About the Journal

Mediterranean Journal of Social Sciences (MJSS) is a double blind peer-reviewed journal, published three times a year, by Mediterranean Center of Social and Educational Research. The journal publishes research papers in the fields of Mediterranean and World Culture, Sociology, Philosophy, Linguistics, Education, History, History of Religions, Anthropology, Statistics, Politics, Laws, Psychology and Economics. MJSS is open for the academic world and research institutes, academic and departmental libraries, graduate students and PhD candidates, academic and non-academic researchers and research teams. Specifically, MJSS is positioned as a vehicle for academics and practitioners to share field research. In addition to scientific studies, we will also consider letters to the editor, guest editorials, and book reviews. Our goal is to provide original, relevant, and timely information from diverse sources; to write and publish with absolute integrity; and to serve as effectively as possible the needs of those involved in all social areas. If your research will help us achieve these goals, we would like to hear from you. MJSS provides immediate open access to its content on the principle that making research freely available to the public supporting a greater global exchange of knowledge. All manuscripts are subject to a double blind peer review by the members of the editorial board who are noted experts in the appropriate subject area.

Editor in Chief, Andrea Carteny
Sapienza University of Rome / University of Teramo, Italy
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Editorial

This *Special Issue* of the Mediterranean Journal of Social Sciences published by the Mediterranean Center for Educational and Social Research at Sapienza University of Rome, Italy is a collection of fifteen selected papers presented at the International Technology, Education and Environment Conference (TEEC2011); International Conference on Teaching and Learning (ICTL2011) held at the Federal College of Education (Technical), Omoku-Nigeria.

The papers collated in this edition of MJSS are designed to expand the flow of ideas among social scientists and development scholars. Written by seasoned scholars, they were among the papers received by the International Scientific Committee.

Many individuals and organizations deserve gratitude for their support, partnership and cooperation. Special thanks go to the Provost, Management, Staff and Students of Federal College of Education (Technical), Omoku-Rivers State, Nigeria for providing the venue for the conference which led to the selection of papers that made this publication possible. The LOC Chairman, Dr S.E. Onuebunwa, the Vice-Chairman, Dr R.F. Quadri, the Secretary, Lady Doris Okoroh and the entire team deserves special commendation.

The expert editors and reviewers that provided detailed critiques of the essays improved the conceptual and technical mettle of the work. The respect for their knowledge and experience is immeasurable.

The authors whose viewpoints are varied, deep and current provided a fascinating and apt contribution to knowledge. All in all, this publication is a reference for every development specialist, educator and social scientist.

**Dr. Jacinta A. Opara**

Visiting Associate Professor, Universidad Azteca, Chalco-Mexico and
President, African Association for Teaching and Learning
Cancun Accord: Will it be a Reality or Proved to be a Myth?

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Abstract Global warming or climate change is the most critical and strategic issue of 21st Century. For the last 25 years i.e. from 1985, global warming summits have been taking place. But the real breakthrough has not been come up and the same has become a distant dream. Copenhagen or COP 15 Accord made some head way and as a result, global leaders took note of it. But the same was not considered as a decision and hence, there was no legal binding on the members in respect of cut in global carbon dioxide emissions (chart). Keeping in mind the out come of Copenhagen Summit, it was believed that Cancun summit would give some concrete solution to the problem of global warming or climate change. The Cancun summit out come is mixture of optimism, consensus and compromises. Therefore, the present paper examines Cancun agreement at a glance and the reasons for optimism, consensus and compromises. The paper also opines whether Cancun Accord would be proved to be a reality or otherwise.

Keywords: Bali summit, Copenhagen summit; Cancun Accord; global carbon dioxide emissions.

Introduction:

According to the report prepared by World Climate Research Programme (WCRP), the frequency of extreme climate events, their magnitude and extent are rising and there are enough bases for strong action to enforce mitigation and adaptation measures at Cancun Summit. This is because there has been a linkage between climate change and the frequency of heat waves.

Chart 1
Since the year 1998, the world has witnessed ten warmest years. The decade of 2000s was warmer than the decade of 1990s and the decade of 1990s was warmer than the decade of 1980s. Global mean sea level is higher now and is rising more rapidly than any other time in the last 3000 years at the rate of nearly 3.4 millimeters a year.

Major events from extreme cold winter in Siberia in 2001 wherein the temperature went down to unbearable and unimaginable level of -60; hurricane Catarina in 2004 that developed in the South Atlantic Ocean for the first time, the worst drought in Brazil, the deadliest hurricane since 1928-Katrina, the tropical cyclone Nargis that hit Myanmar; floods in Pakistan and exceptional rainfall in many parts of the globe. The most note worthy trend and feature that has been observed and that is that most of the extreme events like hurricane, tropical storms, heat waves and rainfall have been of regional in nature and character.

The noticed fact is that high temperatures (Chart 2) are likely to be more frequent than cold. The heat wave in July in Russia was worse than the heat wave of Europe in 2003, which was in a class of its own. The heat wave in Russia was unprecedented since 1500s. Even the Inter-Governmental Panel on Climate Change (IPCCs) fourth assessment report warned that the number of heat waves is going to increase and warm nights are on the rise. In years to come, the frequency of tropical storms, hurricanes, cyclones would be higher in magnitude.

Chart 2
In the light of the above observations, it has become imperative for all countries of the world to give serious thinking on the issue and make out immediate attempts to tackle it. Let us examine Cancun Accord which is being considered as a one step forward.

Cancun as a Venue

Forty years ago, Cancun was a small fishing village with a few families. There were some holiday homes but it was a thin Island of lush wetland, connected to the mainland by two narrow strips. Today, a planned tourism and investment policy has transformed Cancun into a posh beachfront with big hotel chains and restaurants to attract more tourists. The other side of it is that Cancun is a living example of ecological devastation; it is the hotels, the tourism and sexual trafficking of women. It is the antithesis of sustainable development.

Cancun Accord: The Following are the Major Segments of Cancun Accord:

**Cutting Carbon Emissions:** In regard to cut in carbon emissions, the major players especially developed or rich countries have made pledges over the last year. To reduce their greenhouse gas emissions by the end of 2020 under COP 15 (Copenhagen) but this was not incorporated in the official UN process. Cancun Accord now formally puts those pledges into UN documentation, although they may increase or decrease in coming years. The Accord merely call on the developed countries to “raise the level of ambition of the emission reductions to be attained by them individually or jointly,” with a view to reducing their aggregate level of emission of green house gases.

For the first time developing economies have also agreed upon to look at how they can reduce emissions in coming years. But these economies did not make specific pledges. The most disturbing thing in Cancun Accord is that none of the cuts in emissions are legally binding. The same thing was done in Copenhagen Accord in 2009.

**Climate Aid:** A new climate green fund was agreed at Cancun to transfer money from the developed or rich countries to developing or poor economies to tackle the consequences, impacts and implications of global warming or climate change. Accordingly, poor nations are considering this as a success at Cancun. This is because, these countries would out number developed countries of rich economies on a supervisory panel to be created for this fund that is to be set up in 2011. But no figure was put on how much money will be contributed to this fund.

**Deforestation:** Formal support was extended for the UN deforestation scheme namely Reducing emissions from deforestation and degradation (REDD) under which developed nations pay poor economies not to chop down forests and so look away carbon emissions. But details in respect of when and specifically what form the scheme would take a shape- whether rich economies would be able to use it to ‘offset’ their emissions rather than make cuts at home are to be clarified.

**Kyoto Protocol:** The Summit has deferred decisions on Kyoto Protocol; the existing international agreement which is a binding on developed or rich economies to cut emissions to next year i.e. 2011 summit to be held in South Africa. This means whether countries would sign up for a second ‘commitment period’ to cut carbon emissions after the existing deadline of 2012 remained to be seen. This also indicates that decisions on the role and contribution that the Kyoto Protocol would play in an ultimate future legal document that binds the nations to emissions cuts the ‘holy grail’ of the UN negotiations are delayed.

There should be no gap between the first commitment period of Kyoto Protocol, which is expiring in December 2012, and the second commitment.
Technology Transfer: The issue of transferring knowledge of clean technology between nations was also backed at Cancun Summit. In this direction, a technology Executive Committee; a Climate Technology Centre; and a network are to be established. But there are no details about the money, place, and time/year and by whom. The most noticeable feature of the Accord is that economies were agreed upon on the principle of having their emissions cuts inspected. The monitoring, reporting, and verification would be based on the size of the nation’s economy, though who would carry out the inspection is not specified in the Accord.

Base Year: The Accord allows flexibility in selecting the base year for setting emissions reduction targets. Emissions trading and the project–based mechanism under the Kyoto Protocol shall continue to be available to Annex1 parties as a means to meet their quantified emission limitation and reduction objectives. However, the Cancun Accord could have an impact on the Kyoto Protocol since there are no binding emission reduction targets for the developed or rich nations and it favours a pledge and review system of voluntary emission reduction commitments.

Vague Provision: The Cancun Accord recognize that deep cuts in global greenhouse gas emission are required as documented in the 4th (IPCC) to reduce greenhouse gas emissions and curb the rise in global average temperature below 2 degrees Celsius above pre-industrial levels. In the absence of any fixed target, this could be an inadequate and insufficient as well as vague provision.

Human Rights: In the last 25 years history of climate change or global warming, for the first time the Cancun Accord has given much emphasis that in all climate change related actions, human rights must be respected. Accordingly, the Accord also recognizes the need to engage with a broad range of stake-holders namely-youth and persons with disability and call for gender equality and effective participation of women and indigenous people in effective action on all aspects of global warming.

Funding: On funding horizon, the Cancun Accord calls for information on the fast start finance promised at Copenhagen (COP 15) by the rich nations. These participants’ countries endorse the pledge by the developed economies to make available at least US $ 100 billion annually till 2020 and say a significant share of this new multilateral funding should follow through the Green Climate Fund. This new fund would be operated through UNFCCC financial mechanism.

Reasons for Optimism

The balanced package dubbed as Cancun Accord builds on the decisions taken a year ago i.e. 2009 at Copenhagen. The Accord also lays the ground work for further progress in the future. The Cancun Accord comprise understanding on a system of transparency, a fund to help developing economies, a system of technology sharing and parameters for funding deforestation efforts in developed nations. The Cancun Accord represents a step towards operationalising the Bali Action Plan.

