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SUSTAINABLE REALITIES FOR SUSTAINABLE HUMAN DEVELOPMENT IN EDUCATION

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Abstract
Problems and challenges facing the developing countries including global drive to address imbalances in gender equality, protection of women and children, human capacity development to meet the challenges of the 21st century and global environmental problems. Others are diseases, lack of sanitation, famine and lack of employment, constitute the biggest challenge. Since the aims of any country include the improvement of the quality of life of all citizens, a number of measures taken are aimed at improving the quality of life of all people in the country through sound education. This paper highlights challenges faced by the education sector in the Province of KwaZulu-Natal, in its efforts of human development. It reports on the ideas of a variety of stakeholders in education on what needs to be done in order to realise sustainable human development in education.

Background Information
This paper is based on the recommendations that emerged out of a week’s conference, held in the Province of KwaZulu-Natal, South Africa. The aim of the conference, which was sponsored by the Negro College Fund through Chicago State University working in collaboration with the tertiary institutions in KwaZulu-Natal, was to
engage in open discussion around issues of sustainable human development in Education. Conference attendees consisted of people from all walks of life, that is, both highly educated as well as ordinary citizens, all of whom are stakeholders in education. The paper captures the issues which were underscored by participants as the most crucial to address in order to enhance sustainable human development in education.

What makes the paper interesting is that it reports on the ideas of stakeholders in education on what needs to be done in order to realise sustainable human development in education. A variety of stakeholders in education consisting of school teachers, university lecturers, Further Education and Training lecturers, community members, headman of rural areas, officials of the ministry of education, and indigenous knowledge practitioners, all met for a week to discuss what led to the title of this paper, “Sustainable Realities for Sustainable Human Development in Education.” The paper discusses briefly the ideas that emerged from collaboration of these stakeholders. The education stakeholders were in the conference referred to as “The Education Team (TET). In the conference were other stakeholders discussing issues of rural development and their emphasis was on informal education.

Introduction
A number of problems and challenges face the developing countries, including South Africa. These include a global drive to address imbalances in gender equality, protection of women and children, human capacity development to meet the challenges of the 21st century and global environmental problems. The existence of these problems along with other major problems, such as diseases, lack of sanitation, famine and lack of employment, constitute the biggest challenge. Since the aims of any country include the improvement of the quality of life of all citizens, a number of measures taken are aimed at improving the quality of life of all people in the country through sound education. In South Africa, these problems may be exacerbated by our immediate past of apartheid which left a huge back-log in the education of Black people. While we have to move quickly away from the imbalances of
the past, we also have to simultaneously try and deal with the current challenges of massifying schooling and access to Higher Education, without compromising quality. This paper highlights challenges faced by the education sector in the Province of KwaZulu-Natal, in its efforts of human development.

According to Fensharm (1999), environmentally concerned people have expressed alarm at the shortening of what was originally “ecological sustainable development”. The phrase had been coined in a meeting on Science and Technology for Human Development in Bucharest, Romania in 1974. There had been overwhelming and obvious evidence that the world’s resources had been misused or that the biosphere was being seriously damaged. This would of course impact negatively on the quality of life of all living things. There is no simple way of defining sustainable development, but here we shall adopt the definition put forward by O’Donoghue and Cosack (2008: 5) in their consumable Citizenship. Network, which states that:

*Sustainable Development is an ongoing comprehensive social process of change that makes it possible both to protect the current generation’s quality of life and to safeguard future generations life options.*

Sustainable Development involves learning how to make decisions that consider the long term future of the economy, ecology and the well being of all communities. The key task of education is to build among learners the capacity of such future orientated thinking.

It is clear that development aims at improving the quality of human life. Development should enable South Africans present and future citizens to realise their potential and lead lives of dignity and fulfilment. This has been one of the joys of the demise of apartheid, people regained their dignity. Development ought to materialise in the quality of life of all citizens improving in terms of a long and healthy life, access to education and access to the resources needed for a decent standard of living.

This paper cannot cover a fully representative number of issues of sustainability, but will address a few that the authors of the paper
felt are important in South Africa. There is no doubt that education plays a central role in the idea of sustainable human development. The definition of sustainable development refers to the world that we are inhabiting now which will also be inhabited by future generations, all these people need to be conscious of the importance of the concept of sustainable human economic and social developments.

**Parental Involvement in Education**

Human development transcends the classroom, it requires parental involvement. Unfortunately, in South Africa the role of the parents particularly in Black schools has been very minimal. A culture that says it is the role of the teacher alone to educate the learner has evolved. The spirit of close support for the school and the learners unfortunately disappeared during the apartheid days. The democratic government of South Africa realised that without the support of the parents, schools would not be successful. The School Governing Bodies (SGBs) were formed to assist school managers in seeing to the welfare of learners and educators. It has been very clear that for schools to run properly and to deliver on the promise of effective learning, this requires parental involvement. There is a need for a national push for parent participation in learners’ education. Parents, for instance, can be invited to serve as class volunteers or in other initiatives that get them involved in the learners education.

When the new subject technology was piloted in school in KZN, the parents were excited in seeing useful products that were made by learners. Some parents volunteered to help, for instance, with woodwork activities, with sewing, etc. This is the kind of enthusiasm that parents should show across all learning areas so that learners can realise that what they learn at school is affirmed by their parents. Parents believed that relevant education should, like technology, the new subject, equip learners with basic skills necessary to understand, explore and judiciously exploit the physical environment and its resources.

Writing on science and technology education for sustainable development, Ameh and Anegbe (1999) stated that sustainable human development is concerned about intra-and inter-generational
maximisation of potential capabilities, and distributional equity, with respect to natural resources. In Africa it is true that some parents are illiterate and so participation in literacy programmes must be encouraged. The school needs to be an educational centre which empowers communities around it. The whole community therefore, becomes a learning community. The learners get an environment that nurtures education and encourages learners to learn. We all know that schools provide the organisational environment for systematic, formalised teaching and learning in areas in which they are located. Schools form a structure that relates learners, local communities and educators, and this shows how complex schools are.

Coming to the issue of human development during the early stages of school, our contention is that parent involvement leads to the development of the child and also motivates the school to function at a higher standard by constantly improving practices. Research has proved that when parents value education and show it through encouraging their children and supporting the school, the students realize the importance of the school and learning. Bryan and Smith (2001) maintain that the typical organisation of the 21st century needs to be knowledge-based organisations composed largely of specialists who direct and discipline their own performance through organised feedback from colleagues, parents and education department.

Schools in South Africa, especially in historically Black areas, face serious problems in involvement of parents in education. The communities break into schools steel doors, computers and science equipment. The valuing and protection of the school has long gone. Dealing with these problems requires a change of mind-set and attitudes of educators and parents. Many of the schools in rural areas show clear signs of breakdown in structures and processes: malfunctioning administration, loss of authority among educators and principals, poor time management, disinterest, apathy, lack of motivation and poor communication with stakeholders in education (Moloi, 2005).

Clearly, in such conditions it will not be easy to lay a good foundation for future learning among the learners. The potential for learners in such conditions to reach their life goals is short-circuited.
The parents or communities around the school are not to blame, and challenges facing school-community collaboration efforts can be outlined as follows:

- Low education and illiteracy among communities.
- Parents working long hours.
- Fear for safety where parents have to attend evening meetings.
- Single parents who are unable to attend school activities.
- An uninviting atmosphere that parents experience when they enter the schoolyard.
- Negative attitude of principals and teachers towards parental involvement.
- Cultural and language barriers, for example, the use of English and Western cultural practices in schools attended by predominantly Black learners.
- Parents themselves experiencing problems such as alcohol and drug abuse, stress and illnesses that prevent them from becoming involved in school activities.

As seen from the list above, there are challenges faced by both schools and communities in establishing sound relationships between schools and parents. However, for the sake of the proper education of a Black child, these obstacles have to be overcome. Rogan (2003), reporting on the lowering of standards of learning in Mpumalanga, another South African province, states that on testing the science knowledge of Grade nine learners, they found that the knowledge of the learners was at grade 4 level. Such learners also have aspirations to enter university education or other Higher Institutions of learning at some stage, but partnership between the parents and the school just cannot be overemphasized for Human Development.

Eptpine (2004) discusses a framework of six types of parental involvement as follows:

- Parenting - which help all families establish home environments to support children as students.
• Communication - which has to do with designing effective forms of school-to-home and home-to-school communications about school programmes.
• Volunteering - where the school recruits and organize parent help and support.
• Learning at home – which provide information and ideas to families about how to help students at home with homework and other curriculum-related activities, decisions and planning.
• Decision making – which include parents in school decision, developing parent leaders and representatives.
• Collaborating with community – identify and integrating resources and services from the community to strengthen school programmes, family practices, and student learning and development.

A lot needs to be done to convince communities about the vital role they can play in their local schools. Obviously, a lot needs to be done to train, educate and change mindsets and attitudes of the members of communities so that they can contribute positively towards education of their own children.

**Continuous Professional Development of Teachers**

Professional development can be defined as an integrated set of organized and sustained measures designed to enhance the teaching profession within a context of school policy, organisation and culture ([http://nr.ca.org](http://nr.ca.org)). Professional development measures include strategies to improve educators' theoretical competencies, their ability to apply theory to solving educational problems, their research skills as well as their classroom skills and practice.

Whether a teacher is well qualified or not, there is a need for continuous professional development to keep abreast of new developments in one’s discipline. In-service training (INSET) aims at upgrading the status of practising teachers to the level where they become experts in their disciplines. Like all other governments, the South African government is concerned that learners must learn effectively. Successful learning of the learner is judged by the learners
successfully matriculating at grade 12 with a high thoroughput of students qualifying to enter universities. Present levels of pass rates at schools and Higher Education Institutions leave much to be desired.

A well known educationist in South Africa commenting in the *Sunday Tribune* of the 4th January, 2009 about the grade twelve results said, “No amount of verbal semantics will hide the fact that South Africa’s broken education system is in need of thorough review”. Since the introduction of Outcomes-Based Education in 1994 before the educators were well grounded into the new philosophy of teaching, the culture of effective teaching/learning has been falling apart in South Africa.

It also seems that *ad hoc* poorly designed in-service courses for teachers have not delivered a more efficient and well prepared workforce. It is, therefore, recommended that when the national agenda mandates curriculum changes, the government must ensure that adequate training is available for educators. This must not be a once off training as we see happening, but continuous professional development.

According to Sayed (2001), there are many reasons why in-service training of teachers has become a subject of much concern. One of the reasons is that there is a growing emphasis on external accountability and demonstrable learners’ achievement has caused many governments to confront what teachers do in their classrooms after initial training.

In South Africa, various in-service courses are run by government national and provincial education departments, non-governmental organisations and institutions of higher learning. The main purpose of in-service training particularly for Black teachers is to improve their content base and their pedagogical competence in the delivery of subject matter. The content base of educators trained under the apartheid system is in most cases wanting, because apartheid education was engineered to offer inferior education to Blacks.

The Faculties of Education at the Universities of Zululand and KwaZulu-Natal are presently playing a role of in-servicing educators in rural areas in mathematics, science and technology. Other similar efforts are being carried out in other provinces. In time, we hope that
every classroom in rural areas will be manned by well qualified educators, well versed to deliver the prescribed curriculum. The quality of education in any country is determined by the quality of its educators.

In South African Universities, there is presently a hot debate on whether it is sustainable to allow non-certificated people to teach teachers. In schools, it seems that there is appreciation that people who teach should have been schooled into understanding how people learn, how to deliver content and strategies to use to enhance successful learning.

At university level, competence in mediating content is not necessary, anybody with a higher degree can teach teachers irrespective of their competence. There has been an outcry from the government of a high failure rate of students in general, including those enrolled to be teachers. However, there is a vicious cycle of student teachers who have been taught by people who have no clue about teaching and have been very poor models of teaching. The student teachers complete training and become poor teachers who perpetuate rote learning modes of teaching emphasized during their student days by professionally unqualified lecturers. There are people who are now arguing that competent role models of teaching are essential if we are to produce competent teachers. Some pro-active universities now require lecture to take a module on facilitation.

“Sustainable professional development” means that educators must attend workshops that address their professional needs on a regular basis. The present in-service workshops are not accessible to all those who need them and thus are not sustained. Educators in rural areas seemed affected by poor access to in-service programmes. This absence of access, works against continuous professional development. It is, therefore, recommended that all educators particularly those in rural areas must have access to professional development opportunities, like urban educators to ensure they remain current in the content and teaching fields and are equipped with the appropriate pedagogical knowledge and skills to deliver content.

It was also recommended that all educators, either through pre-service or in-service programmes, should learn about equity pedagogy
which will empower them with knowledge about ways that facilitate the academic achievement of learners from diverse racial, cultural and social class groups. This recommendation came with reference to new developments in South Africa where former separate or ethnic schools have now been integrated across racial lines.

**Science and Mathematics are for Everyone**
In the times we live in which are dominated by rapid changes in science and technology, everyone needs to be able to debate about important issues that involve science and technology. Every human being deserves to possess a certain measure of scientific literacy so that he/she can make informed choices, for instance, about managing HIV/AIDS, diabetes or any other disease or problem. Seaver and Walhof (1999), argue that everyone deserves to share in the excitement and personal fulfilment that can come from understanding and learning about the natural world. A dominant theme in science conferences has been that without a sound science education programme, a country cannot achieve any break-through in its economic development.

Sjoberg (1996), states that learners need to learn science as a process because this approach helps learners to learn how science functions not only in the developed world but also in their lives as ordinary people. Science needs to be learned in a manner that contextualises science with the world view of the learners. If science is only learnt as a product, as it happens in many schools in rural areas because of poor resources and inadequately qualified teachers, learners are encouraged to memorise without understanding content. The result is very poor mastery of scientific concepts and consequently poor examination results. Educators in rural areas in particular need to be assisted with mastery of content and pedagogical skills so that they can become not only experts competent in the teaching of science, but also enjoy science.

The scenario of teaching science in poorly resourced schools with unqualified educators also happens in the teaching of mathematics. Educators teach mathematics as though it had no link to real life. Students are basically prepared for the next class. Writing on making changes in the teaching of mathematics, Wilson and Padron
(1994), posit that mathematics is an area of study that is rich in culture and applications. The author further states that mathematics is a creation of people and has been shaped by their needs, politics, perspectives and efforts to interpret nature. These interesting aspects of mathematics are never revealed in classrooms. School mathematics is often presented as a static body of knowledge to be mastered for an examination, leaving it devoid of character and supporting the erroneous idea that mathematics is for the elite.

In terms of sustainable development, the government and higher education institutions have an enormous task of providing a more culture inclusive mathematics teacher education in-service and pro-service programmes to help educators prepare for this task. A start could be made with the new Learning Area, Mathematical Literacy for educators.

Shan and Bailey (1994), also state that one result of colonialism and imperialism was the suppression of the culture and science of the third world peoples. Methods of counting adopted by our ancestors are never talked about in classes. Black learners never get affirmation of their culture in the classroom. This method of teaching promotes an inferiority notion of Black people. There is a need that in the teaching of mathematics, educators should show that mathematics is the product of the thinking and achievements of all peoples in the world.

For learners in rural areas, the issue of role models and positive motivators about the importance of learning science is crucial. In reality, there are very few black role models of scientists, but with proper training in science and technology education, educators can act as role models of what science is about. Educators can act as reliable sources of information about science careers. They can also inspire the learners and help them to understand and develop a positive “I can learn science and succeed in doing so” attitude. The role of science and technology in the socio-economic development of a nation is well known. It is, therefore, important that as a matter of sustainable development efforts, the under representation of historically disadvantaged learners in hard core sciences be corrected, because when students matriculate without science or very poor symbols, their aspirations to enter science and technology fields are compromised.
The results are that such learners cannot enter into lucrative well paying careers. This is hardly a recipe for sustainable development in the country.

Quality Assurance in Higher Education and in Schools
In a paper which explored different approaches to quality assurance and to institutional audit of teaching and learning, Lucket (2003) states that quality implies excellence and that a service or a product is considered to be of high quality if it achieves its purpose effectively and efficiently and in so doing satisfies its customer. The new position of government in South Africa is that quality assurance has to emphasize internally driven quality assurance moving away from past bureaucratic quality control procedures that were manipulated externally. It is, however, still true that quality assurance in teaching education must have a dimension that is external to the institutions themselves, for example, through peer review by other institutions of Higher Education. The most valued part of quality assurance is internal institutional commitment to the improvement of educational quality by all stakeholders. The desired position is for institutions to take ownership of quality assurance activities because this would lead to sustainability on issues of quality assurance.

In the past, many South Africans were denied access to quality education, and quality assurance has been linked to the efforts of transforming apartheid education system, and open up access more broadly to quality education and training for all. Accreditation of programmes offered to students is therefore to make sure that no student is offered inferior education.

The Education Team recommended that to ensure quality assurance in higher education and in schools, an integrated quality management system which analyses and reflects on human resources and their needs should be implemented. Every person teaching school learners and/or preparing future teachers should be a qualified teacher. It is tough validation of qualifications that strengthens external and internal accountability structures of the education delivery system. In summary, it was stated that the ratio of learners to educator and rationalization for staffing formula, norms and standards regarding
staff qualifications, adequate books and materials, curriculum disseminated, language mode of instructional delivery and general infrastructure inequities must be addressed to ensure quality assurance.

### HIV and AIDS Awareness Programmes

Writing in a book entitled, *Black Death: AIDS in Africa*, Hunter (2003), states that in Africa today HIV and AIDS has intertwined with crippled economic and social development to rip society apart along every conceivable dimension. The author also stated that teachers were drying faster than they can be trained. In the province of KwaZulu-Natal, she said, one fifth of the college students were HIV positive. Indeed, stakeholders in education have seen students dying before or soon after completing their training. It was emphasized that there is a need to strengthen awareness programmes within schools to address poor school attendance due to learners taking on the roles of parent caretakers and also to respond to increased risks and rise in mortality rates among educators and learners. The collaboration between parents or communities and the school will facilitate discussion groups for teachers and parents to exchange dialogues on HIV and AIDS issues and the community.

### Conclusion

This paper has highlighted a number of issues that will impact either positively or negatively toward sustainable human development in education. There is no doubt that good and competent teachers particularly in mathematics science and technology will contribute significantly to the development of any country. Heptinstall (1996) writing on people's perceptions of science and technology stated that:

> The quality of life afforded by a society is directly and positively related to the extent to which people understand and effectively use existing science and technology, as well as creatively develop new technologies, while taking into account key scientific, economic, social and ecological aspects.
It is therefore important for all citizens including learners, to develop action competence to actively participate not only in solving environmental problems but also positively addressing issues that will enhance the development of each individual’s potential to serve the country to the best of his/her ability.

When a country invests in education, it is a productive investment, because an educated labour force is a source of productivity. (Castells, 1998:5), states that to be educated means nothing if the educated ones do not enjoy good health, decent housing, psychological stability, cultural upliftment and cultural fulfilment. Education means nothing if it does not put food to the table, provide one with good health system and sustain one's living standards.

References


EFFECT OF A COGNITIVE TRAINING PROGRAMME ON SECONDARY SCHOOL STUDENTS’ CREATIVE THINKING SKILL

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Abstract
The study examines the effect of a Cognitive Research Trust training programme on secondary school students' creative thinking skill. The sample consisted of 142 subjects. Of this number, 72 were experimental while 70 were for control groups. Two hypotheses guided the study. Instrument used for data collection was Creative Thinking Test (CTT). Analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance. The findings revealed significance difference in the mean performance in favour of the experimental group. The findings have also shown that female students performed significantly better than the male students on creative thinking test.

Introduction
In the beginning, human problems were not as varied and complex as they are today. Constant changes at the individual, social, economic, educational, political, and business levels of the society have generated many problems which require creative ideas for solution (Akinboye, 2004). Harris (2002) opines that creative thinking that is out of the
ordinary is to be used in order to contend with the changes in the society.

According to Boulden (2002), creative thinking is acceptable ideas and ways of doing things in order to find new solutions or concepts. Be aware of the obstacles that stand in the way of the creative impulse and understand the benefits that creative thinking can bring. To Harris (2002), creative thinking is a systematic problem-solving tool. To Akinboye (2004), creative thinking is the most fundamental of all human resources and skills. This is because the quality of thinking determines the quality of human future. Creative thinking enables human beings to get the most out of experiences and resources. It also propels organizations, catapults careers, and generates potent growth. Without creative thinking, man is not able to make use of information and resources available.

Snell (2000), notes that creative thinking contributes to the acquisition of information, and is essential in the application of knowledge to personal and professional problems. He adds that countries that invested in their creative potentials have achieved a lot of economic and technological growth, wealth and development. If not applied, it will suppress creative desire, which is inborn. It may also lead to actual breakdown of personality and development. Similarly, Akinboye (2003), remarks that a basic principle of development is the empowerment of citizens of a society through constructive and creative thinking. Arinzechukwu (2007), asserts that creative thinking is called for when scheduling meetings, planning for tourism, any form of writing, and establishment of relationships.

Generally speaking, Osborn (1999), maintains that all professions call for creative thinking. For instance, the practice of medicine is a continual challenge to creative thinking. Doctors who serve children have a special need for imagination in relating to their patients. Lawyers certainly have to think up strategies and foresee what their adversaries will say. In the military profession, strategies and tactics all depend on creative thinking. Farmers also could feel similar impact of creative thinking. A creative farmer would not only produce in large quantity, but would also make sure his farm produce is qualitative. This suggests that the most important thing any country
can do to assist the development of her citizens is to teach them creative, innovative, and constructive thinking.

There are a number of personality traits that are associated with creative thinking. Akinboye (2003), notes that creative people are sensitive to aesthetic stimuli and beauty in man, and their nature. They also appreciate the beauty man has made and think of different ways of appreciating situations. They do not hide their emotional feelings about a thing or situations and are usually outwardly expressive of what they have to say. Baron (1969), looks at creative individuals as free to see the world in unconventional ways. Whatever their outward appearance may be, they are nonconformists in their thinking, and they are often so in behaviour, and they are quite likely to disregard social rituals. They would rather spend their time in creating something than in playing social games.

Crutchtfiel (1961), found creative people to be more flexible and fluent, and more unique in perception, cognition, beauty, analytical, and perceptually open than the general population. Cattel (1959), using a factorial analytic approach discovered that creative individuals demonstrated ego, strength, dominance, self-sufficiency, sensitivity, introversion and radicalism. Mackinnom (1965), using California Psychological Inventory (CPI) found that creative architects emerge as self-confident, aggressive, flexible, self-accepting, little concerned with social restraint or others opinions, and strongly motivated to achieve primarily in those situations with independent thought and action rather than conformity. According Mackinnon, highly creative people stress their inventiveness, assertiveness, independence, perceptiveness, individuality and determination. Being more self-accepting, creative people are able to speak frankly and in an unusual way about themselves. Their openness allows them to struggle with the opposite nature, strive for a more effective reconciliation, tolerating increasing amounts of tension as they strive for creative solution to problem.

Creative thinking involves a set of learnable programmes for working with ideas and solving problems. One of the programmes is Cognitive Research Trust (CoRT). According to De Bono (1995), this programme is a package that is designed specially for use in direct
teaching of creative thinking skill in schools. CoRT provides a framework where emphasis is placed directly on thinking. It also offers a selection of specific and deliberate thinking skill. It is now widely in use in Australia, Canada, New Zealand, Japan, United States of America, South Africa, Italy, United Kingdom, Philippines, and Russia. It was first written in 1974 and revised in 1993, 1994, and 1995. It teaches creative thinking skill through the use of thinking tools in a formal, focused and deliberate manner. The aims of CoRT training programme are:

- To provide a framework where emphasis is placed directly on teaching thinking.
- To encourage students to view thinking as a skill that can be learnt and practiced to see their own improvement in confidence, fluency and focus.
- To encourage students to learn specific thinking skill that can be transferred to other situations.

CoRT training programme is in six groups of ten lessons. These groups include: Breadth, organization, interaction, creativity, information and feeling, and action. Evidence abound that Cognitive Research Trust training programme has been useful in fostering creative abilities in students. For example, a study was carried out by Edward and Clayton (1989), on the effect of teaching a group of 12-years old in their last year of primary school. All sixty (60) lessons of the CoRT programme (two lessons a week for thirty weeks. Both the teacher and the headmaster, who regularly took the class, reported impressive benefits. The teacher discovered that her teaching style became more interactive. She now uses group work more often and she knew her students and their thinking at a much deeper level than ever before in thirteen years of teaching. The headmaster confirmed the teacher's observations and noted that students exhibited more responsiveness and more confidence in their thinking than any group he had taught.

Creative thinking is also influenced by gender. There is consistent evidence on gender studies that in many cultures men and women differ (Schuilkin, 1999). For example, some scholars of Idoma
studies like Ode (2002), Okpeh (1999), have variously confirmed that, men seem to think more creatively than women. Those women do not possess enough quotient of intelligence to receive and critically process information and arrive at meaningful decision. In this way, the men think that they need to watch and guide the women all the time.

According to Ortner (1990), girls are often treated as inferior and are socialized to put themselves last, thus, undermining their self-esteem. This discrimination against girls starts from the earliest stage of life through childhood and into adulthood. Discrimination and neglect in childhood can initiate a lifelong deprivation and exclusion from the social mainstream. In many cases, girls start to undertake heavy domestic activities at a very early age and are expected to manage both educational and domestic responsibilities, often resulting to poor scholastic performance and an early dropout from school.

A report from world conference on women 1995 has also shown that the percentage of girls enrolled in secondary schools remain insignificantly low in many countries of the world. Girls are often not encouraged or given the opportunity to pursue scientific and technological training and education which limits the knowledge they require for daily lives, employment opportunities and their contributions to the challenges of the 21st century. The report also revealed that women are less encouraged than men to participate in the social, economic and political functioning of the society, with the result that they are not offered the same opportunity as men to take part in decision-making process. With this stereotype in the society, not all her members will be able to express their creative abilities.

It is established that in most cultures, women are not allowed to take part in social, economic and political functioning of the society, yet advance in science and technology pose new problems for individuals and society. Whether an individual likes it or not; whether an individual chooses to be a mute spectator or an active participant, the fact remains that his environment is changing. Under this changing condition, simple conformity to the past may lead to unresolved problems. The changes therefore, place a lot of challenges on the individual's ability to think and make meaning out of his rapidly changing society. Despite this challenge, conventional method is still
the major means of enhancing creative thinking ability that is inherent in a normal classroom interaction.

There is obviously the need to foster creative thinking in every human being. However, in all developing societies like Nigeria, women seem to be undervalued. They have fewer opportunities to express their creative abilities. Thus, the females developed low-self esteem. In most ages, girls fall behind boys in the classroom. Would training have a different meaning for female students because their roles in the society are different from that of the boys?

**Purpose of the Study**

The main aim of the study is to determine the effect of a Cognitive Research Trust CoRT.5 training programme on secondary school students' creative potential. Specifically, it sought to:

1. Determine the difference in the mean performance between experimental and control groups based on creative thinking test.
2. Ascertain if there is difference in the mean performance between male and female students based on creative thinking test.

**Hypotheses**

The following hypotheses are formulated to guide the study:

1. There is no significant difference in the mean performance between the experimental and control groups based on creative test.
2. There is no significant difference in the mean performance between the male and female students based on creative thinking test.

**Design of the Study**

A Quasi-experimental design was used for the study. The population of this study consisted of all 15,327 SS II students in 235 secondary schools. Simple random sampling was used to select four secondary schools. In each of the school, an arm of SSII students was selected simple random sampling. One hundred and forty-two students...
constituted the sample. Out of this number, seventy-two students from two schools formed the experimental group, while seventy from the other two schools formed the control group. The instrument used for data collection was Creative Thinking Test. The researcher adopted Cognitive Research Trust (CoRT.5) training programme by De Bono as an instructional programme for the study.

**Experimental Procedure**

*Week 1:* The researcher visited sampled schools to enable her introduce herself to staff of the schools and to seek for support. In these schools, some teachers were trained as research assistants.

*Week 2:* In the second week of the training, each research assistant was asked to stand before the researcher, and teach the programme. The essence of the teaching was to see that necessary corrections are affected, also to see how each assistant will prove mastery of the skills involved in what they are trained on.

*Week 3:* The researcher met with the students. In this meeting, the researcher delivered a short address on creative learning and teaching intact classes were selected, and research assistants administered Creative Thinking Test (CTT) on both subjects. Thereafter, the experimental group was subjected to training of creative thinking skill. The control group only depended on conventional method of enhancing creative thinking skill in a normal classroom interaction. From weeks 4-12, research assistants taught all the lessons. After the treatment, creative thinking test was administered again to the two groups.
Results

Table 2.1: One-way Analysis of Covariance (ANCOVA) of Student’s Scores on Creative Thinking Test (CTT) by Group.

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Sum of squares</th>
<th>Df. square</th>
<th>Mean</th>
<th>F. Ratio</th>
<th>Sig.</th>
<th>Decision at 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>31.268</td>
<td>1</td>
<td>31.268</td>
<td>276</td>
<td>600</td>
<td>NS</td>
</tr>
<tr>
<td>Group</td>
<td>336312.080</td>
<td>1</td>
<td>336312.080</td>
<td>974 296</td>
<td>000</td>
<td>S</td>
</tr>
<tr>
<td>Error</td>
<td>15732.310</td>
<td>139</td>
<td>113.182</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>291275.000</td>
<td>142</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*S=Significant at 0.05 level

In order to test hypothesis one, a one-way Analysis of Covariance (ANCOVA) is used as shown in table 1 to compare the effectiveness of Cognitive Research Trust (CoRT on treatment and control groups. The independent variable was CoRT training programme and the dependent variable was scores on Creative Thinking Test (CTT) administered after the intervention was completed. Participants' scores on the pre-intervention administration of the test were used as the covariate in this analysis. After adjusting for pre-intervention scores, the result indicates that there is significant difference in the mean score of treatment and control groups on Creative Thinking Test, F (1,139) = 296.974, P = .0005.

This suggests that there is no strong relationship between the pre-intervention and post-intervention on Creative Thinking test. Given this effect, it is not surprising that creative thinking skill leads to exploration of novel, original and new ideas for problem solving. Thus, the null hypothesis of no significant difference in the mean performance between experimental and control groups based on creative thinking test is rejected.
Table 2.2: *A two-way Analysis of Covariance (ANCOVA) of Students Scores on CTT by Group and Gender.*

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean squares</th>
<th>F. Ratio</th>
<th>Sig</th>
<th>Decision at 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>22.130</td>
<td>1</td>
<td>22.130</td>
<td>.205</td>
<td>.651</td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>33313.560</td>
<td>1</td>
<td>33313.560</td>
<td>308.673</td>
<td>.000</td>
<td>S</td>
</tr>
<tr>
<td>Sex</td>
<td>566.420</td>
<td>1</td>
<td>566.420</td>
<td>5.248</td>
<td>.023</td>
<td>S</td>
</tr>
<tr>
<td>Group/sex</td>
<td>353.777</td>
<td>1</td>
<td>353.777</td>
<td>3.279</td>
<td>.072</td>
<td>NS</td>
</tr>
<tr>
<td>Error</td>
<td>14785.733</td>
<td>137</td>
<td>107.925</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>291275.000</td>
<td>142</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*S=Significant at 0.05 level  
**N=not significant at 0.05 level

In order to test hypothesis three, a two-way Analysis of Covariance (ANCOVA) was used as shown on Table 4. The results indicate that there is significant difference in main effect of Cognitive Research Trust training programme on females and males in the experimental group with F (1,137) =308.673, P = 0.5. The results revealed that females performed significantly better than the males in creative thinking test with F (1,137) =5.248, P = .023 (less than .05). Therefore, the hypothesis, which states that there is no significant difference in the mean performance between the males and females on creative thinking test, is rejected.

**Discussion**

The results have shown that Cognitive Research Trust training programme is a credible tool for enhancing creative thinking skill. The findings agree with the findings of Osborn (1999), who reported that removal of blockages by creative thinking training increases one's creative performance. The findings study could be related to the results obtained by Akinboye, (1976), Owolabi, (1988), and Olagunji, (1990) who reported that trained subjects performed better than the untrained subjects. In another study, Vangudy (1999), found that his study of a five-week exposure of Cognitive Research Trust training programme,
produced positive results as it was rated as being worth doing and as having positive effect on the students' thinking skill.

The findings of the study are also consistent with that of Edward and Clayton's (1989) findings on effect of teaching a group of 12 years old, in their last year of primary school. All the sixty (60) lessons of Cognitive Research Trust training programme were taught. They reported that the teacher who regularly took the class noticed impressive benefits. In the finding, she discovered that the teaching style became more interactive. The headmaster of the school also confirmed the teacher's observation and noted that the students were more confident in their creative abilities than any group he had taught. The finding is similar to research findings reported by Black (1992) that graduate students of creative problem-solving problems classes at University of Buffalo were paired against comparable students who had not had these classes. The treatment class emerged ninety-four (94) percent better than those who received the conventional method to produce fresh and useful ideas.

The prevalence of experimental group in creative thinking test could be that the method emphasized repetition, and incorporated review and encouraged that the students should reach mastery level before advancing to the next task. It could also be due to the fact that the treatment groups were provided with the relevant materials, activities and careful step-by-step procedure. This could have given them the opportunity to employ investigative processes of learning and interaction with class members. This could also facilitate their understanding and retention of what has been taught. It could also mean creative thinking is a teachable and learnable skill.

Findings obtained in the present study indicate that there are statistically significant differences between males and females on creative thinking performance. The females performed better than the males. The findings are consistent with the findings of Kim and Michael (1995), which revealed that the Korean High School females had exhibited a higher average level of performance on Verbal Visual Creativity Test than the males.

The findings of this study also agree with Osborn's (1999) findings that most housewives work out their imaginations more than
most husbands do. That the man's job is usually routine, while the woman is on her own, almost every hour of the day. The finding is also consistent with that of Magenson (1985), which revealed that when wartime workers were thinking up so many ideas, women won the limelight. For example, Bernice Palmer was featured in life for having thought up to eight devices to speed up production of engine parts.

Another study carried out at a class in creative thinking for high school seniors, revealed that girls showed forty (40) percent superiority in fluency of ideas over boys (Tucker, 1996). In another study, Osborn (1998), reports that in the course of more than one thousand brainstorm sessions with the firm of Batten, Barton and Durstine, women consistently averaged more ideas than their male counterparts.

A critical look at the result reveals that the females had a significant edge over the males. This finding is surprising because the consistent evidence on gender studies have shown that males performed better than the females. One possible reason why the females performed better than the males could be that men and women are similar in cognitive ability than they are in other areas. This is in line with the findings of Stumpf and Stanley (1998), who reported that there are no gender difference in achievement and many school subjects, from English literature to psychology, but there are some areas in which women excel and others men excel. On the average, women perform better than men in a range of language skill, verbal and fine motor skill. Whereas, men perform better than women in Mathematics and social studies. Yet most of these gender differences are quite small.

Agreeing with the view Friedman and Schustack (1999) add that too often when gender differences are found, they are magnified. For example, a researcher might report a study that 84 percent of men had high achievement expectation, while only 77 percent of women did, and go on to talk about the differences in their achievement expectation. In reality, this might be a small difference that would disappear if the study were repeated.

A similar research finding is reported by American Association of University Women (SSUW, 1991), which revealed that for elementary students, gender differences in science achievement test
grade do not exist. Gender differences only begin to emerge in the middle school, and become solidified at a higher level. Brusselman - Dehairs and Henry (1994) also found out that differences in results in sciences according to gender are more important at the higher level than at the lower level. This differences they further stated that are consistently greater at the end of schooling.

Another reason could be that, females are only inferior to males in musculation, but not in imagination. In fact, the Johnson O' Foundation in Osborn (1998), reported that from 702 creative aptitude test that the women average was twenty-five (25) percent higher than that of males. The females' prevalence could suggest that they actually prepared well. Therefore, their success could be attributed to hard work. But men attribute their success to intelligence ability.

