hypotheses were formulated to guide the study and tested at 0.05 level of significance. The *ex post facto* design was adopted for the study. The population for the study was 452 library staff made up of 160 librarians, 59 library officers and 233 support staff (library attendants and assistants) of federal and state owned polytechnics in Southern Nigeria. The census sampling technique was employed hence the entire population was used for the study. The questionnaire entitled: “library staff job stress questionnaire (LSJSQ)” was used as the instrument for data collection. The reliability of the instrument was established through split-half method and an index of reliability  $r = 0.70$  was obtained. Consequently, a total of 452 total copies of questionnaire were administered to all library staff of the 43 federal and state owned polytechnics located in Southern Nigeria while 371 copies successfully retrieved and used for analysis. Frequency counts, percentages, mean were used to analyse data for the research questions. While z-test was used to analyse hypotheses I, II, and III as they involve a dichotomous variable (gender). ANOVA was used for hypotheses IV, V, VI, VII, VIII and IX which involve three or more independent groups. All inferential statistics were performed at a 0.05 level of significance. The study revealed among others, that the introduction and use of new technology, insufficient funds and non-conductive work environment are the major causes of job related stress to all library staff irrespective of age, gender and rank. It further revealed that job dissatisfaction, depression, moodiness, disillusionment, frustration as well as negative job attitude are the main effect of job related stress amongst library staff irrespective of age, gender and rank; that seeking more information in order to clarify ambiguous role expectations, job sharing, flexible work time, socializing, keeping friendship and setting realistic goals are the techniques employed by library staff to manage job stress irrespective of gender, age and rank. Study revealed that there is no difference in the causes of job related stress among library staff in terms of gender, age and rank. More so, there is a significant difference in the effect of job stress among library staff in terms of gender, age as well as in the management techniques adopted by male and female library staff. The study recommends that management of polytechnics should provide a conducive work environment in the library. Furthermore, it is suggested that workload be reduced for individual staff while training and retraining of staff should be encouraged for optimum performance. Promotion and upgrading of staff should remain the institutional culture to encourage staff. It was also suggested that prototype stress management package be adopted by all library workers while management tips such as talk shows, interactive

sessions and seminars be organized at regular intervals for staff to checkmate job stress.  
(491)

**ALIYU, Rasheed Taiwo**  
**PG/10/11/191557**

**DEVELOPMENT AND VALIDATION OF MATHEMATICS ACHIEVEMENT TEST USING THE RASCH MODEL**  
**Ph.D. in Measurement and Evaluation (2015) 207 pp.**

This research centres on the development and validation of Mathematics Achievement Test using the Rasch model. The scales used to measure achievement test in Nigeria rely on classical test theory (CTT) approach. As a result of this, they are faced with some limitations like poor precision, sample dependency and undue focus on aggregate scores that deny test developers the opportunity of determining how the examinees performed on a test item. These problems were addressed with the application of item response theory (IRT) of the Rasch model. Nine research questions and four hypotheses testable at 0.05 level of significance were used. The study was reviewed under both theoretical and empirical study. An instrumentation research design was adopted. The population of this study consisted of all senior secondary class III students' in Oyo and Delta States. A multistage sampling technique was used to sample out one thousand five hundred (1500) students from the population. The instrument consisted of a self-developed 150 items and 25 questionnaires on social economic status (SES). The content and construct validities were examined using the table of specification and factor analysis respectively while face validity was based on some experts' judgment on the development of the items. The selected items by the experts were trimmed to 100 using the principle component analysis (PCA) and rotated component matrix (RCM). The reliability value of the items using KR<sub>20</sub> Mathematics fit the Rasch model IRT. The Rasch model addressed several measurement principles that were central to construct validity which were particularly useful for assessing testees' achievements. The result showed that 65 items not only met the Rasch model assumption of measurement construct (fitting and invariant) but also demonstrated good psychometric properties. The result showed that items and person separations and indices were 13.17 and 2.93 while item and person reliability were 0.99 and 0.78 respectively. The MNSQ for both infit and outfit were 0.94 and 1.08 respectively while the ZSTD for both infit and outfit are -1.7 and +2.0 respectively which were within the acceptable range of 0.7-1.1 for MNSQ for sample > 1000 while -2.0 to +2.0 for ZSTD. The difficulty level of the items ranges between -1.95logit to 7.45logit. The study contributed to knowledge in that it provided an item bank which can allow test users to pick items that would select his ability of interest. Also, the output results were expressed in both wit and logit units. It was therefore recommended that the calibrated MAT item Bank should be used for formative evaluation before testees write their senior secondary school certificate examinations. Application of the Rasch model principles of test development and validation for

Achievement Tests in Nigerian schools and examination bodies were highly recommended. (446)

**OGBUKA, LAURETTE AMAUCHE ROSE**  
**PG/07/08/135311**

**A COMPARATIVE ANALYSIS OF THE NEED AND AVAILABILITY OF SCIENCE TEACHERS IN SENIOR SECONDARY SCHOOLS IN DELTA AND IMO STATES**

**Ph.D. Educational Planning (2015) 216 PP**

The purpose of this study was to comparatively analyze the need and availability of science teachers in the senior secondary schools in Delta and Imo States between the 2006/2007 and 2010/2011 academic years. The study determined the distribution of science teachers in the urban, suburban and rural locations, in senatorial districts, in specific science subject areas and identified the constraints to the need and availability of science teachers. Ten research questions were raised and answered. The design was ex-post-facto, with a population consisting of 681 senior secondary schools and their principals. Multistage stratified random sampling was used to select 68 (ten percent of the population) and their principals. Four hundred and twenty-seven science teachers were used. Primary data was gathered with two checklists. The data was analyzed using percentages, ratios, tables, component bar charts and line graphs. The study revealed a low availability of science teachers, with a high retention and a low attrition. Shortages and surpluses were found within and between the urban, suburban, rural locations and specific science areas. More female science teachers were available and the constraints on the need and availability of science teachers were identified. It was recommended among others that considerations should be given to an equitable distribution of science teachers in senior secondary schools by subject specializations, using class size indicators based on the number of science teachers per school, per class and the science teacher's workload. Subjects with Science teacher shortages should be given priorities in postings, while teacher surpluses should by all means be discouraged. Science teachers could teach in more than one school at close proximity while state governments should improve science teacher's welfare package as a desirable incentives that could offset the shortage of science teachers in some science subjects, districts and locations. (296)

**EFURHIEVWE, FRANK AKPOVWOWO**  
**PG/05/06/9/3/93595**

**PHILOSOPHICAL ANALYSIS OF THE EVOLVING PROCESSES OF EDUCATIONAL POLICIES IN NIGERIA (1882-2004)**

**Ph.D. Philosophy of Education (2015) 143 PP**

This study Philosophical Analysis of Evolving Processes of Educational Policies in Nigeria (1882-2004), was prompted by strong agitation, resulting from the fact that there had been so many policies within the period of the study. Yet, education and its outcome seem not to be meeting up with desired needs of the society, and that of international standard. Hence, the main purpose of the study is to critically examine the educational policies in Nigeria within the period. Five research questions were raised and addressed: they tend to give direction to the attainment of the objectives of the study. The study adopted two frameworks for decision making policy analysis in education which tend to give explanation to the evolving process of educational policy. As such, incremental theory by Lindblom Charles and game theory by John Elster were adopted for use. In a bid to carry out the study, the researcher examined a number of concepts, like analysis and other related issues were reviewed as the literature supporting the tenacity of the study. As a philosophical research, three main methods – speculative, prescriptive and analytic were employed for use, while the fourth one, ratiocination served as a supportive method to fasten the ones already mentioned. The application of the said philosophical tools revealed that there was no true education policy until 1925 ordinance, and that the “Nigerianized” education policy to a higher extent relied on the British policies. The techniques also helped to harness the discussion, and subsequently recommendation such as incorporation of policy studies in the scheme of learning especially at the tertiary institution was made to enhance better consumption of educational programmes and values. (272)

**ALORDIAH, Caroline Ochuko**  
**PG/10/11/191906**

**COMPARISON OF INDEX OF DIFFERENTIAL ITEM FUNCTIONING UNDER THE METHODS OF ITEM RESPONSE THEORY AND CLASSICAL TEST THEORY IN MATHEMATICS**  
**Ph.D. Measurement and Evaluation (2015) 196 PP**

Differential item functioning (DIF) in test items has been an issue in testing. It can occur in national examinations conducted in a heterogeneous country like Nigeria. This has generated the proliferation of several methods that can be used to detect DIF items in a test. Whether these DIF methods can detect the same test items as DIF items is of much concern to measurement and evaluation experts. More so that some of these methods of detecting DIF are based on classical test theory (CTT) while others are based on item response theory (IRT). The main purpose of this study is to compare the index of DIF for a given sample under the methods of CTT and IRT for candidates with the same mathematics ability from different socio-economic statuses (SES), location and gender. Four DIF detection methods were used in this study; two of these methods were based on CTT- namely transformed item difficulty (TID) and Mantel-Haenszel (M-H); while the other two were based on IRT- namely item response theory three parameter model (IRT-

3P) and Rasch model. The four DIF detection methods were used to determine the index of DIF for gender, location and SES for 2012 WASSCE mathematics objective test. The DIF indexes for these four methods were later compared to find to what extent they were able to detect the same test items as DIF items. An ex-post facto design was adopted. The population of this study consisted of all senior secondary class III students' in public schools in Delta and Edo states. The proportionate stratified random sampling approach was used to sample out one thousand nine hundred (1900) students from the population. Twelve research questions and nine hypotheses testable at 0.05 level of significance were used and data were collected using two instruments, these are the 2012 WASSCE mathematics objective test and the socio-economic status questionnaire whose validity was ensured. The reliability of the 2012 WASSCE mathematics objective test and the socio-economic status questionnaire using test-retest method yielded 0.892 and 0.702 respectively. Data generated were analyzed using SPSS 17, BILOG-MG and WINSTEPS 3.2 packages. Descriptive statistics was used to answer the research questions while chi-square independence test and the contingency coefficient were used to test the hypotheses. The findings of the study revealed that CTT methods of detecting DIF did not agree with IRT methods of detecting DIF in the items flagged as DIF. The methods of detecting DIF within CTT did not agree in the items flagged as DIF. However, there was agreement in the methods of detecting DIF within the IRT in the items flagged as DIF. It was recommended that measurement and evaluation experts should freely use the methods of detecting DIF that are based on IRT and that seminar and workshop should be carried out to aid the proper understanding of DIF detection methods that are based on IRT. (475)

**OSHIO, Lucy Ediruke**  
**PG/07/08/13985**

**INFLUENCE OF CONSUMER EDUCATION ON CONSUMER BEHAVIOURS OF ADOLESCENTS IN SENIOR SECONDARY SCHOOLS IN EDO AND DELTA STATE**  
**Ph.D. Home Economics (2015) 258 PP**

The study investigated the influence of consumer education on consumer behaviour of adolescents in senior secondary schools in Edo and Delta States. The study was guided by six researched questions and six (6) null hypotheses. The study adopted an ex-post facto research design. A multi-stage sampling technique was used to sample 540 students selected from six senatorial districts of the two states selected for the study. A structured questionnaire was used to collect data from the respondents. Data collected for this study were analysed, using inferential and descriptive statistics. Percentages were used to analyze the respondent's bio-data. Mean was used to answer the research questions. The hypotheses were tested with multiple regressions at 0.05 level of significance. The findings from hypotheses indicated that consumer education had significant influence on

consumer behaviours of adolescents. Questioning, and participation skill, influencing component and coping components of consumer behaviour among adolescents had a significant relationship on their behaviour while there was no significant relationship between consumer education and conserving component behaviour. Based on the findings, it was recommended that home economics teachers should assist the adolescent to be exposed to Consumer Education in order to be competent consumers in the area of purchasing and using goods and services. Furthermore, the study had highlighted how adolescents should apply the skills of Consumer Education and its influence on their Consumer Behaviour. (225)

**OFUASIA, Josephine Ngozi**  
**PG/09/10/177992**

**SOCIAL STUDIES TEACHERS' LEVEL OF AWARENESS AND ATTITUDE TOWARDS ENVIRONMENTAL EDUCATION IN SECONDARY SCHOOLS IN SOUTH-SOUTH NIGERIA**  
**Ph.D. in Social Studies (2015) 140 pp.**