The Cancun Accord built on the growing clout of the Basic countries namely-Brazil, South Africa, India, and China. In particular, India played a proactive role in shaping the Accord, contributed by outlining the framework for a global monitoring system for both developed and developing nations, a technology mechanism, bringing in the concept of equitable access to sustainable development.

Most importantly and strategically, for the first time in the history of global warming, the Accord brings the United States of America (USA) into a regime that is sort of comparable to that applicable to other industrialized nations. The USA, a major player in hammering out this Accord ensured that while there was progress on all the segments on the Bali mandate, the issue of transparency was given primacy.

On the other side, the European Union (EU) has given up its leadership position in climate change negotiations and instead concentrated on broader goals. Europe continues to lead by example. The EU
wanted a Second Commitment period for Kyoto Protocol, and that has been worked out.  {11}

The main reason for the optimism is the importance of the Accord lies in the fact that for the first time, a United Nations document has acknowledged that global warming must be kept below 2 degree Celsius compared to the pre-industrial temperature. The targets set by rich countries to reduce emissions and measures taken by developing nations to reduce the growth of emissions would now be listed in the UN system. Not only this, a system has been put in place to efficiently track efforts to reduce and limit emissions as well. A new adaptation Committee would support economies as they establish climate protection plans. A mechanism for bringing an improvement in forestry and preventing emissions by building natural carbon sinks has also been put in place.

The only hold out to the process was Bolivia, which felt that Cancun Accord was not enough of a response to the environmental cons. For an Accord starved UN climate process, Cancun Summit is fairly enough. Environmentalist however disagreed with the Accord. They believe that Cancun may be saved the process but it did not yet save the climate.

Still Complex Issue

Faced with this great wall of un-enlightened self-interest, it may be tempting to say that humans have not yet evolved to the point where we are clever enough to handle as a complex a situation as climate change. Few may agree that democracy may have to be put on hold for a while. But the very complexity of the issue shows the opposite. Dictatorships are conspicuously bad at complex problems. Why should they be any better at stopping climate change than they are planning economies? The more complicated and extensive a problem is, the more it matters that as many people and organizations as possible are engaged upon solution.

The developed or rich economies need to believe in what they are doing, and be able to shape decisions affect them so they could be in their interests. These countries need to be connected in networks that share knowledge and power. Developing democracy is as important and strategic in the response to climate change as developing green technologies.  {12} It is also the best manner to vault the great wall of self-interest, because, unlike most responses to climate change, it does not involve paying for benefits that will largely be enjoyed by others. The world enjoy the benefits of invigorated democracy and strengthened communities ourselves-whatever happens to the climate, and whatever the weather. Diplomacy and multilateralism have triumphed, as many have said, but where has that left the task of combating climate change? If finance was the lure at Cancun, just as it was last year to get opposing countries to support the Copenhagen (COP 15) Accord, then at least that must translate into reality. Otherwise much more than optimism will be needed at Durban (South Africa) where the Climate Summit will be held in 2011.

Developed Countries not Interested

Those (193 countries) who had gathered at Cancun in the hope of influencing global climate policy got, instead, a slew of agreements (Accord) that left open the emission reduction targets for developed nations, which must have pleased the United States, the Japan and the others who are not in favour of binding cuts.  {13} The USA has another reason to be pleased i.e. the mitigation pledges it had orchestrated at Copenhagen (COP 15) were adopted in the United Nations Framework. It should come, then as no surprise that the US has gone back with a transparency agreement in place and no binding emission cuts. They lose nothing since in any case they are not the part of the Kyoto Protocol.

It is very easy to be disheartened by the outcome of Cancun Summit to take major measures in respect of an international agreement on fighting global warming. Despite apparent broad consensus on the threat that the climate change poses and the need for urgent action, short-term national interest is still being put before long-term collective good by the industralkised economies especially the USA and the Japan.
Fortunately, world leaders across the world are not waiting to act and hence, cooperation at the regional level for instance between Russia and China, is a eye opener that there is a will and there is a way to combat climate change problem. {14}

At Cancun, national Governments for one reason or the other were resisting concessions required to break the logjam. Regional blocks appear more interested in apportioning blame than finding solutions. International organizations, however well intentioned, seem so far unable to bridge the divides. But away from the international arena, Businesses are not waiting for global agreement to reduce energy consumption. The need to cut costs, as well as to help safeguard the environment, is making energy conservation a major preference for firms in Russia and the around the world.

Governments world-wide are re-examining their resources of energy generation capacity. Renewable energy is also attracting Governments help. The USA is spending a huge amount of US $ 66 billion to explore, develop and harness alternative fuel resources. The European Union (EU) is trying hard to generate 20 per cent of its total need of power renewable by 2020. China has passed a US $ 47 billion green energy bull and is using subsidies and other financial tools to enhance investment in wind and solar power. {15}

The most pertinent fact to point out here is that as the world largest producer of greenhouse gases, enabling China to continue developing its economy without a huge rise in carbon emissions is critical and strategic to tackling climate change. Even if its per capita levels are still way below the US levels, China has now overtaken the United States of America as the globe biggest greenhouse emitter. Here too there is a reason for optimism. China is very much aware of the challenge and has promised-as a part of its attempt to kick start the post Kyoto negotiations- to reduce emissions per GDP unit by as much as 45 per cent by the end of 2020.

It is necessary to understand why the Russian and Chinese Governments have such big ambitions for energy cooperation. Energy exports from Russia to China are now estimated to raise as much as 60 folds over the present decade. To help transfer the power efficiently, China is investing the equivalent of US $ 250 billion on the needed improvement in the grid. The prices are three times up in China as compared to Russia, a compelling business case for both nations to cooperate is very clear. The ongoing debate in China on the introduction of an internal carbon price would only lead to more attractiveness of Russian hydro.

There are instances for such cooperation. The European Union (EU) is considering for creating a super-grid to enable the region to benefit from solar power generated in North Africa. Two important nations of the EU namely- Norway and Denmark are collaborating on the interchange of hydroelectric, thermal and wind power to lower cost of electricity generation and output. Mongolian has also a plan that wind energy is to be transmitted to South Korea and Japan.

Other View Point

It is certainly true that given the current state of play in climate change policies across many countries that have the approval of both developed economies and the majority of developing nations falls short in many ways in terms of concrete, far-reaching solutions on the critical issues in global climate governance. Critical red lines that different nations and groups laid out even during the meting at Cancun have been quietly modified. But the fact of agreement between the rich and developed economies is not insignificant- and to deny it would be to miss the critical and strategic feature of the climate issue as a global problem and challenge. To put it differently, the absence of an outcome at Cancun would have launched the multilateral process into uncharted waters with the risk, and its incalculable consequences, that the process itself would be scuttled or rendered effectively non-operational. {16}

Cancun Summit was also marked by a relatively self-confident approach from the large developing countries, particularly China and India. China had made a strong propaganda for projecting what it was already committed to in its domestic climate talks, which the large contingent had little to counter with except for erudite discussions on climate policy by its NGOs.India had much more muted presence, apart from the
media savvy, but nevertheless there was much interest in its policies and attitudes. While acknowledging that developed countries have historical responsibility for the bulk of accumulated greenhouse gas emissions in the earth’s atmosphere, which is what is causing global warming, the US and other developed economies argue that the current emissions’ trajectories of major economies like China or India would neutralize their own emissions reductions and hence, climate change would continue to take place. This apparent mathematical logic appears to have convinced many within our own civil society and political ranks. Another more compelling mathematical logic has been deliberately obscured. If we all agree that the increase in global average temperatures should not exceed say 2 degree Centigrade by 2050, this corresponds to a certain stock of GHGs in the atmosphere. To reach that level, reduction in emissions required globally would have to be distributed over several countries. What the UNFCCC incorporated is a principle of equitable burden sharing in this respect rather than symmetry of legal obligations. {17}

Developed countries took on a legal commitment to undertake absolute emissions reductions not only to meet the requirements of keeping global warming which scientifically determined acceptable levels, but also, and this is fundamental, to vacate atmosphere space sufficient to accommodate the rising emission of developing economies, inevitable in the latter’s course of economic and social development. If developing nations were encouraged to take mitigation measures beyond their own capacities, then such steps would have to be enabled and supported by financial and technological transfers from developed nations. What is now taking place in the negotiations; it is the wholesale overturning of these fundamental provisions of the UNFCCC.

What Cancun Agreements have confirmed is that emerging economies namely-India, China, Brazil, Mexico can neither expect any financial nor technological transfers to support their does tic actions. Meeting any obligations these economies assume in a future climate regime would come up at the cost of meeting urgent and compelling developmental imperatives. The approach and attitude of rich nations is typical of other discriminatory regimes. They get to keep what emerging nations have because emerging economies got here first.

Strategy for Success in Durban 2011

If the negotiations on Climate Change see the light of success, then the following are the basic principles or issues to be followed by every nation in coming Durban Summit in 2011.

a) Multilateral headway on climate change can not happen without a clear cut binding agreement on reduction in greenhouse gas emissions. Hence, Kyoto Protocol is in the right perspective and right direction. Therefore, every nation has to accept that there must not be any time gap between the first and second commitment. What is needed is to make it as a sound and strong base for future talks and also make it most effective and efficient to deliver the desired goods to the globe in general and member countries in particular.

b) In whatever form the accord is drafted, negotiated; finalized and adopted the very basic principle based on natural justice i.e. “common but differentiated duties, responsibilities and accountabilities” required to be accepted and implemented in the true spirit, zeal and sincerity. Rich nations must take responsibility sportingly as they are the larges contributor greenhouse gas emissions. Accordingly, these countries should be more dutiful and accountable to the world. These nations must take corrective steps in the right perspective and direction. Added to this, emerging economies namely-China, India, Brazil, Mexico and South Africa must also own responsibilities of reducing greenhouse gas emissions and must also take corrective measures.

c) In order to meet the challenge of global warming, the creation of financial resources is inevitable. Pledging of funds should not remain as a myth. It must be transformed into reality. Creation of fund worth US $ 100 billion should see the light of the day. The existing levels of pledges are at the low ebb and can not serve the purpose of reduction of emissions and adaptations. The process of creating such fund is very slow.
and at the will of the contributors.

d) In Cancun Summit, the US and the China were the major players in the negotiations. Any agreement or accord with the consent of these two nations would become useless and in fractious. The consent of the US and China in regard to MRV and differentiated responsibilities is the need of the hour.

e) Any accord should on climate change should not hold hostage or become a hinder in respect of two vital strategic issues namely- multilateral trade negotiations and transfer of technology to the needy economies.