It could also be attributed to the fact that the male students were more inclined to conventional method or to their roles in and out of the classes, even though the test instruction asked the students to make their work as clear and unusual as possible. It could also be that the females were so curious to use creative thinking skill in problem solving.

**Conclusion and Recommendations**

Based on the findings of this study, the following conclusions are drawn and recommendations made:

1. Creative thinking as a process could be significantly improved by stimulation with some appropriate thinking tools in a conducive and rewarding environment.
2. The findings recorded a significant difference in the mean performance between the males and females on creative thinking test. The females performed better than the males. In spite of this difference, there is an improvement in creative thinking skill of the males.

**Hence the results of the study have shown that:**

1. Exposure of students to Cognitive Research Trust training programme improved their creative thinking skill, emphasis should therefore be on equipping students with necessary
creative thinking techniques by their teachers and parents in an environment that is rewarding and conducive.

2. Men and women should work together with the children and youth to break down general gender stereotype taking into account that creative thinking potentials are found in all children irrespective of sex.

3. Federal and states Ministries of Education as well as schools should embark on organizing seminars, workshops and conferences on the importance of creative thinking skill. This is necessary because some practicing teachers may not be familiar with creative thinking techniques. Again, creative thinking should become a teaching subject in Nigerian secondary school education system.

4. There is also a great need for Nigerian psychologists, creative thinkers, and counsellors to devote more time to developing more tools that can be used in identifying several aspects of creative abilities, and enhancing them.

References


TEACHING AND LEARNING METHODS IN AGRICULTURAL EXTENSION FOR DEVELOPMENT

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Abstract
Extension is a social intervention that involves the conscious use of information dissemination methods to help a people, community/nation form sound opinions and make good decisions. Agricultural extension service is the appointment of itinerant lecturers/teachers to travel around to inform and show small farmers how to improve their production and how to get the best from their production. During the 20th century the focus was on national food security and the impact of extension was on transfer of technology. Then the concept changed as a result of the declining trend of the world food prices to developing the farmers’ skill. To address farmers’ problems and needs, a lot of approaches have been developed of which all teaching should (usually) be carried out according to the needs and resources of the local community or group. Agric extension services are established for the purpose of changing the knowledge, skills, practices and attitude of masses of rural people, schools, health services in order to empower them, and bring about a positive improvement in their live style and economic activity which will yield a developmental change for their immediate family, community, state and the nation.
Introduction

“Study” or studying involves devoting time to observe something to an extent that you are able to achieve a tangible gain or meaning or result from such devoted observation. It could also be applying the mind to learning and understanding a subject (especially by reading).

“Learning” is the process by which an individual through his own activity attains a change in his behaviour. It is an active process on the part of the learner. The essential role of extension workers is to create effective “learning situations”

“Teaching” means leading people to learn. It is a process of arraying situations in which the things to be learnt are brought to the notice of the learners. Their interest is developed and desire aroused such that they are stimulated to action which brings desired change in their behaviour (Williams et al., 1984; Adereti, 2008). For example, farmers can be taught the use and advantage of chemical fertilizers and use of smoking kiln by conducting a kind of demonstration on their field showing them fertilizer application and use of smoking kiln, and later comparing the yield of the fertilized crop with that of the unfertilized crop and product of introduced kiln compared to the local way. After seeing the beneficial effect of the techniques, the farmer is convinced and motivated to action by adopting them.

“Extension” is the act or process of extending. Extension is an educational process of bringing about the maximum number of desirable changes among the people, which involves both learning and teaching and needs some tools or methods commonly known as extension teaching methods.

Study in extension could be of two broad types namely: (a) Adoption Study i.e. to estimate the level to which various farmers or fisherfolk have adopted the technology introduced to them, (b) Impact Study i.e. to estimate the positive gain or contribution this new technology has added to the livelihood, economic life, social life, etc. of the farmers or fisherfolk the technology was transferred to.

Extension could also be in form of study supports, like what obtains on the internet for various groups of study, e.g. seminary extension, where seminary courses are available for study through extension centres (both live classrooms and live cyber classes on the
internet) and independent study (via correspondence, CDROM, etc.). It is also in form of satellite campuses in some parts of the world, all in the bid to extend opportunities in time and place to facilitate the learning of the young and old alike.

It is, therefore, necessary here to understand what is meant by learning, teaching and extension teaching methods. The essential role or main aim of an extension worker is to create effective learning situation in such a way that it brings about a change in the behaviour of the people with the help of a judicious combination and use of different elements. All teaching should (usually) be carried out according to the needs and resources of the local community or group.

**Agricultural Extension**

Extension is basically an educational function. Its job may vary considerably from country to country, but without exception it will be expected to inform, advice and educate in a practical manner. Agricultural extension is an out-of-school system of education for teaching farmers on how to raise or improve their standard of living by their own efforts using their own resources through provision of scientific knowledge to solve their problems (Williams, 1989; Adedoyin, 2000).

It is a two-way process of taking proven improved technologies from research to farmers and bringing farmers problems back to research for solution. The solution developed by research is in turn passed back to farmers. The crucial role of agricultural extension is, therefore, to create and sustain the research-extension farmers’ linkage.

Agric extension services are established for the purpose of changing the knowledge, skills, practices and attitude of the masses of rural people, schools, health services, regulatory agencies, churches, buyers of agricultural products, suppliers of production requisites and many other institutions and services are often involved in activities affecting rural people. Although, extension is one of the components supporting development, it is also supported and affected by the quality of agricultural research (Swanson, 1984). Agricultural extension focus does not end with the principles and process of extension, but its effectiveness for achieving the goal of rural and
urban development (Olawoye, 1999). This goal can be achieved through extension delivery methodologies.

**Extension Teaching Methods**

The extension teaching methods are the tools and techniques used to create situations in which communication can take place between the rural people and the extension workers. They are the methods of extending new knowledge and skills to the rural people by drawing their attention towards them, arousing their interest and helping them to have a successful experience of the new practice.

An effective learning situation requires the following essential elements.

1. An instructor (an extension worker e.g. an extension officer or village level worker )
2. Learners (the farmers, the farmwomen and youths)
3. Subject matter (the recommended improved practices such as the seeds of high yielding varieties, fertilizers, balanced diet, etc)
4. Teaching material-Flannel board, charts, chalkboard, models, samples, slides,
5. Physical facilities-sitting accommodation, good visuals, etc.

**Classification of Extension Teaching Methods**

**A. According to Use**

One way of classifying the extension methods is according to their use and nature of contact. In other words, whether they are used for contacting people individually, in groups or in masses. Based upon the nature of contact, they are divided into *individual*, *group* and *mass-contact* methods.

*Individual Contact Methods-extension Methods:* Provide opportunities for face-to-face or person-to-person contact between the rural people and the extension workers. These methods are very
effective in teaching new skills and creating goodwill between farmers and the extension workers.

**Group-Contact Methods:** The rural farmers or people are contacted in a group which usually consists of 20 to 25 persons. These groups are usually formed around a common interest. These methods also involve a face-to-face contact with the people and provide an opportunity for the exchange of ideas, for discussions on problems and technical recommendations and finally for deciding the future course of action.

**Mass/Community Contact Methods:** An extension worker has to approach a large number of people for disseminating new information and helping them use it. These methods are more useful for making people aware of the new agricultural technology quickly.

Important extension-teaching methods under these 3 categories are listed in Table 3.1.

**Table 3.1: Classification of Extension Teaching Methods According to Their Uses.**

<table>
<thead>
<tr>
<th>Individual Contact</th>
<th>Group Contact</th>
<th>Mass Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm &amp; home visit</td>
<td>Method demonstration &amp; result demonstration</td>
<td>Bulletins</td>
</tr>
<tr>
<td>Office calls</td>
<td>National demonstration, Leader training meetings</td>
<td>Leaflets</td>
</tr>
<tr>
<td>Telephone calls</td>
<td>Conferences &amp; discussion meetings workshops</td>
<td>Circular letters &amp; Radio</td>
</tr>
<tr>
<td>Personal letters</td>
<td>Field Trip</td>
<td>Television, exhibition, Fairs, posters.</td>
</tr>
</tbody>
</table>
A. According to form

Extension-teaching methods are also classified according to their forms, such as written, spoken and audio-visual. Some of the important methods under each of these 3 categories are given in Table 3.2.

Table 3.2: Classification of Extension-teaching Methods According to Forms.

<table>
<thead>
<tr>
<th>Written</th>
<th>Spoken</th>
<th>Objective or visual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulletins</td>
<td>General &amp; special meeting</td>
<td>Result demonstration</td>
</tr>
<tr>
<td>Leaflets, folders, news articles</td>
<td>Farm &amp; home visits</td>
<td>Demonstration posters</td>
</tr>
<tr>
<td>Personal letters</td>
<td>Official calls</td>
<td>Motion pictures or movies, Charts</td>
</tr>
<tr>
<td>Circular letters</td>
<td>Telephone calls, radio</td>
<td>slides &amp; filmstrips, models, exhibits</td>
</tr>
</tbody>
</table>

Educational Methods for Extension Programme

In Extension we deliver education to our target audiences using a non-formal structure that allows more flexibility and options in the way that we teach. Another benefit of the non-formal structure is that creativity and innovative education methods are encouraged. There are a host of educational methods available to use in teaching Extension educational programmes. One way of determining which method to use for a given programme is to examine the purpose of your educational session. For example, there are certain methods that are better suited for teaching new information to your target audience, while other methods are better for reinforcing or expanding their current knowledge of the topic.

Types of Methods

Experiential: These methods allow the audience to gain experience with the information being taught. It involves hands-on activities that utilize the senses. These methods are excellent for teaching new
information. Research suggests that the more the audience can interact with the information being taught, the better they will learn and retain the information. Some experiential methods are given in Table 3.3.

**Table 3.3: Some Experiential Methods**

<table>
<thead>
<tr>
<th>Case study</th>
<th>On-farm test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field day</td>
<td>Practicum</td>
</tr>
<tr>
<td>Games, role play</td>
<td>Play</td>
</tr>
<tr>
<td>Interactive CD</td>
<td>Demo skits</td>
</tr>
<tr>
<td>Interactive video/audio</td>
<td>Tour</td>
</tr>
<tr>
<td>Interactive workshop</td>
<td></td>
</tr>
</tbody>
</table>

**Reinforcement**: These methods reinforce learning and provide motivation for continued learning. They also reinforce information that you have already taught or that learners already know. Some reinforcement methods that are well suited for Extension are given in Table 3.4:

**Table 3.4: Some Reinforcement Methods that are well Suited for Extension.**

<table>
<thead>
<tr>
<th>Articles (EDIS/journal/etc.)</th>
<th>Newsletters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspaper articles</td>
<td>Fact sheets</td>
</tr>
<tr>
<td>Fax or e-mail messages</td>
<td>Notebooks</td>
</tr>
<tr>
<td>Home study kits</td>
<td>Posters</td>
</tr>
<tr>
<td>Leaflets or flyers</td>
<td></td>
</tr>
</tbody>
</table>

**Integrative**: These methods allow the learner to clarify, discuss, and gain a greater understanding of the information, and integrate new...
information with existing information. The learners gain increased in-depth knowledge of a topic. Some integrative methods are given in Table 3.5.

Table 3.5: Some Integrative Methods.

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brainstorming</td>
<td>Seminar</td>
</tr>
<tr>
<td>Buzz group</td>
<td>Symposium</td>
</tr>
<tr>
<td>Conference</td>
<td>Teleconference</td>
</tr>
<tr>
<td>Convention</td>
<td>Telephone TA</td>
</tr>
<tr>
<td>Forum</td>
<td>Personal visit</td>
</tr>
<tr>
<td>Institute</td>
<td>Office visit</td>
</tr>
<tr>
<td>Meeting</td>
<td></td>
</tr>
<tr>
<td>Panel</td>
<td></td>
</tr>
</tbody>
</table>

**Extension in Development**

True development, according to Okonjo (1990), must mean the development of human being, the unfolding and realization of everyone’s creative potential, no matter their gender, as this will enable them to improve their material conditions of living through the use of resources available to them through teaching. It is clear that development does not start with goods and things; it starts with people, both male and female - their reorientation (via training, learning and teaching methods), organization (as a people or group) and discipline (individual/communal).

**Summary and Conclusion**

A large variety of methods can be used to deliver Extension education programs. Primarily, the type of method used will be based upon the special needs and interests of the target audience. A secondary, but nonetheless important, consideration is the purpose of the education. This paper highlighted the best methods for teaching new information (experiential), reinforcing and motivating learning, as well as expanding existing information. Regardless of the method chosen, proper planning and creative implementation are key to successful programming and development of the individual or group and country at large.
Rural development is, therefore, a complex process in which various response options to rural problem situations need to be carefully studied. It requires thorough analysis of the situation at hand and should always involve all major stakeholder groups concerned. Rural development can only be promoted not only in terms of economic growth but also in terms of environmental sustainability, administrative efficiency, participation and empowerment of the people and/or community and eventually the nation as a whole.

According to Food and Agricultural Organisation, FAO (1996), a reshape of food security with greater focus on household and individual food security will improve the incomes of small-scale farmers. As a result, more countries, like Nigeria, are refocusing their attention and resources on improving rural livelihoods to achieve food security and improve the quality of life of rural families at the household level. Increasing farm income and rural employment can have immediate and direct impact on increasing food security at the household level.

References


www.krishiwold.com

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KNOWLEDGE MANAGEMENT UTILIZATION IN HUMAN CAPITAL DEVELOPMENT IN NIGERIAN UNIVERSITIES

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Abstract
This study used a survey design to investigate the utilization of Knowledge Management (KM) in Human Capital Development (HCD) in Universities. A sample of 400 lecturers and a 25-item instrument (KMUQ), were used for the study. Three research questions and one null hypothesis tested at 0.05 level of significance, guided the study. The data were analysed using means, standard deviation and t-test. It was found that KM was poorly utilized in HCD in academic programmes and personnel management. Difficulties and inadequate facilities constitute problems to KM utilization. Exchange programmes and staff training in KM utilisation were recommended.

Background of the Problem
Knowledge is the most important factor of production, especially in the area of human capital development (HCD). The era of advanced technology has brought a new world where knowledge is not only power but also wealth. The most needed labour force today is those with appropriate knowledge and knowledge management skills.

Knowledge, being the key factor of production, has become the focus of today’s economy because, as observed by Babalola (2008:42), the “provider of knowledge is an indispensable fuel for the
engine of development.” This explains why the university is very significant in human capital development. Following the World Bank (2002) reactions and recommendations, it became clear that knowledge has placed universities at a strategic position in HCD.

Human capital development is the economic value of the knowledge, experience, skills and capabilities of effective workforce within an organization (Daft, 2003:750). In this paper, HCD refers to high level manpower production. It means the production of graduates and post graduates of various disciplines to man the national economy. HCD also implies manpower development. The three terms are interchangeably used in this paper.

Knowledge Management (KM) has various interpretations. Biriam (BO) (2008) perceives KM as a discipline that seeks to improve the performance of individuals and organizations by maintaining and leveraging the present and future value of knowledge assets. KM involves identification, creation, capture, representative, distribution use and reuse of knowledge (Onwurah and Chiaha, 2008:286). Petrides and Nodine (2003) identified KM as the practice that assists in data sharing and information. According to Friehs (2001), KM is the coordination and organization of personnel in an establishment in internal and external sharing of knowledge.

From the above deductions, it should be realized that KM is much more than data collection, processing, and exchange of information. It ties together activities connected to knowledge capital, knowledge economy, knowledge workers and learning (Onwurah and Chiaha, 2008:287). Basically, KM offers a framework for balancing a myriad of technologies and tying them into a whole, explained Birian (BO) (2008). Bleiklie (2005) noted that KM unites intellectual practices and cultivates channels for knowledge flow. The above suggest that the use of KM in universities is very apt in the production of the much needed skilled high level manpower.

HCD in Nigerian universities is governed by three basic ideologies identified by FME (2003), in Babalola (2008:8), as Idealism, Mechanistic Determinism and Voluntarism. Idealism considers universities as autonomous entities and so HCD is supply-
driven. The mechanistic determinism perceives universities as part of the overall society. Being a subsystem of the society, universities cannot effect necessary social changes without the society carrying them along. Voluntarism contends that universities produce manpower for national development and international competitions and so should respond to global changes and challenges.

The two groups of lecturers in Nigerian universities are the senior academicians comprising of Professors, associate Professors or Readers and Senior Lecturers. The other is the junior academics consisting of Lecturer I, Lecturer II, Assistant Lecturer and Graduate Assistant. These academics have the onerous task of producing the much needed high level manpower in the universities. The two major managerial issues in HCD in universities which form the basic ingredients for this study are the Academic Programme and Staff & Students Personnel Management. These are usually the major functions of the academics.

Statement of Problem

There have been serious complaints on the quality of Nigerian graduates. It is observed, that they cannot fit into the current labour market, such that despite acute shortage of skilled manpower, there is still very large-scale graduate unemployment in Nigeria. This situation seems to have worsened due to advanced technology which the current labour market demands. Consequently, a production conflict arose between Nigerian universities and the federal government, leading to the loss of millions of dollar credit facility from the World Bank in 1990.

While universities blame the government for lack of provision of adequate teaching and learning facilities in universities for HCD, resulting to a supply-driven manpower production, the federal government accuses universities of producing unemployable graduates. Universities in the South Eastern geopolitical zone of Nigeria are worse hit in inadequate facilities and graduate unemployment, implying that the situation may be more precarious in the zone. This governs the choice of this zone for this study.
As the conflict between universities and federal government continues, graduate unemployment increases in the face of the numerous advantages of KM in HCD. One, therefore, wonders how universities in Nigeria are utilizing KM in their very essential role of high level manpower production. The problem of this study put in question form is, how are Nigerian universities utilizing KM in HCD?

**Purpose of Study**
This study attempted to investigate KM utilization in Human Capital Development in Nigerian universities. Specifically the study investigated KM utilization in:
1) Academic Programme Management;
2) Staff and Students Personnel Management and
3) The problems facing KM utilization in universities.

**Research Question**
The following research questions guided the study:
1) How is KM utilized in Academic Programme Management?
2) How is KM utilized in staff and students Personnel Management?
3) What are the problems facing KM utilization in Human Capital Development (HCD) in Universities.

**Hypothesis**
One null hypothesis was tested at 0.05 level of significance as follows:

Ho: There is no significant difference between senior and junior academics/lecturers as regards problems facing KM utilization in HCD in universities.

**Significance of the Study**
The finding of this study will assist the universities in repositioning themselves appropriately in utilizing KM for academic programmes and personal management.
Scope of the Study
This study is limited to utilization of KM in universities in Nigeria. It is concerned only with how KM is used in academic programme and personnel management, as well as the problems facing universities in KM utilization. The study is also limited to only federal universities in the South Eastern geopolitical zone of Nigeria.

Method
Design: The study adopted a descriptive survey design.
Population: The population comprises of all federal universities in the South East (SE) geopolitical zone of Nigeria.
Sample: The sample consists of 400 (200 senior and 200 junior) academics/lecturers selected by multistage sampling from two (50%) federal universities in the SE, comprising of 200 (100 senior and 100 junior) academics/lecturers from each university.
Instrument: The instrument used for this study is a 23-item Knowledge Management Utilization Questionnaire (KMUQ), developed by the researcher. This consisted of three clusters, apart from section I, which was for demographic data. The items for the clusters on KM Utilization in Academic Programme and Personnel management were placed on a 4-point scale of Highly Utilized (HU); Averagely Utilized (AU); Poorly Utilized (PU) and Very Poorly Utilized (VPU). The items of the cluster on problems in KM utilization were placed on a 4-point scale of Strongly Agreed (SA); Agreed (A); Disagreed (D); Strongly Disagreed (SD).

The researcher and three research assistants properly trained by the researcher, administered the KMUQ. All the 400 (100%) instruments administered were returned. The instrument was face-validated by the experts – one in educational evaluation and two from educational administration. For internal validity and consistency the Chronbach Alpha was used to establish a reliability coefficient value of 0.87 after a pilot study, conducted in one federal university in the SW zone.
Data Analysis: The data were analysed using means, standard deviation and t-test for testing the null hypothesis. For clusters one and two on utilization of KM, the decision levels are as follows:

<table>
<thead>
<tr>
<th>Means:</th>
<th>Decision Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5 and above:</td>
<td>Highly Utilized (HU)</td>
</tr>
<tr>
<td>3.4 - 2.5:</td>
<td>Averagely Utilized (AU)</td>
</tr>
<tr>
<td>2.4 - 1.5:</td>
<td>Poorly Utilized (PU)</td>
</tr>
<tr>
<td>1.4 and below:</td>
<td>Very poorly Utilized (VPU)</td>
</tr>
</tbody>
</table>

The criterion mean of 2.50 was used in accepting and rejecting the items that constitute and did not constitute problems in KM utilization respectively.

Result

Table 4.1: Mean Rating and Standard Deviation of Lecturers in Utilization in Academic Programme.

<table>
<thead>
<tr>
<th>S/No</th>
<th>Questionnaire Items</th>
<th>Responses</th>
<th>N=400</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Teaching student on-line</td>
<td>1.90</td>
<td>1.11</td>
</tr>
<tr>
<td>2.</td>
<td>Organization of workshops/conferences</td>
<td>2.56</td>
<td>0.96</td>
</tr>
<tr>
<td>3.</td>
<td>Research works</td>
<td>2.94</td>
<td>0.93</td>
</tr>
<tr>
<td>4.</td>
<td>Dissemination of research findings</td>
<td>0.92</td>
<td>1.11</td>
</tr>
<tr>
<td>5.</td>
<td>Supervising students research/projects</td>
<td>2.68</td>
<td>1.09</td>
</tr>
<tr>
<td>6.</td>
<td>Networking with staff of other institutions</td>
<td>2.04</td>
<td>1.13</td>
</tr>
<tr>
<td>7.</td>
<td>Student course work</td>
<td>2.50</td>
<td>0.97</td>
</tr>
<tr>
<td>8.</td>
<td>Student seminars / project defence</td>
<td>2.00</td>
<td>1.12</td>
</tr>
<tr>
<td></td>
<td>CLUSTER</td>
<td>2.32</td>
<td>1.06</td>
</tr>
</tbody>
</table>

Cluster mean decision level =2.32 = Poorly Utilized (PU)

Table 4.1 shows that KM is *Highly* and *Very Poorly Utilized* in none of the items but, *Averagely Utilized* in items 2,3,5, 6 and 8 while *Poorly Utilized* in items 1,4, and 7. The Cluster Mean is 2.32 and decision level shows that KM is Poorly Utilized in Academic Programme Management in HCD in universities.
Table 4.2: Mean Rating and Standard Deviation of Lecturers in Utilization in Personnel Management.

<table>
<thead>
<tr>
<th>S/No</th>
<th>Questionnaire Items</th>
<th>Responses</th>
<th>N=400</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Staff Recruitment</td>
<td>2.04</td>
<td>1.13</td>
</tr>
<tr>
<td>10.</td>
<td>Staff Discipline</td>
<td>1.90</td>
<td>0.11</td>
</tr>
<tr>
<td>11.</td>
<td>Students Admissions</td>
<td>2.62</td>
<td>1.02</td>
</tr>
<tr>
<td>12.</td>
<td>Evaluation/Examination of Students</td>
<td>2.12</td>
<td>1.07</td>
</tr>
<tr>
<td>13.</td>
<td>Release of Student result</td>
<td>2.08</td>
<td>0.98</td>
</tr>
<tr>
<td>14.</td>
<td>Students Affairs Matters</td>
<td>2.04</td>
<td>1.13</td>
</tr>
<tr>
<td>15.</td>
<td>Staff Development</td>
<td>3.10</td>
<td>0.87</td>
</tr>
<tr>
<td>16.</td>
<td>Online Communications with Staff and Students</td>
<td>1.09</td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td>Cluster Mean</td>
<td>2.20</td>
<td>0.93</td>
</tr>
</tbody>
</table>

Cluster mean decision level = 2.20 = Poorly Utilized (PU)

Table 4.2 shows that KM is Highly and Very Poorly Utilized in none of the items but, Averagely Utilized in items 11 and 15 while Poorly Utilized in items 9, 10, 12, 13, 14, and 16. The Cluster Mean is 2.20 showing a decision level that KM is Poorly Utilized in Personnel Management in HCD in universities.
Table 4.3: **Mean Rating and Standard Deviation of Problems Facing KM Utilization in Universities.**

<table>
<thead>
<tr>
<th>S/No</th>
<th>Questionnaire Items</th>
<th>Responses</th>
<th>N=400</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.</td>
<td>No Idea what KM is all about</td>
<td>2.12</td>
<td>1.07</td>
<td>Reject</td>
</tr>
<tr>
<td>18.</td>
<td>KM is too costly for me</td>
<td>2.84</td>
<td>1.05</td>
<td>Accept</td>
</tr>
<tr>
<td>19.</td>
<td>There are inadequate facilities for KM</td>
<td>3.32</td>
<td>1.01</td>
<td>Accept</td>
</tr>
<tr>
<td>20.</td>
<td>I like to keep my research word confidential</td>
<td>2.66</td>
<td>0.95</td>
<td>Accept</td>
</tr>
<tr>
<td>21.</td>
<td>I don’t like to share my discover with others</td>
<td>2.14</td>
<td>1.02</td>
<td>Reject</td>
</tr>
<tr>
<td>22.</td>
<td>I need further training before I can use KM</td>
<td>2.84</td>
<td>1.05</td>
<td>Accept</td>
</tr>
<tr>
<td>23.</td>
<td>KM is difficult to use in Human Capital Development</td>
<td>3.38</td>
<td>1.00</td>
<td>Accept</td>
</tr>
</tbody>
</table>

**Decision Level:** Items with $\bar{X} \geq 2.50$ are problems

Table 4.3 indicates that items 18, 19, 20, 22, and 23 have their means greater than 2.50 and are therefore considered problems facing KM utilization while items 17 and 21 have their means belows the criterion mean of 2.50 and therefore Not considered problems.
Table 4.4: t-Test Analysis on the Significant Difference between the Mean Rating of Senior and Junior Lectures with regard to Problems Facing KM Utilization in Universities.

<table>
<thead>
<tr>
<th>S/No</th>
<th>Questionnaire Items</th>
<th>t-test for Equality of Means</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>t-Cal</td>
<td>t-tab</td>
</tr>
<tr>
<td>17.</td>
<td>No Idea what KM is all about</td>
<td>1.86</td>
<td>1.96</td>
</tr>
<tr>
<td>18.</td>
<td>KM is too costly for me</td>
<td>0.29</td>
<td>1.96</td>
</tr>
<tr>
<td>19.</td>
<td>There are inadequate facilities for KM</td>
<td>0.00</td>
<td>1.96</td>
</tr>
<tr>
<td>20.</td>
<td>I like to keep my research word confidential</td>
<td>2.40</td>
<td>1.96</td>
</tr>
<tr>
<td>21.</td>
<td>I don’t like to share my discoveries with others</td>
<td>2.14</td>
<td>1.96</td>
</tr>
<tr>
<td>22.</td>
<td>I need further training before</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I can use KM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>KM is difficult to use in Human Capital Development</td>
<td>1.44</td>
<td>1.96</td>
</tr>
<tr>
<td></td>
<td>CLUSTER</td>
<td>1.41</td>
<td>1.96</td>
</tr>
</tbody>
</table>

(Accept) P < 0.05; df=398; NS= Not Significant; S = Significant

Table 4.4 shows that there is a significant difference between the mean ratings of the Senior and junior lecturers in items 20 and 21 but that there is no significant difference between their means in items 17, 18, 19, 22, and 23. The Cluster mean shows that there is no significant difference between the mean ratings of the senior and junior lectures with regards to problems facing KM utilization in universities. The null hypothesis was therefore accepted.

Discussion
The findings of this study show that KM is Poorly Utilized in both Academic Programme (Table 1) and personnel management in HCD in universities. This finding seems to justify the observations that Nigerian graduates are not adequately prepared for national development. As the human capital of high level manpower and future
leaders, it is very crucial that universities should gear up the use of KM in their human capital formation. Nigerians need research-oriented leaders and entrepreneurs, so universities must endeavour to use technological means especially KM, in the production of high level manpower.

Further findings, (Table 3) show that the following constitute problems to KM utilization, costly nature of KM; inadequate facilities for KM; keeping research works confidential; further training in KM; and difficulty of using KM in HCD.

The costly nature of KM may not be unconnected with inadequacy of facilities which also may be the cause of the lecturers’ difficulty in the use of KM in HCD as shown by this study. It is likely that some lecturers might want to guard their research works jealously due to the problems they face in making research discoveries and conducting empirical studies. In the face of several difficulties including lack of necessary facilities in addition to lack of appreciation and motivation, researchers are usually compelled to conserve their technical know-how, thus lack of sharing of knowledge occurs. However, the level of KM initiatives as observed by http://www.emeraldinsight.com is fundamentally predicted when workers are prepared to share their knowledge. This, therefore, implies that lecturers with relevant knowledge should be adequately motivated.

The finding that there is no significant difference between senior and junior academics suggests that all lecturers share the same view that KM utilization in HCD in universities is saddled with problems, which must be solved if the production conflict between the universities and the federal government must be resolved.

**Implications and Recommendations**
The poor utilization of knowledge management has serious implications because knowledge gets lost when it is not adequately utilized and more knowledge is gained when it is properly utilized. Consequently, Nigerian universities cannot afford to lag behind in this era of knowledge boom in HCD. The study therefore recommends that:
(1) The University staff should be highly motivated to utilize KM in HCD.
(2) Universities should train and retrain their staff to be abreast with the KM practices and initiatives.
(3) Government should try and ensure that KM facilities are available and affordable for university staff and students.
(4) University staff, especially lecturers, should be encouraged to share their knowledge through available technological means.
(5) Exchange programmers should be encouraged with advanced countries that utilize KM in their universities for HCD.

References

THE TEACHING OF THE FRENCH LANGUAGE IN POST-PRIMARY SCHOOLS IN NIGERIA: PROBLEMS AND PROSPECTS

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Abstract
In this paper, the authors look at how the French Language is taught as a subject in Post-Primary Schools in Nigeria. Highlights are made on the problems teachers and students face as regards the French Language. How can these obstacles be overcome? Are there any prospects? What are the benefits of studying the French Language?

Introduction
Language may be used for three purposes in Education: Literacy, subject and medium of instruction. Literacy, in this connection, is taken to refer either to initial literacy as an introduction to the rudiments of reading and writing or to adults being trained to read and write. The French language may be taught as a subject without any implication of its further use as a medium of instruction. But, whenever a language is used as a medium of instruction, for instance
the English Language, the implication is that it is also taught as a subject.

For a language to be introduced as a subject at the secondary level, it therefore, means that the rudiments of the language must have been taught at the primary level i.e. the students must have a good background of the language so that they can flow easily. One would notice that this is the problem of the French language in Nigeria. No wonder only a few of our students do show interest in the language.

This paper sheds some light on how the teaching of the French subject in post-primary schools can be carried out, in spite of the impediments. The writers believe that though there may be a bit of the traditional flavour, it has been tried over some years with good results.

**Problems of Teaching French in Post-Primary Schools**

*Unqualified and Inexperienced Teachers*

Any educational language policy requires for its effectiveness the availability of teachers, who must have considerable competence in the language. Competent and experienced teachers are not found in some of our secondary schools. There are still some secondary schools that do not have teachers of French and so are not able to offer the subject. Quite a number of such teachers are graduates of Colleges of Education who, though good in methodology, may not have been exposed to enough French to be able to speak it very well. The result is that many students of French in secondary schools acquire ‘book French’ - being able to read and translate, but hardly able to speak. This is a major constraint. A teacher is supposed to be a good model for imitation by the students learning the language. But, because some teachers are not experienced and trained, they cannot speak it correctly. So, students tend to perform poorly.

In secondary schools, the teacher factor is more important than the length of time used for French teaching. This is because the teacher teaching it must teach it effectively. Unfortunately, such teachers who are not competent not only teach French badly but provide a poor model for their students to imitate. The result is that at the end of a
The Teaching of the French Language in Post-Primary Schools in Nigeria: Problems and Prospects

long course of instruction in French, the level of competence attained is still quite poor.

**Lack of Materials**
Some secondary schools do not possess enough materials for teaching French while others do not even have at all. According to Brann (1969:4), “Elementary teaching materials based on French and largely urban (if not Parisian) centres of interest fail to motivate younger secondary school pupils.” Some secondary school teachers complain of lack of radio, television, video cassettes and even textbooks. There are secondary schools where students have never gone to Badagry for their year abroad or even a francophone country. Majority of our secondary schools do not even have a language laboratory where the French language can be effectively practiced orally.

**Lack of Motivation/Interest**
The negative attitude some principals adopt towards the teaching of French is also discouraging. The numbers of periods allotted to the teaching of French in the timetable may be two or three every week where English and Mathematics are taught everyday in a week. French is often added to other subjects in the timetable for example French/CRS, French/Economics, French/IRS, French/Geography, etc. This means the teaching of French takes place at exactly the same time these other subjects take place. Most of our students are found facing difficult choice. As a result, they lose interest and take other subjects.

The new policy on education insists on the teaching and learning of the three mother tongues: Ibo, Yoruba and Hausa, as national languages. It is also rumoured for the past two years that French has been made compulsory for Primary IV to SS III. Yet, today the status of French from primary through secondary school still remains the same. Today some persons do not see why French should be taught, instead of English. One notices that a lot of students who began studying French from their JS I soon become disenchanted and end up abandoning it between SS I and III. The problems of teaching and learning French are so numerous that it is easy to understand why only a few students, if any at all, always write French in some schools
in the final West African Senior Secondary Schools Certificate Examinations (SSSCE) or National Examination Council (NECO) Examinations every year.

**Recommendations**

The teaching of French is characterized by the constant use of the audio-visual methods. This is why Dehaven (1988:16) could boldly state that: “With only a little encouragement, children become curious about their language. Get in the habit of enjoying or pondering language out loud together. Watch newspapers and magazines for interesting articles related to language.”

According to Ubahakwe (1973:30):

> The Growth of Technology especially in the area of electronics has provided more precise tools for studying, analyzing and teaching the sounds of a language. It is becoming increasingly obvious that a language laboratory is an essential, if not indispensable, requirement for the effective teaching of modern languages.

From the foregoing, one would agree that a language laboratory is very important to teach French i.e. why principals of secondary schools must look inwards on how to create language laboratories with support from the government.

Ubahakwe still went further to suggest that since language is an oral activity, emphasis should be placed on teaching it so that students can acquire the oral skill at the very early stages of learning the language.

To ascertain the survival of the French language in Nigerian secondary schools, the Ministries of Education should make French compulsory from Primary IV to SS III, as was announced by the Federal Government. They should also ensure that they furnish secondary schools with audio-visual materials and good French textbooks with foreign scenes and names changed to local ones.

As Leo (1964:23), puts it:
...with other audio-visual material, the skilful teacher will be able to teach in a lively manner by making reference to the clothes his pupils are wearing, to their relative heights, to the actions they perform, and where possible to their physical and emotional needs.

Conclusion
French was introduced in Nigeria in the 60’s following the conference at Yaounde in 1961. This conference recommended the teaching of French in Nigerian secondary schools as a second foreign language, English being the first. For the fact that Nigeria is surrounded by French speaking countries, learning French is the first step to ease communication with her neighbours. And, if Nigeria must quickly be developed scientifically and technologically, it will be necessary to encourage the teaching and learning of French in schools. No country can speak of technological transfer without paying attention to the instrument of learning which is language.

This paper has given some prospects and benefits of studying French in Nigerian secondary schools. It has also exposed some of the problems of teaching and learning French in Nigerian secondary schools, and made some recommendations on how to overcome them.