This study investigated Social Studies teachers' level of awareness and attitude towards environmental education in secondary schools in South-South Nigeria. Nine research questions, and nine null hypotheses guided the study. The hypotheses were tested at 0.05 level of significance. This study employed the ex-post facto research design. The population comprised of 1,441 Social studies teachers in all secondary schools in the south-south zone. A total of 303 participants from seventy-two (72) secondary schools were sampled for the study using multistage sampling technique. The instrument used for data collection was the questionnaire. The instrument consisted of forty (40) items questionnaire titled "Social Studies Teachers Awareness and Attitude Towards Environmental Education (SSTAATEE)". The questionnaire items were structured on a 4-point rating scale. The Cronbach Alpha reliability test was used to determine the internal consistency of the questionnaire. A reliability coefficient of 0.82 for teachers' awareness and 0.87 for teachers' attitude. The overall reliability coefficient of 0.85 was obtained. The data obtained were analyzed using mean and standard deviation for the research questions while null hypotheses 1-6 were tested using t-test, and hypotheses 7-9 were tested using Analysis of Variance (ANOVA) statistics at 0.05 level of significance. The result of the study, among others showed that: there was a significant difference in Social Studies teachers' level awareness; there was a significant difference in Social Studies teachers' attitude; there was no significant difference between male and female Social Studies teachers' level of awareness; there was no significant difference between urban and rural Social Studies teachers' level of awareness; there was no significant difference between male and female Social Studies teachers' attitude towards Environmental Education; there was no significant difference between urban and rural Social studies teachers' attitude towards Environmental Education; there was no

significant interaction effect of knowledge of Social Studies teachers' on the level of awareness and attitude; there was no significant interaction effect of gender and location on Social Studies teachers level of awareness and attitude towards Environmental Education; there was no significant interaction effect of knowledge on the level of awareness, attitude, gender and location among Social Studies teachers towards Environmental. Based on the findings, it was recommended among others; that interacting environmental issues into lessons shouldn't be limited to those issues raised in the Social Studies textbooks but it should be more of an effort for teachers to include more issues that have conceptual links with the subject matter they are teaching; Social Studies teachers' should be encouraged to use all the opportunities available to improve more and maintain their level of awareness and attitude towards environmental education. (428)

**OGWU, Chukwudi**  
**PG/13/14/222776**

**TRAINING NEEDS OF FISHERY TEACHERS IN THE IMPLEMENTATION OF SENIOR SECONDARY SCHOOL FISHERY CURRICULUM IN DELTA AND EDO STATES, NIGERIA**

**Ph.D. Agricultural Education (2016) 218 pp.**

The focus of this study was the training needs of fishery teachers in the implementation of senior secondary school curriculum in fishery in Delta and Edo states public secondary schools. To achieve this goal, 12 specific objectives were stated, 12 research questions were generated and 12 hypotheses were formulated. Data collection instrument consisted of structured 5 point Likert scale type. The questionnaires which were two sets included one for teachers based containing 75 items and 50 items respectively and one for students containing 55 items were validated by experts in Agricultural Education and Test and Measurement and the reliability tested with split-half, Product Moment and Spearman-Brown prophecy formula resulted in coefficients of 0.81, 0.78 and 0.74 for teachers and students' based instruments. The study population comprised all the fishery teachers and students in public secondary schools in Delta and Edo States. A multi stage random sampling technique was adopted and the questionnaire was administered to study sample obtained with Slovan (1960) sample size formula and comprised 195 fishery teachers and 383 fishery students in Delta State and 165 fishery teachers and 374 fishery students in Edo State. The data collected were analysed with mean and standard deviation to answer the research questions and t-test statistics was used to test the hypotheses. The study revealed amongst other findings that the teachers lack knowledge and skills in critical areas in fishery for the implementation of the trade curriculum, fishery is taught as a science and not as a trade and vocational subject in the schools investigated. There is dearth of facilities and equipment for fishery instruction in the schools, only about 50% of the schools investigated offered fishery in external exams (NECO and WAEC), fishery teachers in Delta and Edo states have training needs such as training in methods of

capture fishery, the students in the public secondary schools in Delta and Edo states lack requisite skills to earn a living with fishery on graduation. There are no training opportunities to improve the relevant knowledge and skills of the teachers in fishery. Fishery curriculum implementation is faced with problems while the governments of both states are not playing the roles expected of them. The study recommends that training programmes should urgently be packaged for teachers for the implementation of the senior secondary curriculum in fishery, facilities and equipment for teaching fishery should be provided in secondary schools, more teachers should be recruited and existing ones should be motivated, also, there should be adequate coordination and supervision of fishery programmes in public secondary schools in both states. (423)

**ENWEFA, Chiekem**  
**PG/06/07/122927**

**EVALUATION OF TEACHERS' USE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN TEACHING AT BASIC EDUCATION LEVEL IN SOUTH - SOUTH NIGERIA**

**Ph.D. in Measurement and Evaluation. (2016) 187 PP**

The integration of information and communication technology into educational practice continues to be lauded as having the potential to dramatically transform the teaching and learning process. This study evaluated teachers use of Information and communication technology in teaching at basic education level in South South Nigeria (Delta, Edo and Rivers States). Eight research questions and seven null hypotheses were formulated to guide the study. The ex-post facto research design was used in the study. The targeted population of this study cut across three states out of the six states in South South Nigeria which consisted of 21,617 teachers, made up of 11, 754 in Delta State, 5, 663 in Edo State and 4, 200 in Rivers State. The researcher employed stratified and multi-stage sampling techniques to sample 1,014 respondents from the three states in South South Nigeria (Delta, Edo and Rivers States). The instrument used for data collection was a questionnaire titled "Evaluation of Teachers Use of Information and Communication Technology in Teaching at Basic Education Level in South South Nigeria". The instrument was validated through expert judgment and factor analysis for content and construct validities respectively. The reliability of the instrument was established by the use of Cronbach Alpha method and a reliability index of 0.88 was obtained. The researcher visited the respondents and administered the instrument to them in their various schools with the aid of three trained research assistants. The research questions were answered by the use of mean and standard deviation with a mean of 3.00 and above taken as the criterion level of high extent. While a mean below 3.00 was taken as low extent and t-test statistic was used to test the stated null hypotheses at 0.05 level of significance. It was found in the study, that two null hypotheses were accepted while five

null hypotheses were rejected. The findings provided information that significant difference existed between urban and rural teachers, graduate and non-graduate teachers; pre-service and in- service teachers, male and female teachers and young and old teachers on the extent of ICT use in teaching at basic education level in South South Nigeria. The study confirmed that no significant difference was found between less experienced and experienced teachers; teachers in single sex and mixed schools on the extent of ICT use in teaching at basic education level in South South Nigeria. Recommendations were made such as ICT skills standards for teaching should be set up for urban, rural graduate non-graduate, pre-service, in service, male, female, young, old, experienced, less experienced teachers and teachers in single sex and mixed schools that offer strategies for planning, training needs and staff development programme; Government and other stakeholders (Parents Teachers Association, Old Students' should provide more computers, laptops, computer aided instruction (CAI) software, computer laboratory equipment to schools to enhanced teachers lesson delivery at basic education level in South South Nigeria and teachers training institutions should train teachers on ICT skills and competencies required for classroom teaching at basic education level in South South Nigeria. (499)

**TIBI, Pauline Ifeyinwa**  
**PG/88/89/9/10/1187**

**EFFECT OF COGNITIVE BEHAVIOUR THERAPY AND SYSTEMATIC  
DESENSITIZATION TECHNIQUE ON EXAMINATION ANXIETY OF  
SECONDARY SCHOOL STUDENTS**  
**Ph.D. in Guidance and Counselling . (2016) 183 PP**

The purpose of this study was to investigate the effect of Cognitive Behaviour Therapy and Systematic Desensitization Technique in the treatment of examination anxiety of secondary school students in Delta State. Seven research questions and seven hypotheses guided the study. Pre-test, Post-test, Control group design was adopted in the quasi experimental study to determine the effects of treatments on examination anxiety. The study consists of all Senior Secondary School II students in Delta State with a population of 39,013. Six mixed schools in both rural and urban areas formed the sample; with a sample size of 188 students. The research instrument used was the Modified Sarason Test Anxiety Scale (MSTAS) questionnaire which was validated by experts in the department. The reliability of MSTAS was established using Cronbach alpha statistical tool and the reliability coefficient was 0.83. research questions were answered using mean and standard deviation while hypotheses were tested using Analysis of Covariance (ANCOVA). The result revealed a significant difference between the pre-test and the post-test scores of students treated with cognitive behavior therapy and also students treated with systematic desensitization technique. However, there was no significant difference in male and female students treated with both cognitive behavior therapy and systematic desensitization technique. There was also no significant difference of school

location on students treated with Cognitive Behaviour Therapy and Systematic Desensitization Technique. The study revealed that Systematic Desensitization Technique was more effective in the treatment of examination anxiety of secondary school students. The study also showed that gender and school location are not predictors of the effectiveness of systematic desensitization techniques and cognitive behavior therapy on the treatment of examination anxiety of secondary school students. Based on these findings, it was recommended that Guidance Counsellors should employ the two therapeutic techniques in resolving issues relating to examination anxiety. Seminars and workshops should be organized for counselors and students on the use of these two therapeutic techniques to reduce examination anxiety amongst secondary school students. (323)

**IGABARI, Queen Efomo**  
**FOE/PG/06/07/120407**

**EVALUATION OF IMPLEMENTATION OF UNIVERSAL BASIC EDUCATION IN DELTA AND EDO STATES**  
**Ph.D. in Measurement and Evaluation (2016) 241 pp.**

This study examined evaluation of implementation of Universal Basic Education in Delta and Edo State. The access to basic education is a core fundamental human right recognized by all nations of the world, including Nigeria. The UBE programme is an educational reform measure aimed at rectifying distortions in basic education delivery in the country, occasioned by the failures of previous educational policies. The success of the programme is hinged directly on a number of parameters which include human, material and instructional resources as stated in the minimum standards for basic education for its implementation. The purpose of the study is to evaluate the extent to which the UBE programme have been implemented and the extent to which location (in terms of urban and rural) of schools is influencing the implementation of the UBE programme with regards to the provisions of these resources. The study was guided by nine research questions and seven null hypotheses tested at 0.05 level of significance. There was a review of theoretical and empirical literature around the variables of the study. The design of the study is an ex-post-facto research design which employed a descriptive survey method to evaluate the extent to which the Universal Basic Education (UBE) programme have been implemented in both states. The population of the study was made up of all head teachers of public UBE schools in Delta and Edo States. Simple random sampling technique was used to select a sample of 1,000 school heads, comprising of 600 from Delta and 400 from Edo State. A self-developed instrument consisting of checklists and a questionnaire was used to collect the data. The face, content and construct validity of the instrument were established. The reliability coefficient of the questionnaire was established using Cronbach Alpha with '1' value of 0.85, and the checklist was found reliable because the data involved was discrete in nature, as it sought

for the exact situation of the resources available in the schools. The data collected were analyzed using descriptive statistics to answer the research questions and Chi-square test for the hypotheses. The findings showed that the extent of implementation of the UBE programme is low in both states, and that there are disparities between Delta and Edo States in the level of human and material resources, UBE curriculum implementations, teacher quality and teachers' motivation. Based on the findings of the study, it was recommended that the UBE objectives should be given better attention by all stakeholders, and that human and material resources should be made sufficiently and evenly available across the two states. Also recommended is the need for effective monitoring and periodic evaluation of adequacy of resources, curriculum implementation and teacher quality. (445)

**EKEKE, Augustine Uzochukwu Obukohwo**  
**PG/06/07/122226**

**ENVIRONMENTAL FACTORS AS CORRELATES OF SENIOR SECONDARY SCHOOL STUDENTS' COGNITIVE ACHIEVEMENT IN BIOLOGY IN DELTA AND EDO STATE**