When 1993 countries would gather at Durban, South Africa in 2011, it is their moral duty and responsibility to contribute positively and constructively in saving the planet. They must think at least once that they have to play an encouraging role in saving the climate which may create far-reaching consequences, impacts and implication to the world wherein all are we living. Every one must hope that a sense would prevail upon the nations to come out with some concrete plan, policies and programmes of saving the earth from further decay.

Conclusion

From Copenhagen (COP 15) in 2009 to Cancun (COP 16) very little headway has been made out in the negotiations on Climate Change or global warming. But the most unfortunate thin is that no concrete solution to the problem which is the biggest challenge of 21st Century. Developed nations who are responsible for this mess are not serious in their attitude, approach and solutions. These countries or the major players are not realizing that if immediate measures are not taken then the humanity (people) would face unbearable and unimaginable consequences and impacts. What is immediate required is the consistency, continuity and diversity in the attitude, approach and practices. The next COP 17 at Durban, South Africa must give a rethinking on the challenge and out come must not be a myth but must be transformed into reality.

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Programme Planning in School: Perspectives on Out-Door Programme

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Abstract
The objective of this paper is to emphasize the need and importance of outdoor learning in our secondary schools which will act as a panacea to improving academic excellence and discipline in schools. It is believed that refocusing the outdoor learning will go a long way to strengthen the social, skills and mental development of the students. The methodology here involves the review of the past and present perception of school head on outdoor programmes. It also finds out that the awareness is not there among the stakeholders in education. It was also discovered through personal interaction with staff and students that most schools do not take part in outdoor programme. Most of the schools interacted with show no knowledge of what outdoor programmes are. The uniqueness of this paper is providing clues on how school head can introduce and carry out the outdoor programmes. They should see it not as extra curricula activity but as an inevitable part of completing the school curriculum. This paper is calling for a refocus on the outdoor learning and how this can be achieved internally without waiting for fund from the government but as a means of attracting the government.

Keywords: Programme, Planning, Outdoor, Learning

Introduction

The school can be defined as an industry engaged in the transformation of human being, ready for meaningful living and making his or her own contribution to the development of the society. For the school to achieve this role, they will not work in isolation, it is on this ground that the school is referred to as a social system where the different unit need to work together to achieve a common goal. Akinwumiju and Agabi (2005: 101) defined the social system as “a system that is essentially service oriented. It is a system that exists primarily to service society with the purpose of maintaining a social order. It therefore, does not exist in isolation with its environment”. The school as service organization needs to plan its programme in order to achieve its set up goal. Senge (1990) Watkins and Marsick (1993) in Hoy and Miskel (2006:33) sees the school as “places where participants continually expand their capacities to create and achieve, where novel patterns of thinking are encouraged, where collective aspiration are nurtured, where participants expands its capacity for innovation and problem solving”.

From the views above one can deduce that learning can take place outside the classroom, to produce a total educated child that will fit into the society. The school in planning its programme should also take note of non-academic programmes which also enhances the academic programmes, that is the psychomotor domain, the cognitive and the affective domain. In the past most of this outdoor programmes were referred to as extra curricula activities which led to schools not attaching too much importance to it. The word extra according to Edem (2004) made it to add anything to the exam scores of the students. The less attention paid on the outdoor programmes and the use of the psychomotor domain has led to series of indiscipline cases in our schools today. The non-academic programme as so called because its does not add to the exam scores of the students and as such must schools are not committed or dedicated to it. Even where they are done, it is done haphazardly or just for the sake of doing it. The non-academic programmes are more of a practical way of learning. According to Smith (1971) in Ozuru (2003: 132) that outdoor learning should offer educational experiences designed “to help the student identify and solve real-life problems to acquire skills and
appreciation with which to enjoy a life time creative living; to attain an understanding of human and natural resources.

The view above can be supported with the Federal Republic of Nigeria (2004:7) the section (1) number 4 (d) which states that “there is need for functional education for the promotion of a 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”.

The FRN (2004:7) section(1) number 7(d) went further to state that “the acquisition of appropriate skills and the development of mental, physical and social abilities and competencies as equipment for the individual to live in and contribute to the development of the society”.

The aim of the National Policy on education above is not just academic alone, but development of mental, physical and social abilities of the individual, that is covering the three domains, the psychomotor, affective and cognitive domain. Outdoor-learning is so broad but, in this write up emphasis will be made on the common outdoor-learning activities.

Types of Outdoor – Programme

The outdoor-programme if properly planned should be included in the school internal annual programme. It should be planned in a way that the experience acquired would have a link with the classroom experience. Out-door learning is active learning, and the participants learn through what they do, what they encounter and through what they discover.

Annual Sports Competition

This is an outdoor-learning activity where the students are engaged in different types of sporting activities. It brings the theoretical aspect of physical education into real life situation. It encourages friendship and teamwork among students.

Sporting activities takes care of the psychomotor domain of the students. Through sports, friendship is also encouraged among students and schools mostly where they work as a team. For instance school football team, relay team and basketball team etc.

Speech and Prize Giving Day

This is a programme that is organized though outside the classroom, but is planned to honour classroom activities or experiences. It is a day, were excellence is rewarded. Through it, students are challenged to be studious and of good behaviour. The speech and prize giving programme takes care of the cognitive and affective domain. It is also an annual programme that is very dear to most schools.

Class Activity / Open Day

This is a day set aside by the school for each class or grade, to discuss and review the journey so far in academics. It is a day where parents of students in the same year come to interact with teachers on the well being of the student. It is a day where identified deviance behaviour is discussed openly with parents, and solution proffered.

Open day gives parents ample opportunity to discuss the academic strength and weakness of their children and ward directly with the people concerned. Open day encourages team work among parents, teachers and students and bridges the gap between parents and children, teachers and students, and between parents and teachers.
It is another serious outdoor activity that enhances the cognitive domain. It sensitizes parents to be directly involved in the academic pursuit of their children, and not to abandon them to the school.

**Founders Day**

The Founders' Day is a special day in the school calendar. It is a day when the school community set aside to commemorate those who founded the school and those who have in one way or the other has bequeathed resources to the development of the school. It is a historical day where the heroes are remembered and a day where future heroes are inspired.

It is a day where generosity is rewarded and some time host community head are honoured. It is also a day used to reward past school head and staff that have made tremendous impact on the school. Founders’ Day gives the student the opportunity to appreciate good work, and also to bequeath resources to the development of the school in future after graduation.

**Parents Teachers Association**

This is an association, where teachers and parents meet to exchange views and explore new methods on how to achieve educational goals. For the school to achieve its goal, the family has a lot to do.

It was on this note that Ajuzie (2005:91) stated that the:

"Family has much to do with the type of mental, emotional and psychological balance, value orientation, aspiration and personality a child develops later in life”.

The views of Ajuzie above shows that the value orientation and aspiration of a family will affect or influence the child’s own value orientation. The collaboration of parents and teachers is of great importance to the achievement of academic goals, and to curb indiscipline in schools. This can be supported with the views of Edem (2003) that interaction of parents, teachers and students, will help in strengthening the authority of the school in terms of discipline and useful ideas will be exchanged on how to improve the learning ability of the child.

**Clubs and Societies**

This is another means through which many outdoor learning activities are taken care of, the subject areas are covered. Under this section you have the young farmers club, music club, JET club, French club, Young Entrepreneurs club, Home Markers club etc. All these clubs are formed to bring the theoretical knowledge into real life situation and they are action oriented.

Clubs and societies activity also take cognizance of the three domains (that is the cognitive psychomotor and affective domain). The clubs should be meaningfully engaged outside the classroom to avoid idleness. The common saying that an idle mind is the devil's workshop will not occur in a school that has properly programmed its outdoor – activities. Club and societies also enhances the social life of the students and helps them to understand and appreciate the religion, culture and social life of people from other tribes. It helps them to appreciate skills, for instance, their participation in Young Farmers Club can expose them to practical life of livestock farming, while participation in Young Entrepreneurs Club will give those clues on how to start their own small business after graduation or even assist or educate their parents on the skill acquired.
Impact of Out-Door Learning

Outdoor learning as earlier stated is all activities outside the classroom. They are action oriented, it is the transformation of theory into real life situation, and it is practical based. Above all, they are the means in which the school as a social system interacts with the outside world.

The outdoor-programmes show cases the skills and talents that are inhibited in the classroom, and gives the teachers the opportunity to discover the potential in their students. Sometimes the students also discover the hidden talents in themselves.

The outdoor-programme enhances the social life of the students which also prepares them to interact freely with people outside their family. It encourages unity and harmony among students which will then transcend to the larger society. This is one of the overall philosophy of Nigeria education as stated in FRN (2004:6) to "live in unity and harmony as one indivisible, indissoluble, democratic and sovereign nation founded on the principles of freedom, equality and justice".

The outdoor-programme if properly planned can be of economic importance to the school. The school can use most of the outdoor-programmes to raise fund to execute or improve a given project. Through the school sports competition, fund can be generated to improve or purchase more sporting equipment by inviting parents and well wishers of the school.

Founders Day can also be used to generate fund for the school by honouring those who founded the school or those that have being of great assistance to the school. In appreciation of the honour more resources are attracted to the school.

Through outdoor-programme, the relation of the school and its host community is also strengthened. This is also achieved by recognizing the host community in all the social programme of the school, thereby giving the host community sense of belonging. The host community in turn will become interested in the activities of the school, thereby encouraging a healthier school – community relation.

Through outdoor-programme co-operate bodies are invited to sponsor programmes in the school, and through it career development takes place indirectly, since knowledge and skills is developed as an added value to students everyday experience in the classroom.

Outdoor-learning is memorable in nature, and will have a long term positive impact on the students and will lead to individual growth. It also increases the affective and the cognitive with each influencing the other and providing an avenue to high learning. This can be supported with the views of Mehaffy (1985) when he asserted that outdoor-learning will lead to development of more positive self image, it will also improve students sense of competence, enhanced their socialization skills; enhanced integration and improve student – teacher relationship.

Constraints of Outdoor Learning

Outdoor –learning according to Ozuru (2004) in Nwideeduh (2004) ed) stated that outdoor learning is a peep out of the classroom, to see the environment, but it is much more than that. Outdoor learning should offer an educational experience that is designed to help the students identify and solve real –life problems.