References
SCHOOL-BASED FAMILY COUNSELING: A NEW PARADIGM

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Abstract
This article has to do with the mental and physical health of students and advocates a new model that is more effective than what we have at present in taking care of the students. This model is called School-Based Family Counseling (SBFC). The meaning of SBFC is explained and the author examines the related literatures from Alfred Adler’s point of view to school counseling, school psychology and social services to buttress his claim. Three quarters of the literature reviewed showed that incorporating Family Counseling and School Counseling will go a long way to alleviate student’s personal problems, teacher-student problems, parent-student problems, student-peer problems, teacher-parent-student problems and even parent-grandparent-student problems. This does not mean that there are not many obstacles on the way to accomplish this goal, for example man-power training, costs, acceptance in the schools and parents presence on site (School).

Introduction
Nigeria does not have school counseling in primary schools and only a skeletal counseling in post primary levels. There is the very urgent need to introduce School-Based Family Counseling (SBFC) in nursery, primary, and tertiary levels of education. There is still more of this need in the nursery and primary levels, since emotional problems usually rear up at those stages of development, and the sooner they are tackled the saner the society we shall have. The guidance and counselors are at present inadequate in number to deal with the
problems of children in post primary schools. Yet, the traditional school counseling model is inadequate in dealing with children who are failing at school because of family problems.

School-Based Family Counseling (SBFC) is a new approach to helping children succeed at school, and to overcome personal and interpersonal problems. It is an integrated approach, which combines school counseling with family counseling in a broad systems approach. In its classic form, it is conducted on site at the school, and the school-based family counselor is identified as a staff of the school. This is in contrast to the traditional school counseling model, in which the counselor is not trained in family counseling, and the traditional family therapy model, in which the counselor is not trained to work in school system. The school-based family counselor is trained to work with children in the context of family, school, peer and community systems theoretical orientations.

The specific skills required of school-based family counselor (SBFC) include:

1) counseling/remedial: child counseling, family counseling, group counseling, marital counseling, parents counseling and consultation, teacher/principal consultation, client assessment, children’s support groups, parent support groups and mediation between family and school;

2) counseling preventive: academic and career counseling, classroom guidance groups and classroom discipline workshops, parent effectiveness workshops, community intervention; and

3) administrative: maintaining client files/case notes, participating as school team member, acting as a liaison between child and family, school, community agencies (case manager function, child abuse reporting, referring clients for specialized treatments participating in programme evaluation and research on the effectiveness of SBFC.

Gerrard (1990), observed that over 85% of the children referred by teachers, parents, or self-referred had significant problems at home. The family problems included marital discord, parents divorcing,
substance abuse, parental neglect, older siblings involved in gangs, sexual and physical abuse, single-parents overwhelmed by economic and emotional problems, spouse abuse and chaotic families with little or no parental control. School counselors who typically have no training in family counseling are not equipped to intervene effectively in these family problems.

Furthermore, school-based family counseling minimizes triangulation (in which two family members form a coalition against a third family member who is often the family scapegoat or “identified patient”) because the school-based family counseling is not seen as a “third party” but rather is viewed as part of the school system. Because the school-based family counselor is the school counselor, he/she is viewed as an advocate for the school and the child.

The focus of counseling is on working with parents and families to help their children succeed in school. Going to school to consult with the school counselor on how to help one’s child succeed in school is something that many parents are willing to accept nowadays (especially if the counselor emphasizes that he/she needs the parents’ help). This normalizes the counseling and reframes it in a way that destigmatizes coming for counseling. As the school-based family counselor works with parents and family to help the child, trust is built which permits the counselor to eventually work on other family issues affecting the child.

Summarily, School-Based Family Counseling has two components thus: there is integration of school counseling and family counseling models in a broad based systems meta-model that is used to conceptualize the child’s problems in the context of his/her interpersonal networks: family, peer group, classroom, school (teacher, head-teacher/principal, other students) and community.

When a child is referred to School-Based Family Counselors, the child’s problem may involve one or all of these interpersonal networks. Irrespective of the level of interpersonal network affected, however, the school based family counselor will relate positively with the child’s family in order to reinforce positive change within the child.
Literature Review
The review of literature is divided into four parts:

1) The First School-based Counselor;
2) School counseling/School psychology literature advocating as emphasis;
3) Family therapy literature advocating a school emphasis, and
4) Social work and Special education literature.

The First School-Based Counselor
The earliest example of SBFC is that of Alfred Adler (Rosenberg, 1971). Adler (1920) frequently conducted family counseling interviews in school halls before an audience of teachers, mental health workers, and parents. This approach was consistent with his philosophy that a child should not be treated in isolation and that those involved with children would learn in an audience-demonstration format. We see here the elements both of a systems theory and an emphasis on prevention (through education). It could be argued that the first family counseling was conducted by Adler and that it was school-based family counseling. Other Adlerians, especially Dreikers (1958, 1965, 1968) have emphasized both school and home intervention.

School counseling/School psychology literature advocating a family emphasis
The value of a family systems approach when working with a child on school problem has been attested to by a great number of practitioners of school counseling and school psychologists (Basel, 1989, Braden and Sherrard, 1987; Bundy and Gumaer 1984; Capuzzi and 1984, Johnston and Zemitzsch, 1988; Fine & Gardner 1991; Ford 1986; Peeks 1989, 1993; Wilcoxn & Comas 1987; Carson, 1987).

Friesen (1979), calls for school counselors to embrace family counseling. Friesen was himself an early practitioner of SBFC and developed an outreach SBFC programmemeless in a school district through university-school partnerships. He recommends four basic approaches that SBFC could use for working with families thus: family life education, family enrichment, family consultation, and marital and family counseling.
Fine and Gardner (1991), contend that having a development and family systems orientation is more important for elementary school counselor than a specific set of techniques. Ford (1986), argues that because of the growing problems experienced by families and declining parent involvement in schools, learning about family counseling is a necessary next step in the professional development of school counselors, teachers, head-teachers and principals. Carlson and Sincavage (1987), made a survey of 110 members of the National Association of School psychologists and reported that family variables were seen as highly relevant to children’s school problems.

Johnson and Zemitzsch (1988), describe the dangers of school intervention programmes that focus exclusively on the individual student and ignore student’s other subsystems (family, peer, community, school). They advocate a family systems approach that addresses all these subsystems and suggest that school psychologists should begin using family counseling instead of referring students to outside agencies. Goodman & Kjonaas (1984), conducted SBFC pilot studies and concluded that school counselors with proper training can do family counseling.

The school counseling/psychology literature also contains articles describing the value of a family approach in dealing with a wide variety of specific student situations: disruptive student (Williams, 1988); gifted students (Zucchone & Amerikaner, 1986; Colangelo, 1988); step families (Medler, 1985, Poppen and White, 1984); learning disabled students (Peroza & Perosa, 1981); drinking violation (Ford, 1986); academic difficulties (Stone & Peeks, 1986); depression (Stark, BrooKman & Frazier, 1990); alienated students, developmentally immature students and parental abuse and neglect (Griggs & Gale, 1977).

Family counseling approaches used by school counselors and school psychologists include: divorce counseling with children (Bundy & Gurmaer, 1984; Prokop, 1990); parent conferences (Conrad, 1989) and conjoint family counseling (Albaum, 1990; Fine & Gardner, 1991). Some of the family counseling approaches used by school counselors and some school psychologists are eclectic systems therapy.
Sloan (1986), carried out a randomized control group study of the effectiveness of group counseling of elementary age children in combination with brief telephone consultation with parents, and found no significant differences between treatment and control groups on self-esteem or behavioral dependent measures. A weakness of the study was that traditional family counseling and parent consultation were not used and on-limited telephone contact with parents was made on a relatively short (12 weeks) period. Although both treatment and control groups showed significant improvement from pre-test to post-test, there was evidence of contamination in that three of the nine control group teachers sought consultation for problem students during the study.

Furthermore, Albaum (1990), and Stone & Peeks (1986), describe six main benefits of SBFC for schools:

1) improved academic functioning of students receiving SBFC;
2) lessening of students’ emotional and behavioral problems;
3) decreased classroom disruption of other students;
4) improved functioning of the students at home;
5) improved relationships between schools and families with children having school problems;
6) cost effectiveness.

Some of these literatures reveal several problems associated with the implementation of SBFC. Wendt and Zake (1984), discuss the advantages of training school psychologists in family dynamics and family therapy, but point out that family systems approach is complex and requires extensive course work. This has important implications for in-serving training and university curricula. Furthermore, Golden (1983), suggests that family therapy is too complex for school counselors, although school counselors can make brief interventions with functional families.

Although, literature reviewed above contradicts Golden’s (1983), position, Golden’s article indicates the importance of adequate training in family therapy for school counselors. Others contend that practicing family therapy in schools involves complex ethical issues than those encountered in private practice (Alessi, 1989). Such ethical
issues include competence, responsibility, and welfare of consumers. Holt (1989), mentions some of the obstacles on the way to the school psychologist using family counseling thus:

1) the school psychologist’s competence to do family counseling;
2) resistance to using family counseling;
3) the absence of research in SBFC;
4) difficulties in identifying the client system;
5) the complexity of system dynamics.

Moreover, more difficulties, however, associated with family school interventions include: school personnel; resisting a wider systems focus that includes the family and community; the need for school counselors to do evening work (to accommodate parents); and ethical dilemmas arising from viewing the teacher as a client as opposed to a consultee.

**Family therapy literature advocating school emphasis**

There is an upsurge in awareness among family therapists that family systems theory implies not only working with the other members of a child’s family, but also working with all the subsystems of which a child is part. Ron, Rosenberg, Melnick and Pesses (1990), observe that often family therapy alone is insufficient because the child is caught between the dysfunctional interaction at home and school. Inter-systems intervention is required in such cases. McGuire, Manghi and Tolan (1989), recommend that family therapist conceptualize school behaviour problems as part of a home-school system problem. McGuire and Lyons (1985), describe a community agency based programme to which 17 families were referred by schools because of an underachieving child. After treatment, 83% of the children in these families had improved in grades and classroom behaviour.

Additionally, Wetchler (1986), describes a macro-systemic model of family therapy treatment of school problems in which the school and family are viewed as the locus of the problem and treatment. This consists of the therapist working with the child in each subsystem separately first, and then rejoining the two subsystems in a more functional relationship.
Guerin and Katz (1984) describe five types of problems common to the family with a child experiencing school problems: emotional vulnerability in the family, conflict with a parent, conflict with a teacher or principal, an enmeshed relationship with a teacher that promotes peer resentment, and parent-teacher conflict. Moreover, there are five types of triangles that can be involved in a child’s school-related problems: parent-parent-child; parent-sibling-child; sibling-sibling-child; parent-child-teacher; and grandparent-parent-child.

Family therapy approaches used to intervene in school systems include: strategic family therapy; Behavioral (social learning) family therapy, structural family therapy (Wetchler, 1986).

Some of the difficulties in implementing a family systems therapy approach in schools are: a lack of parental cooperation and disparities between home and school behavior. It is equally pertinent to note that the family therapy literature on family-school intervention emphasizes the value of intervening in both family and school in order to help children with difficulties at school.

Social work and special education literature
Long (1988) describes the importance of understanding the families of latch-key children in order for schools personnel to help those families. Dawson and McHugh (1987) describe case studies of students whose problems are exacerbated by teacher-parent communication difficulties and give examples of how teachers can make home visits as part of a family systems approach to changing students’ behavior. In the District of Columbia Public Schools (1981), 16 students participating in the Youth in Psychoeducational Services (YIPS) programme reviewed family counseling in addition to a academic and behavioral treatment: 58% showed marked improvement on a behavior rating check list, 93% improved in reading achievement, 86% improved in spelling and 71% improved in reading.

Existing SBFC
Gerrard (2008) reported that Faculty and Staff in the center for child and family development have just completed the 10th year of a
successful school-based family counseling programme that is a University-School partnership. A survey of SBFC trainees/interns in San Francisco in 1990 suggested that 80% of clients there was a significant improvement in the presenting problem. A similar survey in San Francisco in 1995 showed the following improvement rates for clients: Classroom behavior (82%); grades (71%), at-home behavior (48%), and self-esteem (79%) (Gerrard & Perry, 1995). That a 48% improvement occurred at-home behavior was significant in view of the fact that parents were generally seen for only one to three sessions. Clearly, more rigorous research is needed to determine the efficacy of SBFC as compared to traditional school counseling. In Gerrard’s (2008: 2) words:

> In concluding 10 years of SBFC, we have found that this type of counseling is difficult but very rewarding. We are reaching families that normally do not come to community mental centers. The majority of families seen are low income and minority. About a third of the families have a history of conflict with the school and the school-based family counselors are trained to mediate and resolve this conflict so that the child is no longer triangulated between parent and/or between parent and principal.

**Conclusion and Recommendations**

The traditional school counseling model is inadequate in dealing with children who are failing at school because of family problems. Yet, Nigeria does not have school counseling in primary schools and only skeletal traditional counseling in post primary schools. This paper explains the School-Based Family Counseling (SBFC) model and contrasts it with the traditional counseling model, advocating for urgent introduction of the SBFC in nursery, primary, and tertiary levels of education.

Since, the SBFC is a new approach to helping children succeed at school, overcome personal and interpersonal problems; an integrated approach, which combines school counseling with family counseling in a broad systems approach; conducted on site at the school, and the school-based family counselor is identified as a staff of the school, it is
strongly recommended that the SBFC should be urgently introduced at all levels of the education system, especially the post-secondary levels.

References


AN ANATOMY OF BUREAUCRATIC CORRUPTION: CAUSES, SYNERGISTIC EFFECTS AND THE WAY FORWARD

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Abstract
Bureaucratic corruption has assumed alarming dimension and is sweeping most organizations in African states into various stages of unfruitfulness. This study examines the basic concept of bureaucratic organization as well as causes, types and effects of bureaucratic corruption on the organizations in the poverty-stricken sub-Saharan Africa, and concludes with some useful remarks on way forward.

Introduction
The high incidence of corruption has continued to attract growing interest and great concern. Bureaucratic organization in Nigeria is no exception to this devastating syndrome. Over the past decade, most organizations, private or public, are closed down because of the worst excess of brigandage of economic form of corruption which has obstructed the normal institutional rules and regulations. These sharp practices facilitate corner-cutting and shorten procedure even with regards to vouchers, bills or the likes.
According to Adamu (1991), corruption in Africa is mainly a problem of routine deviation from established standards and norms by public officers and operators of the multi-national corporations in their interactions with local business people and members of the public. Thus, the activities of these parties, for example, the multi-national corporations from industrial countries seeking business opportunities in Africa, should also be of interest to the researcher and corruption fighters.

**Literature Review**

Bureaucratic corruption is a universal problem in all formal organizations. The concept has received varied definitional positions. In fact, it has been over-flogged in academic circles. Bureaucratic corruption can literally be conceptualized as a change from good to bad practice or operation. This migration or deviation from the basic bureaucratic norms within an organization in regards to the implementation and execution of assigned organizational tasks is also believed to arise from greed or syndrome of egocentrism.

As *Webster dictionary* (1982), puts it, corruption is a kind of behaviour which deviates from the norms actually prevalent or belief prevailing in a given context. From the foregoing bureaucratic corruption is associated with deviant behaviours with one particular selfish motivation or another. Specifically, bureaucratic corruption involves the violation of established rules of the bureaucratic organization for personal aggrandizement.

*Webster Dictionary* (1982), describes corruption as effort to secure wealth or power through illegal mean-private gain at public expense or misuse of public power for private benefit. Corruption is also seen as behaviours which bureaucratically deviate from the normal rules of the organization. Rose A.S (1978), observed corruption being tied particularly to the act of bribery is not in order. Suffice it to say that corruption relates to misuse of power, power drunkenness, and administrative trespass as a result of individualistic gain which need not be monetary. Public office can also be abused for personal benefit even though bribery occurs through patronage and nepotism,
misappropriation and embezzlement. Bureaucratic corruption is, therefore, the main means to accumulate wealth in Nigeria.

Rozinonioz and Nolfgang (1977), would aptly have many African people see bureaucratic corruption as a practical problem to bureaucratic organization because bureaucratic corruption involves the outright theft, embezzlement of funds or other misappropriation of organization’s property, nepotism and grating of favour to personal acquaintance, and abuse of public authority.

It also positions oneself to attract undue payments and privileges. That is why Charles (1989), believed that a corrupt bureaucrat regards his office as a business from which he also has to extract illegal income. In a nutshell, the bureaucrat’s total compensation does not depend on the usefulness for the common good, but precisely upon the market situation and his talent for finding the maximal gain of public demand curve.

Odekunle (1986), observed that bureaucratic corruption also obtains in the public sector as well as in the private sector. Many formal organizations fail to realize their noble objective due to high degree of manifestation of bureaucratic corruption.

Charles (1989), opines that bureaucratic organization is human grouping constructed and reconstructed to seek specific goals. But, where there is bureaucratic corruption, the goal is often defeated under all ramifications.

**Manifestations of Bureaucratic Corruption**

Van and Weder 1997), observed that there are two broad areas where corruption thrives in private and public sector. Corruption affects efficiency and effectiveness in service. It also destroys the goals of the organization. The following are the different types of bureaucratic corruptions.

- **Embezzlement**: This is a situation where public servant prefers individualistic interest to organizational interest. Embezzlement is a means to pave way or to secure wealth through illegal means by a technocrat.

- **Misappropriation**: This is a deviant behaviour exhibited by bureaucrats specifically deviating from organizational norms...
or specifications. It is regarded as the act of defiling of designed tasks assigned to the bureaucrat.

- **Falsification of vouchers**: Falsification of amount is another wrong act, through which bureaucrats falsely satisfy their egocentric desires.

- **Inclusion of ghost names**: Top bureaucrats include the names of non-existent workers (ghost workers) in payment vouchers. This is an act of deviation and could be regarded as administrative corruption.

- **Sexual harassment**: This is a situation where senior technocrats humiliate junior workers especially the feminine gender that work with them in the same organization. Such situation occurs when the top officers use their office to threaten the female worker towards satisfying their libido feelings through seduction.

- **Bribery**: This is money given or collected in order to influence decision. This is administrative corruption.

Charles (1989), includes obtaining foreign exchange, import and export investment or production excesses or avoiding pay to taxes.

Other forms and typologies of corruption, according to Odekunle (1986), also include official corruption, which can assume many forms, depending on how the paraphernalia of government is organized or disorganized. Four types of kleptocratic state can be discerned, viz, pure kleptocratic states, bilateral-monopoly states, mafia-dominated states, and competitive-bribery states.

Yaqub shared the same view with Johnson by noting that two types of corruption are common, namely, bureaucratic and political corruption. In his opinion, these types of corruption manifest in the forms of election rigging, militancy, coups d’etat, the manipulation of the transition programmes, favour from bureaucrats through acquiring undue foreign exchange and import license, and the avoidance or reduction of taxes, or the entrenchment of the Black Market/Hoard Syndromes.
Effects of Bureaucratic Corruption
The overall effects of corruption in organization can be enormous and debilitating. As the Nigeria bureaucratic organization continues, endemic corruption can completely destroy not only the economic foundation of the organization but also poison the moral and social fabric of the state structure.

Adamu (1991), posited that corruption has led to bad road and decaying infrastructure, inadequate medical service, poor schools and falling educational standards and disappearance of foreign aid and loans and entire project without a trace (or decayed completion, leading to high costs). Corruption has meant fewer imported goods enter the country than were paid for, foreign exchange earned from exports does not get to government coffers, and repatriated national assets are run down and ruined. Production capacity in industry, agriculture and services has been reduced and repairs of buildings, equipment, vehicles, physical and social infrastructure have been paid for repeatedly but never performed.

It is obvious that corruption can harm efficiency and effectiveness of any business of bureaucratic organization. In the case of Nigeria, the effect has undermined normal functioning of bureaucratic systems under all ramifications. Effects of bureaucratic corruptions are as follows:

a. Low esteem and confidence: The external image of the organization is being undermined and rated very low.

b. Recourse mismanagement: Bureaucratic corruption has led to severe mismanagement, misapplication and diversion of funds. Examples are the Ajaokuta Steel Project, Delta Steel Project, Defence Industries Project Kaduna, Bakolori Irrigation Project and other abandoned and poorly managed projects.

c. Distortion and impediments of public expenditures: Public records are often destroyed to avert the situation of accountability. Most official records that involve misappropriation are destroyed to avert investigation.

d. Distortion and prevent administrative rules and procedures: Corruption can hamper and frustrate legal and administrative
rules in bureaucratic organizations. Rules are changed for a sudden to achieve desired benefits.

e. **Perpetuate bureaucratic problems:** Corruption helps to perpetuate other bureaucratic problems, since it links to issues of progress. There are strong indications that it may exacerbate other problems in the management of public affairs, such as inefficiency, poor performance, lack of maintenance culture and very low productivity. The cases of the Nigerian National Petroleum Corporation (NNPC), Nigerian National Shipping Line (NNSL), National Electric Power Authority (NEPA), Nigerian Telecommunications (NITEL) and the Nigerian Postal (NIPOST) Services illustrate how bad things can be in highly corrupt public organizations.

### Eliminating Corruption

Bureaucratic corruption can be mitigated. In this regard, Government should adopt strong policy against the practices of bureaucratic corruption. Since bureaucratic corruption affects the administrative mechanism and raises fundamental questions of moral and political legitimacy, declaration against bribery and corruption involving bureaucratic offers should be gazetted. This is to check the systematic rampart cases of bureaucratic corruption.

Other measures to control bureaucratic corruption is rightly opined by Odekunle (1986), as follows. There should be no single officer to handle a particular transaction from the beginning to the end. There should be separation of duties assigned to many officers. Also, top management should review payroll to ensure that only legitimate workers are in the payroll. This will avoid the inclusion of ghost workers in the payroll by accounting clerks. Control should be established over inventory management, cash disbursement and receipts of revenue.

Also, periodic reconciliation of bank account and records of cash, accounts payables, and the revenue received should be done by the top management. Against the backdrop, accounting procedure, such as central mechanism, should be adopted to reduce a syndromatic
and devastating effect of the bureaucratic corruption in our public sector.

Summary and Conclusion
This paper has established that bureaucratic corruption is a reality in most organizations. Its manifestations are seen in records, giving of bribes in any form by bureaucrats, inflation of contracts figures, false claims and gratification given to a bureaucrat with the basic union of influencing an officer to carry out his schedule of duties. This situation unfortunately attests to the fact that a public bureaucrat should not be seen as a symbol of justice that is expected to uphold a highest standard of integrity and transparency. However, bureaucratic corruption can be also controlled through proactive measures instituted through internal checks through proper division of labour to disallow a situation of one person performing and monopolizing so many roles in a bureaucratic organization.

References
Abstract

In almost every African country, the Western-oriented medical delivery system is the predominant system. This system is inefficient, dependent expansively on trained personnel, often grossly overtaxed by the level of expectations and demands placed upon it, and generally of limited relevance to the conditions and goals of the developing countries. The focus of this paper is to see how expenditure on health programmes enhances healthy human capital formation in developing economy.

Introduction

The orthodox economic theory draws a distinction between four broad categories of economic resources, namely land, labour, capital and entrepreneur. In the past days, a lot of emphasis was placed on physical capital, as the engine of growth. But, in recent times, there has been a shift in emphasis from capital accumulation in the orthodox sense to human capital formation. In other words, there is now a growing interest in human resources development per se. If we look at the orthodox classification of resources, land, labour, capital and entrepreneur, we will observe that two of these derive directly from human beings. They are labour and entrepreneurship. Labour refers to
man’s mental, physical effort, directed towards the production of goods and services. It is not the man himself that is referred to as labour but the effort emanating from him.

In the case of entrepreneurship, we note that it refers to the risk bearing ability with reference to business undertaking. Looking at this closely, we will see that the man is not the factor called entrepreneurship but rather source of this factor. The quality of any labour effort and of any entrepreneurial exercise depends very much on the quality of man. If the quality of man is raised, then we can be sure that the qualities of these economic resources tend to be raised. The quality to a large extent depends on education, health services and environmental factors. Of these three variables we tend to see how adequate health care services can enhance human capital formation.

Human development concept is all about creating an environment in which people can develop their full potential and lead productive, creative lives in accord with their needs and interests (Okafor, 2006). People are the real wealth of a nation. Development is thus, about expanding the choices people have, to lead lives that they value. Fundamental to enlarging these choices is building human capabilities - the range of things that people can do or be in life. The most basic capabilities for human development are to lead long and healthy lives, to be knowledgeable to have access to the resources needed for a decent standard of living and to be able to participate in the life of the community. In realization of the above, goals 4 – 6 of the Millennium Development Goals (MDGs) focused mainly on strategies that will bring about reduced child mortality, improved maternal health and combat HIV/AIDS, malaria and other diseases. The overall objectives of the above are the improvement on life expectancy rate. In support of the above, the National Health Policy (NHP) was officially launched and became operative in October 1988. The NHP aims at a level of health that will enable all Nigerians to achieve socially and economically productive lives. The NHP emphatically adopts the primary health care concept (PHC) as the main engine by which the goal of health for all Nigerians can be attained. With the introduction of the NHP, it becomes important for Nigeria to match her health care strategy with the reality of her health problems, vis-à-vis improvement
on human capital. No country have achieved sustained development without substantial investment in human capital (Adeniyi, 1990; Ogujiuba, 2001). Several studies have evolved to analyze the channels through which human capital can affect growth (surveys include Barro and Martin 1995). Much of this literature have emphasized the complementary relationship between human and physical capital.

Human capital development is a means to enhance the skills, knowledge, productivity and inventiveness of people through a process of human capital formation (Uwatt, 2002). Thus, human capital development is a people-centred strategy, and not goods centred or production centred strategy of development.

People are assets – in fact, a country’s most valuable assets. It is essential for human development that these assets be deployed sensibly. A defective incentive system can result in a waste of human resources and often, too, in a higher incidence of poverty and greater inequality in the distribution of income (Ogujiuba, 2007). It is not enough to use existing resources wisely; we must also add to the existing resources through human capital formation.

Therefore, there can be no significant economic growth in any country without adequate healthy human capital formation. In the past, much of the planning in Nigeria were centred on the accumulation of tangible capital for rapid growth and development, without recognition of the important role played by human capital in the development process (Dazen; 1990). This is the major concern of the paper.

**Theoretical Background**

Bocke (1953); Lewis (1954); Ramis and Fei (1961); and Keynes (1936) argue that the growth of an economy, whether rural or non-rural, is a function of capitalist investment and employment of labour. Because of the fact that capital tends to flow into sectors characterized by high rates of return and high marginal productivity of capital while labour similarly moves into a sector characterized by high wages rates, the classical and neo-classical proposition stipulates that the promotion of economic development in the rural area should involve measures which will raise the rate of return to capital investment and the earnings of labour (Essang, 1975).
But the above propositions ignore the importance of improved quality of labour as a factor in economic development. Also, the neoclassical theory of growth developed by Solow and Swan (1950), centred mostly on tangible capital formation as the driver of economic growth. However, the theory showed that because of decreasing marginal returns in substituting physical capital for labour, the accumulation of capital would not indefinitely support a steady rate of growth in labour productivity.

Then, the emergence of endogenous growth theories which broadened the concept of capital to include human capital upon which this paper is based.

Lucas (1988), considers human capital to be another input in the production function, not fundamentally different from physical capital, but only formed by workers through certain activities (principally, education or on-the-job training). A second line of analysis shifts attention away from treating human capital as a direct input to the production of goods. Instead, it focuses upon modelling other important activities pursued by skilled labour, especially innovation. Technological change resulting from research and development (R&D) investment that creates a greater variety of goods or improves the quality of the existing ones is the main form of innovation recognized by the endogenous growth theory (Romer, 1990).

Finally, Romer (1982), tries to incorporate some of the development variables like human capital into the growth framework.

**Human Capital Formation and Health Care Service**

The point here is to establish whether healthy human capital was one of the important factors in explaining economic development.

Although there are many variables that can represent human capital and health conditions of the people of a nation, to keep the analysis simple, while at the same time capturing the basic broad thrust of these two variables, this paper will focus meanly on “life expectancy at birth”.

Analyzing the health variable measured in terms of life expectancy at birth in East Asian developing countries, which
accounted for their exceptional economic development in the last three decades in terms of increasing GNP per capita income, vis-à-vis other Asian least developed countries and South Asian developing countries, one discovers an increase of over 65 times for the Republic of Korea, 13 times for Thailand and about 10 times for Malaysia compared to only a meager increase of 2 to a little 5 times for developing countries.

A cursory look at the health variable in terms of life expectancy at birth across East Asian developing, countries. Asian least developed countries and South Asian developing countries reveal the following pattern (Table 8.1):

Table 8.1: Life Expectancy at Birth for the East Asian Developing Countries, the East Asian Least Developed Countries, and South Asian Developing Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Life Expectancy at Birth</th>
<th>GNP per Capita Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian least developed countries</td>
<td>1960</td>
<td>Below 45 years</td>
<td>Below $ 200</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>1966</td>
<td>Less than 40 years</td>
<td>$ 130</td>
</tr>
<tr>
<td>Cambodia</td>
<td>1966</td>
<td>Less than 40 years</td>
<td>$ 130</td>
</tr>
<tr>
<td>Bhutan</td>
<td>1960</td>
<td>' ' ' ' ' '</td>
<td>' ' ' ' ' '</td>
</tr>
<tr>
<td>Nepal</td>
<td></td>
<td>' '</td>
<td>' '</td>
</tr>
<tr>
<td>Thailand (East Asian developing countries)</td>
<td>1990</td>
<td>51 years</td>
<td>$ 2,000</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>1990</td>
<td>Over 54 years</td>
<td>$ 8,500</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1990</td>
<td>53 years</td>
<td>$ 2,500</td>
</tr>
<tr>
<td>Asian least developed countries</td>
<td></td>
<td>Over 60 years</td>
<td>$ 9,000.00</td>
</tr>
<tr>
<td>South Asian developing countries</td>
<td></td>
<td>' '</td>
<td>' '</td>
</tr>
<tr>
<td>Bangladesh</td>
<td></td>
<td>' '</td>
<td>' '</td>
</tr>
<tr>
<td>Bhutan</td>
<td></td>
<td>' '</td>
<td>' '</td>
</tr>
<tr>
<td>India</td>
<td></td>
<td>' '</td>
<td>' '</td>
</tr>
<tr>
<td>Pakistan</td>
<td></td>
<td>' '</td>
<td>' '</td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td>Over 72 years</td>
<td>$ 9,500.00</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td></td>
<td>Over 72 years</td>
<td>' '</td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td>69 years</td>
<td>$ 9,000.00</td>
</tr>
</tbody>
</table>

From the Table 8.1, one can infer that in the past three decades, the three groups of Asian countries considered started with a similar state of economic development. But, in the late 1990’s, there was a marked difference among them on account of their per capita incomes. The East Asian developing countries are now well beyond the East Asian least developed countries as well as South Asian developing countries in terms of economic development.

Secondly, although in terms of per capita income all these groups of countries were quite comparable in the 1960’s. Nevertheless, in the context of human capital and health sector development, there were huge differences among them. East Asian developing countries were by far ahead of both Asian least developed countries as well as South Asian developing countries even in the 1960’s.

Thirdly, based on the facts presented earlier, it is evident that the onslaught of East Asian developing countries’ rapid economic progress in the 1980’s occurred along with their reasonably well developed and healthy human capital endowment which started to take momentum in the 1960’s or even earlier.

Table 8.2: Commitment to Health – Access to Health Services
Table 8.2 shows the pattern of commitment to health and public expenditure in selected countries of the world.
Table 8.2: **Commitment to Health and Public Expenditure in Selected Countries**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Norway</td>
<td>413</td>
<td>6.5</td>
<td>1.1</td>
<td>2769</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Iceland</td>
<td>326</td>
<td>7.6</td>
<td>1.4</td>
<td>2642</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Tobago</td>
<td>99</td>
<td>79</td>
<td>2.3</td>
<td>2.2</td>
<td>468rytp</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Mexico</td>
<td>86</td>
<td>130</td>
<td>2.5</td>
<td>2.8</td>
<td>477</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Antigua</td>
<td>100</td>
<td>17</td>
<td>3.3</td>
<td>2.2</td>
<td>629</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Bulgaria</td>
<td>-</td>
<td>344</td>
<td>2.9</td>
<td>0.8</td>
<td>225</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>140</td>
<td>Congo</td>
<td>-</td>
<td>25</td>
<td>1.5</td>
<td>0.5</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>141</td>
<td>Togo</td>
<td>49</td>
<td>8</td>
<td>1.5</td>
<td>1.4</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>142</td>
<td>Cameroon</td>
<td>56</td>
<td>7</td>
<td>1.0</td>
<td>2.9</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>143</td>
<td>Nepal</td>
<td>11</td>
<td>4</td>
<td>1.6</td>
<td>3.6</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>174</td>
<td>Niger</td>
<td>16</td>
<td>4</td>
<td>1.5</td>
<td>1.8</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>175</td>
<td>Sierra Leone</td>
<td>42</td>
<td>9</td>
<td>1.0</td>
<td>1.7</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>152</td>
<td>Nigeria</td>
<td>42</td>
<td>19</td>
<td>0.5</td>
<td>1.2</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>129</td>
<td>Ghana</td>
<td>44</td>
<td>6</td>
<td>2.2</td>
<td>1.9</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>151</td>
<td>Gambia</td>
<td>51</td>
<td>4</td>
<td>3.0</td>
<td>0.6</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>156</td>
<td>Senegal</td>
<td>51</td>
<td>10</td>
<td>2.6</td>
<td>2.0</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>157</td>
<td>Guinea</td>
<td>35</td>
<td>13</td>
<td>1.9</td>
<td>1.4</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>159</td>
<td>Benin</td>
<td>66</td>
<td>10</td>
<td>1.8</td>
<td>1.4</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>161</td>
<td>Cote D’Ivoire</td>
<td>47</td>
<td>9</td>
<td>1.0</td>
<td>1.8</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>166</td>
<td>Guinea Bissau</td>
<td>35</td>
<td>17</td>
<td>1.8</td>
<td>0.4</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>172</td>
<td>Mali</td>
<td>24</td>
<td>5</td>
<td>2.2</td>
<td>2.7</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>173</td>
<td>Burkina Faso</td>
<td>31</td>
<td>3</td>
<td>3.0</td>
<td>1.2</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>152</td>
<td>Nigeria</td>
<td>42</td>
<td>19</td>
<td>0.5</td>
<td>1.2</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>


**Health Expenditure Per Capita**

Health expenditure per capita is the sum of the total public funds and private out-of-pocket expenditures on health divided by the total population of that country. For effective global comparison, the per
capita expenditure on health is expressed at PPP US $. In the first and last two countries ranked under high human development index countries, health expenditures per capita in 2000 were as outlined in Table 8.3:

Table 8.3: Health Expenditure per Capita for Best and Worst 2 Countries in HDI

<table>
<thead>
<tr>
<th>High HDI</th>
<th>Per Capita PPP US $ 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>2769</td>
</tr>
<tr>
<td>Iceland</td>
<td>2642</td>
</tr>
<tr>
<td>Tobago</td>
<td>468</td>
</tr>
<tr>
<td>Mexico</td>
<td>477</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medium HDI</th>
<th>Per Capita US $ 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antigua</td>
<td>629</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>225</td>
</tr>
<tr>
<td>Congo</td>
<td>23</td>
</tr>
<tr>
<td>Togo</td>
<td>35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low HDI</th>
<th>Per Capita US $ 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameroon</td>
<td>55</td>
</tr>
<tr>
<td>Nepal</td>
<td>64</td>
</tr>
<tr>
<td>Niger</td>
<td>15</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>64</td>
</tr>
<tr>
<td>Nigeria</td>
<td>15</td>
</tr>
</tbody>
</table>


From the Table 8.3 above, births attended by skilled health personnel or nurses is a measure of a country’s commitment to health services and this is a determinant of the health status of that country. The importance of attendance to birth by skilled health personnel and the safety of such birth cannot be over-emphasized.