**Ph.D. in Measurement and Evaluation (2016) 211 pp.**

The study investigated environmental factors as correlates of senior secondary school students' cognitive achievement in Biology in Delta and Edo State. The researcher raised seven research questions and seven null hypotheses to guide the study. The purpose of this study was to find out the relationship between environmental factors and senior secondary school students' cognitive achievement in Biology in Delta and Edo States. The ex-post facto research design was used in the study. The population of this study was 251,770 students in SS1 and SS2 in Delta and Edo States. The researcher sampled 12 local government areas of the two states. The multi-stage and stratified random sampling techniques were used to draw a total of 4348 respondents. The instrument for data collection in the study was Biology Promotion question papers for 2010 and 2011 for SS1 and SS2. The reliability of the instrument was established by the use of test-retest method. The reliability coefficient of 0.93 for SS1 and 0.75 for SS2 Biology Promotion Examination in Delta State for 2010 and reliability coefficient of 0.68 for SS1 and 0.80 for SS2 Biology promotion examination in Edo State for 2010. The reliability coefficient of 0.65 for SS1 and 0.79 for SS2 Biology promotion examination in Delta State for 2011 and the reliability coefficient of 0.69 for SS1 and 0.74 for SS2 Biology promotion examination in Edo state for 2011. The researcher collected the results of students' promotion examination in Biology in 2010 and 2011 school academic records. The research questions were answered by correlation (coefficient determination), while regression statistics was used to test the stated hypotheses at 0.05 level of significance. The findings provided that a significant relationship existed between classroom adequacy and students' cognitive achievement in Biology in 2010 and 2011, there was significant

relationship between parental support and students' cognitive achievement in Biology in 2010 and 2011, there was no significant relationship between laboratory adequacy and students' and students' cognitive achievement in Biology in 2010, there was significant relationship between location of schools and students' cognitive achievement in Biology in 2010 and 2011, there was significant relationship between teacher's gender and students' cognitive achievement in Biology in 2010 , there was significant relationship between adequacy and utilization of teaching aids and students' cognitive achievement in Biology in 2010 and 2011, there was significant relationship between classroom adequacy, parental support, laboratory adequacy, location of schools, teachers gender, adequacy and utilization of teaching aids and students' cognitive achievement in Biology in 2010 and 2011, there was significant relationship between laboratory adequacy and students' cognitive achievement in Biology 2011 while there was no significant relationship between teacher's gender and students' cognitive achievement in Biology in 2011 promotion examination. Based on the findings, summary, conclusion and suggestions for further studies were made. It was recommended that Biology teachers should always use their immediate environment to teach as it contains a lot of material resources for effective teaching of the concept in the subject. (490)

**UBIOWORO, Emmanuel Oniovosa**  
**PG/04/05/3/92209)**

**INFLUENCE OF READABILITY OF LANGUAGE AND COMMUNICATION SKILLS TEXTBOOKS ON NIGERIA CERTIFICATE IN EDUCATION STUDENTS' ACHIEVEMENT IN GENERAL STUDIES**  
**Ph.D. Curriculum Studies (2016) 201PP**

The study ascertained the readability of language and communication skills textbooks' influence on Nigeria Certificate in Education students' achievement in General Studies. This was aimed at determining whether there are differences in the readability ratings among language and communication skills textbooks used in Colleges of Education in Delta State. To guide the study, seven research questions were raised and six hypotheses formulated. An expo facto research design was employed for the study, using one thousand and thirty one (1031) first and second year NCE students in three Colleges of Education, Agbor, Mosogar and Warri to obtain data. Two instruments (tests) were used- test on GSE III, 121, 211 and 221 in the 2011/2012 and 2012/2013 sessions and the Cloze Procedure Test (CPT). 'Mean and standard deviation' were used in the interpretation of the research questions while Pearson Product Moment Correlation Coefficient, ANOVA and Z-test statistical tools were used to test the hypotheses at 0.05 level of significance. The study revealed inter alia that students in College of Education, Warri, exhibited higher readability indices than the ones in Agbor and Mosogar and that female students had higher achievement than their male counterparts in language and communication skills courses. Furthermore, the study revealed that there was significant difference in the

readability ratings among language and communication skills textbooks used in colleges of education in Delta State; that there was no significant difference in reading ability between male and female students using the same language and communication skills textbooks in colleges of education in Delta State. The study also showed that there was a significant difference between male and female students achievement in language and communication skills courses in Delta State's colleges of education; that there was a significant difference in achievement among students in Schools of Languages, Arts and Social Sciences, Sciences and Vocational Education who used the same language and communication skills textbooks in colleges of education in Delta State, that there was no significant difference in students' achievement in language and communication skills courses among the colleges of education that used the same prescribed language and communication skills textbooks in Delta State, that there was a significant difference in achievement of NCE students studying English and those in Arts and Social Sciences, Sciences and Vocational Education who used the same language and communication skills textbooks in colleges of education in Delta State. One could conclude that the readability indices of the textbooks vary within the instructional reading level. The contributions to knowledge include: NCE students' achievement in language and communication skills courses is influenced by the course of study. Based on these findings, it was recommended inter alia that readability experts should be consulted and their ratings be used as bases for accepting or rejecting manuscripts; that comprehension will be enhanced if language and communication skills textbooks are written at the reading levels of NCE students and that authors of such books should encourage students to discover how to acquire readability and comprehension skills. (493)

**ORUBU, Margaret Eseoghene Ngozi**  
**PG/07/08/141141**

**JUNIOR SECONDARY CERTIFICATE EXAMINATION SCORES IN MATHEMATICS AND INTEGRATED SCIENCE AS PREDICTORS OF SENIOR SECONDARY SCHOOL STUDENTS' PERFORMANCE IN SCIENCE**  
**Ph.D. Measurement and Evaluation (2016) 273 PP**

This study was motivated by the desire to investigate the extent to which scores obtained by students in Integrated Science and Mathematics at the Junior Secondary Certificate Examination (JSCE) predict scores obtained in science subjects (Biology, Chemistry and Physics) at the Senior Secondary Certificate Examination (SSCE), in Delta and Edo States. Fifteen research questions and fifteen hypotheses were generated to guide the study, which adopted an ex-post facto design. The fieldwork for the study was conducted in 2013. The population of the study comprised of 67,178 students with complete records that sat for the JSCE in 2008 and sat for the SSCE in 2011. Multi-stage sampling procedure produced a sample of 1800 students (900 each from Delta and Edo States). The students' scores in Integrated Science and Mathematics at the JSCE were the key

independent variables, while the moderating variables were the students' gender and school location by state. The dependent variables were students' scores in Biology, Chemistry and Physics at the SSCE. An inventory titled Secondary Education Students Inventory (SESI) designed by the researcher was used to collect data for the study. Pearson product moment correlation and partial correlation analysis were used to answer the research questions raised. The major statistical technique used to test the null hypotheses was Multiple Regression Analysis (MRA), incorporating the use of dummy variables to isolate threshold effects for the qualitative factors of gender and location by state. The chosen level of statistical significance was 5 percent (0.05). The Chow break-point test was used to investigate the equality of the coefficients from the different sets of equations for the two States, while Theil's inequality co-efficient was used to test for comparative predictive ability in the equations estimated. The results of the empirical analysis showed that the scores obtained by students in Integrated Science and Mathematics do predict performance of students in science at the SSCE level in Delta and Edo States. The gender of students was found to have no significant relationship with SSCE science in Delta and Edo States. A significant relationship between school location by state and students' performance in science at the SSCE was also found. The predictive effect of Integrated Science was found to be comparatively stronger for students in Edo, compared to Delta. Conversely, the predictive effect of Mathematics was stronger for students in Delta. In terms of overall predictive validity, the Theil's inequality co-efficient produced the best results for Physics, and the worst result for Biology. Results of the Chow tests and the dummy variable-augmented equations provide evidence in support of heterogeneous characteristics of the data, implying that the data set for each State could be considered as having been drawn from different hypothetical samples. Based on the findings, it was recommended that the teaching of Integrated Science and Mathematics at the Junior Secondary School should continue to be emphasized, if Delta and Edo States are to be recognized among the states to produce scientists for the future technological development of Nigeria. (494)

**ABHUEGBEUE, Augusta Bose Idowu**  
**PG/09/10/177415**

**DEVELOPMENT AND STANDARDIZATION OF MATHEMATICS  
ACHIEVEMENT TEST FOR MIDDLE BASIC EDUCATION PUPILS IN DELTA  
AND EDO STATES**  
**Ph.D. Measurement and Evaluation (2016) 229 PP**

The purpose of this study was to develop and standardise Mathematics Achievement Test for Middle Basic Education Pupils in Delta and Edo States. The Standardized Mathematics Achievement Test (SMAT) instrument was meant primarily to address the problem of inadequate number of achievement test for teachers use in the formative

evaluation of the pupils. The study is to provide counsellors with an instrument that can be used for guidance and counselling for basic four, five and six pupils. In developing the instrument, a table of the specification was drawn up to cover the entire component appropriately. The content areas covered are Number and Numeration, basic operation, measurement, algebraic process, quantitative reasoning, geometry and mensuration and everyday statistics drawn from Mathematics curriculum for middle basic education. The cognitive areas are knowledge, comprehension, application, analysis, synthesis and evaluation. Literature relevant to the study were reviewed especially procedures for test development and standardisation, classical test theory, item response theory, validity and reliability. Moreover, empirical studies on gender, location, and school type as it affects pupils' achievement in Mathematics were also critically examined. Instrumentation research design was used. There are 3,016 public and private schools with a population size of 339,944 basic four, five and six pupils from public, and government approved private basic schools in Delta and Edo States. A sample size of 5,000 that constitute the population was used. The sample was made up of pupils in middle basic education that includes male and female, rural and urban and public and private schools from the 60 schools randomly selected that served as a stratified multi-stage sample. Two instruments, the Mathematics Achievement Test (MAT) and the Standardised Mathematics Achievement Test were used to obtain data for the study. The content validity and the face validity of the instrument were established by the use of a table of specification and expert judgment while reliability was established by the use of Kuder-Richardson formula 20 and a reliability coefficient of 0.60, 0.55 and 0.65 was obtained. The data gathered from MAT was used for item analysis. SMAT was used to answer research questions 1-8. The findings obtained indicate that; the SMAT has content and face validity and reliability of 0.60, 0.55 and 0.65. All the items in SMAT have difficulty and discriminative index of 0.30 – 0.60. The norm profile for gender, school type, location and states were established. The gender, school type, location and states mean scores were relatively close as the pupils perform averagely this indicate that the developed test was adequate for middle basic education. The researcher recommended, amongst others, that Mathematics teachers and school administrators of basic schools in Delta and Edo States should seek for SMAT and use it for effective evaluation of their pupils' ability in Mathematics. (455)

**ANIE, SYLVESTER OZIOMA**  
**FOE/PG/07/08/135494**

**PROFESSIONAL SKILLS AND DEMOGRAPHIC FACTORS AS CORRELATES  
OF LIBRARIANS' PROMOTION OF ELECTRONIC INFORMATION  
RESOURCES IN UNIVERSITIES IN NIGER DELTA, NIGERIA**  
**Ph.D. Library and Information Science (2017) 160 PP**

The study investigated professional skills and demographic factors as correlates of librarians' promotion of electronic information resources in university libraries in Niger Delta area of Nigeria. A structured questionnaire titled professional skills and demographic factors as correlates of electronic information resources promotion (PSDFEIRPQ) was used for data collection from 255 librarians in the universities. The data collected were analyzed using Statistical Package for Social Sciences (SPSS) version 22. Linear correlation analysis was used to answer research question 1, 2, 3 and 4. Multiple analysis of variance (MANOVA) was used to answer research question 5, 6, 7 and 8: while linear and regression analysis were used to test the hypotheses. The findings of the study revealed that there is a significant relationship between librarian's professional skills and the promotion of electronic information resources ( $R=0.649 < 0.05$ ); there is a significant relationship between librarian's professional skills and the medium of promotion resources ( $R=0.364, P<0.05$ ); there is a significant relationship between professional skills and the challenges of promotion of electronic information resources. ( $R=0.190, P<0.05$ ); there was also a significant relationship between professional skills and perceived benefits ( $R=0.287, P<0.05$ ). There was a significant relationship among age, gender, work experience and rank ( $R<0.05$ ). Age was the only significant predictor of medium of promotion of electronic information resources ( $P<0.05$ ) and challenges for promotion. ( $P<0.05$ ); while gender was a significant predictor of perceived benefits for promotion of electronic information resources. There is a significant contribution of librarian's professional skills to the promotion of electronic information resources. Age is significantly correlated with gender, work experience and rank, promotional media of electronic information resources, benefits of promotion of electronic information resources and promotion of electronic information resources in university libraries in Niger Delta, Nigeria. This is an indication that the librarians have the drive to promote electronic information resources for effective library services. Based on the findings, it was recommended that university administrators should enhance the professional skills of the librarians. (322)