Outdoor –learning has suffered a lot of setback, it has not being accorded its rightful position. As started earlier, there are different types of outdoor learning but majority of Nigeria secondary schools are involved only in one or two of the programmes which is inter-house sports and speech and prize giving day.

The outdoor learning has suffered some set back as a result of so many factors, some of the factors will be discussed below.
Awareness

There is no much awareness on the impact of field trip or outdoor learning among school head and teachers. Learning in the school is just centered on the classroom experience alone forgetting that to produce a total child, there must be an interaction of the cognitive, affective and psychomotor domain. The school head is not aware and even where they are, they pretend not to know.

Lack of Facilities

This also constitute a problem to the achievement of Outdoor learning. A situation where the necessary facilities are not provided in the school, engaging in Outdoor learning becomes a problem. For instance, a situation were a school do not own a school bus, it becomes a problem to attend social functions outside the school because provision for chartering a bus is not given or provided for.

Lack of adequate sports facilities can also hinder student’s participation in sporting activities and the absence of adequate school hall can also hinder the school in organizing programmes like Speech, and Prize Giving Day or Founders’ Day, Exhibition and Cultural Day.

Finance

Lack of finance also poses a challenge to the involvement of schools in planning Outdoor programme. The execution of any programme, no matter how small needs money for its success. Lack of fund has also compelled some schools to shy away from engaging in outdoor-programmes.

Personnel

The school not being able to assign the responsibility of outdoor programme to a given group of staff also constitutes a problem. The staff that should plan and organize the outdoor learning is not there. This is as a result of lack of interest, those good old days; schools usually have the social teachers who work hand in hand with the social prefect, to ensure the involvement of students in outdoor programme within and outside the school programme.

Parents

They are supposed to be key partners in the achievement of outdoor-learning, but they tactfully shy away from it. Most parents are not aware of the impact of outdoor-learning on their children. They believed that once the mandated school fees is paid, the school should not make any more demand, and even discourages their children from partaking in outdoor-programme that will cost them money.

Safety

The fear of the safety of the students also hinders some schools from embarking on outdoor-learning, mostly the ones that involves travelling outside the school. The fear of taking the students to the river or forest hinders their experience which would have also added to their skills and development.
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Teaching Staff Strength (TSS) and Workload In Public Senior Secondary Schools In Ogba/Egbema/Ndoni Local Government Area of Rivers State, Nigeria

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Abstract The attainment of effective education by the educatee is hinged on the balancing of the workload and the teaching staff strength (TSS) in schools. The interplay was the rallying point of this study which tried to ascertain the level of workload and teaching staff strength (TSS) in public senior secondary schools. Six (6) research questions were posed as guide with the questionnaire as a base instrument for data collection from the principals of the 18 public senior secondary schools in Onelga. Analysis of data on teacher-students ratio reveal that 11 schools representing 61% have a ratio above 1:40 and 7 schools representing 39% have a ratio below 1:40 as enshrined in the FRN (2004). The class size indicates that 7 schools have moderate class sizes whereas 11 schools have excess class sizes. Consequently the workload data analysis reveals that all the schools exceeded the 15 weekly periods per teaching staff with 17% having 18-23 while 83% having 24-30 per teacher per week. Female teachers occupied 21% and male teachers occupied 79% of the total population of 152. The implication is that excess workload will affect the output been churned into the tertiary institutions. Recommendation were made among others to improve the condition of service and track down the rate of attrition.

Keywords: Teaching-staff, strength, workload, effectiveness and Public Senior Secondary Schools.

Introduction

Presumably is the fact that the compulsory Basic Education Programme (BEP) of the Federal Government has stretched the senior secondary schools beyond their manpower carrying capacity resulting to over bearing workload for the teaching staff. This has further been catapulted by the indispensable roles education play in the socio-economic, political and cultural development of the people in this Knowledge Based Era. Maduagwu and Nwogu (2006) observing the invaluable roles of the teachers in Nation building, stated that the teachers possesses so much innate abilities that can be harnessed for positive economic and all round development of Nigeria Nation and as a matter of fact, education generally serve as an instrument par excellence for overall national development.

The Education For All (EFA) Declaration by African Countries by 2015 has prompted unprecedented demand for education across boardline of gender and country and has consequently elicited numerous educational challenges, notably inadequate teaching staff strength among others (Wegulo, 2008). Corroborating this view, Maduagwu and Nwogu (2006) asserts that the growing and escalating demand for education by every citizen of school age and the present drive for the universalization of education in Nigeria, Ogba/Egbema/Ndoni Local Government Area inclusive, has been wireguided by the UN declaration and has mounted undue pressure (workload) on the available teaching staff in public senior secondary schools. A gap therefore has been created between the teaching staff strength and the workload which this study seeks to examine.

This inadequacy of teaching staff strength and the over bearing workload potends great danger for the education system in ONELGA, Rivers State in the attainment of goals, that is, achievement of quality of products being churned out at the senior secondary level. To Okorie (2002) in Okorie and Uche (2005) quality in teaching and learning results from a healthy interplay among broad range of success factors such
as personnel (Teaching staff) in the right number for effective teacher performance and student’s learning outcome. This presupposes that where the required number of teaching staff strength is not matched with the right number of students, there will be difficulty in the students achievement level or rate; which defeats the functional objectives of making the graduands useful in their society.

Nwaham, Chukwuma and Ajudeonu (2007) opined that Nigeria colleges are deficient in the quality of teaching manpower, such that students can not get the best and this inadequacy negates positive achievement of the education objectives in terms of school effectiveness. Although this study is not looking at quality of teachers per se, however, it wants to strike a marriage between TSS cum workload vis-à-vis effectiveness of senior secondary products. Taiwo (1980) in Obasi and Asodiike (2006) agreed that effectiveness of any education system is a measure of the viability and numerical strength of the teachers.

Teacher supply is the total number of teachers that are willing and able to put in the required man hour in schools under the prevailing wage market condition (condition of service) within a given period of one school year called school session. Where the number of teaching staff strength in a school is small, it will lead to excess workload. Zwalchir and Buenyen (2009) opined that when workers are overloaded with work, it will be at the detriment of efficiency and effectiveness which syncopate the organizational goal of quality attainment. Consequently, the overriding functional and tenable secondary school aims of the National policy on education will be defeated. There is the need for education managers, the ministry and board to balance the demand and supply of teaching staff strength in ONELGA. This balancing will result in teaching staff strength equilibrium, which is the point at which the supply of teaching staff equals the workload with the statutory requirement of 1:40 teacher-students ratio as enshrined in the National policy on education. FRN (2004) stated that “there shall not be more than 40 pupils to a class. The above scenario makes it expedient to x-ray teaching staff strength and workload in public senior secondary schools in ONELGA Rivers State.

Teaching Staff Strength and School Effectiveness

The Universal Basic Education (UBE) programme of the Federal Government calls for a proactive planning and implementation strategy in the face of emergent demand for education by all and sundry. It then means that an equilibrium based on students-teaching staff strength ratio is required in the supply of teaching manpower. This view was corroborated by Maduagwu and Nwogu (2006) when they posited that the quantity of educational resources demanded at any point in time is a determination of conscious forecasting and projection on factors necessitating the demand on those resources. These factors according to them, include the number of schools leaving age, class size, number of subjects taught in school, teaching methods and teacher workload. The demand for more teaching staff is further amplified in ONELGA by these factors such as: increased consciousness for education, the educational requirement for employment by oil companies operating in the area, the rate of migration into the area for greener pasture, the turnover rate from primary to secondary school, the establishment of more or new schools and the rate of attrition by teaching staff for a more lucrative company job.

Teaching staff (TS) refers to those who are professionally trained in the education faculty of any tertiary institution to transfer knowledge to another called the student in the prescribed manner in a school. Teaching staff strength (TSS) are the number of male and female with relevant skills, who are gainfully employed and posted by the state ministry of education to any public secondary school. Where the TSS is high, the workload per staff will be optimal resulting to high quality or effective education. To Taiwo (1980) in Obasi and Asodiike (2006) the key to quality education is a correlate of the availability of a well trained and competent teaching staff. Whose effectiveness translates to performance of students in external examinations like WAEC, NECO, NTI, JAMB (Adebule, 2005 in Agbongiasede, 2008) without examination malpractice. Quality of Education at any level can be defined as the extent to which the end products of the system is able to take up higher education and is entrepreneurially viable to fit into the larger society. This viability can be zeroed when the required TSS to develop the students at their best are not provided to the
school. The effect of the educational crises in Nigeria due to inadequate supply of teaching staff to publicly owned secondary schools has been identified by Isyaku (2002) to include many parents withdrawing their children from public schools to private schools or even sending them to nearby countries like Ghana and South Africa etc. in search for quality education.

Concept of Workload in School

The management of workload in school is an important aspect that can make or mar the goals of education. This is because where these tasks or duties are not co-ordinated efficiently, expected result will be far from realization. The researchers define a teacher’s workload as the totality of academic teaching work and committee workload assigned to a teacher for the attainment of the overall educational objectives in the school. This is in terms of lesson note preparation, test and assignment, examination, house mastership and any other routine work that may be assigned to a teaching staff by the principal. This view agrees with Sinclair (1992) and Usoro, Nnaessien and Saleh (2007).

A teacher therefore can be overloaded, that is, much task in terms of teaching units and committee assignment or under-loaded with work, that is, less teaching unit assigned (Zwalchir and Buenyen, 2009). The principal in the school is the sole administrator who assigns workload to the teaching staff and so must be proactive to avoid over utilization or under utilization of teaching staff for the purpose of goal getting and fruitful performance.

In this same vein, the principal has the duty to also check the class size taught by the teacher, as large class size constitute excess workload for the teacher. With the increasing enrolment rate in our schools, the teaching staff can be paid for excess workload as was done in Federal College of Education (Tech) Omoku main stream between year 2006 – 2007.

The distribution of workload by the principal is dependent on the teaching staff strength (TSS) of the school. Where this is small, the workload will be high per teacher and some work will be left undone. This is responsible for some subjects not being taught unless the principal engages the services of a “helping teacher” who may not be competent in the subject, hence quality or effectiveness is compromised. Arora (2009) said that quality is conformance to requirement or specification.