Commitment to Health - Health Expenditure
The percentage of the GDP of a country which is expended in the provision of health facilities and services in the people is an indication of government commitment to health and is a trial factor in the
achievement of human capital development in that country. According to the UNDP, statistics on commitment to health under reference, Nigerian Government spent 0.5% of the GDP in 2000 on health. Statistics for other groups of countries were as shown above in Table 8.2.

Curiously, none of the low human capital development countries, including Sierra-Leone, which was ranked last in the HDI, spent as little percentage of their GDP on health as Nigeria did in 2000. In fact, Nigeria spent the least percentage of its GDP on health among the ECOWAS countries cited. Out of the 175 countries where data were available, the percentage of the GDP which Nigerian Governments spent on public health in 2000 was better only than that of Myanmar and the Democratic Republic of Congo with 3%. With the above scenario, government expenditure on health cannot but be described as very inadequate. Hence, greater percentage of the GDP should be spent on the provision of health facilities and source, especially in the rural areas where most of the people live.

**Divergence in Human Capital Formation among Nations**

As shown above, a well developed human capital base of a nation play an important role in economic development. On this count, East Asian developing countries were far ahead of Asian least developed countries and South Asian developing countries, even at the early stages of economic development.

This overwhelming disparity can also be attributed to huge expenditure on education and health sector in East Asian developing countries. For instance, in health sector, although the per capita public investments gaps in the 1970’s (or earlier) were some what narrower, an East Asian developing country, like Malaysia, was still spending over $5.5 per person, as opposed to only 12 cents by Pakistan.

Now in the new millennium, however, the disparities in per capita expenditure on both education and health between Asian least developed countries and South Asian developing countries and East Asian developing countries are staggering to the extent that for education on a per capita basis, the Republic of Korea is spending over
26 times that of India and Pakistan and as high as 95 times of Cambodia.

The impact of those investments were directly ruminated in terms of high literacy rates and markedly improved years of life expectancy at birth, thus leading to higher per capita incomes and economic development.

**Recommendations**

For human capital to have a reasonable impact on economic development, a nation needs to have a minimum of at least 70 percent or more literate population. What this means is that if an overwhelmingly large number of people in a country are literate, even with simple basic education as being able to read newspapers, this may open up the minds of the masses, possibly make them more enlightened workers and perhaps institute some element of discipline in them. These are, of course, some of the essential prerequisites for a large organized production to run efficiently and for leading to rapid growth.

Facilitating access to efficient health care services for all contributes to fostering greater social and economic cohesion. The Government of Nigeria has put in place a maternal and child health policy whose aim includes the reduction in maternal morbidity and mortality as well as increasing public/professional awareness on harmful traditional practices. Also, contained in the National policy is the provision of family planning services through the various public and private sector outlets and the strengthening of maternal and child health care services. The restoration of democracy in Nigeria in 1999 brought the first signs of a strengthened national response to the growing HIV and AIDS epidemic with the formation of the presidential Commission on AIDS (PCA), which includes Ministers from all sectors. The National Action Committee on AIDS (NACA) was formed to foster a multi-sectoral approach to AIDS. SACA and LACA are also being formed to spearhead the local multi-sectoral response to HIV and AIDS.
Conclusion
It has been found from the analysis above that there is a correlation between broad based healthy human capital and rapid economic development, as seen from the transformation of East Asian developing countries. Secondly, effective and efficient human capital formation involves huge investments in educational and health sectors on a per capita basis.

Thirdly, unlike physical infrastructure investment, human capital development investment is a long term as well as continuous proposition and therefore, its affliction with economic growth and development should be delved and analyzed within a framework which has a longer perspective (Pasha, 1996a; Hasan et al, 1996b).

References


AN ASSESSMENT OF THE CURRICULUM OF LEVENTIS FOUNDATION (NIGERIA) AGRICULTURAL SCHOOLS (LFNAS) PROGRAMME

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Abstract
The Leventis Foundation established Agricultural schools in Nigeria to train youths to develop the nation in the area of mechanized food production. This work assesses the curriculum of the schools to ascertain its suitability for meeting the goals of the Programme. Primary data/information were gathered from responses to questionnaires administered to 247 trainees and 30 trainers of the three operational LFNAS making up the population of the study and from observation schedule. Secondary information/data were sourced from a manual. The findings of the study were discussed in relation to the objective of the study.

Introduction
Small-scale farming is the bedrock of food production in Nigeria, yet the drudgery, low yields and low profits associated with such farming are driving young people away from such methods of food production and contributing to urban migration. The remaining farming population
is ageing and becoming increasingly incapable of producing enough food for the teeming population in the country. The situation threatens a potential food crisis. The vocational training curriculum considered in this article is a response to such a critical challenge, while the article itself presents a study seeking to assess the extent to which the curriculum tries to meet the challenges effectively.

According to Federal Republic of Nigeria, FRN (2004: 6-7), the philosophy of education as stated in Nigerian National Policy of Education (NPE) rests on the belief that:

a. Education is an instrument for national development. To this end, the formulation of ideas, their integration for national development and the interaction of persons and ideas are all aspects of education.

b. Education fosters the worth and development of the individuals for each individual’s sake, and for the general development of the society.

d. There is the need for functional education for the promotion of progressive, united Nigeria. To this end, school programmes need to be relevant, practical and comprehensive; while interest and ability should determine the individual’s direction in education.

For education to meet these laudable national development goals, it must not only be academic, but also vocational. Paragraph 2(a) Section 5 of the national policy describes vocational education as “that form of education obtained at technical colleges.” Such colleges are equivalent to secondary schools, but designated to prepare individuals to acquire practical skills, basic scientific knowledge and attitudes required by craftpersons and technicians at sub-professional level. Two of the goals of this level of education are:

\textit{to provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development}
An Assessment of the Curriculum of Leventis Foundation (Nigeria) Agricultural Schools (LFNAS) Programme

and

to give training and impart the necessary skills to individuals who shall be self-reliant economically.

The policy at Paragraph 121 Section 13 (FRN 2004) invites all those who may want to assist the government to achieve its laudable goals, by stating that:

*Government’s ultimate goal is to make education free at all levels. The financing of education is a joint responsibility of the Federal, State and Local governments and the private sector. Government is thus welcoming and encourages the participation of local government individuals and other co-operate bodies or organizations.*

One of the organizations heeding the government call for the development of the country is the Leventis Foundation (Nigeria) (LFN). The Foundation was set up by Chief A.G. Leventis (1902-1978) to assist educational, cultural and other charitable causes while specifying West Africa and Nigeria in particular as a major beneficiary. “The Leventis Foundation Nigeria” got registered as a charitable company limited by guarantee in April 1988. Since inception, the foundation has been very active in the area of Agricultural schools among other charitable programmes. The school programme actually took off in 1987 with two schools while a third one was established eleven years after and a fourth within another span of two years.

According to The Leventis Foundation (Nigeria) (1999: 10), the main objective of the school programme is to train young Nigerian small-scale farmers in:

a. more efficient farm management, including the maintenance and repair of simple agricultural tools and equipment;

b. improving soil fertility on sustainable basis and adopting appropriate high-yielding crops and efficient livestock production practices;
c. valid alternatives to the current practice of shifting cultivation of farmland possible by the adoption of proper crop-rotation and agro-forestry practices;
d. healthy nutrition practices, processing of major food commodities, family planning, first aid techniques, and handling of textiles.

The schools are based in communities and it is the belief of the Foundation that the examples set by the trainees will lead to positive impact on the practices of farming in the villages which will encourage other young (boys and girls) to embrace farming, thus contributing to the nation’s self-sufficiency in food production. The LFN Limited/GTE (2003) recognizes the fact that small-scale farming produces over 90% of the food consumed in the country and about 60% of raw-materials to agro-industries in West Africa. The Foundation also believes that it is the agricultural education, LFNAS type among others, and the knowledge of improved technologies arising from research findings that are contributing to a steady shift to small-scale farming extending to market-oriented agriculture.

In some countries in Europe, the vocational schools use teaching methods that are different from the types used in general education (Colloids, 2004). The methods chosen are those that are better suited for the needs of different groups of students. Colloids (2004) also pointed out that it is also generally recognized that schools are better suited to provide broad theoretical knowledge, whereas firms are better equipped to provide specialized and practical training.

The American Vocational Education Association defined Vocational Education as the type of education designed to develop skills, abilities, understandings, attitudes, work habits and appreciation needed by workers to enter and make progress in employment on a useful and productive basis (Colloids, 2004). Adedoja (1998), particularly describes Vocational and Technical Education (VTE) as a total experience of an individual whereby the student learns successfully how to engage in general occupations, acquire knowledge of the fundamental principle guiding the practices essential for skills development as part of such education. Such education does not
merely rely on imitation, observation or incidental participation, but more organized instruction. The teachings of Agricultural Science or Home Economics are examples of such subjects at the secondary school levels. Vocational education, no doubt is a specialized education that is different from general education.

In vocational training, the trainees acquire marketable, enterprising skills. The training helps the trainees to develop right habits of doing things and thinking through repetitive training in varieties of experiences in the occupation. The training is carried out in a way that gives the trainee a productive ability with which he/she can secure employment or be self-employed (Longe and Adedeji, 2000).

If vocational education must equip the trainees with practical skills and scientific understanding of the skills, then the curriculum of such educational institution should conform to this. Curriculum refers to some sets of programme of studies which may be referred to as subjects or course content or set of learning experiences. According to Onwuka (2005), these learning experiences may be physical or mental, overt or covert and in which case some guidance will be provided. The guidance is usually provided by those who have been trained and/or are more experienced.

Central to the attainment of the goals and objectives of the Leventis Foundation (Nigeria) Agricultural Schools (LFNAS) is the curriculum. It encapsulates the strategy, methodology, theoretical thrust, and practical orientation proposed to achieve the objective of training innovative, self-reliant, career-driven young Nigerian small farmers. The adopted strategy is the training of young farmers or people from a farming background on improved farming methods, based on improved planning and management of technically sound and economically viable farm operations. It is hoped that the trained farmers will go back to their own farms or join family farming enterprises through which they can improve on the operations of their farming neighbours.
The Aims of the Study

The study sets to assess the curriculum of the LFNAS, to ascertain the extent to which the objectives of the school’s programme are being achieved through the curriculum. It is also the interest of the investigator to see if the LFNAS curriculum is an appropriate response or not to improvement in national food production.

Study questions

The study specifically sought to find answers to the following questions:

i. What are the contents of the modules of the LFNAS?
ii. What are the observed modules of the courses taught in the LFNAS programme?
iii. What is the operational structure of the training period of the LFNAS?
iv. How appropriate is the duration of the LFNAS programme?
v. What are the strategies put in place by the school through which the trainees on completion of programme engage in food production in his/her respective immediate community?
vi. Are the objectives of the LFNAS programme reflected in the various learning experiences offered in the schools?

Methodology

The study is simply a descriptive research. The investigator is assessing the schools as an outside assessor with a view to ascertaining the effectiveness of the curriculum of the LFNAS and to point out the extent to which the programme can contribute to food production in Nigeria, more importantly through mechanized farming techniques. Qualitative descriptions of observations are presented.

i. Target Population, Sampling and Sample

There are only three operating LFNAS as at the time of the study. These are located in Ilesha, Dongo Dawa and Panda at Osun, Kaduna
and Kano States of Nigeria respectively. The total number of students in the three schools put together is below 400. Therefore, all the enrollees of the three schools formed the sample population. A total number of 247 enrollees (124 in Ilesha, 62 in Kaduna and 61 in Kano) actually participated in the study as subjects. The trainers of the enrollees were also part of the study. There were 10 for Ilesha, 12 for Dongo Dawa and 8 for Panda.

**ii. Instrumentation/Data Collection**

For the purpose of gathering information, two questionnaires, one each for the trainees and one for trainers were used. The trainees’ questionnaire is made up of two sections, A and B. Section A has items on the biodata of the respondents. Section B is made up of fourteen (14) items. The questionnaire was trial-tested on 30 of the enrollees in Ilesha to ensure clarity of items and remove ambiguity. Internal consistency reliability of 0.87 was calculated for the instrument using split half method.

The trainers’ questionnaire consisted of five (5) items on the profile of the trainers with an open-ended item on general comment on the school’s curriculum. The questionnaire was trial-tested on the trainers of the Kaduna school. Internal consistency reliability 0.92 was estimated for this.

Trainees were also observed on various activities in the school at different times for two days.

**iii. Data Analysis**

Qualitative descriptions of records were used, and where necessary, simple descriptive statistics were used for the analysis of data. These involved calculations of percentages and frequency.
Results

i. The Contents of the Modules of the LFNAS

The full detailed content of the modules is shown in Table 9.1.

<table>
<thead>
<tr>
<th>Curriculum Area</th>
<th>Major Courses</th>
<th>Course Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Crop production and Agro-forestry</td>
<td>A. Crop Production</td>
<td>Maize, rice, sorghum and millet, groundnut, cowpea, soya bean, cotton, cassava, yam, sweet potato, leafy vegetables, plantain and banana.</td>
</tr>
<tr>
<td></td>
<td>B. Agro-forestry</td>
<td>Environmental benefits and contribution of Agro-forestry in food production, seedling production in Agro-forestry Nurseries, fruit trees in Agro-forestry, Tree Crop Production (cocoa, citrus, pawpaw, mango, cashew and oil-palm) and vegetable propagation, (bidding, grafting, cutting, layering, taungya).</td>
</tr>
<tr>
<td>2 Livestock Production</td>
<td>A. Poultry Management</td>
<td>Purchase of day old chicks, choice of breed, housing, care of feeders and drinkers, routine management operations, schedule of special operation for layers, record keeping, nutrient requirement of broilers and layers.</td>
</tr>
<tr>
<td></td>
<td>B. Cattle, Sheep and Goat Management</td>
<td>List of common breeds of ruminants, cattle, sheep and goats, purchase of foundation stock for breeding, signs of heat in female animals, housing, feeding, management practices in cattle, sheep and goats, animal and tractor traction.</td>
</tr>
<tr>
<td></td>
<td>C. Rabbit Management</td>
<td>Breed and selection of foundation stock, housing, breeding, feeding, record keeping, diseases.</td>
</tr>
<tr>
<td></td>
<td>D. Pig Management</td>
<td>Gestation period, characteristics, types of pigs, pig raising system, feeding, classification of feed, pig housing, breeding, signs of heat, health and diseases, slaughtering.</td>
</tr>
<tr>
<td></td>
<td>E. Grasscutter</td>
<td>Appearance and size, importance of grasscutter, farming, system of production/management, housing, feeds and feeding, breeding and reproduction, maturity, record keeping.</td>
</tr>
<tr>
<td></td>
<td>F. Fisheries Management</td>
<td>Capture and culture fisheries, fish farming.</td>
</tr>
<tr>
<td></td>
<td>G. Snailery</td>
<td>Behavioural patterns, importance of snail rearing, snail farming requirements.</td>
</tr>
<tr>
<td></td>
<td>H. Bee Keeping</td>
<td>Importance of bee keeping, importance of bee products, bee keeping equipment and hives, beehive management, the apiary and honey harvesting.</td>
</tr>
</tbody>
</table>
### Curriculum Area

#### Major Courses

<table>
<thead>
<tr>
<th>Curriculum Area</th>
<th>Major Courses</th>
<th>Course Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Rural Enterprise and Extension</td>
<td>A. Farm Management</td>
<td>Farm planting, definition of some farm management terms, farm records, marketing, average cost and return, figures for some major crops in Nigeria, risk and uncertainties management, agricultural production, insurance, insurable and non-insurable risks, effects of risks and uncertainties in agricultural production.</td>
</tr>
<tr>
<td></td>
<td>B. Rural Enterprise Development</td>
<td>Importance of rural enterprise and development, starting small scale rural enterprise, possible small scale rural enterprise, business and financial plan, investment outlay, introduction to rural finance, sources of rural financing, farm credits, informal credit sources, micro credit scheme, the Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) and borrowers collateral.</td>
</tr>
<tr>
<td></td>
<td>C. Introduction to Extension</td>
<td>Extension education, purpose of extension, principles of extension education, extension teaching methods, adoption and diffusion of agricultural innovations, leadership, cooperative society and officers of the cooperative society.</td>
</tr>
<tr>
<td></td>
<td>D. Family Life Development</td>
<td>Food processing and utilization, family planning, child care, first aid and textile technique.</td>
</tr>
<tr>
<td>5 Agricultural Engineering</td>
<td>A. Hand Tools</td>
<td>The jab planter, rolling injection planter and animal drawn and tractor mounted planter.</td>
</tr>
<tr>
<td></td>
<td>B. Planting Equipment</td>
<td>The band fertilizer applicator</td>
</tr>
<tr>
<td></td>
<td>C. Fertilizer Applicators</td>
<td>The spot fertilizer applicator</td>
</tr>
<tr>
<td></td>
<td>D. Weed Control Equipment</td>
<td>The mechanical Weeder, Knapsack Sprayer</td>
</tr>
<tr>
<td></td>
<td>E. Harvesting, Processing and Storage Equipment</td>
<td>The maize sheller</td>
</tr>
</tbody>
</table>

ii. **The observed modules taught in the LFNAS programme**

The modules taught in the LFNAS programme are shown in the table below:

Table 9.2: **Distribution of Training hours and the Modules taught in LFNAS**

<table>
<thead>
<tr>
<th>Description of Module</th>
<th>Hours for Theoretical Aspect</th>
<th>Hours for Practical Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>General agriculture</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Farm calculations</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>General science</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Communications and Use of English</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Administration and supervision</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Agricultural engineering,</td>
<td>20</td>
<td>110</td>
</tr>
<tr>
<td>Carpentry/masonry/technical drawing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-forestry</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>Animal production</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Crop production</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>Farm management</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>Agricultural extension</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>Rural enterprise development</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>Bee keeping</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>Animal traction</td>
<td>20</td>
<td>110</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>230 hours</strong></td>
<td><strong>940 hours</strong></td>
</tr>
</tbody>
</table>

iii. **The operational structure of the training period of the LFNAS**

**Distribution of Time for Theory/Practical Learning Activities is as follows:**

- **Practical 4 (80%)**
- **Theory 1 (20%)**
Table 9.3: Course Calendar of the LFNAS

<table>
<thead>
<tr>
<th>Duration of course</th>
<th>42 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting time</td>
<td>mid January</td>
</tr>
<tr>
<td>Ending time</td>
<td>end of November</td>
</tr>
<tr>
<td>First term</td>
<td>mid January – mid April</td>
</tr>
<tr>
<td>Second term</td>
<td>May – mid August</td>
</tr>
<tr>
<td>Third term</td>
<td>mid August – end of November</td>
</tr>
<tr>
<td>Work hour per week</td>
<td>50 hours.</td>
</tr>
<tr>
<td>Period of work per day</td>
<td>6.30 a.m. – 5.00 p.m.</td>
</tr>
</tbody>
</table>

Order of activities per day
- Livestock feeding, watering of vegetables, lectures or tutorials, breakfast, departmental practical work, lunch, livestock feeding and practical work on crops and agro forestry.

Appropriateness of the duration of the LFNAS programme

Neither the trainees nor the instructors had anything against the structure and the duration of training when asked. The responses of the instructors in all the three schools and those of trainees (aggregated) to the items of the questionnaires on the duration of the training are as shown in the table below.

Table 9.4: Responses of Instructors and Trainees on the Duration of the LFNAS Training Programme (in percentages).

<table>
<thead>
<tr>
<th></th>
<th>Undecided</th>
<th>Short</th>
<th>Adequate</th>
<th>Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructors at Ilesha</td>
<td>0</td>
<td>28.6</td>
<td>71.4</td>
<td>0</td>
</tr>
<tr>
<td>Instructors at Dongo Dawa</td>
<td>0</td>
<td>0</td>
<td>75.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Instructors at Panda</td>
<td>0</td>
<td>33.3</td>
<td>66.7</td>
<td>0</td>
</tr>
<tr>
<td>Trainees (aggregated)</td>
<td>5.1</td>
<td>32.2</td>
<td>55.9</td>
<td>6.8</td>
</tr>
</tbody>
</table>

About three quarters of the instructors in Ilesha and Dongo Dawa said the time for the training is adequate. While one quarter of the instructors in Ilesha said the duration for training was short, one
quarter of the instructors in Dongo Dawa said the duration of the training was long. In Panda, two-thirds of the instructors said the duration was adequate while the remaining one-third said the duration was short. Responses by trainees were slightly different. Fifty-six percent of them said the duration of 42 weeks were adequate, 32% said it was short, and 7% said it was long. Five percent of the trainees were undecided on the issue of duration. Some of those who indicated that the training is short at 42 weeks would want the program to run for 2 years. Most of those who felt that 42 weeks for the training is long came from Dongo Dawa. This is quite understandable because this location is remote and quite isolated. As at the time of gathering the data, the place had no operational global communication network in the area. Isolation and boredom may have conditioned the responses they made about the duration.

v. The strategies put in place by the school through which the trainee on completion of programme engage in food production in his/her respective immediate community

Trainees are not charged tuition fees by the schools since the foundation takes the school programme as a charity towards the community. However, two of the conditions for admission into the school are that the trainee has access to 2 to 3 hectares of land and declares interest to continue working on his/her family farm after training. On completion, a “statement of participation” is awarded, which is not intended to be used to seek employment from outside, but rather for the trainees to go and work on own farm and show example to other farmers in their villages. The trainees even have opportunities of receiving counseling and extension services for a period of two years after graduation from the schools.
vi. **Reflection of the objectives of the LFNAS programme in the various learning experiences offered in the schools**

The school programme set out to train young Nigerian small scale farmers while stating some specific areas through which this may be achieved.

Part of the requirement for admission into the school is that prospective candidates must be between 20 and 35 years of age and possession of a minimum of half a hectare of farmland. The prospective trainee must also be physically fit and willing to work hard.

From the demographic data gathered on the trainees the age range and average age of trainees are as follows:

<table>
<thead>
<tr>
<th></th>
<th>ILESA</th>
<th>PANDA</th>
<th>DONGO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age range</td>
<td>19-35</td>
<td>18-39</td>
<td>18-39</td>
</tr>
<tr>
<td>Average age</td>
<td>22.2</td>
<td>25.4</td>
<td>25.4</td>
</tr>
</tbody>
</table>

About 78% of the trainees claim that they own farmland which were inherited or leased in their communities. It is therefore assumed that they are small scale farmers. The age range, though with some deviations, ascertain that the trainees are young men and women.

a. **In more efficient farm management, including the maintenance and repair of simple agricultural tools and equipment**

Three of the observed modules taught in the schools are Agriculture Engineering, Farm Management and a course that is simply called Training Trainees to maintain and fabricate simple agricultural equipment. It was gathered that trained engineers are invited to help the schools develop and produce appropriate tools and light machinery such as rolling injection, planters, maize shellers, just to mention a few. The students are required to participate in these productions as part of their training. The finished products of these materials are sold
to trainees at about half the cost of production on completion of the training.

b. \textit{In improving soil fertility on a sustainable basis and adapting appropriate high yielding crops and efficient livestock production practices}

Two courses that address the attainment of this objective are: crop production and agro-forestry and livestock production and bee keeping

The foundation is a member of the International Bee Research Association (based in England). It is for this reason that schools curriculum includes beekeeping and honey production. The school also engages the service of an expert, as visiting research person, from the International Institute of Tropical Agriculture (IITA), Ibadan; to train the trainees both in training and practical application of Bee Keeping and Honey Production.

c. \textit{In valid alternatives to the current practice of shifting cultivation, and in making the permanent cultivation of farmland possible by the adoption of proper crop rotation and agro-forestry practices.}

The teaching and learning of the courses ‘Crop-Production and Agro-Forestry and Farm Management’ are put in place to achieve the objective.

d. \textit{In healthy nutrition practices, processing of major food commodities, family planning, first aid technique and handling of textiles.}

The courses that address this objective in the schools are: Family life development; Rural enterprise development; Poultry production; Diseases and their control; Farm products processing and utilization.

Trainees are given the responsibility to rear a certain number of animals and fattening of broilers. They also have to take care of laying hens, manage goats, cattle, pigs, and sheep and bee colonies. As a way
of encouragement, the net income from these activities is credited in their accounts.

**Discussion and Conclusion**

The LFNAS programme has modules in the key areas of agriculture as well as other tangential areas like the Administration/supervision and Use of English. The programme makes provision for sufficient background training in General agriculture and General science.

At this level of curriculum enunciation, it is expected that animal traction should be subsumed under Agricultural Engineering. Bee keeping, along with snail rearing, mushroom production and similar topics are to be referred to as Special Topics or Special Enterprises. The content of the Agricultural Extension module was not clear enough during investigations, especially the reason why it has to carry equal weight in terms of hours of work as animal production, for instance. A redistribution of the time seems necessary here otherwise it will be difficult to sustain the interest of the students in sessions that are not filled with activities.

The organizers of the programme state emphatically that acquisition of skills is the prime goal of the programme and that 80% of the curriculum consists of practice work while 20% involves classroom lectures (LFNAS 2000). This is with a view to improve the understanding and the skills of the beneficiaries thereby enhancing attitudinal changes. The adopted practical/theory time ratio is 4:1; this is acceptable for the accomplishment of the goals set for the program.

Commencing the program in January is reasonable because it ensures that participants are fully settled after end of year festivities. Ending in November is also good for it allows them to have sufficient time after the training to meet with their family members and prepare for end of year social activities, as means of holiday before embarking on their own farming work. The terms are seen to roughly coincide with the three seasons of annual crops. The first term synchronizes roughly with the irrigation season for all locations. The second term synchronizes with the first season for Ilesha and the season for residual water use in Kano and Kaduna. With improved training conditions, the
duration of the programme may be considered for extension, probably to eighteen months or two years.

A significant number of the trainees indicated their intentions to go and really develop self and become better farmer, however, from the findings of Osokoya and Adekunle (2007), some of the trainees want the organizers of the school to make the certificate awarded at the end of the programme suitable for employment. In addition, some also claims that there is too much drudgery in the programme that trainees were made to carry out activities which could have been mechanized; while some are still requesting for more theoretical understanding of what they are doing. These are just pointing to why these complaining “young farmers” may not be contributing to increase in food production in the country at large.

An assessment of the objectives of the LFNAS programme in the light of the aspiration of the country shows a realistic attention to production, processing, and storage, maintenance of tools as well as acquisition of skills in soil conservation, irrigation, and accounting/managerial activities. There is, however, a deficiency in market development, marketing functions, marketing and credit sourcing, and management. Although details of the curriculum of some disciplines like the livestock discipline reflect some reference to marketing of commodities, the investigators feel enough attention has to be drawn to this end of the commodity chain so that issues like market functions and market development can be handled well enough for the benefit of the trainees; more especially as reported by Adewale, Adesoji and Iroegbu (2004), many Nigerian farmers are diversifying away from food crops into cash crops.

The objectives of the LFNAS training programme are well articulated and observations showed that all the instructors in the programme are aware of the objectives and also consider them appropriate. Individual disciplines derive their course objectives from the training objective. The instructors also indicated their awareness of the objectives of the courses they handle and also consider them appropriate. All the trainees also indicated that they know the objective of the training program and of the individual courses. Sound
knowledge of the objectives by the trainers and the trainees enhances unity of purpose and helps in the accomplishment of training goals.

References


A COMPARATIVE STUDY OF FUNDRAISING STRATEGIES IN PUBLIC AND PRIVATE SECONDARY SCHOOLS IN ENUGU STATE

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Abstract
Education remains the most potent agent for human and national development. Public and private secondary schools are cost-intensive ventures, requiring fundraising activities. This study compared the fundraising strategies in public and private secondary schools in Enugu State. One research question with a corresponding hypothesis was formulated. Questionnaire was administered to principals and tutors. Mean, standard deviation, analysis of variance (ANOVA) and T-test were used for analysis. Results showed that the private secondary schools benefitted from PTA levy and 10 other fundraising strategies more than the public secondary schools. More aggressive application of these fundraising strategies is recommended.

Introduction
Education is today generally recognized as an essential precondition for democracy and sustainable development. Therefore, all people deserve opportunities regardless of their social standing, gender, faith, ethnicity or individual disabilities (Mgbodile, 1986).

Education is seen in Nigeria and other nations as the cornerstone for development and the key to participatory democracy, which
is closely related to peace and development. It is not just about knowledge, it is also about learning to do, learning to be and above all learning to live together (Adesina, 1981).

The provision and administration of education in any society determines the quality and quantity of its educational system. In order to achieve education for all by 2015, as required by the Millennium Development Goals (Eneh, 2008), quite a large sum of money and political will on the part of the government will be required. Fund is required to secure good teachers and standard facilities and equipment to provide the needed academic environment (Aderounmu and Ehimetalor, 1985).

Many scholars and experts in educational administration have discussed at length the need for and importance of education finance. Ogbonnaya (1999), opines that finance involves not only raising funds but also entails the allocation and prudent management of the fund. Ukeje (1986), submitted that the provision of funds and facilities (or their absence) is the heart of the problems in schools. According to Ikpeama (1997), government annual budget for education is often meagre, making it difficult for administrators to plan and operate effectively. This adds to the problem of mismanagement of funds (Enyi, 1999).

Aderounmu and Ehimetalor (1985), observed that the Nigerian educational system derives its funds chiefly from government coffers; other sources include external aids from friendly countries, international organizations, parents-teacher-association (PTA), Petroleum Trust Fund (PTF), and Alumni Associations. Ezeocha (1990), enumerated sources of funds to educational institutions as school fees, government grants, educational levies, rates and donations from individuals and charitable organizations, and funds raised from launching certain programmes of the school.

Ayeni (1992), and Udezue (1990), suggested additional sources of funds for education, which include consultancy services, fund-raising activities, endowments and sale of school agricultural products. Eicher and Chevailleir (1991), and Ogbodo (1991), enumerated other sources of funds for education in Nigeria: donations from philanthropic organizations, raffles, handicrafts, school play, cultural activities and
sporting events. The enormous cost of education calls for co-operative funding involving the governments, parents, public-spirited individuals, philanthropists, PTF, non-governmental organizations, community-based organizations, faith-based organizations, and others.

This study was carried out to compare the fundraising activities of public and private secondary schools in Enugu State. It sought to determine to what extent the public and private secondary schools compare with and differ from each other in fundraising strategies.

The study was guided by a corresponding hypothesis, $H_{01}$: The principals in public and private secondary schools do not differ in their mean ratings on fundraising strategies ($P < 0.05$).

**Methodology**
The study, which adopted a descriptive design, was conducted among the public and private secondary schools in the six education zones of the seventeen Local Government Areas of Enugu State.

The study population was 289 principals and 824 tutors of public and private secondary schools in Enugu State.

The instrument used for the study was ‘secondary school fundraising strategies questionnaire’ (SSFSQ), an 11-item instrument designed by the researcher to elicit information. Each item was structured on a four-point scale of ‘very great extent’ (VGE), ‘great extent’ (GE), ‘low extent’ (LE), and ‘very low extent’ (VLE). To determine the reliability of SSFSQ, internal consistency reliability test was conducted using cronbach alpha computing method.

Data were analysed using mean score and standard deviation on the research questions and t-test analysis for the hypothesis to determine the significance of the difference of the mean ratings of the groups under study. Analysis of variance (ANOVA) was used in testing the hypothesis to determine the difference in variance of the two groups in the variable under study.

**Results and Discussion**
Table 10.1 shows the mean rating ($X$) and standard deviation (SD) of principals and tutors on fundraising in public and private secondary schools in Enugu State.
### Table 10.1: Mean rating (X) and standard deviation (SD) of principals and teachers on fundraising in public and private secondary schools in Enugu State.

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Item No.</th>
<th>Fundraising Strategies</th>
<th>School Type</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Public Sec. Sch. (N=946)</td>
<td>Private Sec. Sch. (N=152)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>SD</td>
<td>Decision</td>
<td>X</td>
<td>SD</td>
<td>Decision</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Levy (PTA)</td>
<td>1.91 0.87 LE</td>
<td>2.29 1.06 GE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Donation</td>
<td>2.79 1.64 GE</td>
<td>2.93 0.81 GE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Launch</td>
<td>2.81 0.97 GE</td>
<td>3.00 0.85 GE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Sales (School magazine, handicrafts, agricultural products)</td>
<td>3.19 1.76 VGE</td>
<td>3.19 0.74 VGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Proceeds from drama and cultural shows</td>
<td>3.18 0.74 VGE</td>
<td>3.03 0.94 VGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Appeal fund</td>
<td>2.87 0.99 GE</td>
<td>3.06 1.00 VGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Endowment fund</td>
<td>2.68 1.19 GE</td>
<td>2.99 2.70 GE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Shops/Kiosks</td>
<td>3.15 0.91 VGE</td>
<td>3.39 0.74 VGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Grants</td>
<td>2.78 0.91 GE</td>
<td>2.78 0.89 GE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Foreign aids</td>
<td>2.94 0.96 GE</td>
<td>3.28 0.76 VGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Proceeds from sale of materials to new entrants</td>
<td>2.90 0.99 GE</td>
<td>2.60 1.06 GE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Of the 11 fundraising strategies, 5 (Nos. 2, 3, 7, 9 and 11) were rated “to a great extent” (GE) by both public and private secondary schools respondents. Fund is sourced through donation, launch, endowment, grant, and sale of materials to new entrants in both public and private secondary schools. Rated “to very great extent” (VGE) for both public and private secondary schools respondents were items 4, 5 and 8 for sales of school magazine/handicrafts/agricultural products, proceeds from drama and cultural shows, and shops/kiosks respectively. PTA levy rated ‘to low extent’ for public secondary schools, but “to a great extent” for private secondary schools. Finally,
items 6 and 10 were rated “to a great extent” for public secondary schools, but “to a very great extent” for private secondary schools.

Table 10.2 shows the T-test results on analysis of the difference in the mean score of principals and tutors with regard to fundraising.

Table 10.2: The T-test results

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Items</th>
<th>Sources of Fund</th>
<th>Mean score</th>
<th>T-Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Public SS (N=946)</td>
<td>Private SS (N=152)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Levy (PTA)</td>
<td>1.91</td>
<td>-4.23</td>
<td>Significant</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Donation</td>
<td>2.79</td>
<td>2.93</td>
<td>-1.06</td>
<td>Not significant</td>
</tr>
<tr>
<td>3.</td>
<td>Launch</td>
<td>2.81</td>
<td>3.00</td>
<td>-2.26</td>
<td>Significant</td>
</tr>
<tr>
<td>4.</td>
<td>Sale of school magazine, handicraft, agricultural produce</td>
<td>3.19</td>
<td>3.19</td>
<td>-0.04</td>
<td>Not significant</td>
</tr>
<tr>
<td>5.</td>
<td>Proceeds from drama, cultural shows</td>
<td>3.18</td>
<td>3.03</td>
<td>1.95</td>
<td>Not significant</td>
</tr>
<tr>
<td>6.</td>
<td>Appeal fund</td>
<td>2.87</td>
<td>3.06</td>
<td>-2.17</td>
<td>Significant</td>
</tr>
<tr>
<td>7.</td>
<td>Endowment fund</td>
<td>2.68</td>
<td>2.99</td>
<td>-2.41</td>
<td>Significant</td>
</tr>
<tr>
<td>8.</td>
<td>Shops/kiosks</td>
<td>3.15</td>
<td>3.39</td>
<td>-3.07</td>
<td>Significant</td>
</tr>
<tr>
<td>9.</td>
<td>Grants</td>
<td>2.78</td>
<td>2.78</td>
<td>0.02</td>
<td>Significant</td>
</tr>
<tr>
<td>10.</td>
<td>Foreign aids</td>
<td>2.94</td>
<td>2.28</td>
<td>-4.24</td>
<td>Significant</td>
</tr>
<tr>
<td>11.</td>
<td>Sale of materials to new entrants</td>
<td>2.90</td>
<td>2.60</td>
<td>3.49</td>
<td>Significant</td>
</tr>
<tr>
<td>OVERALL</td>
<td></td>
<td>2.84</td>
<td>2.95</td>
<td>-2.52</td>
<td>Significant</td>
</tr>
</tbody>
</table>

The calculated t-value was greater for 8 fundraising strategies, all in favour of private secondary schools. These were PTA levy (-4.23), donation (-1.06), launch (-2.26), sale of school magazine/handicraft/produce (-2.17), endowment (2.4), shops/kiosks (3.07) and foreign aids (-4.24). The overall calculated t-value is -2.52
with 1096 degrees of freedom at P<0.05 level of significance. Since the t-value is greater than the table value (1.96), the null hypothesis is rejected. In other words, there is significant difference between the mean ratings due to school type. Therefore, private secondary schools benefit more than public secondary schools in fundraising.