**ASABOR, Bivwiere Mary**  
**PG/96/97/8/03/0016**

**CORRUPT PRACTICES AND DEMOGRAPHIC FACTORS AMONG  
TEACHING STAFF IN TERTIARY INSTITUTIONS IN DELTA AND EDO  
STATES, NIGERIA.**

**Ph.D. Educational Administration(2017) 169 PP**

The purpose of the study was to examine corrupt practices and factors predisposing teaching staff to corrupt practices in tertiary institutions in Delta and Edo States, Nigeria. Specifically to: establish forms of corrupt practices prevalent among teaching staff in tertiary institutions in Delta and Edo States; find out the disciplinary measures adopted by management in established cases of corrupt practices, identify associated factors that predispose teaching staff to corrupt practices. Moreso, to uncover the influence of

demographics like sex, age, religion, years of teaching experience and academic qualification on the involvement of teaching staff in corrupt practices in tertiary institutions in Delta and Edo States. The review of literature was discussed under sub-headings relevant to the topic of consideration with a theoretical framework that hinges on Maslow's Hierarchy of Needs theory. The study adopted the survey (expost-facto) research design. The population for the study consisted of 5,302 teaching staff out of which a sample of 530 was drawn, using the stratified random sampling technique from the 2014/15 academic session. Data was collected using a structured questionnaire and a check-list. The test-retest method was used to determine the reliability of the instrument which yielded a coefficient of 0.77. Eight research questions were raised and six hypotheses tested during the study. The research questions were answered using means, percentages and ranking, while the hypotheses were tested at 0.05 level of significance using chi-square statistics, and one way ANOVA respectively. The findings revealed that:- seventeen forms of corrupt practices are identifiable in tertiary institutions in Delta and Edo States with a number of predisposing factors like impunity, influence of corrupt colleagues, and poverty of teaching staff, among others; various disciplinary measures were meted out by management of tertiary institutions in established cases of corrupt practices; both male and female members of teaching staff were indicted, but males were more involved than females in established cases; all indicted and documented cases involved teaching staff of the Christian religion; no significant differences existed in the levels of corrupt practices among the public Universities, Colleges of Educations and Polytechnics in Delta and Edo States; the sex, age, years of experience, and academic qualification of teaching staff significantly influence their involvement in corrupt practices. The study concluded that various forms of corrupt practices are prevalent among teaching staff with a number of associated factors predisposing them to these acts. It was recommended that policies that will promote corruption free environment should be enacted by managers of tertiary institutions; efficient independent monitoring systems should be put in place by managers of tertiary institutions in Delta and Edo States among others. The study made the following contributions to knowledge. It established that seventeen forms of corrupt practices exist among teaching staff in tertiary institutions in Delta and Edo States, with associated predisposing factors. Moreover, the influence of demographics like sex, age, years of experience and academic qualification of teaching staff is significant on their involvement in corrupt practices in the states concerned, among others. (496)

**ENAKPOYA, Emujowheruo Emmanuel**

**PG/04/05/9/3/92176**

**COMMUNICATION AND SELF-EFFICACY AS CORRELATES OF MARITAL  
ADJUSTMENT AMONG MARRIED TEACHERS IN BAYELSA AND DELTA  
STATES OF NIGERIA**

**Ph.D. in Guidance and Counselling (2017)**

This study examined communication and self-efficacy as correlates of marital adjustment among married teachers in Bayelsa and Delta States, Nigeria. The moderating effects of gender, educational level, religion, sexual behavior and duration of marriage were also investigated. The study adopted the ex-post facto research method. Stratified random sampling method was used to draw a sample of three thousand and three hundred and twenty four (3,224) married teachers from Bayelsa (803) and Delta (2,421) states. The SPSS version 21 was used to analyze the data obtained and results presented in tables and charts. Linear and multiple regression analysis were used to test the hypotheses and answer the research questions. Cronbach's alpha method was used to test the reliability of the instrument. Communication inventory yielded a reliability index of  $\alpha = 0.94$  and self-efficacy had a reliability index of  $\alpha = 0.94$ . The whole instrument yielded a reliability index of  $\alpha = 0.94$ . the marital adjustment scale yielded a construct validity of 63.58% and content validity ranging from 0.43 to 0.84. All items in the marital adjustment scale were retained. Analysis investigating the influence of communication of marital adjustment among married teachers in Bayelsa State, Delta State and in Both States combined showed that there was a significant relationship between communication and marital adjustment in Bayelsa State ( $R = 0.99, p < 0.05$ ), Delta State ( $R = 0.62; p < 0.05$ ) and Both states of Bayelsa and Delta ( $R = 0.74; p < 0.05$ ). A significant relationship was observed between self efficacy and marital adjustment of married teachers in Bayelsa State  $\{R = 0.82, F(1,801) = 1600.00; p < 0.05\}$ . There was also a statistically significant relationship between self efficacy and marital adjustment of married teachers in Delta State  $\{R = 0.28, (1,2419) = 199.56; p < 0.05\}$ . A positive significant relationship was also observed between self efficacy and marital adjustment among married teachers in both Bayelsa and Delta States put together ( $R = 0.48, F (1,3222) = 946.49; p < 0.05$ ). A statistically significant relationship was observed between communication, self efficacy and marital adjustment among married teachers in Bayelsa and Delta States  $\{R = 0.80, F(2,3221) = 2808.85; p < 0.05\}$ . Recommendations were made, some of which are that couples should endeavor to keep a long lasting relationship and that couples and couples-to-be should be taught proper communication skills during counselling. The study has provided empirical information on the combined effect of communication and self-efficacy in marital adjustment. (405)

**ANYANWU, Chikodi Joy**  
**PG/04/05/9/3/92760**

**TRAINING AND MOTIVATION AS CORRELATES OF INCLUSIVE PRACTICES AMONG TEACHERS OF STUDENTS WITH DISABILITIES IN SOUTH-EAST NIGERIA**  
**Ph.D. in Guidance and Counselling (2017) 207 pp.**

This study examined the relationship among teachers' quality of training, motivation and inclusive practices. Ten research questions and ten hypotheses were used to guide the

study. A sample of 154 teachers was randomly selected from a population of 224 teachers who teach in integrated and inclusive secondary schools in the South Eastern geopolitical zone of Nigeria. A questionnaire tagged Teachers' motivation, quality of training and inclusive practices scale was used to collect information from the respondents. The instrument consisted of 46 items, motivation had 12 items, training had 19 items while inclusive practice had 15 items. It was self-developed and expert validated with the following psychometric properties: content validity; motivation 58.70%, Quality of Training 64.43%, inclusive practice 63.10%. Reliability index realized with the application of Cronbach alpha; Motivation 59, Training 59, Training 87, inclusive practice 71. The data gathered was analyzed using Pearson Product Moment Correlation and Multiple Regression using SPSS. Result was equally presented in Path analytical model. Result showed significant relationship between teachers' quality of training and their inclusive practices. It was also observed that among the six components of training, current trends had significant correlation with teachers' inclusive practices. An examination of relationship between components of motivation and teachers' inclusive practices revealed that remuneration had no significant relationship with inclusive practices while recognition self-fulfillment and job commitment had significant relationship with inclusive practices. Two major recommendations made include: the quality of teachers training should be enhanced by incorporating components of training explored in this study. Secondly, teachers' effort towards inclusive practices should be strengthened through programmes that showcase recognition of efforts at inclusive teaching practices. (268)

**OSHILIM, Alexander Atagana**  
**MAT. NO. PG/07/08/136883**

**PSYCHO-SOCIAL INDICES OF SPORTS AS CORRELATES OF SECONDARY SCHOOL SPORTS DEVELOPMENT IN THE SOUTH-SOUTH ZONE OF NIGERIA**

**Ph.D. Sports Management (2014) 192 PP**

This study investigated the psycho-social indices of sports performance as correlates of secondary school sports development in the South-South Geo-political Zone of Nigeria. The researcher raised eight research questions and formulated eight null hypotheses to guide the study. The purpose of this study was to investigate the relationship between psycho-social indices of sports performance and the level of secondary school sports development in the South-South Geo-political Zone of Nigeria. In the study the researcher reviewed some related literature. The ex-post facto research design was used in the study. The population of this study was 13,898 which were made up of 3,454 senior secondary school principals as sports managers and 10,444 Physical Education and sports teachers in the six states of the South-South Geo – political Zone of Nigeria. The researcher sampled 148 school principals and 452 Physical education teachers and

coaches. The stratified random sampling and simple balloting technique was used to draw a total of 600 respondents for this study. The instrument for data collection in the study was a questionnaire tagged “Psycho-Social indices of sports as Correlates of Secondary School Sports Development Questionnaire (PICSSSDQ)”. The instrument was validated through expert judgment. The reliability was established by the use of Cronbach Alpha method to obtain a reliability index of 0.73. The researcher visited the respondents and administered the instrument to them in their various secondary schools with the help of six trained research assistants. The research questions were analyzed through simple Regression Correlation Statistics used to test the eight null hypotheses at 0.05 level of significance. It was found in the study that one null hypothesis was accepted, while seven null hypotheses were rejected. The findings provided information on the impact of motivation on secondary school sports development. It identified the psycho-social indices of sports that would facilitate the establishment of a solid secondary school sports foundation for effective star talent hunt at the community level. It confirmed the absence of improved manpower management, work out hour for skill training, in effective sports facility development and over dependence on government to fund all sporting activities in the ever growing public and private secondary schools in the Federation. The study drew some conclusions and based on the findings, some recommendations were made. (371)

## **FACULTY OF LAW**

**AWHEFEADA, Ufuoma Veronica**  
**PG/06/07/123543**

### **A CONSIDERATION OF ARMED CONFLICTS IN THE NIGER DELTA UNDER THE PRINCIPLES OF INTERNATIONAL HUMANITARIAN LAW Ph.D. Law (2014) 113 pp.**

The title of this thesis – A Consideration of Armed Conflicts in the Niger Delta under the Principles of International Humanitarian Law - is informed chiefly by the critical economic importance of the region to Nigeria. Like some other countries of the world, Nigeria is currently experiencing an upsurge in the number of internal armed conflicts it has to contend with. Between the years 2005 and 2009, the Niger Delta Region of Nigeria was embroiled in such violent internal armed confrontation between the Federal Government and several militant groups which sprang up in the region. This led to hundreds of civilian and other casualties, the destruction of properties, the sacking of entire communities as well as the displacement of hundreds of civilian population. This thesis undertakes an examination of the nature of the conflict that took place in the region under the principles of International Humanitarian Law regulating non-international armed conflict. This is done to buttress the case for the application of the principles of International Humanitarian Law in cases similar to that which took place in the Niger Delta Region. In carrying out this task, the doctrinal research method which involves research into law as a normative science is adopted. Relevant materials such as primary and secondary source materials including international legal instruments, relevant domestic legislations, relevant decisions of international and domestic courts and tribunals, proceedings of international commissions, UN documents, textbooks, articles in journals, materials from the internet as well as newspapers are referred to. Consequent upon the research carried out, it became apparent that neither the Federal Government nor the militant groups were aware of their obligations under International Humanitarian Law during the pendency of the conflict. This resulted in multiple and severe violations of the principles of this branch of law for which no single person has been made to account. Arising from the above observation and as a panacea to such impunity, this thesis recommends a harmonization of the extant rules of International Humanitarian Law governing such internal conflicts and also, the strengthening of the mechanisms of dissemination and enforcement of same. This work shows succinctly, that the conflict that took place in the Niger Delta region falls squarely within the ambit of International Humanitarian Law regulating internal armed conflicts. (374)