In this direction therefore, teaching staff productivity is directly related to the workload assigned to that staff. Productivity of a teaching staff is a measure of the extent of effectiveness and efficient execution of the workload within a stipulated time, culminating to achievement of school objectives. Usoro et al; (2007) agreed that productivity is measured in terms of how the students have appreciated and assimilated the lesson taught by the teacher. The class size can make or mar the rate of understanding. A large class will be difficult to be effectively controlled which contradicts the tenets of training on classroom management. The class room management will be more effective if the 1:40 teacher-students ratio is maintained in the public senior secondary schools.

This ratio appears hard to come by because of the over admission in our schools which inversely varies with the number of teaching staff supplied. This have veered predominantly into all the schools in the Local Government Area.

Work Load After School

Teaching staff carry home their work after school period, to prepare them for the next day’s activities. The teacher prepares his/her lesson note at home, mark and record examination score at home. Where the teaching staff handles more than one class, he/she prepares for the classes which is enormous task even after the normal school period. When others are having their rest at home, the teacher is still struggling with his workload at home. This stresses the teacher beyond their carrying capacity emotionally, physically, psychologically, financially and even spiritually.
Problem of the Study

Teaching staff strength (TSS) and workload is on the front burner when it has to do with quality or effectiveness of education in as much as workload determines to a great extent the level of quality achievement in education. On a general perception there is hue and cry on the deteriorating level of quality of education as products of our education system, senior secondary school inclusive can not adequately prove their worth. The scenario is worsening with the insufficiency of TSS in schools with the resulting high workload on the available teaching staff. The study therefore is set out to know from prospective respondents the TSS in schools in ONELGA and the workload they carry, and to highlight the negative effects of inadequate supply of teaching staff in senior secondary schools in Onelga Rivers State.

Research Questions

This study examines teaching staff strength and workload in senior secondary schools in Onelga. The work was guided by the following research questions.
1. What is the teacher-students ratio in senior secondary schools
2. What is the class size in senior secondary school
3. What is the weekly period per teaching staff
4. What is the teaching staff strength in the school
5. How many subjects are lacking teachers in schools.
6. What is the workload per teaching staff

Research Question 1 & 2
What is the teacher-students ratio and class size in senior secondary schools?

<table>
<thead>
<tr>
<th>s/n</th>
<th>Schools</th>
<th>No. of teachers</th>
<th>No. of student</th>
<th>Derived ratio</th>
<th>Class size</th>
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<tbody>
<tr>
<td>1</td>
<td>GCSS Obite</td>
<td>4</td>
<td>299</td>
<td>1:75</td>
<td>75</td>
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<td>2</td>
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<td>8</td>
<td>250</td>
<td>1:31</td>
<td>31</td>
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<tr>
<td>3</td>
<td>CSS Ebogoro</td>
<td>6</td>
<td>385</td>
<td>1:64</td>
<td>64</td>
</tr>
<tr>
<td>4</td>
<td>CSS Amah</td>
<td>7</td>
<td>350</td>
<td>1:50</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>CSS Obrikom</td>
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<td>308</td>
<td>1:31</td>
<td>31</td>
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<tr>
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<td>13</td>
<td>791</td>
<td>1:61</td>
<td>61</td>
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<tr>
<td>7</td>
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<td>10</td>
<td>479</td>
<td>1:48</td>
<td>48</td>
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<tr>
<td>8</td>
<td>CSS Osiajpu</td>
<td>10</td>
<td>105</td>
<td>1:11</td>
<td>11</td>
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<tr>
<td>9</td>
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<td>118</td>
<td>1:15</td>
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<tr>
<td>10</td>
<td>MBSS Omoku</td>
<td>19</td>
<td>410</td>
<td>1:22</td>
<td>22</td>
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<tr>
<td>11</td>
<td>CSS Obigwe</td>
<td>11</td>
<td>246</td>
<td>1:22</td>
<td>22</td>
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<tr>
<td>12</td>
<td>ICHS Idu Obosiukwu</td>
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<td>78</td>
<td>1:16</td>
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<tr>
<td>13</td>
<td>CSS Obagi</td>
<td>8</td>
<td>360</td>
<td>1:45</td>
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<tr>
<td>14</td>
<td>GSS Ndoni</td>
<td>8</td>
<td>326</td>
<td>1:41</td>
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<tr>
<td>15</td>
<td>CGSS Aggha</td>
<td>7</td>
<td>405</td>
<td>1:58</td>
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<tr>
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<td>352</td>
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<td>1:54</td>
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<tr>
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<td>1:46</td>
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<td></td>
<td>152</td>
<td>5483</td>
<td></td>
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</tbody>
</table>
The table above indicates that of the sampled 18 senior secondary schools in Onelga, 11 schools had teacher-students ratio above 1:40 and 7 schools had a teacher-students ratio below 1:40, which shows that there is high workload in majority of the schools, on class size seven (7) schools has between 11-31 ie 39% of the total schools and 61% representing 11 schools has class size of 41 – 75. This indicator shows that more schools have excess class size.

**Research Question 3, 4 & 5**
What is the weekly period, teaching staff strength and workload for a teaching staff in senior secondary schools?

**Table 2: Weekly Periods, TSS and Work load per Teaching Staff**

<table>
<thead>
<tr>
<th>s/n</th>
<th>Schools</th>
<th>Male</th>
<th>Female</th>
<th>Actual put in period per teacher</th>
<th>Work load per teaching subject</th>
<th>School committee work load</th>
<th>Total work load</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GCSS Obite</td>
<td>2</td>
<td>2</td>
<td>18</td>
<td>1x18 = 18</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>GSS Akabuka</td>
<td>6</td>
<td>2</td>
<td>21</td>
<td>1x21 = 21</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>CSS Ebogoro</td>
<td>5</td>
<td>1</td>
<td>18</td>
<td>1x18 = 18</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>CSS Amah</td>
<td>5</td>
<td>2</td>
<td>21</td>
<td>1x21 = 21</td>
<td>6</td>
<td>27</td>
</tr>
<tr>
<td>5</td>
<td>CSS Obrikom</td>
<td>8</td>
<td>2</td>
<td>24</td>
<td>1x24 = 24</td>
<td>3</td>
<td>27</td>
</tr>
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<td>11</td>
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<td>21</td>
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<td>24</td>
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<tr>
<td>7</td>
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<td>18</td>
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<td>3</td>
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<td>8</td>
<td>CSS Osiakpu</td>
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<td>21</td>
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<td>9</td>
<td>GSS Kreigani</td>
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<td>10</td>
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<td>24</td>
</tr>
<tr>
<td>11</td>
<td>CSS Obigwe</td>
<td>9</td>
<td>2</td>
<td>21</td>
<td>1x15 = 15</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>12</td>
<td>ICHS Idu Osisiukwu</td>
<td>3</td>
<td>2</td>
<td>24</td>
<td>1x24 = 24</td>
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<td>30</td>
</tr>
<tr>
<td>13</td>
<td>CSS Obagi</td>
<td>7</td>
<td>2</td>
<td>18</td>
<td>1x18 = 18</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>14</td>
<td>GSS Ndoni</td>
<td>6</td>
<td>2</td>
<td>21</td>
<td>1x21 = 21</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>15</td>
<td>CGSS Agghah</td>
<td>6</td>
<td>1</td>
<td>24</td>
<td>1x24 = 24</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>16</td>
<td>CSS Erema</td>
<td>5</td>
<td>1</td>
<td>21</td>
<td>1x21 = 21</td>
<td>6</td>
<td>27</td>
</tr>
<tr>
<td>17</td>
<td>CSS Oboburu</td>
<td>3</td>
<td>1</td>
<td>21</td>
<td>1x21 = 21</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>18</td>
<td>CGSS Omoku</td>
<td>6</td>
<td>2</td>
<td>24</td>
<td>1x24 = 24</td>
<td>5</td>
<td>29</td>
</tr>
</tbody>
</table>

Table two shows that all the schools exceeded the 15 units weekly periods per teacher per subject. Those schools with high number of teaching staff have lesser periods and if a teacher teaches more than one subject, the weekly periods will double or triple as the case may be, this indicates more workload. It also indicates that female teachers occupies 21% while male teachers stands at 79% of the total teacher population. This shows that male teachers are higher than their female counterparts and that 17% of the schools have workload per teaching staff of 18–23 while the remaining 83% representing 15 schools have workload of 24-30 per teaching staff.

**Research Question 6**
How Many Subjects Are Lacking Teachers In Schools?
Table 3: Number of Subjects Lacking

<table>
<thead>
<tr>
<th>s/n</th>
<th>Schools</th>
<th>No. of subjects available</th>
<th>No. of subjects lacking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GCSS Obite</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>GSS Akabuka</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>CSS Ebogoro</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>CSS Amah</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>CSS Obrikom</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>EGSS Okwuzi</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>CSS Omoku</td>
<td>8</td>
<td>4</td>
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<tr>
<td>8</td>
<td>CSS Osiaxpu</td>
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<td>6</td>
</tr>
<tr>
<td>9</td>
<td>GSS Kreigani</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>MBSS Omoku</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>CSS Obigwe</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>ICHS Idu Obiokwu</td>
<td>5</td>
<td>7</td>
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<tr>
<td>13</td>
<td>CSS Obagi</td>
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<tr>
<td>14</td>
<td>GSS Ndoni</td>
<td>8</td>
<td>6</td>
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<tr>
<td>15</td>
<td>CGSS Aggha</td>
<td>7</td>
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<td>16</td>
<td>CSS Erema</td>
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<td>17</td>
<td>CSS Oboburu</td>
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<td>10</td>
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<tr>
<td>18</td>
<td>CGSS Omoku</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

From the table above 33.3% of schools lack between 3-5 subjects while the remaining 66.7% lack 6-10 subjects areas in school. All the schools lacks some subjects with majority of schools deficient in six(6) subjects and above.

Discussion of Findings

The findings were discussed relative to the research questions.

Teacher-Students Ratio: The analysis of data shows that a majority of the senior secondary schools in ONELGA have high teacher-students ratio above the 1:40 prescribed, which will not produce a healthy teaching-learning outcome. This may be one of the reasons why the standard of education is low in the area. FRN (2004) states that there shall not be more than 40 pupils in a class. This situation syncopates the stipulation of the policy on education.

Class Size: There is high enrolment rate into the school as a result of awareness created in the minds of children on the need for education as to fit into the oil companies operating therein and the desire to meet the challenges of the time which therefore agrees with the reason posited in Maduagwu and Nwogu (2006) for the escalating demand for education by every citizen, Irrespective of gender and ageline. This may be a major contributory reason for the 61.1% of schools with higher enrolment figure in ONELGA.