For the research question, results show that public secondary schools rated fundraising “to a great extent”, while the private secondary schools rated it “to a very great extent.”

In analyzing the hypothesis, one notes in Table 10.2 a statistically significant difference in the overall mean ratings (-2.52) in the fundraising strategies for private secondary schools greater than that of public secondary schools.

**Conclusion and Recommendations**

With availability of funds, public and private secondary schools will be more effectively operated. To achieve their goals, fundraising activities are imperative for the generation of additional fund. The fundraising strategies adopted by public and private secondary schools in Enugu State are PTA levy, donation, launch, sale of school magazine/handicraft/produce, organizing drama/cultural shows, appeal fund, endowment fund, shop/kiosk, grant, foreign aid, and sale of materials to new entrants. These strategies have been exploited to a greater extent by private secondary schools than the public secondary schools. More aggressive application of these fundraising strategies is recommended.

**References**


the Department of Vocational Education, University of Nigeria, Nsukka.


FACTORS MILITATING AGAINST HUMAN CAPITAL FORMATION IN DEVELOPING COUNTRIES: HEALTH CARE PERSPECTIVES

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Abstract
Health is a primary determinant of human capital formation. One of the reasons why developing economies have surplus labour but lack human capital lies in the poor health conditions of the people resulting from poverty, poor nutrition and high level of illiteracy. Combining the review of secondary materials with interviews with a few medical doctors, this sought to find how poverty affects health and what is on ground for reducing infant and maternal mortality in Nigeria. The study found that malnutrition has exposed a greater part of developing countries to hazards of low perception, weak analytical minds and poor intellectual capabilities, resulting from general impairments in cognitive, affective and sometimes psycho motive domains.

Introduction
The term human capital formation refers to the “process of acquiring and increasing the number of persons who have skills, education and experience which are critical for economic and political development of a country” (Jhingan, 2007:387). Investment in human resources is a better way to develop a country than merely increasing the stock of physical capital. This is because high level of skills and experiences are deposited on the individual or group of individuals through
education, on-the-job training, workshops, conferences, and seminars. The focus of this type of investment is on human beings, who make up the population of a country. The people will then use the knowledge and skills to tap the natural resources for the needed development of their country.

Health expenditures are regarded as investment in human capital because unhealthy persons cannot go for education or on-the-job training. The primary concern and interest of such persons would be to get well. Hence, the popular saying that, “Health is wealth”. Health and education are basically the essential inputs for human capital development. The duos are congruent and seem to converge at the point of direct impact on the faculties of the individuals affected. Perkins et al (2001:355), submits that “better health for workers can provide direct and immediate benefits by increasing workers’ strength, stamina and ability to concentrate while on the job.” Without good health, human capital formation cannot grow, indeed, sick persons may not have or may have lost faculties that are relevant for undergoing the processes entailed in acquisition of knowledge resources either through education or through on-the-job training. The health of the population will determine the quantum and the quality of human capital available to a nation.

Researchers have shown that a country with a very high level of morbidity (or diseases) and high level of infant mortality would obviously have low level of human capital formation. The importance of health in productivity may have informed the decision of some corporate organizations which provide free medical facilities for its workforce.

There are other indirect health-related variables such as access to safe water, sanitary conditions, malnutrition and degree of illiteracy. These variables and other elements of health that affect human resources development were the focus of the next stage. The study sought to find answers to two questions, “How does poverty affect health?” and “what is on ground for reducing infant and maternal mortality.”
Health and Productivity

Studies have shown that expenditure in health facilities and services, education and social services in general are of the wider definition of investment in human capital, while expenditure on education and training were in the narrow sense. An individual worker, whether in a corporation or in government service, needs to be in good health and sound mind in order to truly develop and form a resource base or repertoire and knowledge relevant for his position. The problem of human capital development in developing countries was complicated by wrong placement of individuals. Sometimes people selected for training outside the shores of Nigeria do not have the requisite qualifications that would facilitate understanding in the aspects of training. Consequently, the efforts made in quest for “transfer of technology” met with futility.

Another problem is that priorities for human capital development of these countries were sometimes not properly skewed for sustainable development. For example, crude oil was discovered prior to independence, but the relevant human capital formation was not developed. Consequently, the local content management and extractive industries failed. Ahmed (2008:29), posits that

while Nigeria has been an oil and gas producing country for over 50 years, it is obvious that beyond collecting crude oil sales revenue and related taxes, Nigeria is at best, a peripheral player in the industry, which is inconsistent with the present trends in major oil producing nations in South America, Middle East and Asia.

It is a question of political will on the part of the leaders which is also a function of knowledge resources. The knowledge resources that may have guided the allocation of national resources into human capital formation for sustainable development, may be deficient in some of these leaders. Leaders vary in their economic and political priorities.

The poor health conditions in developing countries impacts the productivity of adults. Health is one of the basic objectives of development and the next is education. Health is central to well-being,
and education is essential for a satisfactory and rewarding life. Health is, however, more fundamental to the broader notion of expanded human capabilities that lies at the heart of a meaningful development. It is only a healthy person that can go to work and exit poverty. Persons living with morbidity, though they may go to work but may have certain psychological drawbacks which may not foster productivity and at best they may be producing far below the optimum level. An unhealthy student may not attend classes and if the sickness is prolonged, it may affect his future career.

Similarly, a worker who is sick may not be able to go for on-the-job training designed for workers in his or her category. Ill-health is, therefore, inimical to productivity, while successful education relies on adequate health conditions as well. Invariably, there may be no successful human capital formation in a country over a period of time, if the generality of the population remain unhealthy or are living with diseases. Because health is directly correlated with productivity or gross domestic product (GDP), government of different countries are enjoined to provide the basic health services that could be affordable and accessible.

In 1978, delegates from 134 nations attended the world conference at ALMA-ATA in the former Soviet Union. The conference came out with declaration that health is a fundamental human right and not privilege. Here the importance of health in any form of human development was underscored in the conference, which called for Primary Health Care (Uduji, 2006:70).

The components of the primary health care are:
- Health Education;
- Promotion of better and adequate nutrition;
- Provision of clean water and improved sanitation;
- Provision of material and child health care services, including family planning;
- Immunization against six major killer diseases; and of pregnant women;
- Disease prevention and control;
Factors Militating Against Human Capital Formation in Developing Countries: Health Care Perspectives

Lack of Access to Basic Health Care
One of the effects of low income in developing countries is lack of access to essential health care services. This has often constrained many to patronizing patent medicine dealers. Poverty was identified as the underlying factor for most diseases experienced in developing countries. According to Todaro and Smith (2006:394), “…because most of these children die of causes that could be prevented for just a few cents per child, it has been rightly claimed that their real underlying disease was poverty”. The quality of pharmaceutical products in most of the patent medicine shops in these countries and the qualifications and experience of these dealers may be doubtful. These dealers sometimes go to the extent of prescribing drugs for sick persons that consult them with or without doctors’ prescriptions. The risk of poverty is, therefore, the exposure of a segment of the population to poor health conditions, where there is no money to access the qualified doctors and good quality medicines. The consequences are high risks of morbidity and infant mortality.

Lack of Access to Safe Water
Water is very essential for daily living. It quenches thirst. It used for personal hygiene and for cooking. Above all, water is used for maintaining good sanitary conditions. When contaminated, water can spread diseases to many people. Many developing countries renege in the provision of some basic needs of life to the citizens, and water is one of such necessities of life.
Lack of Access to Good Sanitation

The challenges of managing solid and liquid wastes in developing countries is quite enormous, particularly in Nigeria. As a result, this responsibility was decentralized to states and to local government councils. Yet, the problem remains a hard nut to crack. The different authorities in the states have the responsibility for keeping a clean and sustainable environment for good health and well-being of the public for the benefit of the present and future generations. In Enugu State of Nigeria, for example, Enugu State Environmental Protection Agency (ENSEPA) is charged with the responsibility of evacuating the waste collected at pre-designated locations along major streets and roads in Enugu metropolis. The present arrangement is better than the previous methods. Liquid wastes, if not properly disposed can facilitate the spread of contagious and infectious diseases, such as diarrhea, water borne diseases, malaria and parasitic intestinal worms.

HIV and AIDS

The human immunodeficiency virus (HIV) and the Acquired Immunodeficiency Syndrome (AIDS) constitute a threat to human capital formation. In the developing countries, HIV is transmitted primarily through heterosexual intercourse; transmission of infected blood and through the use of unsterilized drug needles, and mother-to-child transmission (Todaro and Smith, 2006:398). The AIDS epidemic cuts across the whole world, sans frontiers. Presently, the level of its management is limited and very expensive for low income countries of the developing world. The best approach is preventive through abstinence. Campaign has widely spread all over the world trying to redirect the mindset of the youths who see sexual intercourse, without adequate protection and control of the act and passion, as the ultimate. AIDS has seriously undermined the capital formation of many countries in a subterranean manner. The population of the elites is much more threatened than that of the poor.

According to Perkins et al (2001:350),
of the HIV-positive adults, 55 percent are women, who tend to contact the disease at younger ages than men. This reflects their lack of power in negotiating sexual contract and the poverty that induces young girls to enter into ‘sugar daddy’ relationships. The educated middle class is at least proportionately affected and may have been hit even harder than the poor. These developments are quite debilitating when one considers the gender roles of women all-over the world, particularly, in the developing countries. The depletion of the educated middle class population is a significant threat to the working population of developing countries. Though this factor is not restricted to developing countries, but their low income status has greatly affected access to drugs which help in health management of HIV/AIDS patients.

**Conflicts and Civil Wars**

Inter-ethnic wars, boundary disputes and ill-managed conflicts affect the population by claiming lives and maiming the victims. Consequently, there is loss of human capital that could have been developed, especially where children are recruited to fight.

**Malnutrition**

Malnutrition is the inadequacy or the insufficiency of essential food components on the daily family menu. The lack of sufficient nutrients can weaken the immune system and invite infectious diseases. The problems of malnutrition could range from lack of strength to impaired functions of sight and brain. A child that is malnourished faces the risk of poor development of the human faculties and body stature. Both severe and moderate cases of malnutrition have a significant effect on the outcomes children face (the child may turn out to be slow learner) for the rest of their lives and also cause severe illness leading to growth retardation both physical and mental, and possibly death. Mortality due to malnutrition accounted for 58 percent of the total mortality in 2006 (Ziegler, 2009).
The possible causes of malnutrition in developing countries may be traced to poverty and weak cultural heritage on nutritional values. Families tend to eat junk food as a result of lack of money for food with balanced nutrients. The cultural setting of the people recognizes only their staple food (mainly carbohydrate). This is a problem of education and not poverty (UN/FAO Report, 2009).

Malnutrition, may have undermined the capital formation of developing countries over the years as a result of poverty and lack of education for behavioural change with respect to nutritional values, which our cultural heritages may have down-played. Therefore, to the extent that the human intellect and physical build is affected by malnutrition, the human capital development in these developing countries may be jeopardized. Nigeria has made concerted effort towards effective transfer of technology (which the Asian Tigers tried and succeeded) without any meaningful achievement. The inherent malnutritional cultures of our people may have (to some extent) caused the weak technological base of the country.

The level of illiteracy
Sometimes, the degree of illiteracy does not enhance good health. This observation stems from lack of knowledge of how to maintain personal hygiene and general cleanliness. Perkins et al (2001:352) discusses the possible causes of increase in life expectancy. Rising income accounted for only 10 – 25 per cent of the rise in life expectancy between the 1930s and 1960s, while other factors accounted for 75 – 90 percent of the increase. There is a relationship between income and life expectancy, to which increasing literacy may have contributed. People who attend schools are often taught how to maintain personal hygiene and the need to keep surroundings clean. They seem to appreciate better the need for good health and how and where to reach good health services than most of the illiterates, who may not consider certain body phenomenon as symptomatic of a serious ill-health and may even attribute such development to the gods.
Drug Addiction

Drug abuse, also known as substance abuse, involves the repeated and excessive use of chemical substances to achieve a certain effect. They may be drugs obtained with prescription, used for pleasure or excitement rather than for medical reasons. Those who are drug addicts have a greater risk for health problems, ranging from the neglect of their own health and personal hygiene to risk of infectious disease like hepatitis or HIV from sharing needles.

Heavy drug usage directly affects health predispose addicts to lung disease, arthritis, heart problems, brain damage and death from overdose. Productivity at work often suffers, and eventually may lead to loss of the job. Consequently, drug addicted person may not be effectively relied upon for human capital. Expenses incurred in developing such persons may be wasted. A country that does not enforce drug abuse as crime may be facing the risk of annihilating her workforce which could have been available for human capital formation.

Conclusion

Poverty excludes some segments of the population from accessing good medical services, leading to increase in morbidity. Some cases of protracted disease may not be the absence of qualified medical personnel but the result of poverty. Except government intervenes, developing countries run a very high risk of increase in morbidity with reduction in life expectancy and insufficient human capital formation. The weak cultural values on nutrition has also exposed a greater part of the developing countries to high risk hazards of low perception, weak analytical and intellectual capabilities, leading to impairments in both cognitive, affective and sometimes psychomotive domains.

Human capital formation is the best way of development. According to Yunus (2009), the best way to help people is not by giving things to them… but by investing in them through self-sustaining mechanisms that can survive indefinitely, and expecting something. It is better to give people training and social support under micro-lending, asking them to pay small manageable amounts of
principal and interest on the loan as they become successful, and to put some of their earnings into savings, education and health coverage. Most developing countries have weak cultures in public display of affluence in the name of charity, instead of investing in people which is the essence of human capital formation.

Government support in helping to reduce poverty in the country may reduce the risk of morbidity, thereby, releasing more persons for human capital formation. Also the absence of certain critical infrastructures, such as safe water and effective waste disposal systems, has simply helped to increase infections and diseases in developing countries.

**Recommendations**
- Increase health education in the areas of good personal hygiene and nutrition.
- Provide clean and safe waters.
- Institute, maintain and sustain child and maternal health care services, including family planning.
- Introduce fumigation services in the urban and rural places.
- Provide essential drugs and make them affordable to the people.
- Support the health insurance programmes and make them accessible to the poor and in the rural areas.
- Upgrade the sanitary conditions of our teaching hospitals and in the use of hypodermic needles and syringes.

**References**
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- Disease prevention and control;
- Treatment of minor diseases and injuries;
- Provision of essential drugs;
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- Mental health;
- Oral and Dental Health;
- Care of the aged and record keeping.

Factors Militating Against Human Capital Formation in Developing Countries: Health Care Perspectives

Lack of Access to Basic Health Care
One of the effects of low income in developing countries is lack of access to essential health care services. This has often constrained many to patronizing patent medicine dealers. Poverty was identified as the underlying factor for most diseases experienced in developing countries. According to Todaro and Smith (2006:394), “…because most of these children die of causes that could be prevented for just a few cents per child, it has been rightly claimed that their real underlying disease was poverty”. The quality of pharmaceutical products in most of the patent medicine shops in these countries and the qualifications and experience of these dealers may be doubtful. These dealers sometimes go to the extent of prescribing drugs for sick persons that consult them with or without doctors’ prescriptions. The risk of poverty is, therefore, the exposure of a segment of the population to poor health conditions, where there is no money to access the qualified doctors and good quality medicines. The consequences are high risks of morbidity and infant mortality.

Lack of Access to Safe Water
Water is very essential for daily living. It quenches thirst. It used for personal hygiene and for cooking. Above all, water is used for maintaining good sanitary conditions. When contaminated, water can spread diseases to many people. Many developing countries renege in the provision of some basic needs of life to the citizens, and water is one of such necessities of life.

Lack of Access to Good Sanitation
The challenges of managing solid and liquid wastes in developing countries is quite enormous, particularly in Nigeria. As a result, this
responsibility was decentralized to states and to local government councils. Yet, the problem remains a hard nut to crack. The different authorities in the states have the responsibility for keeping a clean and sustainable environment for good health and well-being of the public for the benefit of the present and future generations. In Enugu State of Nigeria, for example, Enugu State Environmental Protection Agency (ENSEPA) is charged with the responsibility of evacuating the waste collected at pre-designated locations along major streets and roads in Enugu metropolis. The present arrangement is better than the previous methods. Liquid wastes, if not properly disposed can facilitate the spread of contagious and infectious diseases, such as diarrhea, water borne diseases, malaria and parasitic intestinal worms.

**HIV and AIDS**

The human immunodeficiency virus (HIV) and the Acquired Immunodeficiency Syndrome (AIDS) constitute a threat to human capital formation. In the developing countries, HIV is transmitted primarily through heterosexual intercourse; transmission of infected blood and through the use of unsterilized drug needles, and mother-to-child transmission (Todaro and Smith, 2006:398). The AIDS epidemic cuts across the whole world, sans frontiers. Presently, the level of its management is limited and very expensive for low income countries of the developing world. The best approach is preventive through abstinence. Campaign has widely spread all over the world trying to redirect the mindset of the youths who see sexual intercourse, without adequate protection and control of the act and passion, as the ultimate. AIDS has seriously undermined the capital formation of many countries in a subterranean manner. The population of the elites is much more threatened than that of the poor.

According to Perkins *et al* (2001:350),

*of the HIV-positive adults, 55 percent are women, who tend to contact the disease at younger ages than men. This reflects their lack of power in negotiating sexual contract and the poverty that induces young girls to enter into ‘sugar daddy’*
The educated middle class is at least proportionately affected and may have been hit even harder than the poor. These developments are quite debilitating when one considers the gender roles of women all-over the world, particularly, in the developing countries. The depletion of the educated middle class population is a significant threat to the working population of developing countries. Though this factor is not restricted to developing countries, but their low income status has greatly affected access to drugs which help in health management of HIV/AIDS patients.

**Conflicts and Civil Wars**
Inter-ethnic wars, boundary disputes and ill-managed conflicts affect the population by claiming lives and maiming the victims. Consequently, there is loss of human capital that could have been developed, especially where children are recruited to fight.

**Malnutrition**
Malnutrition is the inadequacy or the insufficiency of essential food components on the daily family menu. The lack of sufficient nutrients can weaken the immune system and invite infectious diseases. The problems of malnutrition could range from lack of strength to impaired functions of sight and brain. A child that is malnourished faces the risk of poor development of the human faculties and body stature. Both severe and moderate cases of malnutrition have a significant effect on the outcomes children face (the child may turn out to be slow learner) for the rest of their lives and also cause severe illness leading to growth retardation both physical and mental, and possibly death. Mortality due to malnutrition accounted for 58 percent of the total mortality in 2006 (Ziegler, 2009).

The possible causes of malnutrition in developing countries may be traced to poverty and weak cultural heritage on nutritional values. Families tend to eat junk food as a result of lack of money for food with balanced nutrients. The cultural setting of the people recognizes only their staple food (mainly carbohydrate). This is a problem of education and not poverty (UN/FAO Report, 2009).
Malnutrition, may have undermined the capital formation of developing countries over the years as a result of poverty and lack of education for behavioural change with respect to nutritional values, which our cultural heritages may have down-played. Therefore, to the extent that the human intellect and physical build is affected by malnutrition, the human capital development in these developing countries may be jeopardized. Nigeria has made concerted effort towards effective transfer of technology (which the Asian Tigers tried and succeeded) without any meaningful achievement. The inherent malnutritional cultures of our people may have (to some extent) caused the weak technological base of the country.

The level of illiteracy
Sometimes, the degree of illiteracy does not enhance good health. This observation stems from lack of knowledge of how to maintain personal hygiene and general cleanliness. Perkins et al (2001:352) discusses the possible causes of increase in life expectancy. Rising income accounted for only 10 – 25 per cent of the rise in life expectancy between the 1930s and 1960s, while other factors accounted for 75 – 90 percent of the increase. There is a relationship between income and life expectancy, to which increasing literacy may have contributed. People who attend schools are often taught how to maintain personal hygiene and the need to keep surroundings clean. They seem to appreciate better the need for good health and how and where to reach good health services than most of the illiterates, who may not consider certain body phenomenon as symptomatic of a serious ill-health and may even attribute such development to the gods.

Drug Addiction
Drug abuse, also known as substance abuse, involves the repeated and excessive use of chemical substances to achieve a certain effect. They may be drugs obtained with prescription, used for pleasure or excitement rather than for medical reasons. Those who are drug addicts have a greater risk for health problems, ranging from the neglect of their own health and personal hygiene to risk of infectious disease like hepatitis or HIV from sharing needles.
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Heavy drug usage directly affects health predispose addicts to lung disease, arthritis, heart problems, brain damage and death for overdose. Productivity at work often suffers, and eventually may lead to loss of the job. Consequently, drug addicted person may not be effectively relied upon for human capital. Expenses incurred in developing such persons may be wasted. A country that does not enforce drug abuse as crime may be facing the risk of annihilating her workforce which could have been available for human capital formation.

Conclusion
Poverty excludes some segments of the population from accessing good medical services, leading to increase in morbidity. Some cases of protracted disease may not be the absence of qualified medical personnel but the result of poverty. Except government intervenes, developing countries run a very high risk of increase in morbidity with reduction in life expectancy and insufficient human capital formation. The weak cultural values on nutrition has also exposed a greater part of the developing countries to high risk hazards of low perception, weak analytical and intellectual capabilities, leading to impairments in both cognitive, affective and sometimes psychomotive domains.

Human capital formation is the best way of development. According to Yunus (2009), the best way to help people is not by giving things to them… but by investing in them through self-sustaining mechanisms that can survive indefinitely, and expecting something. It is better to give people training and social support under micro-lending, asking them to pay small manageable amounts of principal and interest on the loan as they become successful, and to put some of their earnings into savings, education and health coverage. Most developing countries have weak cultures in public display of affluence in the name of charity, instead of investing in people which is the essence of human capital formation.

Government support in helping to reduce poverty in the country may reduce the risk of morbidity, thereby, releasing more persons for human capital formation. Also the absence of certain critical infrastructures, such as safe water and effective waste disposal
systems, has simply helped to increase infections and diseases in developing countries.

**Recommendations**

- Increase health education in the areas of good personal hygiene and nutrition.
- Provide clean and safe waters.
- Institute, maintain and sustain child and maternal health care services, including family planning.
- Introduce fumigation services in the urban and rural places.
- Provide essential drugs and make them affordable to the people.
- Support the health insurance programmes and make them accessible to the poor and in the rural areas.
- Upgrade the sanitary conditions of our teaching hospitals and in the use of hypodermic needles and syringes.

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Factors Militating Against Human Capital Formation in Developing Countries:
Health Care Perspectives
A REVIEW ON EDUCATION IN NIGERIA: PUBLIC POLICIES, APPROACHES AND ISSUES

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Abstract
Education is a veritable tool for sustainable human development. Educational policies in Nigeria have evolved over time and have been influenced by environmental and human factors, thereby generating issues and approaches. This paper captures Nigeria’s major educational policies and the issues and approaches arising therefrom. It recommends that the 2007 education reform programme of the federal government should be given a chance.

Introduction
Education is the oldest industry whose origins became obscured in prehistory. At the time people lived together as hunters and food gatherers, education was certainly a primary vocation. Children were taught the arts of survival and the teachers were presumably parents and other members of the family group. Efficiency in education was a matter of life and death, as those unable to learn the arts of survival did not in fact survive. The situation today is still not radically different. Education tends to follow social change. Therefore, education is not an end in itself but a process (Egonmwan, 1991; Enueme, 2004).

Ukeje (1976) refers to education as “a process,” “a product,” and “a discipline.” As a process, education is an instrument used by every society to preserve, maintain and upgrade its social equilibrium.
Through this process of education, people are acclimatized to the environment into which they are born in order that they may advance it. As a product, education is anything that is done consciously and unconsciously to influence the thoughts, behaviour and attitudes of people and bring about behavioral change (Ogbonnaya, 2003).

As a discipline, education is the total process of human learning by which knowledge is imparted, faculties trained and skills developed (Farant, 1980). The things needed for us to know and do in order to meet the needs and the problems of the age and live completely and effectively are the things which education has to teach (Ukeje, 1966). As a discipline, education has branches, such as education foundation, education psychology, education curriculum and methodology, education administration, etc.

The federal government has the greatest authority in the formulation of national education policy as a guide to state governments. It directs and co-ordinates the general planning activities for educational development in Nigeria. Matters affecting the national philosophy of education, aims and objectives, various aspects of curricula development of educational institutions rest squarely on the federal government (Ukeje, 1976).

Besides, the federal government assists the state governments in financing educational programmes. It does this in order to make sure that there is rapid and even development among the various states in the federation. This was mainly for higher education, until 1973 when the federal government came into the secondary and primary education (Ogbonnaya and Ajagbaonwu, 1997).

**Public Education Policies in Nigeria**

According to Egonmwan (1991), public policy is a plan of action to guide decisions and actions. The term may apply to government, private sector organizations and groups and individuals. It is a basic plan of action that establishes limits within which freedom judgment can be exercised. It may originate from constitution, from statute and from customary patterns of formal behaviour. It is futuristic, addressing future problems. Policy must:
• Reflect the general environment in which the organization operates.
• Include direction for implementation either by implication or broad explanation.
• Be impartial to deal uniformly with all concerned.
• Omit non-relevant details that might need to change from time to time.
• Grant the authority to act.

Education at the national level needs a sound policy formulation without which there is bound to be very serious variations in the standard and quality of education across the country (Osagie and Gbenecho, 1993). According to the Federal Government of Nigeria (1981), education in Nigeria is no more a private enterprise (hitherto run by the Missions and individuals), but a huge government venture that has witnessed a progressive evolution of government’s complete dynamic intervention and active participation. The federal government of Nigeria adopted education as an instrument par excellence for effecting national development.

The Phelps-Stokes Report of 1925 represents an important landmark in African education. It guided Nigeria’s education from 1925 to 1945 (Fafunwa, 1974). Sir Sidney Philipson Commission was established to review the policy and produced a comprehensive report which identified the problems inherent in grant-in-aid aspect of education and proffered solutions. The report, which was adopted in 1948, became the pivot around which all grants-in-aid were based up to the 1960s. The regionalization of government in Nigeria (Eastern and Western Regions in 1957 and Northern Region in 1959) made a huge impact on education, and prepared grounds for independence in 1960 (Ajagbaonwu, 1997).

According to the National Educational Research Council, NERC (1969), the Ashby Commission was set up in April 1959 to conduct investigations into Nigeria’s needs in the fields of post-secondary school certificate and higher education over the next 20 years (1960-1980). This led to accelerated development in education in the three Regions of Nigeria. A national conference was held in Lagos
in 1969 on Nigeria’s education curriculum development, in order to change the colonial orientation of the Nigeria’s education system. A follow-up national conference was held in 1973. This gave birth to “The Federal Republic of Nigeria National Policy on Education,” published in 1977. The 5 main national goals endorsed as the necessary foundation are:

- A free and democratic society;
- A just and egalitarian society;
- A united, strong and self-reliant nation;
- A great and dynamic economy;
- A land full of bright opportunities for all citizens.

The policy was revised in 1981 to:

- Clarify the philosophy and objectives that underlie the federal government’s massive investment in education and spell out in clear and unequivocal terms the policies that guide the government’s educational efforts.
- Remove the existing contradictions and ambiguities and lack of uniformity in education practices in different parts of the country.
- Clearly set out for the benefit of all citizens, the country’s educational goals in terms of its relevance to the needs of the individual as well as in terms of the kind of society desired in relation to the government and the realities of the modern world and rapid social changes.

The National Policy on Education, 4th Edition, was published in 2004, and is in the course of revision. There is a general opinion that past education plans have not met the people’s expectations. In a recent review, Eneh (2008) noted that:

_Thirty-seven years after the National Policy on Education was adopted, none of the five cardinal goals has been achieved. The country has been more militarized than democratized. There is injustice and insecurity, with lots of human right abuses and extra-judicial killings, high crime rates, grave menace of cultism, ritual murder, child abuse,_
religious riots and ethnic militia activities. The country appears to be little united, with tribal and religious ties – not patriotism – underlying its brand of federalism. Although politically independent since 1960 and republic since 1963, the nation remains economically self-unreliant, with prolonged era of import-dependency, brain-drain and weak economy. It is far from being a land with bright opportunities for all citizens, but a land of failed people, with corruption, looting of public treasury and unemployment characterizing the Nigerian society.

Iloje (1996) associated the public schools with the falling standard in education, indiscipline, lack of planning and physical facilities and equipment, lack of finance, mismanagement/maladministration, crime, incapability on the part of the principal, unqualified staff, delay in payment of teacher’s salaries, population explosion, examination malpractice, lack of involvement of community members and parents, lack of motivation of teachers by parents and lack of communication.

As a result, education reform process was initiated in 2007 to address key issues of access, equity and quality in the educational system in Nigeria. It is tagged the 10-Year Strategic Plan - Vision 2020 (Federal Government of Nigeria, 2007).

In justifying the planned education reforms for the Nigerian education sector, the Ministry of Education admitted that Nigeria’s education sector was in shambles and that there was the need for a total overhauling of the entire sector. The Ministry also rightly realised that any nation whose educational sector is in crisis can never grow economically, and that any country that ignored the leading role of education in the drive for development risked producing citizens who “could become weapons of mass destruction.”

The planned comprehensive reform for the nation’s educational system is expected to generate positive influence on the three levels of education in Nigeria, namely, primary, secondary and tertiary. It is said to have the potentials of enhancing and sustaining standards in teaching, learning, examination and research activities in tertiary institutions and overall delivery in Nigeria. It also has good emphasis
on the employability of products of educational institutions from Nigeria, which in turn, will help to curb the growing rate of unemployment and the corresponding rise in crime rate in the country (FGN, 2007).

The Federal Ministry of Education Ten-Year Strategic Plan: Vision 2020
It is a national framework outlining policies, strategies and targets designed to respond to the urgent needs of the education system in the country. It was formulated through a consultation with a wide range of stakeholders and aimed at ensuring consistency in direction. It recognizes that no single document can capture detailed strategic and operational plans for the whole federating units of the country, and lays foundation on which the federal government and state governments can build their own individual plans (Table 12.I).
### Table 12.1: Responsibilities of the three tiers of government

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<th>Federal</th>
<th>State</th>
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<td><strong>Basic (early childhood and development, primary and junior secondary schools)</strong></td>
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<td>Implementation through SUBEB**</td>
<td>Management of primary schools</td>
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<td>2. Allocation of resources through UBEC*</td>
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<td>3. Maintenance of standards inspection &amp; monitoring (FIS)</td>
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<td><strong>Senior Secondary</strong></td>
<td>1. Policy</td>
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<td>2. Curriculum</td>
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<td>4. Examination through WAEC &amp; NECO***</td>
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<td>5. Management of Unity Schools</td>
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<td><strong>Tertiary Education</strong></td>
<td>1. Policy</td>
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<td><strong>Adult Education</strong></td>
<td>Policy Co-ordination Monitoring</td>
<td>Implementation</td>
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<td><strong>Special Education</strong></td>
<td>Policy</td>
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**Source:** Federal Government of Nigeria (2004)

*Universal Basic Education Commission
** State Universal Basic Education Board
*** West African Examination Council & National Examination Council
The education reform has eleven task teams for:
1) Education, economy and competitiveness;
2) Curriculum, instruction and teacher quality;
3) Reform of the federal ministry of education and parastatals;
4) Information and communication technology (ICT);
5) Physical infrastructure;
6) Standards, accountability and academic assessment;
7) Examination ethics and campus safety;
8) Communication strategy;
9) Equity;
10) Governance and politics;
11) Education finance.

The aim of these tasks is to have an educational system:
(i) In which every Nigerian shall have a right to equal educational opportunity irrespective of gender, social status, age, religion, ethnic background, geographical location and any peculiar challenges.
(ii) That identifies, develops and responds to individual needs, talents and aspirations.
(iii) That nurtures the mind and inculcates the right values and morals.
(iv) That provides life-long learning.
(v) That is relevant in terms of knowledge and skills to the needs of the Nigerian economy in the 21st century.
(vi) That ensures the provision of a learner-friendly environment.
(vii) That motivates by promoting and providing incentives for students, teachers, education personnel and other stakeholders.
(viii) That provides an excellent work environment, good work conditions and incentives for all.
(ix) That provides continuity professional development for all.
(x) That is efficient and effective.
(xi) That is accountable and transparent.
(xii) That ensures the dissemination of education data and information for good governance.
(xiii) That provides for planning with all stakeholders.

In fulfilling its mission, the Federal Ministry of Education will at all levels:
(a) Ensure and sustain unfettered access to education for total development.
(b) Establish effective quality assurance procedures in all spheres of education.
(c) Promote functional education for life-skills acquisition, job creation and poverty eradication.
(d) Ensure periodic review, effectiveness and relevance of the curriculum at all levels to meet the needs of the society and the world of work.
(e) Establish partnerships to support delivery of quality education.
(f) Enhance performance through the use of ICT.
(g) Entrench a value system that develops the individual into a morally sound, patriotic and effective citizen.

Conclusion and Recommendations
This paper has highlighted the various education policies in Nigeria from 1925 to date, as well as the 2007 education reform programme. Sound policies and reform agenda have never been the problem, much as implementation, monitoring, evaluation, and review. Every government wants to have its own programmes to be identified with, abandoning the predecessor’s projects. There is also the problem of chicken-heartedness in the execution of its own projects, hence every new programme is justified by the failure of the one before it.

Nonetheless, it is recommended that the education reform should be given a chance.

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Federal Government of Nigeria (2007), Ten Year Strategic Plan Draft 8, March 5th.
Abstract
The economic development model is a disastrous notion. Quest for profit and power compels man to use and misuse nature. The current sustainable development paradigm seeks to “meet the needs of the present without compromising the ability of future generations to meet their own needs.” This article used the theoretical method to discuss the education needed to inculcate the values of sustainable development for imperative reorientation for attitudinal and value changes, policy innovation, political transformations, and economic restructuring. It recommends Conservation Education for human well-being, Environmental Education for preservation of natural resources, and Ecology Education for ecological society.

Introduction
Ukeje (1979) defines education as “a process society establishes to assist the young to understand the heritage of the past, to participate productively in the society of the present, and to contribute to the future.” By going through this process one learns or acquires a change in behaviour or ordinary knowledge, a skill or an attitude. Therefore, education is seen as a process, a product and a body of knowledge.

This process through which man acquires a change in behaviour conjures some questions:

(i)  *What do we educate?* This refers to content (or educational curriculum).
(ii) **Why do we educate?** This refers to the reasons for education (or educational philosophy).

(iii) **How do we educate?** This refers to the method for education (or educational methodology).

(iv) **Who do we educate?** This refers to the recipients of education, i.e. the child (educational psychology) or citizen (or educational sociology).

Concurring with Ukeje, Nwogu (1994), submits that education is “a process of acquiring knowledge, skills, attitudes and behaviours for the overall development of the individual and for the general good of the society.” The process transforms every aspect of man’s personality with a view to modifying, changing, developing, re-orientating it from its original crude or natural state. This is done through exposure to an assimilation of knowledge, tested experiences and new information acquired formally and informally.