**OGISI, Ulisan Mogbitse**  
**PG/10/11/190347**

**AN APPRAISAL OF THE EFFECTIVENESS OF ECOWAS AGREEMENTS ON  
FREE MOVEMENT OF PERSONS, GOODS AND SERVICES**

**Ph.D. Law (2016) 238 pp.**

The Economic Community of West African States (ECOWAS), a Community of some 230 million citizens, was established on the 28<sup>th</sup> May, 1975 through the Treaty of Lagos, Nigeria, later revised in 1993 also known as the Continuo Treaty. The aim of this thesis is to appraise the effectiveness of the agreements of free movement of Persons, goods and services within the ECOWAS sub-region bearing in mind the constraints affecting the member states of the sub-region. The treaty of ECOWAS, comprehensively provided for the promotion of cooperation and development among member states particularly in the areas of free movement of persons, goods, services and capital. In appraising the ECOWAS agreements in this thesis, both doctrinal and non-doctrinal methods were adopted. All necessary source materials e.g. laws, text books and journals, were consulted. Personal interviews with lecturers, diplomats ECOWAS employees, international law experts and ECOWAS citizens were consulted for more accurate information. After gathering the information the following observations came to the fore: the hypocritical attachment of member states to national sovereignty, delay in payment of assessed dues, security challenges, particularly from the Boko Haram sect, financial constraints, weak currency and chronic budget deficit, and economic depression within ECOWAS. Based on these observations, the following recommendations were made. That there should be free access to accurate migration information, Members State should establish national committee to monitor implementation of protocols, ECOWAS should accelerate the implementation of a common currency and all members States should make deliberate efforts to contribute to all ECOWAS fund. The following are the contributions to knowledge. The study identified hypocrisy and none commitment of member states to the realization of the ECOWAS treaty on free movement. The work revealed that the absence of a common currency is a constraint to the free movement of persons, goods services within member states. The study further revealed that the introduction of external tariff has further enhanced the realization of the objectives of ECOWAS to a community of people by 2020. (328)

**OKWEZUZU, Gaius Emamuzou**  
**PG/12/13/213439**

**THE ENVIRONMENTAL CHALLENGES TO HUMAN RIGHTS IN NIGER  
DELTA NIGERIA**

**Ph.D. Law (2016) 105 PP**

The study explores the environmental challenges to human rights in the Niger Delta of Nigeria with a view to finding out highly potent and effective measures to address them. The study portrays the magnitude of the environmental degradation in the Niger Delta as indeed life-threatening, pointing out that it is mainly caused by oil and gas exploration and exploitation carried out by multi-national companies headquartered in Western States that wield great influence in global power politics. It is observed that the common law torts approach in tackling environmental degradation in the Niger Delta is legally inadequate, resulting in the need for more effective measures. The work establishes that environmental degradation in the Niger Delta has resulted in the violation of several human rights. Particularly, the study x-rays the right to potable water and the right to clean environment with special focus on conservation of biodiversity, canvassing for their recognition and constitutionalization as enforceable rights in Nigeria. It is specifically recommended that the right to clean environment should be expanded to incorporate biodiversity preservation and should be moved from Chapter II to Chapter IV of the 1999 *Constitution of the Federal Republic of Nigeria* in order to make the right actionable. The study further reveals that in the battle for environmental protection of the Niger Delta, adoption of the human rights approach alone is not enough as it has its shortcomings. A multi-pronged approach is therefore necessary. Hence, it is proposed that the causing of widespread, long-term and severe damage to the natural environment should be recognized as a crime called ecocide. In this regard, it is observed that ten States have recognized and codified ecocide in their Penal/Criminal Codes and none of these States with ecocide law includes a test of intent; this is to make ecocide more potent and effective as a crime of strict liability. It is further observed that ecocide was originally part of the draft *Code of Crimes Against the Peace and Security of Mankind* that birthed the *Rome Statute* but was eventually withdrawn as a result of the opposition of certain States though it exists in international law only as war time crime as codified in the *Rome Statute*. It is recommended, therefore, that ecocide should be included in the *Rome Statute* as the fifth *Crime Against Peace* by amendment thereby bringing it under the jurisdiction of the International Criminal Court (ICC). The study further recommends the enactment and codification of ecocide (devoid of a test of intent) as law in Nigeria as a potent and effective measure to address environmental challenges that bedevil the Niger Delta. The study which adopts the doctrinal research method has made contributions to knowledge by *inter alia* identifying the environmental challenges to human rights in the Niger Delta, proposing a recognition and constitutionalization of the right to potable water in Nigeria, and advocating the recognition and inclusion of ecocide as the fifth *Crime Against Peace* in the *Rome Statute* in addition to its enactment as law in Nigeria. (499)

**AKATUGBA, Akpoviri Michael**  
**PG/05/06/9/6/93242**

**ENVIRONMENTAL PROTECTION LAWS: HARMONIZING THE LEGAL  
RESPONSIBILITIES OF THE THREE TIERS OF GOVERNMENT I NIGERIA**  
**Ph.D. in Law (2017) 182 pp.**

Attempts by countries to develop their economy has led to industrial revolution, the end result is pollution of the environment which effects have made the environment unhealthy for human habitation. Added to this are natural factors and the attendant catastrophes. The Nigeria government distributed environmental responsibility among three tiers of government with the hope of resolving this problem. This approach has resulted in conflict of roles which has resulted in ineffective protection of the environment. This research work attempts at resolving this conflict. The researcher adopted the doctrinal research technique. In the process, some related source materials were reviewed which showed the need to embark on a research of this type to fill the gaps discovered. The aim and objectives of the research is to examine the conflict of roles in the enactment and enforcement of environmental laws and policies with a view to harmonizing the conflict of the roles by the three tiers of government, so that the environment would be conducive for human habitation in Nigeria. In the course of the study; it was observed that the conflict of roles and responsibilities by the three tiers of government in environmental enforcement is one of the causes of inefficient environmental protection and lack of sustainable environment. Based on these observation, some recommendations were made as follow, that there should be constitutional amendment restricting the Federal Government to law and policy formulation, setting of standards and criteria while the local government would oversee enforcement of such laws and policies since each environment is located in a local government area, that town and country planning and health matters are integral part of environment laws as obtainable in developed countries such as the United Kingdom and Australia. (285)

## **FACULTY OF MANAGEMENT SCIENCES**

**EHIEDU, Victor Chukwunweike**  
**PG/09/10/182122**

### **IMPACT OF INTEREST RATE DEREGULATION ON CORPORATE FINANCIAL STRATEGIES (CFS) OF MANUFACTURING INDUSTRIES IN NIGERIA**

**Ph.D. Banking & finance (2015) 246 PP**

The main objective of the study is to examine the impact of interest rate deregulation on corporate financial strategies (CFS) of manufacturing industry in Nigeria from 1987 to 2013, with a view of assessing the effects and challenges of interest rate deregulation policy on various financing strategies of the manufacturing sector of the economy. This study covered twenty two (22) active quoted manufacturing companies from the major industrial classifications. Secondary data were collected from books, journals and various balance sheets using the content analysis of documents from all the sampled companies. The CFS which formed the dependent variables are bonds, preference shares, rights issue, retained earnings and ordinary shares while the independent variable is interest rate as issued by the Central Bank of Nigeria (CBN). The results of the coefficients ( $a_0$  and  $a_1$ ) in the research work were in line with the apriori expectations. The data was analyzed using the E-View version 5.0 statistical tool. Our empirical investigation engaged three methods in order to determine the relationship between interest rate deregulation and CFS of listed manufacturing firms in Nigeria. First, the group unit root of stationary for the five variables utilized for the study was conducted using the Augmented Dickey Fuller (ADF) test and Phillips-Perron (PP) test of stationarity. Second, is the Johansen test of cointegration and third is the Ordinary Least Square Regression Analysis for the pooled ordinary least squares (Pooled OLS) panel analytical data. Among others, the work found that the market debt-equity ratio for the firms increased by 0.06% respectively given the changes in deposit interest rate and lending interest rates. This observation suggests that active participations of the firms in the Nigerian Stock Exchange and further participation of the firms in the international equity markets since internationally and locally financed firms exhibit lower debt-equity ratios. No doubt, lower interest rate (though still on the high side), in the time of deregulation positively impacted on investment and output within the period under review. Again, the panel least square analyses for impact of interest rate deregulation on corporate investment for the firms increased by 0.09% and 0.06% respectively given the changes in deposit interest rate and lending interest rates. This observation suggests that the Nigerian investors and their firms prefer to plough back their profits for reinvestment in addition to borrowing due to lower interest rates compared to market based interest rate period. Based on the findings of this research work, it is generally recommended that though interest rate deregulation policies have been supportive to the manufacturing sector of the Nigerian economy, more needs to be done to make the policy realise its full objectives both on productivity, growth,

profitability of manufacturing sector and financial strategies which can be achieved by financial deepening and removal of the bottlenecks in the financial sectors of the economy. The research work contributed to knowledge by introducing a model for predicting changes in corporate financial strategies of manufacturing industries in Nigeria amongst others. (489)

**OMOJEFE, Godfrey Oke**  
**PG/08/09/163845**

**THE IMPACT OF FOREIGN DIRECT INVESTMENT ON THE NIGERIAN MANUFACTURING SECTOR**  
**Ph.D. in Banking and Finance (2015)**

The title of this thesis is on “the impact of foreign direct investment on the Nigerian manufacturing sector”. The aim of the study is to use the single factor EFIGO model to examine how FDI has impacted on the Nigerian manufacturing sector. The study period was for 32 years with data collected from 1981 to 2012. The secondary data used for the analysis were gathered from the CBN statistical bulletin and the World Development Indicator (WDI). Six hypotheses were stated and tested, five of which tested for the factors influencing FDI in the manufacturing sector while the rest hypothesis tested the impact of FDI on the manufacturing sector’s GDP. The econometric package Eviews 7.1 was used to carry out the analysis. The test statistics employed are the unit root test, the cointegration analysis, regression analysis, Granger Causality test, impulse response function and variance decomposition test. The unit root test revealed that all variables tested were stationary at their first difference. The data also showed that the stationary data were cointegrated, meaning a long-run relationship existed among the variables. The error correction model showed that it will take about 2.9% annually to correct previous period disequilibrium. The regression result for four out of the five factors tested in the hypotheses, namely GDP, credit to the private sectors, export and infrastructure, had a positive coefficient as specified in the a priori expectation. Only government consumption had a negative coefficient. In the test for impact of the manufacturing FDI on the manufacturing GDP, the study found that manufacturing FDI did not exert any positive impact on the manufacturing GDP both in the short run and long run. The impulse response function and the variance decomposition analysis however pointed out that banking sector credit and government consumption towards FDI will be negative in the future. The study therefore recommends that for the manufacturing sector to grow, the government and its agencies should put in place policies that will attract foreign investors coupled with proper implementation of policies. It is also recommended that the manufacturing sector be opened to foreign investors, allowing them 100 percent equity participation or joint venture with Nigerian investors. All the rigidities and administrative bottlenecks of the past by the commission should be removed. The local banks should support the foreign investors. The government should make export promotion drive lucrative for foreign investors by reducing administrative bottlenecks with exports. In

addition, the export processing zone to be made to facilitates quick and easy processing of goods marked for export. Government should restrain itself from over patronizing foreign made goods to the detriment of the locally made goods. The level of the nation's infrastructure needs continual improvement and maintain of existing facilities, discarding obsolete once for better performance of industries. An EFIGO model was developed in this study to capture FDI impact on the manufacturing sector of Nigeria. This work additionally was able to develop a model for predicting future trends of Nigeria. (490)

## FACULTY OF SCIENCE

**EHWARIEME, Daniel Ayobola**

**PG/08/09/170324**

### **PREVALENCE AND MOBILITY OF FLUOROQUINOLONERESISTANCE GENES AMONG ENTERIC BACTERIA ISOLATED FROM HUMAN AND ANIMAL SOURCES IN DELTA STATE, NIGERIA.**