Period Per week: The period per teaching staff in a week shows that 17% of the schools put in between 18-23 periods of 40 minutes per period for a class and 83% puts in 24-30 periods depending on whether the
teacher takes one class or more. The period per week per teacher will increase, if the teacher takes more than one class. With the number of teaching staff supplied to the schools, it is evident that a teaching staff takes more than one class of three periods a day. This is above the supposed 15 periods per week per teaching staff. The study confirms that all the teaching staff put in 18-30 periods per class per week.

**Teaching Staff Strength (TSS):** The investigation reveals that 33.3% of schools in ONELGA have 10-19 teachers as their teaching staff strength whereas 66.7% of the schools have 4-8 teaching staff strength. The scenario indicates that there is inadequate teaching staff strength in senior secondary schools in ONELGA. The percentage of female teachers stand at 21.1% which may be as a result of the discrimination against women by employers for the fact that they increase workload during pregnancy, maternity leave and menstrual period when they do less of the job in office.

**Workload per Teacher:** workload in schools per teaching staff shows a high workload of 21-30 units per teaching staff, assuming that each school committee occupy one (1) unit of workload. There is generally excess workload in schools in ONELGA resulting from inadequate supply of teaching staff to schools or perhaps, high rate of attrition to lucrative jobs, which aggress with the position of Nwaham, et al (2007) that Nigerian Colleges are teaching manpower deficient.

**Number of Subject Lacking:** The investigation shows that 33.3% of schools in ONELGA have teaching staff inadequacy of between 3-5 subjects. While the remaining 66.7% of schools lacks between 6-10 teaching subjects which perhaps is due to transfer without replacement outside the Local Government Area. This assertion was also supported by Obasi and Asodike (2006).

**Conclusion**

The issue of teaching staff strength and workload is hinged on the increasing number of school enrolment and the inadequate number of teachers to carry the expansion tendency. From the study, it is obvious that the teaching staff strength is grossly inadequate to carry the challenges of school enrolment being observed in all the schools. It is also crystal clear that there is excess workload by the teaching staff in all the schools asserted with landable programmes like the Compulsory Basic Education Programme (CBEP) of the Federal Government which has blown the public schools tremendously. The study as well discussed the effectiveness of education based on the fact that teacher-students ratio in ONELGA violates the standard set by the National Policy on Education, number of periods by the teaching staff and committee per teaching staff which are all pointers to quality of education.

**Recommendation**

In view of the findings above, the following recommendations are made:

1) Government should post more qualified teachers to the schools.
2) There should be the conduct of regular in-service training for the teachers to update themselves and keep a breast with challenges of the time.
3) Teachers welfare should be improved to check the rate of attrition from the job.
4) School facilities should be improved to accommodate the upsurge in enrolment.
5) Government should make provision in the condition of service for excess workload in public schools.
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Adult Education in Greece

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Abstract The General Secretariat for Adult Education is the executive, public body responsible for adult education and training. Its mission is to design, coordinate and support measures which relate to supplementation of basic education and lifelong learning and training both for the adult workforce of Greece and for persons threatened with social exclusion. Its main fields of action relate to basic education supplementation programmes and illiteracy programmes, continuing training courses, measures to combat exclusion from the labour market and Community Initiatives financed by the European Union (European Social Fund), social-cultural education courses, continuing training and repeat education measures for the adult workforce. The General Secretariat for Adult Education has developed a website about lifelong learning prospects in Greece. Interested parties can participate in online debate using the site. Moreover, the General Secretariat for Adult Education is the information centre for the ELECTRA portal for adult education and lifelong learning in Europe. Information provided by the centre relates to six European countries - France, Germany, Greece, Italy, Scotland/Great Britain and Sweden - while its range is expected to be extended soon to cover other E.U. countries.

Keywords: adult education, distance learning, second chance schools

Distance Learning

People find themselves in environments of increasing demands and speeds in information flow, which urges them to seek ways to update their knowledge, re-educate and re-train themselves. Traditional forms of education are no longer sufficient to cover the needs of modern economy. Consequently, systems of education must turn to innovation in order to keep up with the times.

One such innovative method that is becoming popular around the world is Distance Learning, often referred to as Teleducation. This is a new concept involving the transmission of knowledge from distance and has a direct connection to another concept, that of lifelong learning. Making use of modern technology, distance learning breaks all barriers inherent to conventional teaching. This way it meets educational needs arising both before, but mainly after one’s inclusion to the labour market. Furthermore, distance learning offers adults more opportunities for education allowing them greater flexibility in terms of time and space.

In Greece distance learning is offered by the Hellenic Open University. In addition, the National & Kapodistrian University of Athens offers a range of distance learning modules. What is more, the Pedagogical Institute operates a Centre for Distance Learning for teachers employed in Primary and Secondary Education.

New facilities for teleducation are in progress at each higher education institute in order to support both horizontal educational actions for higher education and other educational needs. This is taking place in the context of the Information Society programme (call 7) and in compliance with the Ministry of National Education & Religious Affairs’ relevant policies. In addition to the National & Kapodistrian University of Athens, teleducation centres operate in three more higher education institutes: the Athens University of Economics & Business, the Aristotle University of Thessaloniki, and the National Technical University of Athens, University of Patras http://hyperion.math.upatras.gr/tea/, University of Thessaly, University of Ioannina, University of Crete, University of Macedonia, and Higher Technological Education of Pireaus. However, to this day, the network of centers is available only to teaching staff, students, agencies and organizations. Open education modules and certification of studies are not yet available to the general public.
The Hellenic Open University (H.O.U.)

The Hellenic Open University is established in Patras and has been in operation since 1998. It is a legal entity of public law, an independent and self-governed institute among the 20 higher, state-owned universities in Greece. The H.O.U. offers undergraduate and postgraduate courses, vocational training or post-training on the basis of distance learning. Certification takes place at five (5) different levels ranging from post-secondary education to doctoral degrees. In particular, the following academic titles are offered: Bachelors, Masters, PhDs, in addition to certificates of education, post-graduate training and attendance to modules.

Thematic units (modules) are an innovation and a basic functional unit at H.O.U. A thematic unit covers a specific undergraduate or postgraduate level of education with subjects corresponding to three semesters of Higher Education Institutes (A.E.I.). H.O.U. students are handed over the materials per each thematic unit (in printed, audio-visual and/or electronic form) for home study. During the academic year students communicate with the teaching staff and occasionally meet in person for Group Consultation Meetings with the instructors.

For the current academic year, 2003-2004, there are 6 undergraduate, 12 post-graduate and 5 post-degree training courses. Candidates to H.O.U. are not subject to examinations. Selection of candidates involves an open electronic “drawing by lot” procedure. Priority is given to individuals over 23 years of age. In addition, people with special needs pursuing undergraduate studies and T.E.I. teaching staff pursuing postgraduate studies are allocated 3% and 10% of vacancies available, respectively. H.O.U. students are subject to fees and the costs of the teaching materials (study-guides).

The National & Kapodistrian University of Athens

Adult education modules based on the Distance Learning model are available at the National & Kapodistrian University of Athens. These modules were designed in response to increased education requirements in various job environments. They spin around 5 thematic units in the field of finance and last from 5 to 9 months. Upon successful completion of the academic requirements, adult students receive a Certificate of Studies. In particular, the University awards Certificates of Training and Certificates of Specialisation, each reflecting specific programme choices by the students. Eligible candidates to the University’s adult education programme are University and T.E.I. graduates and secondary education graduates with previous experience. Candidates are selected on the following criteria: Grade Point Average of Degree or Graduation Diploma (Apolytério) and priority with respect to application filed. Candidates are required to have access to a personal computer and the Internet. Fees vary with respect to the thematic unit selected.

A Case Study of an E-learning Program

The Department of Banking and Financial Management of the University of Piraeus is announcing the launching of the E-learning Program of Banking and Financial Management using distance-learning products based on web technology.

Advances in technology have allowed for the growth of collaborative web-based learning opportunities. E-learning is an approach to facilitate and enhance learning through based on both computer and communications technology. The department is wishing to take advantage of its top experienced professors either from the academic or professional environment and its material and technical infrastructure in order to create quality online courses and educate all candidates on issues relevant to banking and financial analysis. The software is an educational platform that provides a user-friendly electronic environment and enables anytime, anywhere access for all participants. It allows the classroom to extend onto the web by posting electronic journals and resources or assigning and collecting assignments. Moreover, the computer-based
training incorporates technologies that support interactivity and achieve ease of access and attendance using line education tools and non-synchronous activities such as blogs and discussion forums.

Thus, the program is giving the opportunity, through the educational process, to all trainees to come in contact with the latest developments and innovative methods applied in the sectors of money markets and banking systems and, therefore, either to acquire for the first time relevant knowledge that will allow them to have better access in the job market or extend their knowledge in the frames of their profession.

The curriculum consists of 6 Educational Categories and a separate category of English courses. The Topics (and sub-sections) of the program are being outlined below, while it is clear that the Department retains the flexibility to adjust (by adding or removing or changing) the units offered subject to availability of faculty members and international developments in areas as described below:

**Topic 1: Using Economic Indicators to Better Investment Decisions**
Loans and Investments, Inflation, deflation, deflation - Risks and Opportunities for Banks, Investors, Enterprises and Households Macroeconomics - With Emphasis on credit cycles and the banking crisis Money and Banking

Financial Management for Business Executives

**Topic 3: Financing SMEs**
Mergers and Acquisitions
Principles of Microeconomics Theory

**Topic 4: International Trade & Investment**
**Topic 5: Asset / Liability Management of Banks**
**Topic 6: Accounting and Auditing**
Financial Statement Analysis
International Accounting Standards
Accounting for Banks and Enterprises
Accounting for Lawyers

**English courses**
Preparation for the TOEIC Test
A1-B1 (Beginners)
B2-C1 (Advanced)
Preparation for the TOEFL Test

**Other courses**
MS Word
MS Excel
MS PowerPoint

**The Pedagogical Institute (P.I.)**

The Pedagogical Institute operates a Distance Learning Centre which provides distance training to educators of Primary and Secondary Education who access the P.I. server either from their schools or home. The relevant services offered spin around the following axes:
- **Self-education**: access to (search & retrieve) training material and information on a wide range of subjects that may be of interest to educators, pupils and parents.
- **Co-operative learning**: on-line participation in various discussion groups and joint projects.
- **Virtual classrooms**: interactive, real-time classroom sessions using dedicated ISDN connections.