In tandem with these views, Inoma (2001), opines that education is “the process of teaching and training for the purpose of developing the academic, physical and mental, moral, spiritual ability of the individual in order to sharpen the personal intellect of man.” It encompasses our relationships in social, economic and political aspects of living so that man can be at peace and be able to live harmoniously with nature and his environment. Thus, the term, to educate, means to draw out. Education is now interpreted as:

(i) touching every aspect of an individual personality.

(ii) a continuous learning process.

(iii) affected by conditions and experiences both within and outside the school situation.

According to Onigbo (2003), education is a conscious, planned manner of assisting the other person (old or young) to understand and behave in a generally accepted way. It has been accepted by many societies as the process by which every society attempts to preserve and upgrade the accumulated knowledge, skills, attitudes, beliefs, values, etc., in a cultural setting and heritage. Education is dynamic,
changing with the times and environment. It adapts itself to new
 demands and circumstances. It has a growing quality. By it, citizens
 are made to understand the environment they are born into, learn the
 things that members of the society should know and do to enhance the
 welfare and progress the society and learn why they should avoid
 doing things that might be injurious to the well-being of the society.
 This aspect of education is, therefore, integrational.

**The Importance of Education**

The importance of education can be appreciated against the
 background of education as a process, as a product and as a discipline.
As a process, education is the means by which man can acquire the
 civilization of the past and is enabled to take part in the civilization of
 the present and make the civilization of the future. Here civilization is
 the totality of culture as a means of developing man to enable him live
effectively and efficiently in the society (Ukeje, 1979).

As a product, education is the means of bringing changes in
 man’s behaviour. It enables man to acquire power in the environment
 he lives in; power to be somebody in the society by which he is
 identified in terms of social status commanded by his personality; and
 the power to be of higher value. Through man’s power nature has been
 conquered. Man has used education as a very important instrument for
 transformation and reconstruction of his environment.

As a discipline, education is a body of organized knowledge, dealing
 with:

(i) What should be taught? This concerns the curriculum content
 of the various stages of learning – nursery, primary, secondary
 and tertiary levels, etc.

(ii) Why should it be taught? This concerns the philosophy of
 education, which emphasizes the aims and objectives of
 imparting a particular subject or course to the society, whether
 it be science, the arts or humanities, etc.

(iii) How should it be taught? This explains the methodology and
 educational psychology to be used or applied.

(iv) To whom should it be taught? This refers to the learner (child
 or citizen).
The traditional concept of education emphasizes the mastery of, and competence in, the subject matter or specific study or practice. The modern concept is an outgrowth of continuing research concerning human development and behaviour (Crow, 1965).

Education widens the outlook of the learner and equips him mentally, physically and morally to face problems of life in their different aspects. It systematically builds up the entire self of the learner. It gives growth to the body and the mind. It fixes the child (or learner) to his society. It imparts some skills of hands and recognizes the value of manual work, which is normally called vocation. It replaces illiteracy with literacy, which is the basis for all progress for individuals, community and country.

Education enables the learner to live honestly and help his community. It fosters development of lively curiosity that leads to a search for knowledge of the immediate environment and of the outside world. It leads the learner to the fullest, truest, noblest and most fruitful relationships with the world. It helps to develop the learner’s hidden talents to improve his life, and prepares him to adapt to duties and pursuits. It enables the learner to understand the community, its values, its development and the individuals’ contribution to it. It turns out good citizens, useful members of the society, people who can play and work with their fellow citizens in a friendly and co-operative spirit and with good manners. It enables the learner to appreciate things in life – law, government, rendering services, etc. rather than pursuit of money for its sake and for the power it brings (Inoma, 2001).

**The Aims of Education**

According to Georges Danton (1759-1794), “After bread, education is the first need of people.” This organized body of knowledge aims at (Whitehead, 1962):

1. Imparting an intimate sense for the power of ideas, for the beauty of ideas, and for the structure of ideas, together with a particular body of knowledge which has peculiar reference to the life person possessing it.
2. Sharpening the mind for use. The mind is never passive, but in perpetual activity, delicate, receptive, responsive to stimulus. You cannot postpone its life, but can sharpen and appropriate it.
3. Producing men who possess both culture and expert knowledge in some special direction.
4. Addressing life in all its ramifications.
5. Using the knowledge of the past to equip people for the present.
6. Acquisition of the art of utilization of knowledge.
7. Using the school as the true educational unit in the national system for safeguarding of learning and efficiency.
8. Training and valuing trained intelligence.

Ways of Acquiring Education
There are three main ways through which the society carries out this all important process. They are:
(b) The informal way – through interaction with members of the family, peer group, society and things around (environment). This is the first form of education available to human society.
(c) The formal way – through the medium of organized learning, i.e. school or institutionalized learning.
(d) The non-formal way – through deliberate and systematized efforts to organize learning outside the regular school activity, example, the National Youth Service Corps, Scout Movement, functional or adult literacy campaigns, apprenticeship system, correspondence course, mass media sensitization, etc., all of which are change agents.

All these efforts put together refer to what is now termed “Education For All” (EFA) and “Education For Life” (EFL), according to the Jamitan Declaration of 1990 and the Dakar Framework For Action of year 2000, which also projected education as “an instrument par excellence for effecting national and international development.”

Theories of Education
Socrates (469-399 BC) believed that in every particular action, there are general principles that are the same for everybody and for all time. If action is guided by these underlying fundamental principles, society
would become stable. Such fundamental principles include temperance, justice, wisdom, courage, loyalty, etc. (Nwuzo, 1992:21).

The Greek believed that the chief purpose of life was to achieve virtue (moral excellence, goodness, good quality). According to Socrates, virtue is knowledge, and without knowledge no action of an ignorant man can be regarded as good. And so virtue can be taught. He set about to teach his followers and others the fundamental principles of goods through general definition. Thus, he started what was later called the Socratic method of teaching, which was the method of induction and definition. In this method, the teacher helps the student to see what is wrong in the ideas he holds, guides him to correct and refine his ideas, and thus arrive at general principles that could be guides to actions. Such principles could help one to know whether a particular line of action is good or bad and why. He also believed that right action should be based on understanding. Through the knowledge of virtue, he believed that education is capable of improving morality and good conduct.

The theory of education by Plato (427-347 BC) stressed that the goal of man is to work towards his own perfection and the perfection of the state because there cannot be a perfect man without a well ordered and perfect state. Man can become perfect through education. Man can attain ultimate knowledge, which is the knowledge of the Good. According to him, a perfect state is one in which there is discipline, justice, social and political harmony. This ultimate education emphasizes self-discipline to ensure that future leaders should develop harmony and moderation in behaviour.

Education is developed from within. The work of the teacher is to create the necessary environmental stimulus that will help the child (learner) to unfold his abilities. Education is all round development of the individual – physical, moral and intellectual development. Education cannot be good if the environment/society in which it is given is not good. Ruler/leader should not be ignorant people, but people that have received the ultimate/best form of education, which emphasized harmony, self discipline and moderation in life.

According to the theory of education by Aristotle (384-322 BC), the purpose of life and therefore the aim of education is self-
fulfillment, which is the realization of the capabilities and potentiality of the individual. Education should be planned physical, character (moral) and intellectual education – one complimenting the other. Moderation was seen as the best in all things. He recommended the formation of right habits, character, intellect and self-discipline.

He believed that education is the building up of knowledge for utilitarian purpose – the philosophic knowledge/wisdom through which man arrives at scientific knowledge of the order and causes of all natural things.

**Uses and Types of Education**

Education is applied to many uses, which can form the basis of classifying it. Thus, there are many types of education, including education for awareness, conservation education, ecology education, etc.

**Education for Awareness**

Education is a necessary condition for political awareness and emancipation for a free and democratic society because education is very important for progressive leadership and enlightened followership as well as political socialisation.

From the foregoing, it can be seen that a country cannot afford to neglect the education of its people (pupils). Fafunwa (1994), posits that every society, whether simple or complex, has its own system for training and educating its children. Education for good life of the society has been one of the most persistent concerns of men throughout history. By equipping the educated man with appropriate skills, new ideas, guided orientation, etc., expertise to cope with life will emerge. Joseph Addison (1711), recognized this much when he stated that “Education is a companion which no misfortune can depress, no crime can destroy, no enemy can alienate, no despotism can enslave … It chastens vice, it guides virtue, it gives grade to the individual and genius to the government. Without it, what is man? A splendid slave, a reasoning savage” (Inoma, 2001).
Conservation Education
Conservation education aims to improve natural resource management and reduce environmental damage. It helps people to become aware of the value of the natural resources and the ecological processes that maintain them. It shows people what threatens the well-being of their environment and how they can contribute to its improved management. It motivates people to do what they can to improve environmental management. These three objectives distinguish conservation education from other types of education (Outreach No. 75).

Ecology education
Ecology education teaches people about their interaction with the physical, social, political and biological environments in which they live and work. There is growing interest in how people interact with the environment. Studies show that environmental interaction work at three levels. First, environments and how they are structured and arranged for maximum growth; second, how the environments interact with each other; and third, how people are affected by more abstract environments, such as societal and political, e.g. legislation (Morrison, 1984).

Sustainable Development
The oldest concept of development is the economic paradigm that speaks mainly of increasing production. It is very materialistic, patriarchal and paternalistic. This model of development, which was based on obsession with materialistic acquisition and economics, has disastrous nature. Profit and power are the gods of this notion of development. Man is supreme, and can use and misuse nature as he wishes. Development is a project to conquer nature rather than live in harmony with it. This belief, coupled with the hunger for power and profit, led to disaster. It led to cutting of virgin forests; poisoning of rivers, seas and lands; and a series of ecological disasters. The 20th century witnessed the most murderous wars. This concept of development means centralisation of power and also destruction of the rich values of diversity. It destroys people’s creativity and capacities, making human beings less creative, less autonomous, less powerful,
less human. It marginalises and further disempowers women (Bhasin, 1991).

This notion of development has been replaced with sustainable development paradigm. Development is sustainable if it “meets the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainable development is all about equity, defined as equality of opportunities for well-being, as well as about comprehensiveness of objectives. It aims at preserving the environment for the future generation, without denying the present generation the ability to meet their needs. It is a balance at meeting the socio-economic needs of the present generation and preserving the environment and saving the mother Earth (Soubbotina, 2004:9).

Sustainable development is “a process of change in which the exploitation of resources, the direction of investment, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potentials to meet human needs and aspiration.” It is about long-term conditions for humanity’s multidimensional well-being. Sustainable development is not about the society reaching an end state, nor is it about establishing static structures or about identifying fixed qualities of social, economic or political life. It is about promoting equitable and balanced development (Baker, 2006).

Sustainable development is a comprehensive process involving complex relationships among various aspects of the society including population growth, improvements in education and health, environmental degradation and globalization. It seeks to reconcile the ecological, social and economic dimensions of development, now and into the future. It aims at promoting a form of development that is contained within the ecological carrying capacity of the planet, which is socially just and economically inclusive, so as to achieve the common future of humankind (Baker, 2006).

**Education for Sustainable Development**
Sustainable development is the latest concept of development. Education plays an indispensable role in its success by teaching people on how they can go about the present-day values and interests, while...
ensuring that future generations inherit the necessary conditions to provide for their own welfare.

Sustainable development can be achieved by adopting dynamic education of the alternatives that lie before the future society. These alternative futures can be visioned and taught to the people in order to bring about the needed attitudinal and value changes, policy innovation, political transformations, and economic restructuring. Ecology education and conservation education work at creating an ecological society that lives in harmony with nature. This means recognizing economic activity, social progress and environmental protection and the promotion of human well-being which does not depend on the destruction of nature. This can be achieved through awareness education.

Social stability requires the preservation of natural resources, knowing that the deterioration of the natural environment causes social disruption and impairs human health. Through environmental education people will learn not to destroy the ecosystem by indiscriminate dumping of refuse, pipeline vandalisation, air pollution, water pollution, noise pollution, as well as other human activities that occasion global warming, ozone layer depletion, land degradation, loss of biodiversity, deforestation, desertification, and atmospheric contamination.

**Conclusion and Recommendations**
This paper has broadly looked at the concepts and theories, importance, aims, uses and types, as well as ways of acquiring and applying education for sustainable development. It recommends:

- Conservation education for promotion of human well-being without destroying nature.
- Environmental education for the preservation of natural resources.
- Ecology education for creating an ecological society.
References
Abstract
A study to determine and examine the coping strategies against the Socio-economic impact of HIV/AIDS epidemic on the farming households in the South-East Zone of Nigeria was carried out. The primary objective of the study was to identify the survival strategies of these farmers against the epidemic in order to provide effective recommendations for supporting the farming population in the South-East zone of Nigeria. Purposive and random sampling methods were used in the selection of respondents for the study. Data collection was by the use of structured questionnaire and focus group discussion (FGD) guide. Results of the study showed that the impact of the HIV/AIDS epidemic include loss of agricultural labour, reduced family income, decreased agricultural output, increased family expenses, increased school drop-out of children, stigmatization of positive persons/households and loss of family assets. In order to mitigate the impact of the HIV/AIDS epidemic, farming households have devised some coping strategies which were identified to include disposal of family assets, fund raising, consultation of traditional healers, provision of anti-retroviral drugs and commercial food supplements and psycho-social support as well as rural-urban migration especially among the youths.
Based on the research results, it is recommended that an integrated approach involving intensified HIV/AIDS awareness campaigns, HIV/AIDS prevention, care and support for positive persons and orphan and vulnerable children (OVC) using Behaviour Change Communication (BCC) strategies need to be adopted. Secondly, it is important that HIV/AIDS Testing and Counseling Centres be established at strategic locations in LGAs/communities across the country for easy referral and management of HIV/AIDS cases. Finally, these farming households should be provided with micro-credit, agricultural technologies, farm inputs, as well as encouraged to belong to cooperative societies for increased agricultural production and family income.

Introduction

HIV/AIDS epidemic is the greatest public health and development problem presently threatening human existence globally. The 2004 Report on the Global AIDS Epidemic (UNAIDS, 2004) estimated that in 2003, 4 million people globally became newly infected with HIV. Moreover, in 2004, 37.8 million people in the world were living with HIV (UNAIDS, 2004: 23). An estimated 95% of the 37.8 million people infected with HIV live in developing countries. For them, hunger and HIV/AIDS are part of a single life-threatening continuum (WFP, 2004).

According to Bichmann (2002), Africa is home to 70% of all persons with HIV/AIDS, 79% of all children with HIV/AIDS, 81% of all women with HIV/AIDS, 92.2% of all AIDS orphans but only 12.2% of the global population. Thus, HIV/AIDS has become a formidable social problem in rural areas of sub-Saharan Africa.

Since the first reported case of HIV/AIDS was diagnosed in 1986, the prevalence rate has risen from 0% to 1.8% by 1991, 3.8% in 1993, 4.5% in 1996 and 5.4% in 1991. By 2001, the prevalence has risen to 5.8% (FGN 2001, 2002 and 2003:2). According to the 2003 Sentinel survey, the national prevalence has declined from 5.8% in 2001 to 5.0% in 2003 and 4.4% in 2005 (FMH, 2005). The total number of people living with HIV/AIDS (PLWHA) in Nigeria by the end of 2005 is estimated to be about 2.86 million, adults (>15 years)
constituting 2.62 million, while children constituted about 238,000. About 296,000 new adult infections occurred in the 2005, while another 73,550 children were infected largely due to mother-to-child transmission. (FMH, 2005).

UNAIDS estimates that in Nigeria, around 3.1% of adults between ages 15 – 49 are living with HIV and AIDS. Although the HIV prevalence is much lower in Nigeria than in other African countries such as South Africa and Zambia, the size of Nigeria’s population (around 138 Million) meant that by the end of 2007, there were an estimated 2,600,000 people infected with HIV (UNAIDS, 2008).

Approximately 170,000 people died from AIDS in 2007 alone (UNAIDS, 2008). With AIDS claiming so many people’s lives, Nigeria’s life expectancy has declined. In 1991 the average life expectancy was 53.8 years for women and 52.6 years for men (WHO, 2008). In 2007 these figures had fallen to 46 for women and 47 for men.

Despite being the largest oil producer in Africa and the 12th largest in the world (Energy Information Administration, 2007), Nigeria is ranked 158 out of 177 on the United Nations Development Programme (UNDP) Human Poverty Index (UNDP, 2007/2008). This poor economic position compounded by the present global economic melt-down that is adversely affecting all national economies including African countries, Nigeria is faced with huge challenges in fighting its HIV/AIDS epidemic.

The South-East is made up of five states, namely Abia, Anambra, Ebonyi, Enugu and Imo. With a population of 16 million people, the South-East recorded 6% HIV prevalence, 41,000 AIDS deaths and 776,000 orphans in 2005. With a projected population of 18 million people by 2010, the South-East will have 5.6% HIV/prevalence, 49 million AIDS deaths and 1,231,000 orphans. For 2015, the projection is a total population of 20.4 million, 5.3 HIV prevalence, 50.4 million AIDS deaths and 1,493,000 orphans (Table 14.1a).
Table 14.1a: HIV/AIDS Situation in the South-East Geopolitical zone of Nigeria

<table>
<thead>
<tr>
<th>State</th>
<th>Total Pop (Million)</th>
<th>HIV Prevalence (%)</th>
<th>HIV Pop (Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abia</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
</tr>
<tr>
<td>Anambra</td>
<td>3.7</td>
<td>4.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Ebonyi</td>
<td>1.6</td>
<td>1.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Enugu</td>
<td>2.4</td>
<td>2.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Imo</td>
<td>3.3</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td>South-East</td>
<td>1.4</td>
<td>1.6</td>
<td>1.8</td>
</tr>
</tbody>
</table>


Table 14.1b: HIV/AIDS Situation in the South-East Geopolitical Zone of Nigeria

<table>
<thead>
<tr>
<th>State</th>
<th>Total Population (Million)</th>
<th>HIV Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abia</td>
<td>2.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Anambra</td>
<td>5.8</td>
<td>13.3</td>
</tr>
<tr>
<td>Ebonyi</td>
<td>2.7</td>
<td>5.8</td>
</tr>
<tr>
<td>Enugu</td>
<td>3.3</td>
<td>8.6</td>
</tr>
<tr>
<td>Imo</td>
<td>2.3</td>
<td>8</td>
</tr>
<tr>
<td>South-East</td>
<td>16.6</td>
<td>41.2</td>
</tr>
</tbody>
</table>


Methodology

The Study Location

The study location was the South-East geopolitical zone of Nigeria, consisting of five (5) states of Abia, Anambra, Ebonyi, Enugu and Imo. According to the Federal Ministry of Health, FMH (2002), the total population estimates for 2000, 2005, 2010 and 2015 for the South-East are 14, 16 million, 18.1 million and 20.4 million respectively.

About 70% of the population lives in the rural areas, while almost 30% of households are female-headed. Their primary occupation is farming. The agricultural production system is characterized by crop rotation/mixed cropping, involving arable and tree crop production. Survey results showed that the major arable crops raised in the South-East are cassava, cocoyam, yam, potato, okro, melon, African spinach and other vegetables. Common tree crops include oil palm, coconut, oil bean, oranges, Irvingia (Ugiri). Most of
these farming households also raise livestock such as sheep, goats, poultry, pig and rabbit. However, the study showed that the common income generating activity is crop farming involving 37% of females and 33% of males.

About 30% of the rural households have access to a water supply. Only 15% had access to health facilities. Adult literacy stands at 73%, higher for males (80%) than the females (66%). Three quarters (¾) of households had access to primary education while ¼ had access to secondary education. Over 60% of the rural households live in extreme poverty.

**Population and Sample**

HIV affects different segments of the population and economic sectors disproportionately. Rural farming households comprise males, females, youths and children. They account for about 60% of the total agricultural labour force and 70% of them live in rural areas of the South-East geopolitical zone of Nigeria.

Purposive and random sampling methods were used to select 300 farming households for the study. These were made up of HIV/AIDS infected and/or affected families/individuals from the sampled LGAs/communities in the five (5) constituent states of the South-East geopolitical zone. These were selected from and with the assistance of identified leaders of the various support groups in the study locations and/or states.

**Data Collection and Analysis**

This involved household interviews and focus group discussions (FGDs) using structured questionnaires and FGD guide for primary data collection. Secondary data were also collected through desk reviews of relevant literature. Data collected were analysed using descriptive statistics such as percentages and tables etc.

**Results and Discussion**

**Socio-economic Background of Farming Households**
With respect to age distribution, 4.9%, 22% and 35% of the population were between the ages of 15 – 19 years, 20 – 24 years and 25 – 29 years respectively. About 25% were 30 – 34 years while 11% were 35 – 39 years old. However, only 2.6% of the population was 40 – 49 years.

In terms of marital status, survey results showed that 3.4% of the people were single, 96% married, 0.2% divorced/Separated and 0.8% widowed.

The educational status of the population revealed that a high proportion of the people had received formal western education in the South-East zone of Nigeria. About 18% of the population had primary education while 54% of them completed secondary education. Twenty-five percent (25%) of them had higher education. Only 2.7% of the people had no education (FMH, 2005).

**Impact of HIV/AIDS on Farming Households**

The identified problems of most of the farming households in the South-East zone of Nigeria were poverty and dearth of information about HIV/AIDS especially with respect to sources of anti-retroviral drugs (ARVs), screening and counseling centres and prevention opportunities. Others include stigmatization and social discrimination against HIV positive persons (PLWHAs) or People or households affected by the HIV/AIDS epidemic as well as ignorance which promotes risky behaviours.

Aspects of the stigma were identified to include unwillingness to care for female relatives with HIV/AIDS (45%), work with infected household members (60%), buy food for PLWHA (56%) or share meals with them (78%). Figures in parenthesis are percentage respondents based on the field survey. Unemployment especially among the youths was also a critical problem, which tends to encourage casual sex, promiscuity and other social vices in the rural communities.

These identified problems had varied effects on the farming households in the South-East zone of Nigeria (Table 14.2).
Table 14.2: Impact of HIV/AIDS on Farming Households in the South-East, Nigeria

<table>
<thead>
<tr>
<th>Effects of HIV/AIDS</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of agricultural labour</td>
<td>41</td>
<td>13.7</td>
</tr>
<tr>
<td>Reduced family income</td>
<td>60</td>
<td>20.0</td>
</tr>
<tr>
<td>Decreased agricultural production/output</td>
<td>50</td>
<td>16.7</td>
</tr>
<tr>
<td>Stigmatisation/social discrimination</td>
<td>10</td>
<td>3.3</td>
</tr>
<tr>
<td>Increased family expenses</td>
<td>52</td>
<td>17.3</td>
</tr>
<tr>
<td>Increased drop-outs of children from school</td>
<td>47</td>
<td>15.7</td>
</tr>
<tr>
<td>Loss of family assets</td>
<td>40</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>300*</td>
<td>100</td>
</tr>
</tbody>
</table>

* Multiple responses.

From the survey results, 13.7% of the respondents mentioned loss of agricultural labour while 20% of them stated that HIV/AIDS led to reduced family income. There is loss of a few workers at the crucial periods of planting and harvesting. On the other hand, 17.3% of the farmers interviewed said the HIV epidemic caused increased family expenses especially on care and support of PLWHAs and PABAs.

Increased drop-out of children from school was also implicated as a major impact of HIV/AIDS on the farming household as opined by 15.7% of the respondents. This is because the orphaned and vulnerable children (OVCs) as a result of HIV and AIDS lost one or both of their parents to the HIV epidemic who could have supported them in school.

About Seventeen percent (17%) of those interviewed noted that HIV/AIDS decreased agricultural production/output as a result of illness or death of the farmers/farm labour that engage in agricultural production activities. The outcome of this is decreased agricultural output, and this has implication for foreign exchange earnings. Only (3.3%) of the respondents mentioned that HIV/AIDS caused stigmatization/social discrimination of positive persons or affected farming households. Their membership of cooperative societies is resisted with little or no access to farm inputs (eg. fertilizer) for agricultural production, etc.

About thirteen percent (13%) of them said that the epidemic led to loss of family assets because of the burden of care in terms of
medicine and food for household members that were down in health with HIV and AIDS.

It also caused disruption of the farming calendar and adversely affected general farm tasks or operations as farm workers fell ill and other household members need to care for them. Household members miss school or work in order to care for HIV positive members. Also AIDS deaths result in a permanent loss of income either through lost revenues/incomes or through a decrease in agricultural labour supply.

Coping Strategies Against HIV/AIDS

In order to cope with the problems created within the households or families and the communities, individuals, households, groups and communities have devised various coping strategies and/or mechanisms to mitigate the impact of HIV/AIDS epidemic in the South-East zone of Nigeria. Identified coping strategies include disposition of family assets (30%), provision of psycho-social needs of PLWHAs (8.5%), fund raising (23.8%) and consultation of traditional healers (20.3%). Others are provision of retroviral drugs and commercial food supplements (9.6%) and rural-urban migration (7.7%) (Table 3). Figures in parentheses are percentage respondents.

Table 14.3: Coping Strategies Against HIV/AIDS by Rural Farming Households

<table>
<thead>
<tr>
<th>Coping strategies</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposition of family assets</td>
<td>78</td>
<td>30.0</td>
</tr>
<tr>
<td>Fund raising</td>
<td>62</td>
<td>23.8</td>
</tr>
<tr>
<td>Consultation of traditional healers</td>
<td>53</td>
<td>20.3</td>
</tr>
<tr>
<td>Provision of anti-retroviral drugs and commercial food supplements</td>
<td>25</td>
<td>9.6</td>
</tr>
<tr>
<td>Rural-urban migration</td>
<td>20</td>
<td>7.7</td>
</tr>
<tr>
<td>Provision of psycho-social needs of PLWHAs</td>
<td>22</td>
<td>8.5</td>
</tr>
<tr>
<td></td>
<td>260*</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field survey, 2007

Disposition of family assets:
Survey results showed that 30% of the households disposed their family assets (e.g. land, processing equipment storage barns, etc) in
order to provide food, clothing and medicine for their sick family members (Table 14.3).

Provision of psycho-social needs of PLWHAs
About 9% of the respondents were identified to provide psychological and social needs of HIV positive relations or PLWHAs in terms of companionship, prayers and counseling (Table 14.3). However, some of the farming household took their HIV positive wards to available hospitals or clinics for medical attention or treatment.

Fund Raising
Again, majority of the women raised additional family income through food processing and marketing to care for their husbands, children and extended family members. They also resorted to borrowing from local money lenders or relatives with the hope of repaying in cash and/or kind. About 24% engaged in fund raising as a strategy for coping with the impact of the disease as reflected in the results of the study (Table 14.3).

Consultation of traditional healers:
Another important coping strategy involves seeking medical cure from traditional medicine healers. The study revealed about 20.3% of the respondents patronized traditional healers who claim to have solution to the problem of HIV/AIDS.

Provision of Retroviral Drugs and Commercial Food Supplements:
It was noted that 9.6% of them provided anti-retroviral drugs as well as commercial food supplements for their HIV positive wards (Table 14.3). However, majority of the affected households could not provide anti-retroviral drugs on account of high cost, unavailability and lack of information about the source of these anti-retroviral drugs and other medicaments.

Rural – Urban Migration: As a result of the HIV/AIDS scourge rural men, women and especially the youths migrate to urban areas in search of short-term employment for income generation. Most of them
however, hardly return to their communities or households to take care of the sick relatives they left behind. This could be as a result of inability to meet up with adequate revenue or failure to find reasonable employment in the urban cities. Only 7.7% of the respondents mentioned rural-urban migration as an important coping strategy (Table 14.3).

Other negative coping strategies such as alcoholism, commercial sex work and violence, etc were identified among the farming households in the study area. These coping strategies could be linked to unemployment and poverty among the people.

Conclusion and Recommendations

The major problems of farm households infected and/or affected by HIV/AIDS were identified as poverty, dearth of information about HIV/AIDS, stigmatization and social discrimination, unemployment and ignorance. Poverty is an enabling environment for HIV/AIDS. In the South-east zone of Nigeria, about 63% and 34% of the rural and urban population respectively live in extreme poverty. As a result of dearth of information about HIV/AIDS among the population, majority of the people are not aware of the sources of anti-retroviral drugs (ARV) and the availability of screening and counseling centres and prevention opportunities. This is compounded by a high level of ignorance among household members which promotes risky behaviours.

The following key policy recommendations are proffered based on the results of the study:
1. An integrated approach involving HIV/AIDS education, care and support and establishment of more testing and counseling centres should be embarked upon to reduce ignorance, stigmatization/social discrimination and the spread of the virus among the farming population.
2. Providing access to farm inputs, agricultural technologies and micro-credit support to farmers to enhance their productive capacity and income generation is critical.
3. They should be encouraged to form cooperative societies or join existing groups for easy access to micro-credit, bank loans,
agricultural technologies and overall support to meet their needs.

4. Anti-retroviral drugs should be made more available and affordable to these farming households through strategically located testing and counseling centres and designated health centres and hospitals across the country.

References


MARKETING AND DEVELOPMENT OF TOURISM SERVICES IN NIGERIA: A PANACEA FOR SUSTAINABLE DEVELOPMENT OF ONDO STATE OF NIGERIA

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Abstract
Governments across the Globe have been made rich through active participation in tourism activities. Hence, nations over the globe are beginning to see the need to promote tourism activities because of this and other obvious advantages derived from such exercise. Investing in its development in Nigeria, particularly in Ondo state, would be a rewarding experience to the investors. Tourism potential in Nigeria is likened to gold littered in a field and literally waiting to be picked. This paper tries to identify ways in which sustainable tourism can be introduced in Ondo State of Nigeria. It recommends sustainable strategies for marketing and developing tourism services, including Game Reserves, Parks, Holiday resorts, Camps, hotels of different types, Protection and conservation of wildlife and establishment of conservation areas for use by tourists.
Introduction

Learning about the impact of tourism has led many people to seek more responsible holidays. These include various forms of alternative or sustainable tourism, such as nature-based tourism, business tourism, education tourism, ecotourism, and cultural tourism. According to Groth (2000), sustainable tourism is becoming so popular that what we presently call alternative will be the mainstream in a decade. Hall and Lew (1998) saw tourism as one of the world’s fastest growing industries and a major source of income for many countries. Being a people-oriented industry, tourism also provides many jobs, which have helped revitalize local economies. Tourism is no doubt an important aspect of the commercial entity of a nation. It is the harnessing of God’s gifts to mankind – “Dress the earth and keep it” (The Holy Bible).

All tourism activities of whatever motivation – holidays, business travel, conferences, adventure travel, and ecotourism - need to be sustainable. Sustainable tourism, according to Groth (1998), is tourism that respects local people and the traveler, cultural heritage and environment. It seeks to provide people with an exciting and educational holiday that is also of benefits to the people of the host country.

Sustainable development is a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present but in the indefinite future. The field of sustainable development can be conceptually broken into three constituent parts: environmental sustainability, economic sustainability, and socio-political sustainability.

There is the need to identify ways in which sustainable tourism can be introduced in Ondo State of Nigeria, bearing in mind that nations are beginning to see the need to promote tourism activities because of the obvious advantages derived from such exercise. This paper tries to explore the characteristics and objectives of sustainable tourism through series of inferences.
Literature Review
According to Hall and Lew (1998), Tourism is one of the world’s fastest growing industries. In some states, the United States of America (U.S.A.), for example, there were about 25.3 million international tourism arrivals in 1969. By 1990, the figure rose to 425 million, 17 times the earlier figure. By 1997, it rose to 613 million. The world Tourism Organization (WTO) forecasts that this figure may be more than doubled to 1.6 billion people in 2020.

The three top receiving regions will be Europe (717 million tourists), East Asia and the Pacific (392 million). The Pacific, South Asia, the Middle East and Africa have forecasted records of growth rates.

The importance of this growth in tourism can be seen by the fact that travel and tourism generated 11% of the world GDP in 1999; spending on international tourism reaching US $ 453 billion. In addition, the tourism industry employed 200 million people or 8% of total world employment. In 2002, the United Kingdom (UK) ranked the 7th country in international tourism earnings, after the USA, Spain, France, Italy, China and Germany.

According to Harrison (1992), tourism is a major source of income and employment for many countries particularly in Africa where it can assist in addressing problems of poverty.

Factors for the rapid development and growth of tourism include:
- Rising living standards and especially increased leisure time, which has allowed many people in Europe to take longer holidays and travel to distant parts of the world. Many industrializing countries, like Asia and Latin America, are also becoming international tourism targets.
- Advances in transport technology following the introduction of the first passenger jet services in the 1950s and the development of the jumbo jet, which allow for relatively inexpensive long-distance journey/travel.
- Long period of relative political stability have made people feel safe venturing to new and unknown places.
Advances in communication technology – Televisions, movies, and other media have stimulated interest in other parts of the globe by showing attractive and exciting images of distant places.

The tourism industry has become highly professional and has promoted travel holidays through well financed advertising campaigns.

The world’s largest tourism organization, the World Tourism Organization (WTO), had 138 countries as members as at 1999 and over 350 affiliates from local government, tourism associations and private companies such as airlines, hotel groups and tour operators. WTO is an affiliate of United Nations (UN) with responsibilities for the promotion and development of tourism with a view to contributing to economic growth, international understanding, peace, prosperity and universal respect for and observance of human and fundamental freedom for all, without distinction as to race, sex, language and religion. It has also expanded its charter to include both social and environmental responsibilities. At the 1998 conference, the Secretary General of WTO, Francesco Frangialli, said that:

Through tourism, WTO aims to stimulate economic growth and job creation, provide incentives for protecting the environment and heritage destinations, and promote peace and understanding among all nations for the world ... tourism is a labour intensive sector that can alleviate poverty through its capacity to create jobs especially in rural areas and among women and indigenous people. There will be a huge need for infrastructure and for systems that protect the environment (WTO, 2000).

Relevance of Tourism to a Nation’s Economy
Everyday that passes by witnesses a massive movement of people from one place to another either for business, leisure or sight seeing. These movements have become the most performed activity of mankind. The need to make such movement interesting and business-like is the
essence of tourism. Harrison (1992), France (1997) and Umaisha (2001) posit that tourism has no doubt assumed an important position in a nation’s economy. Since tourism has become an important business, efforts must be geared towards developing the tourism sector in order to ensure that it is properly marketed.

This will bring about the following gains among others:
1. It will improve the standard of living of the people.
2. It will bring in more revenue to the government and organizations.
3. It will create greater awareness for the state.
4. It will create more job opportunities for the people and help to minimize unemployment, restiveness and acrimony.
5. It will also help shifting the people’s mind – set from rural – urban drift to urban – rural drift.
6. It will help promote the people’s potentials in the area of culture, monument, beaches and arts.

**Tourism in Nigeria**

Nigeria is a country of tremendous tourism potential with dramatic scenic beauty, incredible history and cultural diversity. Therefore, investing in tourism development in Ondo State in particular and Nigeria in general would be a rewarding experience, especially in the development of game reserves, parks, resorts, holiday homes, camps, hotels of different types and the development of conservation areas for use by tourists, protection and conservation of wildlife, natural resources management and so forth. Examples of nations that have developed its tourism potentials which derived benefit from Nigerians through positive patronage include Israel, Kenya, Switzerland, Saudi Arabia, Egypt and Dubai. Today, they are still gaining from this patronage as it contributes to the growth of their economy while some of these nations live wholly on the proceeds from tourism.

In his mission statement, Kayode (2008) alludes to the fact that appropriate policies and programmes are already in place to ensure the growth of tourism industry. He said if the right approaches to issues are addressed and adopted, Nigeria will be on the path to sustainable
development in tourism. He noted that effective contribution of the sector to national development depends on the re-engineering of agencies under the tourism ministry. According to him, government had drafted polices designed to promote and market tourism in Nigeria, but the only economic strategy remaining to enhance its revenue base is market. However, the problems militating against the sector are man-made, one of which is the development of strategic infrastructure. Some analysts call for an urgent need to address security concerns, epileptic power supply, poor state of roads and unreliable public transportation system.