**Ph.D Microbiology (2015) 232 PP**

This molecular study was conducted to investigate the occurrence and mobility of the plasmid mediated quinolone (PMQ) antibiotic resistance genes among enteric bacteria of human and animal origin in Delta State. The quinolone resistance proteins (*qnr*) designated *qnr A*, *qnr B*, *qnr S*, quinolone efflux pump protein (*qep A*) and a variant of the aminoglycoside acetyltransferase [*aac(6')*-Ib-cr] were the resistance proteins investigated. A total of 720 samples comprising 180 each of stool samples from private and public hospitals' patients, fish pond water and poultry litter, were analyzed for enteric bacteria by standard microbiological protocol (microscopic and biochemical tests). The number of enteric bacterial genera isolates stood at 1,964 and were identified as *Escherichia*, *Salmonella*, *Shigella*, *Klebsiella* and *Aeromonas* with prevalence trend of 34.1, 24.8, 16.3, 10.2 and 14.5%, respectively. Resistance pattern to four Fluoroquinolone (FQ) antibiotics (Nalidixic acid, Ciprofloxacin, Pefloxacin and Ofloxacin) determined by agar plate diffusion technique stood at 52.6, 47.3, 50.5, 70.6 and 46.0% for *Escherichia*, *Salmonella*, *Shigella*, *Klebsiella* and *Aeromonas*, respectively. Analyses of variance indicated occurrence of significant differences (F,46.77-613.30; P,0.00) in the resistance to each of the test fluoroquinolones among the enteric isolates. Except for *Klebsiellasp.*, Public Hospitals' isolates showed higher resistance than Private Hospitals (67.2 vs 45.0%). Other than *Salmonella*, isolates from poultry litter tended to show higher resistance (54.3 vs 40.9%) when compared to fish pond isolates. Human isolates showed greater resistance (57.4 vs 47.2 %) than animal isolates. Sodium dodecyl sulphate curing experiment indicated the occurrence of plasmids at 4.32, 6.93, 6.38, 5.26 and 3.03% proportions of the total isolates for *Escherichia*, *Salmonella*, *Shigella*, *Klebsiella* and *Aeromonassp.*, respectively among animal source isolates. It was 1.05, 0.00, 0.00, 4.26 and 0.00%, respectively for human isolates. Investigations with specific primers and Polymerase Chain Reaction indicated 11, 15, 7, 1 and 0 for *qnrA*, *qnrB*, *qnrS*, *qepA* and *aac (6)*-Ib-cr genes, respectively out of 1018 FQ resistant and 29 Plasmid Mediated FQ resistant isolates. However, *aac (6)*-Ib-cr was not detected. Gene sequencing and nucleotide/amino-acid alignment using the Basic Local Alignment Search Tool (BLAST) confirmed the occurrence of the genes. Using the BLAST-n and BLAST-p, an 80-100% alignment was observed with standard genes documented in the GenBank. Gene transfer experiments indicated the transfer of all genes except *qepA* either by conjugation or transformation. The Minimum Inhibitory Concentration of tested Fluoroquinolones on recipient bacterium before gene transfer

greatly increased from 0.0625 to 0.25 µg. This study indicated the presence of plasmid-mediated FQ resistance genes amongst enteric bacteria in the Niger Delta region of Nigeria thereby substantiating a trend of global spread of fluoroquinolone resistant enteric bacteria. The genes were transferable by mechanisms of conjugation and transformation, which conferred higher FQ resistance status on recipient organism. The observation that PMQR genes were more prevalent among enteric bacteria of animal origin suggests abuse of the FQs in animal husbandry due to prophylactic usage. This has far reaching economic implication, because of the spread of resistant pathogens to humans by zoonotic cross-contamination. (491)

**ENEMOSE, Edith Ajirioghene**

**PG/08/09/170645**

### **SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL ACTIVITIES OF SOME SELECTED ANTIMALARIAL DRUG-METAL COMPLEXES**

**Ph.D. in Inorganic Chemistry (2015) 382 pp.**

The synthesis, characterization and biological activity of some selected mixed antimalarial drug-metal complexes were investigated. The incidence of resistance to antimalarials by malaria parasite has in recent years become an issue of global concern and especially for the developing economy. The main aim of this study is to contribute to efforts being made to search for novel chemotherapeutic drugs against the resistant strains of the malaria parasite. The synthetic techniques were based on the modification of antimalarial drugs by the introduction of metal ions into the molecular structure of the drugs. Metal complexes of the ligands were prepared using template methods. Twenty-seven novel metal complexes were obtained from Pyrimethamine (PRM), Sulfamethazine (SUF), Trimethoprim (TRM), Quininmonohydrochloridedihydrate (QUN), Amodiaquine hydrochloride (AMQ), 1,10-Phenanthroline (phen) and 2,2' bipyridine (bipy) using the following metals: Cu(II), Co(II), Zn(II) and Ni(II). Their synthesis involved stirring and refluxing. Chelates of 1:2 metal-ligand and 1:1:1 mixed metal-ligand stoichiometries were formed. The purity of the complexes were ascertained by melting point determination, characterized physicochemically by conductivity measurement and by Ultraviolet-visible (UV-visible), Fourier Transform Infrared Spectrophotometer (FTIR), Proton (<sup>1</sup>H) and Carbon (<sup>13</sup>C) Nuclear Magnetic Resonance (NMR) spectroscopies. Most of the ligands act as bidentate ligand coordinating through the sulfonamido N-atom, pyrimidinic N-atom, amine N-atom and O- atom of the hydroxyl group. *In vitro* evaluation of the antimicrobial activity of the ligands and the metal complexes was carried out against the following microorganisms: *Bacteria isolates* include *Klebsiella species*, *Proteus*, *Escherichia coli*, *Salmonella typhi*, *Bacillus*, *Lactobacillus*, *Citrobacter*, *Pseudomonas* and *Staphylococcus* while fungal isolates include *Fusarium*, *Aspegillus*, *Penicillium*, *Trichoderma* and *Chlymydosporium*. The most active inhibitors against the microorganisms were as follows: Zn(AMQ)(NO<sub>3</sub>)<sub>2</sub> with sensitivity of (32.33±1.20mm) for *Klebsiella*; Cu(AMQ)(TRM)(SCN)<sub>2</sub> with sensitivity of 11.00±0.58mm and

Zn(SUF)(TRM)Cl<sub>2</sub> with sensitivity of 8.00±0.58mm for *Staphylococcus*; Zn(QUN)(BPY)(NO<sub>3</sub>)<sub>2</sub> with sensitivity of 10.00±0.58mm for *Proteus*; Cu(SUF)(phen)(SCN)<sub>2</sub> with sensitivity of 30.67±33mm for *Fasurium* and with least sensitivity of 9.67±0.28mm for *Penicillium*. Toxicological studies were carried out on albino rats (*Rattusnovergicus*) at the dosage level of 50 mg/kg body weight of the various drugs. The results showed that subacute administration of the mixed ligand of SUF, PRM and TRM and their metal complexes did not affect the overall protein contents of the rat liver, kidney and blood; rather, the observed serum alkaline phosphatase (ALP) of TRM (42.33±0.82 μ/L) and [Ni(SUF)PRM)Cl<sub>2</sub>] (63.00±2.52 μL) were significantly increased when compared with control group (21.33±2.33). Using Co(SUF)(PRM)(NO<sub>3</sub>)<sub>2</sub> (4.50±1.32μL) and Ni(SUF)(PRM)Cl<sub>2</sub> (4.00±1.73μL), the value of AST was significantly (P<0.05) decreased when compared with control (10.00±3.46μ/L). The serum ALT, when PRM (22.33±6.44μL) and Ni(SUF)(PRM)Cl<sub>2</sub> (23.67±2.67μL) were used significantly increased when compared with control (12.33±6.44μL). The result of the *in vitro* efficacy study using the parasitized mice *Plasmodium berghei* showed that the mixed complexes of SUF with TRM, Ni(SUF)(TRM)Cl<sub>2</sub> and Cu(SUF)(TR)Cl<sub>2</sub> were most effective and less toxic when compared with their parent ligand while the mixed ligand complexes of SUF with PRM, Co(SUF)(PRM)(NCS)<sub>2</sub>, Co(SUF)(PRM)(NO<sub>3</sub>)<sub>2</sub>, Ni(SUF)(PRM)Cl<sub>2</sub> and Zn(SUF)(PRM)Cl<sub>2</sub> were effective and more toxic than their parent drugs with regard to their effect on the liver of the infected mice. (498)

**OKOH, Benedict Eluoyibo**  
**PG/08/09/163010**

**THE PROPERTIES OF NATURAL RUBBER AND EPOXIDIZED NATURAL RUBBER COMPOUNDS REINFORCED WITH NATURAL PLANT MATERIALS**  
**Ph.D. Industrial Chemistry (2015) 245 pp.**

This study investigated the potential of natural plant materials namely, *Calamusdeerratus* (used as white sponge, WS) and Velvet tamarind seed shells (VT) as reinforcing fillers in natural rubber, standard Nigeria Rubber (SNR<sub>10</sub>) and epoxidized natural rubber (ENR-20) compounds. *Calamusdeerratus* and *Velvet tamarind* (Icheku) seed shells were obtained locally, prepared, dried, pulverized and screened with sieves of mesh sizes 212μm, 75μm, and 20μm. Together with industrial grade carbon black, CB (N330), the powdered WS and VT were characterised in terms of their moisture content, iodine adsorption number, loss on ignition, pH of aqueous slurry, density, particle size range, metallic and non-metallic contents and organic functional groups. The results revealed that Ws had the highest moisture content while CB(N330) had the least. CB (N330) had the highest weight loss on ignition hence the highest carbon content while VT had the least. The surface areas of the fillers measured by their iodine adsorption number was of the order CB(N330) >WS>VT. Furthermore, WS and VT were slightly more acidic than

CB (N330). The results also revealed the presence of some metallic and non-metallic elements and organic functional groups, present in WS and VT but not detectable in CB(N330). Part of the sieved WS and VT were treated with acetone solution and dried before being incorporated into the rubbers. Epoxidation of the natural rubber was carried out on the field latex using in situ peracetic acid epoxidation method. Epoxidation of the rubber was confirmed by FTIR spectra and the degree epoxidation was calculated to be approximately 20. The SNR<sub>10</sub> and ENR-20 were first characterized in terms of dirt, ash, nitrogen, and volatile matter contents, Mooney viscosity and Plasticity retention index and compared with standard natural rubbers, the Standard African Rubber (SAR) and Standard Malaysian Rubber (SMR). The results of the analysis showed that the SNR<sub>10</sub> and ENR-20 had properties which compared favourably with SAR and SMR indicating that they were good quality rubbers. A total of ninety-six (96) samples of SNR<sub>10</sub> and ENR-20 filled with the additives and fillers were formulated and compounded on the two-roll mill and cured at 160°C. The addition of the fillers accelerated the curing process. The cure and scorch times decreased while the maximum torque increased with increase in filler concentrations. Tensile strength increased to optimum levels at 30phr for WS-nd VT-and 40phr for CB(N330)-filled vulcanizates and decreased thereafter. Percentage equilibrium swelling for all the filled vulcanizates in diesel oil, benzene and kerosene decreased with increase in filler loading. The degree of reinforcement by the fillers followed the order CB(330)>WS>VT-filled ENR-20>SNR<sub>10</sub>vulcanizates. The acetone pretreated WS and VT offered better reinforcing effects on the physico-mechanical and equilibrium swelling properties of the ENR-20 and SNR<sub>10</sub>vulcanizates than the untreated WS and VT. The results further revealed that the epoxidized natural rubber, ENR-20 manifested higher tensile strength, abrasion resistance, hardness, maximum torque, specific gravity but lower rebound resilience, elongation at break and equilibrium swelling properties than the SNR<sub>10</sub>vulcanizates. (484)

**EGBULE, OLIVIA SOCHI**  
**PG/08/09/170275**

**MOLECULAR MOBILITY OF GENETIC DETERMINANTS IN BETA-LACTAMASES GRAM NEGATIVE BACTERIAL ISOLATES FROM PATIENTS ATTENDING SOME HOSPITALS IN DELTA STATE, NIGERIA**  
**Ph.D. Microbiology (2015) 148 PP**