**Second Chance Schools**

The institution of **Second Chance Schools** has been developed as an effort to combat the social exclusion of adults who have not finished basic education and do not have the necessary qualifications and skills to adapt to modern vocational requirements. Young people aged between 18 and 30 who have dropped out of school are now able to complete their compulsory 9-year education.

Special, intensive primary and lower secondary school courses are run at Second Chance Schools and graduates are issued with a leaving certificate equivalent to that of the Primary and Lower Secondary School leaving certificate. This entitles them to register with the Unified Lyceum, Technical Vocational Educational Institutes and post-gymnasium IEK and to attend certain vocational training courses.

The course lasts 18 months with 20 hours of class per week held in the evening. A necessary condition is that candidates reside in prefectures where Second Chance Schools operate.

Today there are 5 Second Chance Schools in operation, in Athens (Peristeri, Menidi), Patra, Thessaloniki and Heraklion-Crete, and in the future there are plans to establish other similar schools. Second Chance Schools are established following a recommendation from the Institute of Continuing Adult Education (IDEKE) in collaboration with the competent local government authorities in order to ensure the proper conditions for running such schools.

**Summary**

Although adult education in Greece has some history especially in terms of developing adult literacy programmes, it was with Greece's accession to the EEC in 1981 that interest in adult education really began. Until 1993 there were a series of important developments and changes in the field. Financing from Structural Funds – principally the European Social Fund (ESF) – resulted in the expansion of related activities. The socialist government of that time created favourable conditions for the development of adult education public bodies. ESF financing was largely channelled to what is called Popular Education (Λαϊκή Επιμόρφωση). The Popular Education public network consisted of more than 300 centres operating throughout Greece. There is no exact data for programme allocation in this crucial period (1981-1993), and many researchers note: the proliferation of vocational training activities without adequate planning about the type and volume of activities provided; the allocation of a number of programmes to organisations that did not possess the necessary infrastructure and know-how to deliver them; and the absence of a co-ordinating body to plan and supervise related activities, which led to inefficient working and a waste of resources.

The situation has improved slightly over recent years especially from 2000 onwards, with the introduction of some landmark policies and initiatives that should support further development of the field. However it is as yet difficult to draw any conclusions about the effectiveness of these policies, as many of them were adopted under the pressure of losing financing from the European Union.

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The Ministry of Education, Lifelong Learning and Religious Affairs
Higher Educational Institutions (ΑΕΙ)
The Technological Educational Institutions (ΑΤΕΙ)
Skills Acquisition: Imperative For Business Studies Educators Among Secondary Schools In Rivers State

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Abstract Fundamentally, the placement of Skill Acquisition for self-reliant education which leads to sound productivity in the society cannot overemphasized. On that note, skills are appropriate towards the contribution and development of both individual and the nation at large. These include attitude of government, acquisition process, infrastructure and equipment and student interest. We found out that these problems obstruct the sound process of acquisition and recommend that government and private sectors should take it as a matter of urgency to eradicate these problems to have a clear skill acquisition through sound curriculum of Business Studies.

Introduction

The system of education in a society may be diverse and complex according to the need for educating, training and retraining of its people. From ancient times, human beings have been striving to master and improve their environment. This quest has continually increased the need for well-trained and efficient workforce. It is a well-known fact that effective training in skill acquisition has immensely contributed to the technological excellence and economic self-reliance of the industrialized nations. It is for this reason that Ezeji and Okorie (1999) while stressing the importance of skill acquisition in the national growth, emphatically contended, “that Nigeria’s social and economic problems will be drastically reduced if people are given adequate vocational training in skills, raw materials, machineries and equipment”. It is only with skilled men that materials can be harnessed, manipulated and transformed into products. With quality skill acquisition programmes countries like America, Britain, Germany and Japan have rehabilitated drug addicts, school dropouts and several destitutes who eventually contributed meaningfully to the economy and the development of high volume of productivity in their countries.

Also education, according to Bebebiafial (2000) “is an investment by the state for its continued existence, development and general welfare of its citizens”. Therefore, education is not concerned only with national economic development, but must be seen as encompassing all aspects of national life including the social, political, religious, ideological needs and aspirations of individuals. This becomes relevant to the people of Rivers State.

Education according to Nneji (1999) “is supposed to prepare an individual for a career in life. Unfortunately, most Nigerian children go into various stages of education, right from the primary to tertiary institutions without any preparation for whatever career stages they aim at”. Today, there are many graduates without jobs while there are many jobs without people. When secondary school leavers acquire sellable skills, they become useful to the society in the following ways:

a. Work as trained craftsmen with financial and psychological security.
b. Their employer receives productive work from them.
c. Society at large receives continuous supply of skilled labour and quality goods.
Evidently, possession of skills is important in preventing youths from becoming social misfits; because, these skilled persons become gainfully employed through vocational training and acquisition of skills. Therefore vocational and technical training helps to arrest some social ills such as armed robbery, stealing and youth restiveness among others. As is the case with the entire country, which Rivers State is not an exception as an oil producing area, most youths in the oil and gas producing areas have no higher education and also have no skill that could give them well-paid jobs in the oil and gas companies that surround them. The flamboyance displayed by workers of these companies, who in most cases are non-indigenes of the places, give them a clear signal that these workers are well paid.

Since these youths find it difficult to be employed, to partake in the enjoyment of the “oil money” (because they have no skill) they begin to feel marginalized. Consequently, they begin to make trouble here and there, disturbing the operation of the companies. The companies in order to take care of the situation employ the troubled youths as casuals and later lay them off after a particular operation. When the laid off youths are done with their fat pay-off, trouble will start again. This calls for a more permanent solution to the problems.

It is on this note that the researcher decided to carry out a research on the problems of skills acquisition in Business Studies amongst Secondary School Leavers, to find a permanent solution to the incessant employment-based youths problems in the oil producing areas. The economy needs skilled people to produce the goods and services demanded by the society. The future of the present Nigerian School Leavers in general and that of Rivers State in particular should be a great concern to all who think of the development of the country. The National Policy on Education (1981 revised) stated that secondary education is the form of education children receive after primary education and before tertiary levels. The National Policy provided for vocational emphasis in the junior and senior secondary schools to make it possible for recipients who cannot continue their education to the next level to find a useful job.

Udonkang (2002) defined Business Education as “a programme of vocational training designed to equip students with the knowledge, skills and attitudes that are essential for gainful employment so that the students may learn to live as useful and acceptable members of their communities”. Oladunjoye, (2007) defined Business Education as “a type of education or training for preparing the individual for the world of work”. If we should agree with the above assertions, one would tend to ask the question: does skill acquisition in Business Education at the Secondary School Level in Rivers State not seem to influence the production system in the economy, as secondary school leavers remain largely detached from the industrial sector? To answer this question, business education should be made to have human face in such a way that skill acquisition will be eminent than theory. Our schools are bound with theory than practical issues in business.

Skill Acquisition process

The emergence of new industries have given rise to demands for training and retraining in new skills in the existing and new occupational areas, so that people might fit into today’s, and tomorrow’s world of work.

Skills acquisition process in a developing country like Nigeria should be in three stages. These are theoretical, practical while the last has to be with exposure to challenges, Peace (2009). Also, it is well known that class activities are theoretical in nature and approaches teaching are bad, but theories are most a times general principles which apply to more than one situation. Practical on the other hand, may be by trial and error method and may involved doing something that is more physical applied to more specific situation. However, a secondary school leaver with knowledge in Business education is theory risk and so has theoretical skills applicable to more generalized situations, and also he is handicapped in respect to production skills. The point here is that the combination of theoretical and practical skills in solving problems depends on the level achieved in both types of skills. The theory and practical skills must be acquired to certain minimum level to facilitate the possession of appreciable relevant production skills.
An importance factor in skill acquisition process is exposure to practical situations where these skills are displayed. In such case, the individual might face challenges. Challenges concretize the efforts to acquire theoretical and practical skills. Challenges bring about rapid development. The students industrial Training Programme is a programme where they are exposed to practical steps in the right direction, (Ali, 1998). Rapid development should be based on purposeful plans rather than chance. Only the plans, which lead to rapid acquisition of relevant skills, bring about rapid development. Societies posed with challenges develop rapidly because it clears the way for the learning eyes and hands with the desire and urge to success, to perform beyond the obvious limits which the assistance they receive dictates. So, once an economy has developed basic modern skills, the wheel would have been set rolling to achieve a minimum standard of living.

It is important to be mindful of the general level of different skills in an economy so as to achieve a balanced development and high productivity in skill acquisition. To achieve skill acquisition, there is need to monitor all areas to ensure that effective linkages exist between attempts to develop theory and practical skills at various levels. Luig (2008), suggested that, “linkages be made between academic institutions.” This could be made to enrich academic curriculum and as such utilizes the great potential in academic institutions. It would also create an venue for interaction among the various sectors in economy, such as the artisans, manufacturers, academicians, government and industries in a way to enhance rapid skill acquisition and technological development in the country.

Attitude of the Government and Skill Acquisition

Skill acquisition in Business Education is hindered by the attitude of the Federal and State Government who invest huge sums of money in the Universities and Polytechnics, than they do support skills acquisition programme in secondary schools. The attitude greatly affects state in the implementation at the secondary school level who on graduation will contribute towards the growth and development of the economy of the country.

This attitude also affects students who make inappropriate choices because they are victims of the national yearning for prestigious occupations. (Ama, 1990). At the very heart of our social and economic problem is a national attitude that implies that Vocational/Business Education is designed for somebody else’s children. That so, primarily, in the sense that it is meant for the poor. Businessmen, labour leaders, administrators, teachers, parents and students share this attitude. Nigeria has promoted the idea that the only good education is an education capped with many years in a university. This ideas, transmitted by our values, our aspirations, is snobbish, undemocratic, and a revelation of why public schools disappoint so many students, both in character and in learning (Egba, 2010).