There is also the need to tackle poor public sanitation in most towns and cities in Nigeria. Inadequate infrastructure in Nigeria precipitates to making tourism sites located outside the cities not only expensive to reach but also risky coupled with the incessant kidnaps occasioned by the activities of the so-called militants in the Niger Delta region of Nigeria that is gradually spreading to other parts of the country. These in essence deter some visitors and maintaining tourism centres/sites in the country. Government should take the bull by the horn to ensure that sanity is maintained in our society. Certainly the government cannot solve these problems alone; there is the need for partnership to optimize its potential and have a clearer picture of the needs of the sector and areas that need to be developed. This partnership will offer a vesta of opportunity for people to experience in current tourism development in the world.

To create more awareness and to successfully market tourism in Nigeria, certain strategies mentioned below should be designed and put in place:

**Provision of Infrastructural Facilities**

Tourism is an industry that depends on adequate infrastructural facilities. Therefore, basic infrastructures, such as regular electricity supply, water, telephone and good road networks to all tourism sites, should be put in place.
Formulation of Policies and Guidelines
Nigerian government should formulate and pursue tourism policies towards achieving the three elements that underlie all tourism policies. These elements are:

i. Visitors satisfaction
ii. Environmental protection, and
iii. Adequate reward for developers.
iv. Also, the following acceptable most beneficial and least destructive to the community guidelines for the development of tourism should be recognized:

**Economic:** Tourism should create jobs and income for local residents and government.

**Subsistence:** Tourism should not conflict with resident’s use of subsistence resources.

**Social:** Tourism should be controlled to minimize impact on the present way of life

**Cultural:** Tourism should emphasize respect for and knowledge of native culture.

**Environment:** Tourism should maintain the existing level of environment quality.

Tourist offices should be set up in all the states and local government headquarters to create awareness of what tourism is all about and where these products are located so that citizens should be friendly and accommodating to visitors. The tourism office should educate and motivate the tourist about tourism beauty of the country and in the same vein guards and drivers are to be properly trained.

Tourism operators are to participate with the organized private sectors to develop the sector. Promotional strategies should be vigorously mapped out on how the tourism products could be marketed. Such strategies could be achieved through advertisement on televisions, radios, newspapers, and so forth. Audio visual aids are
media of expression capable of informing, entertaining and educating their viewers about cultures and beliefs of their destinations.

Each ethnic group of the state has unique culture and tradition, history, arts and handcrafts. These need to be tapped and advertised to the outside world to attract international tourists. Mobile films should be shown at every local government headquarters and state capitals. The films could be sold as souvenirs at international hotels, on-board national aircraft operating international routes and the souvenirs could be sold at various high commissions and embassies all over the world.

Organizing cultural festivals at specific period to attract both local and foreign tourists and participation in both national and international trade fairs, where the nation’s tourism products could be displayed, should be exploited. Already, Nigeria is endowed with various cultural troupes across the country that entertain visitors occasionally in their various states and localities.

Printed promotional materials, like brochures, maps, postcards, GSM recharge cards on the tourist products of the country, should be made available for distribution within and outside the country through liaison officers.

One of the most common forms of sustainable tourism is ecotourism, the term most country use to describe any form of holiday or recreation in natural surroundings. Ecotourism society adds the concept of social responsibility in its definition of ecotourism as purposeful travel to natural areas to understand the culture and history of the environment, taking care not to alter the integrity of the ecosystem, while producing economic opportunities that make the conservation of natural resources beneficial to local people. Therefore, ecotourism is a form of tourism to relatively undisturbed natural areas for the main purposes of admiring them and learning more about their habits. It also seeks to reduce its impacts on the area visited. It contributes to the conservation of natural areas and the sustainable development of adjacent areas and communities, generating further awareness among resident and nearby populations and visitors. Although, ecotourism is a relatively new part of tourism industry, it has spread rapidly throughout the world. The most popular ecotourism destinations are spread relatively even throughout the world and
include cities in Central and South America, Canada and USA, Antarctica, Asia and Africa (rain forest).

Tourism can have beneficial and negative consequences for the environment. Tourist development can contribute to substantial upgrading of recreational resource base, and so add to visitor and local resident enjoyment. It can also lead to improved transportation systems through advances in vehicle and route way design (Gunn, 1994). Improvements in transportation networks, water quality and sanitation facilities may have been prompted by the tourism industry but benefit other sectors of the economy.

According to Vanhove (1997, 2005), an international airport provides improved products, but its impacts can be devastating for people living in nearby areas, in terms of dispossession, noise, traffic congestion, pollution. Tourists help spread among other things AIDS, sexually transmitted diseases and flu. Tourists themselves face health risks and may transmit diseases and illness on their return home. Prostitution has strong links with tourism.

The World Tourism Organization, WTO (2000) argues that with care and proper policies, the cultural and environmental heritage of an area can be protected. One requirement is that tourists themselves act in ways which will sustain rather than damage host culture and environments and follow an appropriate code of conduct.

**Recommendations**

As individuals can learn to be enlightened, so travelers, governments and tour operators can support and encourage sustainable tourism through appropriate policies and regulations in the following ways:

- Tourism development projects can be required to include local representatives on planning teams.
- Tourism development projects should be compatible with the needs and practices of local communities.
- Planning controls can be designed to ensure regional dispersal of tourism development to avoid over concentration and regional inequality.
- Good agricultural land can be made off limits for tourism
- Hotels can be required to install effluent treatment plants
Minimum levels of local employment and resources should be enforced
- Codes of conduct can be formulated and distributed at tourist outlets

For effective promotion and marketing of tourism in Nigeria, the ministry of tourism and culture should embark on the sensitization of Nigerians and the various festivals such as the Eyo masquerade in Lagos, the Calabar Christian Carnival, the Boat regattahas of the Niger Delta, the Argugu Fishing festival, the Enugu New Yam Festival, the Osun Osogbo Groove, the Abuja Carnival among others. These festivals and other tourism sites can be modernized to meet international standards bearing in mind that the role of tourism in national economy development cannot be quantified.

**Conclusion**
Nigeria’s tourism potential can be likened to gold littered in a field and literally awaiting to be picked. Tourism is a spearhead for Nigeria economic growth.

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Abstract
The perception of bank customers of ATM services is the focus of this study. It is important that customers’ needs regarding ATMs are ascertained because while most customers will continue to view the ATM as a cash dispenser, many will expect progressively greater convenience, personalized experience, and data security. The data for the study were collected through survey instrument developed and administered to 300 bank customers, selected across four Nigerian banks in Nigeria. They were analysed using descriptive and inferential statistics, which include simple frequency distribution, tables of means and analysis of variance (ANOVA). Results shows that ATM services were more patronised by the younger bank customers than the older ones. Major means through which customers become aware of ATM transactions include the efforts of bank staff (50.9%) and consumers’ friends (31.4%). Customers were most satisfied with correctness of their account and the time it takes to complete an ATM transaction but least satisfied with service charge and waiting time before transaction. Queues are now regular sights around ATMs installed within bank premises. This means that banks may soon start finding ways to decongest not just banking halls but also ATMs stands around banks. This can be achieved through the installation of off-bank premises ATMs.
Introduction
Nigeria has recorded rapid technological advancements in the past few years in the area of Information and Communications Technologies (ICTs). This has opened a lot of doors to technology-based products and services in both banks and other financial institutions. Some of these services include Automated Teller Machine (ATM), Global System of Mobile communications (GSM) banking, internet banking, etc.

Aggressive installation and deployment of ATMs is one of the most visible outcomes of post-consolidation exercise in the banking industry. Within this period, the Nigeria e-banking space recorded significant advancements against all odds. This made it possible for Nigeria to be adjudged the ‘fastest growing ATM market in Africa’ by International Card Community and Automated Teller Machine Industry Association.

ATM, which was first used in the United States of America in the mid-1960s and introduced in Nigeria in 1989, has spread to banks across the country. At inception, the few banks that operated the machines restricted customer access to the machines from within their banks alone. But now, with improvements in the technology, facilities have been put in place to enable bank customers make withdrawals from ATMs of other banks. Furthermore, ATMs are now installed in strategic places, like hotels, transport terminals, students’ hostels, restaurants, etc., to bring them closer to users.

The research conducted by Intermac Research (2007) on the status of electronic banking in Nigeria in 2008, rated Zenith Bank as the best overall performing bank in e-banking in Nigeria 2007, while Guarantee Trust Bank (GTBank) emerged as the bank with the most satisfied e-banking customers in Nigeria in 2007. The United Bank for Africa (UBA) however emerged as the Bank with the best e-banking footprint and presence in Nigeria in 2007, while Skye Bank also emerged as the best emerging bank in e-banking in Nigeria in 2007.

Also, the same research had it that there were about 5,894 ATMs in the country as at 2007; UBA had the largest network of 1,205 ATMs, followed by Intercontinental Bank, and First Bank with 973
and 610 ATMs respectively. Other banks with significant ATM network include Ecobank (399), Oceanic Bank (387), Skye Bank (357), Zenith Bank (320), GTBank (276), Union Bank (221), Bank PHB (181), Access Bank (147), Fidelity Bank (143), ATMC (136), Unity Bank (113) and FCMB (110).

With regards to the provision of services, ATM in Nigeria has advanced beyond withdrawals, checking of account balance and purchase of airtime, to services like payment of bills or making utility/tax payments, calls, stock transaction, purchasing tickets, etc., which were not popular with earlier ATM users.

One of the key issues facing Nigerian Banks today is the gap that presently separates ATM services in Nigeria from those of developed countries, in terms of functionalities and perceived value especially, in the face of militating environmental factors, such as inadequate power supply, network failures, security issues and working condition of ATM machines.

In any case there seems to be a stiff competition among Nigerian banks in the area of providing satisfactory services to ATM users. This is because the level of awareness among customers have greatly increased in terms of expectations for additional ATM services. But matching levels of service to customers’ perceptions of value is not a simple task. This is because customers’ needs differ relative to the services that will mostly appeal to them.

Enhancing the services and functionalities available on ATMs and delivering same in the context of a better environment will likely result in increased and strengthened customer loyalty. Customers may perceive a given service to be more convenient, available, or less costly at one bank than at another. Apparently, there exists limited documentation on the assessment of customer loyalty to ATM services in Nigeria. The above raised issues and more are what informed the import of this study which is to analyse bank ATM customer perceptions of ATM services in Nigeria.
Literature Review
E-banking practices in Nigeria have continued to grow in line with global trend. The Central Bank of Nigeria (CBN) has continued to encourage banks to install ATMs for cash withdrawals in order to increase the use of electronic money (e-money), in line with international best practices. This has made it necessary to appraise customer preferences and satisfaction of e-banking in general and ATM services in particular.

In a survey carried out by Ugwuonah (2006), on Empirical Assessment of Information Technology in Marketing of Commercial Bank Services in Nigeria, it was clearly observed that most customers were happy with the introduction of e-banking services into Nigerian banking system. However, among modern banking transaction methods, such as Internet banking, Point of Sale terminal transactions, and money transfer, ATM emerged the most popular with 96% awareness, which also ranked higher than current account but slightly below savings account. Although, bank services, such as local money transfer, international money transfer, loan facilities, and telephone banking, have been in existence before ATM, they all recorded relatively low in the levels of their awareness.

Despite the high rate of ATM acceptance, some bank customers still display negative attitudes towards it, mostly as a result of the problems encountered in the course of using the service, most of which bother on security risk, network problems and service charges. Another study by Intermac Research (2008), noted that customers affirmed that security problems hinder them from making withdrawals during the off-banking hours. Closely related to this is the customers’ fear of the possibility of computer hackers infringing on their privacy and gaining unauthorized access to their accounts. In the same survey, a cross section of respondents decried positioning ATMs right inside the banking hall, thereby making it impossible for them to access their accounts after working hours. Other enumerated problems are compulsory withdrawal of certain amounts monthly from every ATM card holder account. The study, however, stated some benefits mentioned by ATM account holders, which include twenty-four hour
access to bank accounts, printing of account statements, easy cash withdrawals, transfer of funds between accounts, and the stress-free process of making banking enquires.

A similar study on ATM user perception conducted by eShekels Limited (2007), revealed that 18 per cent of people who do not use ATMs attributed non-usage to charges by banks. On the contrary, the larger percentage (73.3 per cent) of respondents, who were willing to use ATM services, attributed their major reason to convenience of withdrawal.

The respondents who indicated their unwillingness to use ATMs gave their reasons as power failure, charges attached to the service, location of the machines and their choice to remain with the older banking methods. Some intending users affirmed the non-availability of ATM machines in their areas of abode, claiming that they only find them at commercially busy areas. To this effect, it is pertinent that ATMs should be stationed at residential areas for its easy access which would enhance convenient withdrawal of cash, the primary reason for its usage. This shows that with massive sensitization campaigns by the banks for all levels of customers, the ignorance in the use of ATMs will be addressed. Also, more people will use ATMs if a maximum level of continuous convenience is guaranteed by providers.

Komolafe (2006), examined the views of both customers and bank management on ATM charges. He found out that initially, all the banks charged the same fee for cash withdrawals using ATM irrespective of whether it is intra-bank or inter-bank. But later, in an effort to encourage customers to use ATMs in order to decongest their banking halls, some well established banks stopped charging for intra-bank ATM withdrawals. Despite the move by bank customers to persuade their banks to stop all the charges, banks management continued to charge customers on the grounds that ATMs add value to the services banks offer to customers, and such services should be paid for. Furthermore, the reason for the bank’s insistence on these charges was based on the view that the charge on ATM serves the purpose of subsidising the cost of ATM acquisition, installation, activation, and
maintenance. The banks claimed that they spend so much money on fuel for powering their generating sets and other infrastructural facilities to keep the ATMs working for 24 hours within the seven days of the week.

Lim Bee Eng (2003), sought the impact of technologically innovative bank products on customer satisfaction. A group of 300 bank customers from Singapore, Malaysia and Thailand were interviewed in order to assess their banking preferences and behaviours. The findings indicated that even though ATMs were the most frequently used service of all e-banking services in the three countries, the aged group and low-educated customers prefer the human touch in the form of a customer service officer to electronic banking.

Kassim (2009), examined the gaps in service quality of electronic banking in Qatari banking industry. The major emphasis of the study was to investigate the discrepancies between customer's expectation and perception towards the e-banking services. The study revealed that the major challenge facing banking institutions in providing e-banking services was the growing and changing needs and expectations of consumers in the light of increased education levels and growing wealth. Consumers were becoming increasingly discerning, and as such, have become more involved in their financial decisions. The implication of this is the growing demand for a broader range of e-banking products and services at more competitive prices through more efficient and convenient channels.

In order to address the issue of capturing the varied customers’ needs with respect to ATM services, Richard (2002), divided ATM services into two categories depending on the nature of services the consumers are looking for. The two categories derivable from the study are ATMs as "complement" goods and "substitute" goods. According to him, ATMs availability for 24 hours a day can be viewed as complementary hence “complement” goods. This is because it is an extension of banking service, as customers can still draw cash when the banks are closed, while the ATM provides round-the-clock service. Based on this, he was of the opinion that the ATMs serving at this
level of purpose are generally easy to "sell" and have wider acceptance. But he saw in-lobby ATMs as substitute goods - substitutes for live teller services - since the banks are still open for customers’ face-to-face transactions. Some customers perceive live tellers as fast, efficient, personable, and most importantly, no more expensive than ATM transactions. From this viewpoint, ATMs are more difficult to sell because changing current consumer behavioural pattern is not easy.

He stressed that with the viewpoint of complement goods, banks should emphasize the benefits of ATMs, one of which is that customers serve themselves faster, rather than waiting in a crowded teller line. According to him, the emphasis with this approach therefore, should be the deployment of many hands into the customer care unit of the banks to handle queries concerning funds availability and multiple account access with ATMs. But from the substitute goods viewpoint, emphasise should be on the benefits that ATMs provide, which include the processing of all accounts, time savings, privacy and the self-service dimension. In addition to this, efforts should be made to improve ATM services by service providers, since the satisfaction of its users’ desire is a vital tool for its sensitization, acceptance, growth and usage.

**Significance of the Study**
The customer perception of Bank ATM services in Enugu metropolis is the key element of this study. Improved ATM services are very important to economic development because of the number of transactions that can be made from the machine. The most important of these transactions is the possibility of individuals and business organisations to withdraw needed cash at will, the 24-hour access to account, fund transfer and cash withdrawals. These transactions are vital to business men, tourists and travellers, who are constantly faced with the problems of exchange or money transfer. ATM services eliminate the problem of travelling with much cash and/or traveller’s cheque because of exposure to the risk of theft and robbery. Globally, there is a move to make transactions as cashless as possible.
A study of customers’ perception of Bank ATM services is therefore important because it will benefit intending ATM service subscribers to make more informed decisions. The banking industry in Nigeria will benefit from the study because it will help banks that utilize effective customer relationship management tools to have information that will enable them to improve their ATM services. Banks will also be able to identify more customers’ needs for enhanced scope of services to be rendered in order to remain competitive. This will aid them in developing and targeting ATM services to benefit users for improved transactions.

Objectives of the Study
The broad objective of the study is to ascertain customers’ perception of Bank ATM services in Nigeria, with particular reference to Enugu. The study therefore seeks to provide insights into:

a. gender dimensions on the usage of ATM services,
b. ATM users’ perception on key ATM services provided by banks,
c. reasons for subscribing for ATM by bank users, and
d. problems associated with ATM usage.

Methodology
The study is descriptive in nature and made use of stratified random sampling procedure. The respondents were selected purposely based on usage of ATM services. Only bank account owners who use ATM were selected for the study. Basically, survey design, which entailed administration of questionnaires to these bank account owners, was used to generate data for the study. The pool of respondents was obtained from customer service department of the selected banks. Bank staff who work in customer service department assisted in data collection by administering the questionnaires to respondents. The high level of education of the respondents made it easy for them to fill the questionnaires with minimum assistance.
Four hundred questionnaires were administered to respondents drawn from four banks. The selection of banks was based on their generation. First bank of Nigeria and Union Banks were selected among the first generation banks, while Zenith bank and Intercontinental banks were selected among the second generation banks. One hundred questionnaires were administered to ATM customers of each bank of the selected banks.

The data obtained were analysed using descriptive and inferential statistics, which include frequency distribution, tables of means, and analysis of variance (ANOVA).

Discussion of Results
The result of the study shows that respondents between the ages of 25 and 40 years made up nearly half of the bank customers who use ATM services (44.8%). This is closely followed by the respondents who were less than 25 years. The older age group (40 and above), however, constitutes only 6.8% of the interviewed users. This shows that ATM services were more patronised by the younger bank customers than the older ones. This result is consistent with an earlier study by Lim Bee Eng (2003), on the assessment of banking preferences and behaviours on bank customers from Singapore, Malaysia and Thailand, where he found out that the older age group and lower educational group customers prefer the human touch in the form of bank officials to electronic banking services.

The data was examined for the existence of significant gender dimensions using chi-square as a statistical tool. The obtained chi-square value of 11.93 and P-value of 0.0026 shows the existence of significant gender dimensions at P<0.05. Table 1, shows that more female respondents existed at the youngest age group of less than 25 years (65.3%), more males were found at the younger age group of 25 through 40 years.
Table 17.1: Showing Distribution of Age by Gender of Respondents

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>LESS THAN 25 YEARS</td>
<td>101</td>
<td>78</td>
</tr>
<tr>
<td>% within Gender</td>
<td>36.0</td>
<td>65.3</td>
</tr>
<tr>
<td>25 THRU 40</td>
<td>157</td>
<td>37</td>
</tr>
<tr>
<td>% within Gender</td>
<td>56.1</td>
<td>30.6</td>
</tr>
<tr>
<td>40 AND ABOVE</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>% within Gender</td>
<td>7.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td>280</td>
<td>120</td>
</tr>
<tr>
<td>% within Gender</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Chi-square value</td>
<td>11.93</td>
<td></td>
</tr>
<tr>
<td>Source: <a href="#">Survey 2008</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data were further analysed to ascertain the means by which the interviewed ATM users got introduced to ATM. It was observed from Table 17.2 that the major means were the efforts of bank staff (50.9%) and consumers’ friends (31.4%). Introduction by relations and other unspecified means did not show a significant result, as they were 9.7% and 8.0% respectively. These data, when subjected to further analysis for a gender dimensional implication, did not show any significant differences as means of introduction to ATM. This is evidenced by a chi-square value of 0.4, and a non significant probability (P) value of 0.93.
Table 17.2: **Showing Introduction to ATM by Gender**

<table>
<thead>
<tr>
<th>Who introduced you to ATM</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Friends</td>
<td>89</td>
<td>37</td>
</tr>
<tr>
<td>% within Gender</td>
<td>32.8</td>
<td>28.6</td>
</tr>
<tr>
<td>Relations</td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>% within Gender</td>
<td>9.2</td>
<td>10.7</td>
</tr>
<tr>
<td>Bank staff</td>
<td>137</td>
<td>67</td>
</tr>
<tr>
<td>% within Gender</td>
<td>50.4</td>
<td>51.8</td>
</tr>
<tr>
<td>Others specify</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>% within Gender</td>
<td>7.6</td>
<td>8.9</td>
</tr>
<tr>
<td>Count</td>
<td>271</td>
<td>129</td>
</tr>
<tr>
<td>% within Gender</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Chi-square value = 0.4  
Df = 2  
P-value = 0.93

*Source: Survey 2008*

Information on length of time the respondents have used ATM services and frequency of use was also obtained from the respondents. The analyses revealed that majority of the interviewed bank customers have used ATM for two years (45.3%). The second level of users had been on the service for one year (35.9%). Few respondents (18.8%) affirmed using ATM for more than two years. This shows that bulk of the users (81.3%) have used the machine for transaction between one and two years period, which is long enough to judge the effectiveness of the service. This result is consistent with the findings of Intermarc Consulting (2007), and coincides with the post consolidation period which witnessed aggressive deployment of Automated Teller Machines (ATMs).
Table 17.3: *Length of Usage and frequency of Use*

<table>
<thead>
<tr>
<th>Length of Use</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year</td>
<td>144</td>
<td>35.9</td>
</tr>
<tr>
<td>Two years</td>
<td>181</td>
<td>45.3</td>
</tr>
<tr>
<td>Above two years</td>
<td>75</td>
<td>18.8</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency of Use</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>50</td>
<td>12.43</td>
</tr>
<tr>
<td>Twice a week</td>
<td>98</td>
<td>24.48</td>
</tr>
<tr>
<td>Once a week</td>
<td>81</td>
<td>20.31</td>
</tr>
<tr>
<td>Once in two weeks</td>
<td>84</td>
<td>20.9</td>
</tr>
<tr>
<td>Less than once in two weeks</td>
<td>88</td>
<td>21.88</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: Survey 2008*

On the frequency of use, while some respondents use the services daily (12.43%), a reasonable percentage use ATM twice a week (24.48%). Other consumers use ATM once a week (20.31%), once in two weeks (20.9%) and less than once in two weeks (21.88%).

Table 4 shows the result of the analysis on perception of key ATM transactions. It shows that the users’ perception of the ATM services was fairly high. This is evidenced by the mean values of over 3.0 obtained for all the key transactions. This value judgement was based on the platform of 5-point scale employed in the survey. Exceptionally high ratings were however, obtained for transaction time (4.14) and correctness of account (4.10). The least mean ratings were obtained for service charge (3.09), waiting time before transaction (3.15) and condition of machines (3.20).
In order to seek the existence of significant differences in the mean ratings of the perception variables, one-way analysis of variance (one-way ANOVA) was employed as a statistical tool. F-value of 24.12 was obtained which was significant at P<0.05. In order to ascertain where the significant differences lie, Scheffe test was used in order to categorise the perception variables in their order of importance. The following sub groups were obtained:

Subset 1- Correctness of account and Transaction time
Subset 2- Security
Subset 3- Condition of ATM machine, Amount withdrawn per service and Availability of cash; and
Subset 4- Service charge and Waiting time before transaction.

The above result shows that ATM customers were more satisfied with the correctness of their account and the time it takes to complete an ATM transaction, but least satisfied with service charge and waiting time before transaction. It is a regular sight to see queues now around ATM machines. This means that banks may soon start finding ways to decongest not just banking halls but also ATM

---

Table 17.4: ATM Users’ Perception on key ATM Services

<table>
<thead>
<tr>
<th>Perception Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correctness of Account statement</td>
<td>4.10</td>
<td>1.06</td>
</tr>
<tr>
<td>Service charge</td>
<td>3.09</td>
<td>1.34</td>
</tr>
<tr>
<td>Availability of Cash</td>
<td>3.56</td>
<td>1.08</td>
</tr>
<tr>
<td>Amount withdrawn per service</td>
<td>3.56</td>
<td>1.10</td>
</tr>
<tr>
<td>Security</td>
<td>3.73</td>
<td>1.14</td>
</tr>
<tr>
<td>Condition of ATM machine</td>
<td>3.20</td>
<td>1.05</td>
</tr>
<tr>
<td>Transaction Time</td>
<td>4.14</td>
<td>0.86</td>
</tr>
<tr>
<td>Waiting time before transaction</td>
<td>3.15</td>
<td>1.26</td>
</tr>
</tbody>
</table>

*Source: Survey 2008*
machines especially around banks. This can be achieved through the efforts of banks installing more off-premises ATMs.

Table 17.5: ANOVA results on ATM Users’ Perception on key ATM Services

<table>
<thead>
<tr>
<th>Perception Variable</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>210.51</td>
<td>7</td>
<td>30.07</td>
<td>24.12</td>
<td>0.00</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1760.40</td>
<td>1412</td>
<td>1.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1970.91</td>
<td>1419</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey 2008

Table 17.6: Scheffe Test Result on ATM Users Perception on key ATM Services

<table>
<thead>
<tr>
<th>Key ATM variables</th>
<th>Subset for alpha = .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service charge</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>Waiting time before transaction</td>
<td>3.09</td>
</tr>
<tr>
<td>Condition of ATM machine</td>
<td>3.15</td>
</tr>
<tr>
<td>Amount withdrawn per service</td>
<td>3.20</td>
</tr>
<tr>
<td>Availability of Cash</td>
<td>3.47</td>
</tr>
<tr>
<td>Security</td>
<td>3.56</td>
</tr>
<tr>
<td>Correctness of Account statement</td>
<td>3.73</td>
</tr>
<tr>
<td>Transaction Time</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>4.10</td>
</tr>
<tr>
<td></td>
<td>4.14</td>
</tr>
<tr>
<td></td>
<td>0.22 0.12 0.71 0.11</td>
</tr>
</tbody>
</table>

The reasons for using ATM were sought for and rated by respondents. The result for its analysis, as shown in Table 17.7, indicates that all the identified reasons were equally important to the respondents. The mean ratings of the users on this were as follows: off banking hour transaction (4.33), to avoid banking hall crowd (4.30), for weekend banking (4.25) and easy access to cash (4.20).
Table 17.7: Reasons for using ATM

<table>
<thead>
<tr>
<th>Reason for using ATM</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy access to cash</td>
<td>4.20</td>
<td>0.92</td>
</tr>
<tr>
<td>To avoid banking hall crowd</td>
<td>4.30</td>
<td>0.90</td>
</tr>
<tr>
<td>For weekend banking</td>
<td>4.25</td>
<td>1.00</td>
</tr>
<tr>
<td>Off banking hours transaction</td>
<td>4.33</td>
<td>0.95</td>
</tr>
</tbody>
</table>

Source: Survey 2008

The problems encountered by users in the course of their ATM transactions are seen on Table 17.8. The major problem from the result was Network/service failure (63.5%). Other slightly significant problems were unavailability of cash (10.5%), debiting without pay (7.0%), infrastructural problems (5.0%) and cash trapping and queuing (3.5%). The problems mentioned in negligible percentage include lack of accurate record, security, cash retract and charges (1.8%).

Table 17.8: Problems of using ATM

<table>
<thead>
<tr>
<th>Problems</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network/Service Failure</td>
<td>254</td>
<td>63.5</td>
</tr>
<tr>
<td>Unavailability Of Cash</td>
<td>42</td>
<td>10.5</td>
</tr>
<tr>
<td>Debiting Without Pay</td>
<td>28</td>
<td>7.0</td>
</tr>
<tr>
<td>Infrastructural</td>
<td>20</td>
<td>5.0</td>
</tr>
<tr>
<td>Card Trapping</td>
<td>14</td>
<td>3.5</td>
</tr>
<tr>
<td>Queue</td>
<td>14</td>
<td>3.5</td>
</tr>
<tr>
<td>Lack Of Accurate Record</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>Security</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>Cash Retract</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>Charges</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Survey 2008

Conclusion and Implications
From the survey results, it can be deduced that banks were rendering ATM services fairly well, since the customers rated the provision of
these services above average. This reveals that most of the fears of new entrants to the use of these services have been fairly handled. Conversely, the major problems encountered by ATM users were network and out-of-service problems. This has implications on expanding the ATM markets further and for creating a strategy for competitiveness in banking industries.

The patronising of ATMs by younger bank customers is expected, since younger people are more at home with Information and Communication Technologies than the older ones. This has implications for banks to develop strategies to reach the older people with adverts on ICT-based bank products.

It is therefore, obvious that for any bank to remain in business on the globe in general and in Nigeria in particular there must be well directed efforts toward the development of ATM channel strategies that employ growing technologies to create a more enjoyable and informative customer banking experience.

In doing this, due consideration must be given to ensuring positive benefit to cost ratio. This poses a challenge for banks to develop clear systems aimed at understanding the needs of their customers in relation to ATM and developing strategies to update the provision of these services at a profit. These strategies must also take into account what customers perceive as enhancements to the ATM delivery capability.

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DAIRY PRODUCTION AMONG SMALL AND MEDIUM SCALE FARMERS IN NIGERIA: A CASE STUDY OF KADUNA AND KANO STATES

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Abstract
A study of dairy production and processing by small and medium scale farmers was conducted in Kaduna and Kano States of Nigeria. The survey showed that dairy production is characterized by low milk production, and poor milk hygiene as a result of the use of indigenous/local breeds of dairy cattle managed under pastoral production system by Fulani herders which dominate the dairy sub-sector. There are limited availability of dairy production and processing technologies and facilities in these target states. Dairy processing and marketing are not well developed with hand milking and marketing by Fulani women being a common feature. These local women process these products into ‘nono’ (fermented milk) and yoghurt and market these milk products in semi-urban and urban cities and in the communities. Identified key constraints to small and medium scale dairy farming are lack of suitable improved breeds of dairy cattle, lack of modern dairy technologies and facilities, and dearth of such modern dairy technologies and facilities, and dearth of such
constraints include the poor socio-economic status of dairy farmers, poor input supply and distribution system, lack of credit facilities and insufficient institutional support. In order to promote the development and commercialization of the dairy sub-sector, it is recommended that there should be sustained provision of dairy technologies, technical and business advisory services to dairy farmers, modern market development and facilitation and capacity build/training of dairy producers and processors. There is the need for institutional and infrastructural support and development of a strong public-private partnership (PPP) for enhanced business environment and private sector participation.

Introduction

Over 2% of world milk is produced in Africa. The principal exporters of milk products are the European Community (EC), New Zealand and the USA, with the EC typically accounting for up to half of the total (Nell, 1990).

Dairying is a biologically efficient system which converts large quantities of medible roughage to milk. Milk production is more efficient than beef production when the nutritional potential of the feed resource base is high and therefore capable of supporting high levels of production. It is a continuous production process and requires a continuous supply of feed of consistently good quality. Beef production, on the other hand, is often better adapted to the seasonal fluctuations that are so common in sub-Saharan Africa (Nell, 1990).

Dairy production in sub-Saharan Africa is restricted to five agro-ecological zones, namely, Arid, semi-arid, sub-humid, humid and highlands (Jahnke, 1982). The five milk production systems recognized in sub-Saharan Africa are pastoralism, mixed farming, intensive dairy farming and peri-urban dairying.

Milk production in sub-Saharan Africa has more than doubled over the past 30 years, with most of the growth occurring since the mid-1970s. Gains in production have been largely affected by population increases. However, the encouraging trend is that the annual percentage gains in cow milk production since the late 1970s
have exceeded population growth [Shapiro, et al, 1990]. In terms of demand for dairy products in SSA, the World Bank (1990), noted that consumption stands at 27kg LME per caput, growth rate in total demand 4% per year and income elasticity of demand 0.8%.

Sub-Saharan Africa augments its milk production with dairy products imported either commercially or as food aid donations. Imported products include dry milk powder (whole and skin), butter and butter oil with dry milk powder dominating. On a liquid-milk-equivalent (LME) basis, dry milk and butter/butter oil account for about 80% of total dairy imports (Shapiro, et al, 1990).

With respect to Nigeria, Nwoko (1986), listed only 13 dairy plants in Nigeria, most of them in the north, with capacities ranging from 500 to 35,000 litres a day and operating at 10% to 100% of that capacity. The village based traditional dairy processing and marketing system is also an important feature in Nigeria with such milk products as ‘nono’ and ‘fura’ which are marketed in small towns and large cities, like Zaria (Simmons, 1973; Waters-Bayer, 1988). According to a 1981 World Bank estimate, only 3% of Nigeria’s national herd was exotic. Most milk is from Fulani-herd cattle. (Waters-Bayer (1988), estimates that about 350,000 tonnes of milk from traditionally managed herds are processed by traditional methods and sold annually, compared with an estimate by Nwoko (1986), of 221,200 tonnes for 1983. While this latter figure was dwarfed by imports of almost 800,000 tonnes in 1983 (Nwoko, 1986), traditional production, processing and marketing are nonetheless important.

According to Nell (1990), the potential for commercialization of milk production depends to a large extent, on the production system. The potential to increase milk output from pastoralists and agropastoralist production systems is limited and depends on costs of collection, transport and processing. Mixed farmers and intensive dairy farmers in rural and peri-urban areas have more control over their inputs and improvements in inputs result in increased milk output. There is thus the potential to increase milk production per cow, per farm and per unit area, which would reduce the cost per litre of the required supporting infrastructure (input supply, animal health services and marketing).
This study, therefore, examines the potential for commercial dairy production among small and medium scale farmers in Nigeria with empirical evidence from Kaduna and Kano States.

**Research Methodology**

**The Study Areas**
The study locations were Kaduna and Kano states which are prominent in dairy production in Nigeria.

**Kaduna State**
Kaduna State occupies almost the entire mid-central portion of the northern parts of Nigeria and shares common borders with Zamfara, Katsina, Niger, Kano, Bauchi and Nasarawa States and the Federal Capital Territory (FCT). The State is located between latitudes 9° 03’N and 11° 32’ north of the equator and longitudes 6° 05’ and 8° 30’ east of the Greenwich Meridian.

The State experiences a typical tropical continental climate with two distinct seasons, the dry and rainy seasons. The average annual rainfall is 1,272.5mm; average humidity, 56.64%; wind speed, 176.12 knots; average daily minimum temperature, 15°10C and average daily maximum temperature, 35.18°C.

Kaduna State’s topography is favourable for small, medium and large-scale farming and for tourism (Kaduna State Economic Empowerment Development Strategies, KADSEEDS, 2005). Based on the 2006 census, the State has a population of 6.1 million (National Population Commission, NPC, 2006) distributed in 23 LGAs.

Agriculture is the mainstay of Kaduna State’s economy. It is estimated that 80% of the population are engaged in small and medium – scale farming. Predominant feed crops grown in the State are maize, rice, cassava, sorghum, millet, yam, cocoyam, beans and Irish potatoes. Major cash crops include sugar cane, ginger, tomatoes, pepper, groundnut, rice, Irish potatoes, soya beans and cotton.

The State is endowed with a number of livestock breeds, such as cattle (Bunaji), goats (Sokoto Red, West African Dwarf), sheep (Yankari, Balami, Uda), pigs (Yorkshire, Hampshire), poultry (layers,
broilers, ducks, turkeys, etc.), rabbits, fish and bee-hives (National Livestock Survey, 1990).