This study was undertaken to evaluate the susceptibility of multi-drug-resistant pathogens and extended spectrum beta lactamases – (ESBLs) producing Gram negative isolates to commonly used antibiotics (ceftazidime, cefuroxime, cefotaxime, cefixime, gentamycin, amoxicillin-clavulanic acid, ciprofloxacin, ofloxacin, trimethoprim-sulfamethoxazole, and nitofurantoine). The presence of three genes, Temoniera (TEM), Sulphydryl variable

(SHV) and Cefotaximases (CTX-M) associated with ESBLs and class 1 integrons were investigated by polymerase chain reaction (PCR) techniques in the bacterial isolates. Class 1 integrons detection in isolates/locations where trimethoprim-sulfamethoxazole resistance was high was carried out by accessing *sul-1* genes. The isolates were obtained from a total of 900 samples comprised of 300 each of wound, urine and blood samples of patients from three Government hospitals and identified by standard microbiological techniques. The bacterial isolates included 216 (24.00%) *Escherichia coli*, 152 (16.89%) *Pseudomonas aeruginosa*, 66 (7.33%) *Klebsiellasp.* and 23 (2.56%) *Proteus mirabilis*. The percentage occurrence of the Gram-negative bacilli from urine, wound and blood samples were 38.29, 30.42 and 31.29 respectively. Of this, 10.6% were nosocomial pathogens. Antimicrobial resistance patterns determined by disc diffusion were 175 with higher resistance to amoxicillin-clavulanic acid and cephalosporins being indicated. Plasmid curing with sodium diodecyl sulphate indicated that 196 (65.11%) of the multi-drug resistant isolates encountered harboured plasmids. Variation of plasmid bands by locations occurred with plasmid bands ranging from 1.517kbp to 23.3kbp. However, the ESBL producers carried more plasmid DNA than non-ESBLs producers (86.4 vs 30.5%). The overall prevalence of SHV, TEM and CTX-M genes were 45.68%, 28.40% and 20.99% respectively. Thirteen (13) of the 27 isolates carrying *Sul-1* genes harboured ESBLs genes while 30 (6.5%) nosocomial pathogens harboured ESBLs genes. Conjugation and transformation experiments showed that 51.16% of MDR isolates transferred resistance genes by transformation where as it was 19.74% by conjugation, thereby suggesting a trend of greater mobility by transformation. This study suggested that ESBLs genes are transferred by plasmids among nosocomial isolates in Delta state hospitals. Therefore stringent measures should be put in place by Delta State Hospital Management Board to curtail their spread in order to reduce antibiotic therapeutic failure. (338)

**DORE, Matthew Pendry Omare**  
**PG/07/08/142417**

**ECOLOGY AND STATUS OF WEST AFRICAN DWARF CROCODILE**  
**(*Osteolaemustetraspis* Cope 1861)**  
**Ph.D. in Zoology (Hydrobiology and Fisheries) (2015) 363 pp.**

The ecology and trade dynamics of West African Dwarf Crocodile (WADC) (*Osteolaemustetraspis* Cope 1861) were studied for 24 months between October 2008 and September 2010. Ecology studies included distribution, food, spatial distribution, population density, nesting and anthropogenic impacts. Distribution survey covered wide swathes especially the swamps of hydrological basins, local markets in addition to 'show-and-tell' method. Hydrobiology studies were conducted using standard physicochemical

methods. Occupied ponds were identified, conducted, depth, width measured and geo-positioned using a hand-held GPS. Occupied burrows were identified, crocodiles within counted and association with weaver nests observed. Crocodile trade was tracked from points of catch through primary, secondary to terminal markets. Crocodiles were counted and morphometric measurements taken. Live specimens were obtained from Ugbenu market, dissected in the laboratory and stomach content analysed. WADC distribution is characterized high concentration in the southern littoral and forested parts of both states. The central and northern flanks have relict populations. Physicochemical parameters were subjected to statistical analysis using paired t-test and indicate no significant differences ( $p>0.05$ ) between water bodies in sites and similar environments. Dissolved Oxygen ranged between 3.3 to 3.9 mg/L, BOD 0.8 and 26 mg/L, salinity 10mg/L to 340mg/L and TDS ranged between 19.5 mg/L to a high of 400 mg/L. Temperature of water bodies ranged between 78.8-82.4 °F with lower temperatures recorded under canopies. WADC occupied both brackish and freshwater swamps and a variety forests types but preferred burrows under trees and near pools. Population density was low at 0.01/sq km<sup>2</sup>. A definite relationship was established between WADC and Veillot's black weaver *Ploceusniegerrimus* as shown by Pearson analysis. Reproduction was in nests of decaying vegetation, clutch size ranged between 15 and 27 eggs, internal incubation temperature range of 96°F – 98°F. Egg size was 64.0mm with average hatchlings measurement of about 21.8cm and weighing 33.5gm. WADC are exploited heavily by a variety of methods and about 1000 individuals per annum are sold at the Ugbenu market. Specimens were grouped into size classes 0.20, 21-40, 41-60, 61-80, 100-120, 120-140, 141-160 and 161-180. Minimum size observed was 29cm and maximum was 165cm, there is little seasonal variation in total quantities of crocodiles offered for sale. Demographic analysis of market populations of crocodiles offered for sale showed that the size class 100—120cm is most prevalent contributing over 48% of eight size classes. Crabs and fishes are the main food. Over-hunting, slash-and burn agriculture urbanization and pollution were observed to be some of the contributory causes for reduction in population and distribution. Contributions to knowledge include: enhanced understanding of the distribution, identification of the species preferred habitat as burrows linked to water, establishment of a definite association with *Ploceusniegerrimus*. It has potential to contribute to practical strategies for the conservation and management of the species by relevant agencies. The current study provides empirical data on the levels of uncontrolled trade in a small region in the range of the species. (480)

**TESI, Godswill Okeoghene**  
**PG/12/13/214723**

**DISTRIBUTION OF METALS AND POLYCYCLIC AROMATIC  
HYDROCARBONS (PAHS) IN THE FLOODPLAIN SOILS OF THE LOWER  
REACHES OF RIVER NIGER, NIGERIA**  
**Ph.D. in Environmental Chemistry (2017) 286 pp.**

The main objective of this study was to investigate the distribution of metals (Pb, Cd, Ni, Zn, Mn, Cr, Fe, Co, Al, Ba and Cu) and USEPA 16 priority polycyclic aromatic hydrocarbons (PAHs) in floodplain soils of the lower reaches of River Niger, Nigeria. Soil samples were collected three months after the Ladgo dam flood disaster of 2012 when the flood water has receded completely and a year after the major flooding. Soil samples were collected from different locations between Asaba and Aboh floodplains of the lower reaches of River Niger at different depths. Some physicochemical properties of the soil profiles were analyzed. The concentration of metals was determined using inductively coupled plasma atomic emission spectrometry (ICP-AES) after digestion with aqua regia. The chemical forms of metal in the soil were determined using the BCR sequential chemical extraction method while the measurement of the concentrations of PAHs was performed using gas chromatography equipped with mass spectrometer (GC-MS) after extraction by ultrasonication with hexane/dichloromethane and clean-up. The concentrations of metals were in the range of 0.02-2.8, 1.1-4.05, 0.8-6.9, 0.1-26.3, 0.5-29.4, 1.0-14.4, 18.7-1490, 8.0-147, 5.1-790, 41-32200 and 848-2400  $\mu\text{g g}^{-1}$  for Cd, Co, Cr, Cu, Mn, Ni, Pb, Zn, Ba, Al, and Fe respectively three months after the major flooding and 0.2-8.5, 0.3-17.4, 1.1-108.9, 0.9-21.4, 1.1-674.0, 0.6-93.6, 0.7-24.1, 0.1-1141, 0.3-177, 100-27270 and 47.0-33050  $\mu\text{g g}^{-1}$  for Cd, Co, Cr, Cu, Mn, Ni, Pb, Zn, Ba, Al, and Fe respectively a year after the major flooding. The concentration of  $\Sigma 16$  PAHs were in the range of 811.8 to 10651.4  $\mu\text{g kg}^{-1}$  and 12.2 to 2634  $\mu\text{g kg}^{-1}$  three months after the major flooding and a year after respectively. The chemical fractionation of metals indicated that residual and Fe-Mn oxides/hydroxides phases were the predominant forms of metals in the soil profiles in the two sampling periods with high potential mobility. The results showed that the concentrations of metals in the soil profiles in both sampling periods were below their respective regulatory control limits except for Cd and Zn in some sites. The potential ecological risk values of metals indicate that these soils fall within the low ecological to moderate ecological risk categories with significant impact from Cd pollution. The non-carcinogenic risks expressed in terms of the hazard index (HI) for the majority of the sites and depth were  $<1$  for the adults and children scenarios suggesting that the probability of health effects arising from metal contamination in these sites is low. The average cancer risk values were lower than the potentially acceptable target risk value of  $10^{-6}$  set by the US EPA. The Incremental Lifetime Cancer Risk values obtained were higher than the potentially acceptable target risk value of  $10^{-6}$  set by US EPA signifying a high potential human carcinogenic risk in the study area. Based on the findings of this study, the remediation and clean-up of the floodplain soils of the lower reaches of River Niger, Nigeria is therefore recommended. (477)

## **FACULTY OF THE SOCIAL SCIENCES**

**ODIRI, Vincent Ivwighrevero Oruwewiruohwo**  
*PG/00/01/38687*

### **KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL PERFORMANCE IN SELECTED OIL COMPANIES IN NIGERIA** **Ph.D. in Management (2014) 285 pp.**

This research work examines the relationship between tacit knowledge and organizational performance. Tacit knowledge is part of knowledge management. Organizations spend so much money training their staff in order to acquire this tacit knowledge. But as they leave the organization, they go with it, thereby depriving the organization the use of such knowledge. There is therefore need to properly manage this knowledge so that others can have access to it even after the exit of the person with such knowledge from the organization. Questionnaire was the main research instrument. Three oil companies in the upstream sectors of the oil industry in Nigeria were studied. Out of a population of 2,474, sample of 504 were used. Six hypotheses were formulated and tested using correlation and regression analysis. The multi-colinearity diagnosis of the factors mediating between tacit knowledge and organizational performance were carried out too. From the analysis, it was discovered that tacit knowledge actually predicts organizational performance while each of the mediating factors contributes differently to the relationship of tacit knowledge and organizational performance. Based on the findings, we came to the conclusion that, of the mediating factors, motivational incentives and participative leadership contribute negatively to the relationship of tacit knowledge and organizational performance while workers' competence, interpersonal relationship and organizational philosophy contribute positively to the relationship of tacit knowledge and organizational performance. Arising from the above, we recommend, among others, that since tacit knowledge actually predicts organizational performance, it should be properly managed, taking into consideration all the factors in the environment that tend to have any relationship with the management of tacit knowledge and organizational performance. (267)

**OKWUANASO, Kate**  
*PG/99/2000/8/10/38236*

### **IMPACT OF WOMEN EMPOWERMENT SCHEMES IN POVERTY ALLEVIATION IN THREE SOUTH-EASTERN STATES OF NIGERIA** **Ph.D. in Economics (2014) 139 pp.**

This study is an impact analysis of women empowerment schemes in poverty alleviation using the three South-Eastern Nigeria states of Anambra, Enugu and Ebonyi as case

study. The main objective of the study is to assess the impact of micro-credit and skill acquisition scheme as empowerment strategies for poverty alleviation in the south-eastern states of Nigeria. The hypotheses tested include, there is no significant difference in economic wellbeing, individual welfare and socio economic status of women beneficiaries. Four hundred and fifty copies of structured questionnaire were administered to respondents in the study area that comprised of Anambra, Enugu and Ebonyi states. The respondents were selected using the multi-stage purposive sampling procedure, given the knowledge of the zone and knowing well that the schemes did not operate in all communities. The collected data were analyzed with the aid of descriptive statistics (mean, standard deviation, percentage, graphs, pie chart, frequency distribution table); and inferential statistics (multiple regression). The test of hypotheses using Z-test for the differences between means with paired samples was also used. The findings of the study indicate that skill acquisition, operated as a single variable in the model turned out negative and non-significant. Also, the single interaction of micro-credit as a variable in the model has negative effect and is non-significant. The joint impact of micro-credit and skill acquisition treated as interactive exogenous variable in the model turns out positive and significant. This implies that micro-credit acts as a boost to relevant skills acquired. Arising from the results of the study, policy recommendation was made that micro-credit and skill acquisition schemes should be combined as a package for women empowerment. A suggestion was made to see similar analysis done on youth empowerment schemes as it could form the basis for solving up-scale terrorism being witnessed today. (297)

**AYOZIE, Daniel Ogechukwu**  
**PG/01/02/38688**

**RELATIONSHIP MARKETING (RM) AND THE PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISES (SMEs) IN NIGERIA**  
**Ph.D. in Business Administration (2015) 264 pp.**

This thesis has been on relationship marketing and the performance of small and medium scale enterprises in Nigeria. The major objective of this study is the provision of useful information about the awareness, understanding, acceptance and usage of the relationship marketing concept (RMC) by SMEs, and the establishment of the relationships between some management attributes and the implementation of the RMC. Our investigation was based on the formulation and the application of the two part model of the RMC. We took random samples of 100 SMEs and 4000 customers (40 for each SME) in seven states – Abia, Anambra, Delta, Kaduna, Lagos, Ogun and Rivers States. Multiple regression Technique was used, because it helped to establish the cause and effect among the variables. Data measurement was done by the use of the Pearson’s Product Coefficient of Correlation, which is used to estimate the reliability and the internal consistency of the

research instruments. The research design involved the use of the two part model of the adoption and implementation of the RMC, and the relationship planning and control system. The adoption and implementation variables are treated as the dependent variables that influence the level of customer satisfaction, which in turn impacts on the independent variables such as, growth in assets, profitability and sales turnover. The results showed that over 80% of SMEs in the seven sample states in Nigeria adopted and used the relationship marketing concept. The very relevant education and experience of CEOs and workers positively influence the level of the practice and tenets of relationship marketing concept. That the articulation and precise definition of a corporate mission statement based on the relationship marketing concept, and the attention to customer needs, produces customer satisfaction, loyalty, corporate success and profitability. Customer loyalty and satisfaction impacts positively on corporate success profitability growth and market share. In order for the SMEs in Nigeria to enjoy the fruits of the research findings, it is recommended that they should accept adopt and use profitably the relationship marketing concept, and incorporate it into its normal business practice. All the shareholders in SMEs, the employees, the government, banks, and the customers should form a win-win network, to identify, satisfy, enhance commercialise, retain and reactivate long time customers for the natural benefit of all. (375)

**NSONWU, ModestusChidi**  
(PG/04/05/9/10/27773)

**A LONGITUDINAL ECONOMETRIC ANALYSIS OF THE EFFECT OF DEBT BURDEN ON INVESTMENT AND GROWTH IN SUB-SAHARANAFRICA**  
**Ph.D. Economics (2016) 172 PP**

This thesis on Longitudinal Econometric Analysis of the effect of Debt Burden on Investment and Growth was carried out on fifteen indebted countries in sub-Saharan Africa over a time period of sixteen years (1998 – 2013). Longitudinal data approach was used since the research involved both time series and cross sectional data. Secondary data obtained from World Bank Development Indicators, World Bank, International Debt Statistics, Central Banks of the Countries and Debt Management Bureaus in the selected countries were used in the research. STATA package version 11 was used in the data analysis and the results show that total debt has a significant and negative effect on the economic growth of sub-Saharan African countries, debt service has a significant and negative effect on economic growth of sub-Saharan African countries, Total debt has a significant and negative effect on investment of sub-Saharan African countries and debt service has a significant and negative effect on Investment in sub-Saharan African countries. A unit increase in debt service resulted in approximately 19.839 unit decrease in GDP and 3.296 unit decrease in investment in the SSA countries. Also a unit increase in total debt resulted in 7.909 unit decrease in GDP and 0.590 unit decrease in investment in

the SSA countries. The implication of these results are that the debt burden from the findings distorted human capital and infrastructural development and economic advancement in the sub-Saharan African countries due to debt overhang on investment and crowding out effect on economic growth. The main recommendation from the findings of this study is that SSA countries should not continue to procure public debts as such debts actually depress growth and investment. Loans should be applied on investment in infrastructures that promotes productivity and human capital development. The study also recommends that economies of sub Saharan African countries should apply loans only on beneficial capital investments capable of liquidating itself rather than spend it on recurrent expenditure. Only external loans with favourable terms and conditions should be sort for by the countries to avoid excessive debt burden on the economies. (341)

**IKENGA, Francis Ayegbunam**  
**PG/05/06/9/10/93646**

**POLITICAL PARTIES AND THE DEMOCRATIZATION PROCESS IN  
NIGERIA: A STUDY OF THE FOURTH REPUBLIC**  
**Ph.D. in Political Science (2017) 209 pp.**

The literature on democratization acknowledges the important contributions of political parties to the workability of any democracy. This literature argues that political parties organize politics and make democracies to be responsive. Nigeria joined the comity of democratic states in the Fourth Republic with the emergence of some political parties. This thesis examined political parties and the democratization process of Nigeria's Fourth Republic. Primary and Secondary data were used. Questionnaires were used to elicit information from 2,688 respondents selected from seven states of Nigeria's six geo-political zones and the Federal Capital territory. Three hypotheses were formulated and tested using descriptive and inferential statistical techniques. Based on the analyses of the responses to questions derived from the hypotheses, the research findings revealed significant relationship in the three hypotheses tested. In the first hypothesis the calculated Chi-square ( $X^2$ ) value of 89.278 was greater than the critical value of 36.415 at ( $p > 0.05$ ). The research result therefore shows that there is a significant negative relationship between the level of commitment of political parties to democracy and the democratization process in Nigeria's Fourth Republic. The second hypothesis tested revealed that the calculated Chi-square value ( $X^2$ ) of 96.498 was greater than the critical value of 36.415 at ( $p > 0.05$ , hence, we concluded that, there is a relationship between structure and internal functioning of political parties and the democratization process in Nigeria's Fourth Republic. The third hypothesis was raised to examine whether or not there is a relationship between political parties activities in the fourth republic and the upholding of democratic culture and practice. The calculated Chi-square ( $X^2$ ) value of

66.626 was greater than the critical value of 36.415 at ( $p < 0.05$ ). The research result revealed that there is a significant relationship between the activities of the political parties of Nigeria's Fourth Republic and the upholding of democratic culture and practice. Based on the research result, it was discovered that (i) the Nigerian democratic terrain was filled with undemocratic politicians who lack commitment to rules and principles, (ii) the internal governance system of political parties are weak as a result of the lack of internal democratic system and (iii) democracy is not advanced by political parties in Nigeria as a result of politicians unfulfilled campaign promises. The thesis therefore concluded that political parties in Nigeria's Fourth Republic are incapable of performing the functions expected of them to strengthen Nigeria's democratization process, as a result of lack of genuine progressives or real democrats who are committed to party principles, philosophy and democracy. The thesis therefore recommends amongst others that political parties should undergo internal social revolution to develop an ideology/philosophy that will guide their campaigns and prevent indiscriminate gale of defection, encourage an open system that will allow membership participation and discourage god fatherism, promote internal party discipline that will encourage internal arty democracy, electoral laws should lay great emphasis on proper conduct of primary elections, and the Independent National Electoral Commission should be allowed to use electronic voting devices for all elections. (498)

**OKE, Christiantus Ifeanyi**  
*PG/11/12/206123*

**AN ASSESSMENT OF NIGERIA'S FOREIGN POLICY UNDER PRESIDENT  
OLUSEGUN OBASANJO'S ADMINISTRATION, 1999-2007**  
**Ph.D. in Political Science (2017) 162 pp.**

The study is an appraisal of Nigeria's foreign policy under the administration of Olusegun Obasanjo from 1999-2007. It further evaluated the underlying factors that shaped and continued to shape previous foreign policy objectives and the fundamental problems confronting Nigeria's polity prior to Obasanjo's emergence. That is to say, the study embraced the local factors that influenced Nigeria's foreign policy under President Olusegun Obasanjo. It further examined the image crisis that Nigeria suffered and the debt encumbrances the nation was enmeshed in before 1999. Also, the study examined the administration's general economic policy using the vehicle of 'shuttle diplomacy' to drive its foreign policy thrust. It considered the influence of personality on the management of external policy. Moreover, the key achievements of Obasanjo's foreign policy in respect of domestic economic growth, political stability, regional security, and global involvement formed the central theme of this research. This work is basically a descriptive research which employed a historical design and therefore, centered on the examination of historical data about Nigeria's external policy during the democratic reign of President Olusegun Obasanjo from 1999-2007. It utilized the history and origin of

Nigeria's foreign policy to trace the core principles and tenets of Obasanjo's foreign policy regime. Using qualitative technique of obtaining and analyzing data generated from secondary sources, it brings to light the gradual but definite transformation that occurred in Nigeria's contemporary foreign policy arena such that one could assertively speak of a paradigm shift during the administration under study. The study used the realist theory of politics as its theoretical framework of analysis which allowed the researcher to appreciate the basic and overall interest of nations and statesmen in the practice of world politics and external relations in the contemporary era. It observed that Nigeria was almost a Pariah state without any regards for her and her citizens among the comity of civilized nations. The study showed that previous regimes especially the military juntas were rascally in the execution of national issues, human rights, economic policies and foreign relations, etc, which eventually turned around to make Nigeria reclusive. It recommended that strengthening mutual and multiparty investment relations are crucial for Nigeria to attract more FDI in its new refocused shuttle diplomacy that should be handled by a team of reputable diplomats via foreign missions. It maintained that a re-classification of Nigeria's foreign policy targets has, therefore, become imperative in the contemporary global politics in order to bridge dissonance between foreign policies and expectations. It submitted that the goal-values of her foreign policy ought to be reconstructed to include what Nigerians as individuals intend to gain specifically from the nation's enduring strategic, economic and political diplomacy. That is to say, Nigerians' welfare and alleviation of mass poverty must be seen as the nation's foreign policy priority, and by implication, Nigerians should be taken as the centre-piece of the Nigeria's foreign policy. (476)

**EKPOBEDEFE, Ovwovoro Benson**  
**PG/03/04/9/10/6776**

**OIL AND THE UNDERDEVELOPMENT OF THE NIGER DELTA REGION OF NIGERIA (2000-2014) (2017) 260PP**

This Thesis "Oil and the Underdevelopment of the Niger Delta Region of Nigeria" (2000-2014) is intended to showcase the Niger Delta region rich in oil reserve as an amazing paradox. The general objective is to establish the relationship between the huge oil wealth and the region's underdevelopment, to find an explanation for the area's acute poverty, to determine the role played by the multinational oil companies, the Capitalist/Elites and to find out why past development efforts has not produced the desired result. The method of study is Historical relying mainly on secondary data for the study. The Theoretical framework adopted for this study is the Marxist Theory which centers essentially on Class Rule. The secondary data are supplemented by data obtained from Focus Group discussions, observation, oral history, interviews and comments. We analyzed data on the basis of the research questions guided by the preliminary

consideration of sifting, sorting, coding and transcription. By way of contributing to knowledge, the study posited that the underdevelopment of the region has been facilitated by the forces of imperialism, that the degradation of the area is a paradox of the internalization of the European / American imperialism. Similarly, that the Niger Delta problem threw up Modern/ Traditional elites who are bent on crumbling the zone. We also observed that prior to the ascendancy of oil as the nation's mainstay, the revenue allocation formula accorded high premium to what accrued from the regions to the center. Part of our contribution is that natural resources are distributed according to the number of local governments meaning that priority is not accorded areas which produce the resources amongst others. This study suggests that efforts at the environmental sustainability of the Niger Delta should be encouraged while fiscal federalism, increased funding and an all embracing partnership should take center stage. It also recommends that the Transnational Oil Companies should be more responsive to their corporate social responsibility obligations, while the issue of governance should be more transparent and responsive at the federal, state and local government levels respectively. (339)