Of the 14 million heads of cattle in Nigeria, Kaduna State accounts for 7%. The decline in dairy development over the years could be attributed to such factors as faulty design approach, unstable government policies, non-involvement of the private sector, and non-inclusion of livestock farmers from the on-set (Kaduna State Government, KADSG, 2005). The dairy sub-sector is also underdeveloped resulting in low milk production, poor milk hygiene and prevalence of diseases. It is also affected by lack of processing facilities, equipment and supplies.

**Kano State**

The total land area of Kano State is 20,760sq km with 1,754,200ha of agricultural and 75,000 ha of forest vegetation and grazing land. It is bordered on the east by Adamawa State, to the south by Bauchi and Kaduna States, to the west is Katsina state while to the north are Katsina and Jigawa states.

The temperature of the State usually ranges between a maximum of 33°C and a minimum of 15.8°C. The average rainfall is between 63.3mm and 48.2mm in May and 133.4mm and 59mm in August, the wettest month (Kano State Government, KSG, 2005). The rainfall pattern is unimodal with an average rainfall of 600mm (Kano State Economic Empowerment and Development Strategy, KSEEDS, 2005).

Kano State is made up of 44 LGAs with a population of 9.4 million (National Population Commission, NPC, 2006) with an almost equal distribution of males (51%) and females (49%) (KSEEDS, 2005).

Agriculture is the mainstay of the state’s economy involving at least 75% of the rural population. Rain fed and small scale irrigated agriculture are practiced in the State at small and medium scale levels. Crops grown include cotton, guinea corn, groundnuts, maize, cowpeas and varieties of vegetables. The State has an estimated 1,754,200 ha of cultivated land area and 75,000 ha of forest vegetation.
Major livestock produced in the state include cattle (while Fulani, Bunaji and Rahaji Breeds), sheep, goats and poultry (KSEEDS, 2005) The estimated total livestock population is 9.2 million with an output of 2,36,102 mt of meat, 87 million litres of milk and about 49 million eggs per annum.

The farming system is characterized by mixed cropping and mixed farming and sedentary pastoralism/trans-humans. About 62 different cropping patterns or mixtures feature in the mixed cropping system. The percentage of households growing different crops are as follows: 61.8% for sorghum, 44.2% millet, 52.7% maize, 16.4% rice and 27.3% groundnut (Kano Agricultural Programme, KADP, 2007). Mixed farming is the dominant system of agricultural production with crop production combined with rearing of livestock and poultry.

The livestock sub-sector is under-developed. It is characterized by low milk output of local breeds, and poor milk hygiene, among others. Further, dairy production is adversely affected by lack of equipment, inadequate facilities, limited skilled personnel and inadequate infrastructure such as rural access roads, buildings and irregular electric power supply.

Private sector participation in livestock production on commercial basis is gradually picking up in the state. This is seen in the form of setting up small-holder dairy farms consisting of upgraded cows using Friesian and/or Simmental bulls. It is observed that milk yield from upgraded cow per day averaged 8 litres per head per day. This is 800% higher than the production from the traditional cow. Thus a wide difference in output indicates high potential in commercialization of small-holder dairy production system in Kano State (Kano Agricultural and Rural Development Authority, KNARDA, 2007).

**Sampling Procedure**
Three stage sampling method were used in the selection of respondents for the study. The first stage concerned the random sampling of five (5) representative urban and rural LGAs respectively. The second stage involved the purposive sampling of ten (10) small and medium-scale dairy farms respectively for the study. The third and final stage focused
on the identification of about 3 key officers managing the farms for in-depth interview and/or group discussion. In total, about 60 farmer respondents were involved in the study.

Methods of Data Collection
Primary data were generated through consultation meetings, focus group discussions (FGDs) and in-depth interviews. Meetings and discussions were organized with various stakeholders and target groups involved in dairy production in Kaduna and Kano States. In-depth interviews were targeted on key informants. Guided discussions and in-depth interviews were organized to elicit relevant data in line with the objectives of the study.

Secondary data were collected from journals, technical reports from the Kaduna and Kano State Agricultural Development Programmes, ADPs, and other relevant publications.

Data Analysis
Primary and secondary data were collated and screened for analysis with the aid of a computer programme, the Statistical Package for the Social Sciences (SPSS).

Descriptive statistics such as mean, frequencies, tables and cross-tabulations were used to characterize and analyse the data generated from the study.

Results and Discussion
Kaduna State
Characteristics of Small and Medium Scale Dairy Production
The estimated number of cattle in Kaduna is 2,041,049, while the number of cows-in-milk is 771,516. Total milk production per annum is 416.7 million litres with a yield figure of 1.5 litres per day. The estimated net income per animal per day is about 250 Naira.

Dairy production by farmers in Kaduna State is characterized by low milk production and poor milk hygiene. Low milk yield or production could be attributed to the use of indigenous breeds of cattle. The predominantly local breeds such as Bunaji (white Fulani) and some Rahaji and Sokoto Gudali managed by pastoralists have poor
genetic quality for milk production. High-producing exotic breeds are few and are found mainly on commercial private farms under intensive management.

**Dairy Production Systems**

Kaduna State has an agroecological climate with semi-arid, sub-humid, plateau and well drained soil that favour dairy production. The socio-cultural background of the population has high demand for milk and milk products. The following dairy production systems are prominent among small and medium scale dairy farmer in Kaduna State: pastoralism, agropastoralists and intensive dairy farming. With pastoralism, the pastoralists move around with their herds in search of fresh pasture lands or grazing areas. Agro-pastoralism is practiced by sedentary farmers who grow food crops and also keep livestock. In intensive dairy farming, farmers use part or all of their land to grow fodder crops for their dairy cattle. This system of dairy production is mainly undertaken by small farmers using family labour while commercial farms use hired labour.

**Dairy Processing and Marketing**

Available milk processing technologies were identified to include hand milking and churning by local milk maids, milk fermentation to produce local yoghurt, semi-mechanical yoghurt making and mechanized milk processing. Hand milking and churning is common practice among pastoralists or traditional small scale and medium scale dairy producers in Kaduna State. Their major processed products are yoghurt, ‘nono’ fermented milk. Semi-mechanised and mechanized dairy processing feature mainly in commercial medium and large-scale dairy farms in the state.

Some of the dairy processing plants in the state include NIYYA Your Farms, Kaduna; Home Fresh Yoghurt, Kaduna; FAN Milk Yoghurt, Zaria; NAPRI Yoghurt, Shika-Zaria and Milcopal-farms, among others. They use mechanical methods in processing milk into yoghurt and other milk products in the State.

There are about eleven (11) dairy processing plants in Kaduna State. Many of these dairy firms engage in both commercial production
and processing of milk into varieties of marketable products. These may be fresh milk or processed milk products, such as yoghurt and ‘nono’ fermented milk, which are sold or marketed by Fulani women in the communities, as well as in semi-urban and urban cities of Kaduna, Zaria, Birni Gwari, Kafanchan, Zonkwa, etc. The Kaduna Federation of Milk Producers Cooperative Association Ltd (KFMPCAL) is an umbrella organization for about forty (40) village milk associations that are engaged in milk production, processing and marketing in Kaduna State.

**Constraints of Small and Medium Scale Dairy Farming**

Identified constraints to dairy production in Kaduna State were unavailability of improved breeds of dairy cattle, high cost of using exotic or improved breeds, unhygienic milking processes and inadequate health care provision and facilities. Poor genetic quality of local breeds of dairy cattle limit their milk yield to a low uneconomic level when compared to the exotic breeds of Friesian Holstein and New Jessy. High cost of using these exotic or improved breeds of dairy cattle and associated high technology such as artificial insemination for producing cross-breeds constitute a major problem. Other related costs such as transportation and management costs are critical factors that limit enhanced commercial milk production and processing among small and medium scale dairy producers and processors in the state. Unhygienic milking/processing due to lack of or unavailability of milking parlours and equipment lowers the demand for milk and milk products from small and medium scale dairy producers and processors in the state.

There are limited institutional capacities in dairy farming with respect to the use of artificial insemination related equipment in Kaduna State. Most of the breeds are local, and available exotic bulls on some farms are imported for the purpose of cross-breeding to upgrade the local breeds for higher milk production. Generally semen equipment, exotic bulls and standard milking machines are imported from Holland, India and China.

**Kano State**
Characteristics of Small and Medium Scale Dairy Production
The estimated dairy cattle population in Kano State is 900,000. Specifically, the estimated total milk production in the state is 810,000 litres. Thus milk yield per animal is about 2 litres. In terms of returns or income, the estimated net farm income per animal per day is 100–150 Naira.

Two prominent breeds of cattle (Bunaji/White Fulani and Rahaji) are found in the State. The productivity of these breeds of dairy cattle are threatened by insufficient feed with the right quality [KNARDA, 2007]. Dairy production practices are predominantly traditional with low milk yields and slow growth rates.

Dairy Production Systems
There are five types of dairy production systems that are recognized in sub-Saharan Africa. These are pastoralism (nomadic and transhuman), agro-pastoralism, mixed farming, intensive dairy farming and peri-urban dairying. However, the commonly practised dairy production system in Kano State is pastoralism. Under this traditional system, the pastoralists are with the herds always and move continually looking for fresh grazing areas. It is characterized by subsistence, milk production, communal grazing, low milk output and limited potential for commercialization. Although the other dairy production systems exist in Kano State, intensive dairy farming and peri-urban milk production have good potential for commercialization than the pastoral system. These are mainly practiced by medium and large scale dairy farmers in Kano State.

Dairy Processing and Marketing
There are varied numbers of available milk production technologies in the State including local milk processing technology for fresh milk and yoghurt production. Hand milking and churning constitute a common practice among Fulani women who process fresh milk into ‘nono’ (fermented milk) and yoghurt. They market these milk products in semi-urban and urban areas of Kano State. A few privately owned milk processing facilities exist with an estimated capacity utilization in processing activities of about 25-30%.
Constraints of Small and Medium Scale Dairy Farming

There are many constraints that bedevil dairy production in the State. The most critical problems identified were lack of suitable improved breeds of dairy cattle, lack of modern dairy facilities and lack of infrastructure (e.g. electricity, access farm road network, etc.). Others include poor socio-economic status of dairy farmers, poor input supply and distribution system, insufficient institutional support and lack of credit facilities to dairy farmers, among others. Local breeds of dairy cattle have limited potential for optimal milk production. Only few farmers have exotic bulls for cross breeding purposes. It is important to note that there is little or no rural roads constructed or electricity linked to dairy producers and processors in Kano State. These identified constraints hamper the commercialization of small and medium scale production and processing in the State.

Conclusion and Recommendations

Kaduna and Kano States of Nigeria have the potential for the development and commercialization of the dairy industry in Nigeria. This is against the background of the climate and agro-ecological conditions as well as the socio-cultural and occupational background/characteristics of the population. However, the identified constraints above need to be addressed for the realization of these potentials. Thus, the following recommendations are proffered for action:

1. Provision of appropriate dairy technologies and advisory services

Advisory services and dairy technologies such as exotic bulls for cross breeding, milking parlour and milking machines, etc., should be made available to dairy farmers in the State. The States Agricultural Development Programmes (ADPs), NAPRI, FAN Milk and other service providers should be funded to educate and provide technical support to dairy producers and processors on improved animal production and health technologies, milk hygiene and milk handling, transportation and marketing.
2. **Provision of technical and business advisory services**
   This could be in terms of construction of standard cattle pens, milk collection and preservation, milk transportation and marketing, etc. Other areas of intervention for dairy producers are with respect to improved breeds, pasture management, collection centres etc and in the case of dairy processing, provision of chilling machines, preservers, boilers, centrifuges, packaging and cold storage facilities.

   Marketing agents and consumers should be targeted with business advisory services on linkage with processors, product management for quality standard, product knowledge, storage and handling.

3. **Market Development and Facilitation**
   Dairy marketing in Kaduna and Kano States is not well developed because of weak linkages between producers, processors and marketers. Modern infrastructure, such as cold vans, storage facilities and collection centres are not adequately in place.

   Thus, the type of market facilitation required include the establishment of collection centres at strategic locations in the dairy value chain clusters. These collection centres should have grading, quality control and packaging facilities. Dairy farmers should be encouraged to be members of dairy farmers associations to promote cooperation and resource procurement and distribution among themselves in Kaduna and Kano States.

4. **Capacity Building/Training**
   Small and medium scale dairy producers and processors in these large states are grossly lacking in modern production and processing techniques or methods. Thus there is the need to equip them with the knowledge and skills with respect to best practices in dairy production and management, processing, storage/preservation and marketing. They also need support in the area of group dynamics, organizational management, financial management, accounting and farm record keeping.
5. **Institutional and Infrastructural Support**

There is the need to strengthen the linkages between available relevant institutions in Kaduna and Kano States with small and medium scale producers, processors and marketers. These institutions include commercial banks, communication media (e.g. radio and television), Power Holding Corporation of Nigeria (PHCN), Dairy and development partners, such as the world Bank and FAO, etc. There is an opportunity for synergy between these institutions and dairy farmers/processors for technical and funding assistance. This will be feasible with the development of a functional public-private sector partnership (PPP) arrangement between the government and the private sector. There is the need to promote business environment for the commercialization of small and medium scale dairy farming through adequate provision of such infrastructure as electricity (power supply), access roads and water supply and transportation facilities.

With the implementation of the above recommendations, it is expected that the dairy sub-sector will be developed and commercialized; thereby contributing significantly to the non-oil sector Gross Domestic Product (GDP) in Nigeria.

**References**


World Bank (1990), Dairy development in sub-Saharan Africa: A study of issues and options. World Bank, Washington, DC, USA.
NATIONAL ECONOMIC EMPOWERMENT DEVELOPMENT STRATEGY (NEEDS) AND GRASSROOTS DEVELOPMENT IN NIGERIA

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Abstract
The Nigerian economy has faced daunting challenges in her quest for robust growth and economic development with the result that the country faces a threat of not being able to meet the Millennium Development Goals (MDGs), if major steps are not taken. Official statistics indicated that unemployment was still high at more than 10.8 percent in 2003–2006. The GDP growth rate of about 5.6 percent which is lower than the minimum standard of 5.0 percent required in preventing poverty from worsening, and the 7.00 percent needed to meet the MDGS target for poverty and hunger. Rural development is a major yardstick for measuring development in a society. Against this background, the need to embark upon a strategic economic reform programme, became imperative. Consequently, a committee of 35 Nigerians drawn from public and private sectors as well as the civil society was set up by the federal government in 2003 to put together an economic reform programme, christened the National Economic Empowerment Development Strategy (NEEDS) aimed at developing the grassroots for meaningful development. This paper examined the National Economic Empowerment Development Strategy (NEEDS) and rural development in Nigeria. It observed that NEEDS has not
helped in rural development and recommends re-strategizing to address the rural development quagmire in Nigeria.

Introduction
The National Economic Empowerment and Development Strategy (NEEDS) is Nigeria’s plan for prosperity. It is the people’s way of letting the government know what kind of Nigeria they wish to live in now and in the future. It is the government’s way of letting the people know how it plans to overcome the deep and pervasive obstacles to progress that the government and the people have identified. It is also a way of starting development from the grassroots as well letting the international community know why Nigeria stands in the region and in the world and how it wished to be supported.

NEEDS is about the Nigerian people; their health, employment, education, political power, physical security, and empowerment are of paramount importance in realizing this vision of the future, particularly what affects the rural populace which includes offering farmers improved irrigation machinery fertilizer and crop varieties and also to tackle poverty and inequality since half of Nigerians are poor people who work in the agricultural sub-sector. Supporting small and medium size enterprise will help create jobs. Together with the State Economic Empowerment and Development Strategies (SEEDS), NEEDS seeks to implement an integrated rural development programme to stem the flow of migration from rural to urban areas.

Statement of the Problem
Despite different strategies adopted by various Governments in Nigeria to address rural underdevelopment problem, still the story remains the same. There are still inequality and poverty particularly in the rural areas. There are a lot of public complaints on the underdevelopment situations of many rural areas which constitutes a threat to Nigeria’s vision of becoming one of the twenty strongest economies by the year 2020 (vision 2020). A lot of resources (financial) have been injected, but all in vain.

The NEEDS for example is about people; it is about their welfare, their health, education, employment, poverty reduction,
employment, broad-based participation and security of life and property. Furthermore, the policy thrust on rural development is well articulated to enhance their capacity to participate in the economic, social, political and cultural life. However, like any other strategy NEEDS is yet to change the atmosphere in the rural areas.

Objectives of the Study
The broad objectives of this study is to make a critical analysis of NEEDS – National Economic Empowerment and Development Strategy - as it its relates to rural development in Nigeria. The specific objectives are therefore:

1. To determine the impact of NEEDS on Managerial rural Populace.
2. To explore the magnitude of rural underdevelopment and how it can be resolved.

Hypothesis
National Economic Empowerment and Development Strategy (NEEDS) does not address rural Development issues squarely.

Literature Review
The Meaning of Development: The concept of Development has many definitions. According to Rostrow (1969), development has many sides. At the level of the individual, it implies increase in skill and capacity, greater freedom, creativity, self discipline, responsibility and material well being.

One thing which could be derived from the foregoing definition is that development goes beyond economic indicators. Todaro (1982) was also of this view as he defined development as “A multidimensional process involving the reorganization and reorientation of the entire economic and social system. This involves, in addition to improvement of income and output, radical changes in institutional, social and administrative structure as well as in popular attitudes, customs and beliefs.
Development is centered on the improvement in the living condition of the individual. By complication it means that the economy could grow without developing. According to Ujo (2005), based on the foregoing definition, we could conclude by agreeing with Todaro (1982) that the objectives of development are concerned with the following:

i. Life – Sustenance
ii. Self – esteem or respect
iii. Freedom

**Life Sustenance:** Under life sustenance, we are concerned with basic human needs, without which life would be impossible. These things include food, shelter, health and protection. When these things are not available in the society we may conclude that there is no development.

**Self-esteem:** The second feature of development is self-esteem or self respect. It is the wish of every society to be respected. To this end, most societies pursue these things that would give them the necessary respect. These things include wealth and technological development. Most of the highly developed nations of the world, like Japan and the USA, have these essential features.

**Freedom:** Freedom, as used in this context, means emancipation from alienating material conditions of life and freedom from the social servitude of men and nature, ignorance for misery, institution and dogmatic beliefs. When a society is free from superstitious beliefs, it would have more choices available to it.

**Theories of Development**
There are so many theories of development. The famous among them, as identified by Ujo (2005) includes the Generic Theory, Evolutionary Theory, Cyclical Theory, Dialectical Theory and Modernization Theory.

i. **Generic Theory:** Development can be seen as a generic process.
   By this we mean a gradual process in which one particular
being or thing brings in to life a similar thing. For example, one human being gives birth to another human being. The concept of generic development became popular with the works of biologists, like Charles Darwin and Abbot Mendal. The main contention of the generic perspective in the development process is that development is determined by natural forces and modified by environmental condition.

ii. *Evolutionary Theory*: Herbert Spencer is of the view that society developed in an evolutionary manner. Spencer saw the development of society as a process of evolution, which like the organic evolution is a process of growth, increasing complexity and function and increasing interdependence among the differentiated parts (Ujo, 2005). Spencer, being a western scholar sees development in accordance with the 19th century philosophy of development. The main argument of this theory is that all societies developed on a line with primitive and simple society at one end and industrial society at the other end. A primitive society, according to this view, is homogenous and monolithic. But as it develops, it becomes complex as specialization and division of labour step in.

iii. *Cyclical Theory*: Spencer’s view of development is different from those discussed above. He is of the view that society develops in cycles. The unique thing about cyclical interpretation of development is that there is no end to the development process. One stage is directly linked to another one. The highest peak of development marks the beginning of decay and disintegration (Ujo, 2005).

iv. *Dialectical Theory*: Karl Max sees human beings as biological entities with needs to be satisfied. These are eating, drinking, habitation, clothing, etc. (Taylor, 1982). The first historical act of man is self sufficiency in food production survival. After that specialization steps in specialization that brings social differentiation in economic status, wealth and political power.
Economic classes are based on those who owned property and means of production and the workers who are essential as means of production.

Social development, according to Max, is the outcome of the production and the workers. Conflict can be understood within the context of dialectical materialism. The Law of dialectics contains three propositions:

a. The Law of the transformation of quality into quantity and vice versa.

b. The Law of unity of opposites and

c. The Law of negation.

All dialectical changes must be based on these laws.

v. Modernization Theory: Modernization theory was developed in the 1950s and 1960s. The theory states that the “Western world countries are the most developed and the rest of the world are on the earlier stage of development and will eventually reach the same level as the western world,” (Ujo, 2005). Development stage goes from the traditional societies to the developed ones. The theory stresses modernization and westernization as observed by Rostow (1969). Modernization implies an intellectual, technological and social revolution. It transforms three of man’s most fundamental relationship to time, nature and to his fellowmen.

In addition to all these, there are some theories of rural development such as Modernization theory, Transformation theory, improvement theory, The Comprehensive approval, Mobilization theory etc.

Overview of the NEEDS
National Economic Empowerment and Development Strategy (NEEDS) is not just a plan. It defines a process of development
anchored by a clear vision, found values and enduring principles. The vision for Nigeria’s development derives from the country’s history endowments, experience and aspirations. Development of this vision has drawn inspiration from the views of a cross section of stakeholders and the aspiration of Nigerians as conveyed in provisions of the constitution. The vision underscores the necessity and urgency of building a modern Nigeria that maximizes the potential of every citizen to make Nigeria the largest and strongest economy in Africa.

Admittedly, reforming government and its institutions has long been overdue. However, the ultimate goal here is to restructure, right-size, re-professionalize and strengthen government and public institutions to deliver effective services to the people. This would eliminate wastes, enhance efficiency and transparency, eliminate corruption, promote the rule of Law and Judicial democracy and property right. It would also ensure less participation in economic activities by government, particularly in those areas where the private sector is in a better position to do so.

The NEEDS as a developmental strategy holds on the private sector as the engine of growth. The government is the enabler, the facilitator and regulator, executor and manager of business. The key elements of this strategy include a renewed effort at privatization, deregulation and liberalization, and infrastructural development. Sectoral strategies for agriculture, industry and small and medium enterprises (SMEs), information and communication technology services, oil and gas, and solid minerals (Nnanna, 2005).

Generally, a reform process is designed as a conscious effort to manage and accelerate growth and development in order to improve social welfare. In line with this the policy targets and strategies for reforming the rural area have been well articulated in the NEEDS document.

**Policy Thrust of NEEDS**

As encapsulated in the NEEDS document, the policy thrust towards fostering and developing a comprehensive package for the grassroots includes:
- Enhancing agricultural sector which is the major stay of rural areas economy.
- Providing steady power supply.
- Creating and boosting small scale entrepreneurs.
- The promotion of a planned and balanced economic development.
- Provision of sustainable and adequate shelter, suitable and adequate food to rural areas.

The Meaning of Rural Development
Rural development can be defined as a strategy designed to improve the economic and social life of a specific group of people the rural poor. It involves extending the benefit of development to the poorest, among those who seek a livelihood in the rural areas. This group includes small scale farmers, tenants, the landless women (Ujo, 2005).

The following conditions are necessary for rural development:

i. More equitable distribution of land and other rural resources in order to give greater opportunity to the poorest segment of the rural population to meet their basic needs.
ii. Organization of rural producers and rural economic activities on cooperative or communal basis in order to ensure a further reutilization of available physical and human resources.
iii. An active policy of social services and the improvement of social relations.
iv. Political and administrative capacity for the planning and aid implementation of community development strategy to provide linkages with the rest of the economy and protect the legitimate interest of the rural population (Ujo, 2005).

The process of rural development is described by some scholars as development from below (Ujo, 2005). Development from below strategies are basic needs oriented – intensive, small scale regional resources-based and rural-centered form of development. The essential components of development from below are as follows:
i. A fundamental re-structuring of rural space and settlement so as to improve the physical and social access of producers to vital resources.

ii. The creation of new rural structure that would facilitate substantial re-investment of financial resources in the rural sectors.

iii. Mobilization of farmers through effective organization framework that would promote mass involvement in the development process.

iv. Provision of appropriate technology for raising rural productivity and efficient utilization of resources.

v. Equality provision of basic needs such as food, housing, water supply, health services etc.

vi. Creation of efficient transport network for rural and urban areas.

vii. Agricultural transformation to ensure massive food production and the supply of individual growth materials.

viii. Creation of professional, social system in rural areas.

**Needs and Rural Development**

Nigeria’s rural areas are known for poverty. Poverty reduction is the most difficult challenge facing Nigeria and its people and the greatest obstacle to pursuit of sustainable socio-economic growth. The poverty rate in Nigeria increased from 27 percent in 1980 to 66 percent in 1996. By 1999 it was estimated that more than 70 percent of Nigerians lived in poverty. Life expectancy at 54 years, infant mortality at 77 per 1,000 and maternal mortality rate at 704 per 100,000 live births, are among the highest in the world.

Qualitatively, poverty in Nigeria has many manifestations and dimensions, including joblessness, rural-urban migration, etc. NEEDS as a policy thrust towards rural development will create access to credit and land, participation in decision making, agricultural extension services, improved seeds, farm inputs and implements, strengthening of traditional thrift, savings and insurance schemes.

NEEDS also plans to provide water, rural roads, electricity, schools, health facilities, communication, etc.
The table below explains NEEDS intervention in rural areas.

**Table 18.1: Targeted Instrument for protecting Rural Communities**

<table>
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<tr>
<th>Group</th>
<th>Instruments and interventions</th>
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<tr>
<td>Rural Poor</td>
<td>Access to credit and land participation in decision making, Agriculture and Extension services</td>
</tr>
<tr>
<td>Rural Women</td>
<td>Affirmative action (increase women representation to at least 30 per cent in all programmes including education)</td>
</tr>
<tr>
<td>Rural Youth</td>
<td>Education entrepreneurship/development, skills acquisition, prevention and control of HIV, etc.</td>
</tr>
<tr>
<td>Rural Communities</td>
<td>Water, rural roads, schools, health, facilities, communication, etc.</td>
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</table>

*Source: NEEDS Document, 2005*

**Methodology**

*Source of data:* The study relied heavily on secondary sources of data. Information from records of some vital organizations, like Office of the Adviser on Rural Development and that of Poverty Alleviation Programme, were used.

**Test of Hypothesis and Summary of Findings**

H₀: National Economic Empowerment and Development Strategy was not properly designed to address rural development issues properly and squally. Every Development must have a holistic outlook. It should address rural development issues. NEEDS does not reflect the actual demands of the rural populace. Therefore, there is no solid relationship between NEEDS and rural development in Nigeria. All the theories of Development and Rural Development mentioned in this study prove NEEDS wrong. This justifies the call for re-strategizing the programme to have a grassroots outlook.

The outcome of the study supports the secondary data which was critically evaluated in the literature review section which shows that rural development strategy is quite different from the NEEDS.
- NEEDS is more private sector oriented, which is not in conformity with genuine rural Development policies.
- NEEDS is more of a solution to urban centres than rural areas.
- Funds allocated to NEEDS since inception are inadequate to bring about rural development in Nigeria.
- The programme of NEEDS hardly differentiate between Development and Modernization and Westernization.
- Eradicating poverty in society means creating wealth and consequently empowering the majority so that they can live above the United Nation. Poverty line of $1.00 per day.
- Implementation of NEEDS as a poverty eradication policy and Rural Development Strategy is improperly done.

**Conclusion and Recommendations**

It is, therefore, the view of this paper that the following should be done to facilitate rural development in Nigeria:

1. Adopt an integrated rural development approach which is a multidimensional strategy for improving the quality of the life for rural people. It is based on the assumption that the socio-economic fragment of the traditional rural system is obsolete, so integrated rural development strategies should be designed to change this framework and promote structural changes. The features of integrated rural development strategy as identified by the Food and Agricultural Organization of the UN are as follows:

   i. To improve levels of living and participation in the development process for all rural people.
   ii. By the creation of conducive commitment with comprehensive and phased programmes for Agricultural production and complimentary Rural Development.
   iii. Through the mobilization of Human Resources and provision for appropriate services, adapted to physical, socio-economic and cultural conditions with emphasis on the Active
Involvement of Rural people of various stages of implementation and levels of decision making.

Unless these recommendations are urgently implemented, rural development cannot be realized through any other strategy, NEEDS inclusive.

References
BOOK REVIEW

Title: Entrepreneurship in Food & Chemical Industries.
Author: Onyenekenwa Cyprian Eneh.
Pages: xvii + 384 = 401 pages.
Date: June 2007.
Publishers: Institute for Development Studies, University of Nigeria, Enugu Campus.
Price: ₦1,500.00 (Soft binding); ₦2,000.00 (Hard binding).
Reviewer: Prof. Onwuka, N.D. (Ph.D.) Chemical Engineering and Professor of Food Science & Technology, University of Nigeria, Nsukka.

In the 21st century, the pupils and students of the basic schools, senior secondary and tertiary educational institutions in most developing countries are still subjected to educational curricula designed mainly for the white-collar jobs. These jobs have fast thinned out owing to burgeoning number of school leavers and graduates scrambling for them, corruption and ineptitude in government establishments, privatization of state-owned enterprises (SOEs) and downsizing in government ministries and parastatals as dictated by economic reforms in the globalizing economy, as well as ailing developing economies in which most manufacturing concerns operate below installed capacities with the attendant worker retrenchment and layoffs. Therefore, unemployment conundrum continues to heighten and the hunger and poverty situations are compounding at a time the Millennium Development Goals target, among others, halving the number of people living in extreme hunger and poverty by 2015.

At a time the Federal Government of Nigeria is embarking on sectoral reforms and nursing the ambition to switch the economy of Nigeria from public to private sector-driven, Entrepreneurship in Food & Chemical Industries, a book for enterprise development and growth for aspiring or practicing entrepreneurs in the production industry, is very timely. It recognizes that many food and chemical industries are
dwindling in performance because of improper training of personnel and insufficient knowledge of proper technology, and that books on skills development are lacking in developing countries. Seeking to fill these gaps, it is a compendium of empowerment for the knowledge needed by entrepreneurs for good manufacturing practice and management for foods and beverages, cosmetics and pharmaceuticals, soaps and chemicals, livestock, crops, minerals, translating Nigeria’s indigenous technology reports into enterprises, as well as industrial waste management. It builds the industrial capacity of the entrepreneur for self-reliance, poverty and hunger reduction and sustainable human development. It converts job seekers to self-reliant and employment generating job-creators.  

Apart from the seventeen preliminary pages made up of the title and author page, publishers and copyright reservation page, table of contents pages, book dedication page, foreword pages, preface pages, acknowledgements page, and list of boxes/charts/tables/figures/appendices, the rest of the book, which is dedicated to entrepreneurs and philanthrepreneurs, is organized into 10 chapters (pages 1-387) plus list of references (pages 368-377), appendices (page 378), and index pages 379-384). The specific issues treated are:

**Chapter One: Entrepreneurship.** The 78-page chapter discusses entrepreneurship in details, covering the meaning of entrepreneurship; how to start and grow an enterprise; leadership, interpersonal relationship and time management in workplace; and feasibility study/report and business plan development and appraisal.

**Chapter Two: Good Manufacturing Practice (GMP).** The 9-page chapter treats good manufacturing practice (GMP) with reference to the standards specified by the regulatory body for food and drugs administration and control in Nigeria, National Agency for Food and Drug Administration and Control (NAFDAC).

**Chapter Three: Foods and Beverages** (pages 88-150) discusses the manufacturing practice and management of some foods and beverages, including table and mineral waters, malting, beer brewing, malt drinks, gins (spirits), fruit drinks, dairy and related products, starch and flour, oils, fruit juice/paste, and pectin.
Chapter Four: *Cosmetics and Pharmaceuticals* (pages 151-180) treats the manufacturing practice and management of some cosmetics and pharmaceuticals, including body creams and lotions, shampoo, shaving lotions, deodorants and antiperspirants, depilatories, face powders, manicure preparations, intravenous fluids (drips), antidermatitic preparation, tris solution, relaxer, aspirin, paracetamol and paraminophenol. It also looks at laboratory evaluation of cosmetics.

Chapter Five: *Soaps and Chemicals* (pages 181-250) covers the manufacturing practice and management of some soap and chemical products, including soap (laundry and toilet soap bar/tablet), toothpaste, liquid detergents, detergent powder, soap powder, scouring (scrubbing) soap powder, sodium sulphide, calcium carbide, metallic stearates, zinc nitrate, sodium/potassium citrate and iodides, copper salts, zinc chloride, zinc sulphate, zinc cyanide, precipitated calcium carbonate, glue and gelatin, rubber eraser, writing inks, polyvinyl chloride (PVC), unsaturated polyester resin, particle board, coated abrasives, gums, sulphuric acid, citric acid, activated carbon, mosquito coil, phosphoric acid and gypsum, soldering wire, chlorinated paraffin wax, abrasive wheels, graphite crucible, silica gel, coal briquettes, silicon carbide crucible, copper wire, Bakelite accessories, carbon brushes, hot dip galvanizing, bleaching earth, matches, fertilizer, sodium chloride (common/table salt), sodium sulphate, sodium bisulphate, sodium hydrosulphite (hydro), sodium nitrite, sodium silicate, sodium peroxide, sodium perborate, sodium hypochlorite, pigments, paints, solid perfume, candle, starch, gum Arabic, alkyd resin, sealing wax, shoe polish, plastic button, fountain pen, pencil, toilet roll, and aluminum sulphate (alum).

Chapter Six: *Livestock* (pages 251-300) describes the practice and management of some livestock, including honey beekeeping, fish farming, poultry and poultry feeds, snailry, goatry, and piggery.

Chapter Seven: *Crops* (pages 301-332) describes the production and management of some crops, including cassava, cocoyam, maize, sorghum (guinea corn), rice, soyabean, tomato, oil palm, pineapple, melon, pepper, mango, plantain, banana, castor bean, sweet potato, and pawpaw.
Chapter Eight: Minerals (pages 333-343) discusses the practice and management of mineral exploration, such as kaolin, limestone, quicklime/hydrated lime, clay flooring tile, marble tile, chalk, calcium sulphate (plaster of Paris, POP), ceramic artware/toy, phosphate, talc, bentonite, crushed granite, lead/zinc (smelting), and cement.

Chapter Nine: Translating Indigenous Technology Reports into Enterprises (pages 344-359) itemizes some Nigeria-based project reports and ways to commercialize them.


A world scholar, renowned Professor of Marketing and former Vice-Chancellor of the Enugu State University of Science & Technology, Julius O. Onah (Ph.D.) wrote the foreword. The book successfully makes up for the shortage of entrepreneurship skills in the curricula of the three tiers of educational system in developing countries and provides materials for teaching in the system. It addresses the problems of job creation and poverty reduction by providing a wide range of life-skills for self-reliance and employment generation in micro, small and medium enterprises (MSMEs) sub-sector. It provides a grand tool for enterprises development and entrepreneurship promotion for industrial promoters, aspiring and practicing entrepreneurs in the real sector now favoured by private sector-driven policies. It provides a manufacturing tool for product design, production, supervision, monitoring and evaluation. It also presents a valuable research material for researchers in universities, polytechnics, colleges of education, trade centres, secondary and primary schools, having covered 13 foods and beverages, 9 cosmetics, 7 pharmaceuticals/drugs, virtually all soap and soap-related products, 62 chemical products, 6 livestock, 17 crops, and 14 minerals.

Entrepreneurship in Food & Chemical Industries provides the key to being and remaining on the winning side of the on-going economic struggle to reduce drastically the mortality rates MSMEs in the country and ensure not only the survival but indeed the growth of
the sub-sector. The book is written in simple straight-forward English language. It is very well researched. In this regard, references are made to about 86 authorities, listed on pages 368-377, whose works were cited or quoted. The book is an industrialization solution tree, a must-read and regular companion for industrialists, a material for libraries and researchers, and an imperative guide and excellent blueprint for prospective investors, governments and regulatory agencies in developing countries.

I strongly recommend the book to every person.
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