Again, there are several problems in the implementation of the business education programme. The problem of lack of legislation to back up the programme, though through, executive action the civilian government in 1979 accepted the curricula. For example, in the early sixties when the American government was embarking on vocational education to put American youths on the employment roll, a law was enacted to give public support to the programme. In 1968 a revision in the-law was necessary in order to properly direct and provide enough funds for the programme. Following the public endorsement of the need for vocational education, the U. S. Office of Education issued a document specifying the guidelines of vocational career education. A few of the important points were raised in the document. “Career Education: A Handbook for Implementation”. Today, the American model is an all-embracing and complete vocational educational, aimed at developing a life long skill. The point here is that, the Nigerian model should reflect the exigency created by time. Government should provide the educational legislation to commit the finances needed by the educational system, at Federal, state and Local Government levels, a legislation is necessary to provide the implementers in the ministry of Education, document to work with.
Secondly, there is problem of lack of awareness about vocational business education programme at secondary school level. It has taken the educationist working for the government more than Twenty years to develop the national policy and the curriculum, yet the general public do not seem to understand the implication of business education in the development of the economy.

The third is the implementation of the national policy on education, is the provision of facilities, equipment and materials for every junior and senior secondary school in order to make learning meaningful. The national policy emphasis the practical use of the hand, and the exposure to various tools. Skill acquisition programme in Business Education at the secondary school level is capital intensive. Therefore, in addition to government’s efforts, and those by the community, financial institutions and Philanthropists within the locality should assist in providing, Infrastructure, a good Library, Laboratory, Equipment, Computers, and other business machines.

According to Hornby (1990) “Laboratory is a special room or building used for scientific research, experiments, testing, and so on.” The school Business Studies Laboratories are specially designed rooms, where latest offices equipment is mounted to aid student learning of special skills. The typing room on the other hand is a Laboratory where students learn how to manipulate the machines to produce finished typewriting works. Provisions should be made for secondary schools to have machine laboratory room. In this room, Calculating machines, Duplicating machines, photocopiers, machines Computer, Facsimile etc. The secretarial science students should acquire the skills of typing on stencil and run off copies from the duplicator, in addition they should have knowledge of computer and acquire the ability to use photocopiers. Just as the workshop is important for woodwork, metalwork, and electronic classes, so also, is the Laboratories useful to the business programmes. The necessary equipment should be provided in the schools, to allow for proficiency in the practical skills. This is one of the reasons why Ulinfun (1990) said, “the skill content of the current Vocational Education is insufficient. The ultimate consequences are that the training of students becomes impeded in the society.” The career prospects for Business studies without adequate skills become a mirage.

It is overtly disappointing that; there are no facilities to train the students at both the junior and senior secondary levels. Business educators have no tool to work with. Even when they are available they are poorly utilized because the prevalent state of poor funding in secondary schools have left them to content with dilapidated run-down facilities most of which are outdated and obsolete.

Odina (2000) confirmed that: “if learners were to acquire the necessary skills, adequate material resources should be provided in school.” The need for workshops, laboratories, studio and classrooms to be equipped with such items as benches, tables, machine tools and instruments cannot be Over emphasized. In supporting Odina (1985), Emmanuel (1991) in his study found that: “Teaching aids are meant to enhance the teaching and learning of any given subjects”. Therefore, teaching aids in teaching of business studies are meant to make learning easy. Lack of teaching aids in skill subjects, will produced situation whereby most lessons taught in the classroom will be abstract to the knowledge of the students.

**Students Interest**

Student’s interest in a particular area of study determines how a student will perform. When he shows a good interest in learning there is the tendency for such student to succeed academically. But lack of interest in the study of a subject, such as Business studies will pose a constraint to its effective teaching and learning situation.

Interest can be referred to as the selection of stimuli of attending to something. Thus, it is possible that things will simply not be noticed and not be attended to unless interest in an object, event or idea is present. Students with an interest in a subject tend to pay attention to it. They feel that it makes a difference to them. They want to become fully aware of its character. They enjoy dealing with it either for what it can lead to or
for its own sake. Their attention level will be high, their work output is sustained, and their attention level will be high, their work output is sustained, and their satisfaction will be great.

The Business Studies Teacher

The federal Government observed that one of the serious factors, which can inhibit the success of the 6-3-3-4 programme, is shortage of trained teachers in various specialist area of Business Education. No matter the importance of any educational programmer, its ultimate success depends on those who operate it. The teacher stands at the center of the school system. He has a great role to play in ensuring that the educational system is updated. Obomanu (1988) commented that “the teacher implement the final step in the process of converting educational aims into practical realities” the teachers as the pivot of any educational system, occupies a significant position in any educational setting. The teacher translates educational policy into action, and mould the character of the society’s leaders of tomorrow.

It has also been observed that many teachers are trained in the traditional core subjects and are therefore unsuitable for the vocational competence presently required. Ngbako-Ezennia (2009), reports, “the public believe that the falling standard of education especially the poor performance in public examination is caused by ineffectiveness and lack of personal commitment of teachers”, the teacher’s preparation or training is an important ingredient for performance in the classroom. In other words, the ability to motivate student and directs class activities depends largely on the training acquired by the teacher. In most schools system in this counter, there are numerous classroom teachers who were employed to teach subjects in which they had no training. Most professional teachers that would have made excellent teachers, only had a brief stay in the secondary School and they left for the oil industries where the grass is greener. Those have very good potentials to stimulate research and development activities in the secondary school left for the oil industries where, they felt more comfortable. Aina (1991) observed, “Most of the vocation teachers (Business Studies teachers inclusive) are under-qualified in the subjects they teach and with all technological changes taking place. Unlike what is obtainable in some parts of the world, (America to be specific). There is competency tests designed to help in the selection of qualified teachers. Unless a teacher passes the competence exams, he may not be able to create a learning environment for his class. Due to lack of planning before implementation of the nation policy on education, the school systems across the country are short of the manpower necessary for the junior secondary education. In fact, the curriculum to train the teachers for this level of education was written between June and December 1983, a year after the junior secondary school system was established by some states in Nigeria. Since the number of ill equipped teachers were deployed from other areas into the classrooms. Even in some cases, unprepared, unskilled craftsmen were assigned classes. As a result, there are problems of:

- Inability to co-ordinate the learning behavior (outcome) and utilize it for solving student learning problems;
- Inability to follow the newly recommended performance-based teaching technique for maximum student learning achievement;
- Lack of competency.

These qualities can only be obtained from the teacher training colleges. In essence, the lack of competence is likely to arise from inadequate training, which may, in turn affect the learning behavior of students in the school system. Since Business studies is a practical and skill-oriented subject, it is particularly important for teacher to understand its objective, as well as its methodology for a success-oriented classroom as this is a step towards improving the status of the subject. It is essential to stress that the “objectives of Business Studies” is simply the objective of “Teaching Business Studies”. Therefore the objective of teaching business studies as outline by Ojetunde (1993) is as follows:
• To inculcate in the student the practical skill and right attitudes necessary for a specific business job.
• To develop in the student he ability to use the acquired skills and attitudes or the development of the job.
• To develop in the student a good understanding, awareness of the economic and business activities of the economic and business activities of the society in which he is a citizen.
• To inculcate economics literacy in the student to enable him to be an intelligent consumer of goods and services offered by the business community.

The implication of these objectives for the Business Studies teacher is simply that he must always focus attention on the fact that his role is to prepare his student to become a productive worker, and intelligent consumer and an effective citizen.

Impact of Skill Acquisition

The curriculum of the scheme was designed in consideration of the entry background of the perceived majority of trainees. The institution already has large pool of qualified resource persons in all the areas already listed above. There are workshop/studios that are well stocked. Practical demonstrations are given priority in the teaching methods. Trainees exposed to courses on entrepreneurship education, citizenship, and ethical education as a preparation for the world of entrepreneurship and the environment they find themselves.

Between 1993 and 2001, a total of 850 youths have been successfully trained in the skills acquisition programme. The programme attracted sponsors from oil companies such as the Nigerian Agip oil company, total final Elf, addax petroleum Development Limited, Imo state, Chevron Nigerian Limited.

The skill acquisition programme currently sponsored by these oil companies and organized by the Federal College Education (technical), Omoku, for the School Leavers, if properly implemented will leave no child without survival skills in the Local Government Area. But despite all the publicity, many youths are seen roaming the street of towns and villages. This is because they have no basic education to qualify them for the programmer. Have come in, practical skill Acquisition at the secondary school level.

The rapid industrial growths of towns and villages in ONELGA have given impetus to increases in human population. Unfortunately, though, increased human population in towns and villages is not matched by adequate knowledge and skill development for young school leavers. Although government has shown a lot of concern over the plight of these Nigerian, by establishing programme such as Better Life for Rural woman, Family Support programme, Directorate for Food, Roads and Rural Infrastructures to mention but few. The latest of such programme is Poverty Alleviation Programme, (PAP), but as beautiful and as well planned as these programme are, the question is to what extent does it solve the problem of youths in the Local Government Area? Momoh (2000) said that what agitates the minds of some Nigerian about this current effort of poverty Alleviation is the need to address the long-life sustenance of the beneficiaries”. The poverty Alleviation programme as it is currently practiced takes care of the beneficiaries’ immediate long-life sustenance is Skill Acquisition, which the programme does not address? Hence there is an urgent need for a realignment of the present situation towards improvement of education for productive work.

Conclusion

It is obvious that man cannot do without co-habiting in respect to business and other activities that will bring extracts income to the organization. Based on the above, the need for skill acquisition and its associated problems becomes necessary for investigation. However, possible solutions are proffer to enhance productivity.
Recommendation

1. Both government and private sectors should take it as a matter of urgency to have a clear curriculum of business studies towards skill acquisition at the secondary school.
2. The absence of manpower at the centres of acquisition leads to student’s attitude and for that, it should be encouraged.
3. Both government and private sectors should aid in the provision of equipment and facilities towards the acquisition of skills in secondary schools.

References

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Concept Mapping: Implementation in an EFL Classroom

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Abstract This study looks at the impact of student-generated, concept mapping on the performance of EFL, grade 12, students in reading comprehension texts. In doing so, 14 EFL, grade 12, students were selected from a high school in Israel. Students were tested on three separate occasions. First, students were given a tutorial on how to create a visual aid, more specifically concept maps, during reading. Then students partook in three lessons; whereby, they employed concept mapping strategies. After each lesson, students completed reading comprehension tests based on the text that they had read. In addition following each tests, students were interviewed in order to assess their disposition towards self-generated, concept mapping. The results indicate that self-generated concept mapping by low-knowledge students had a significantly greater influence on students’ text comprehension than did the self-generated concept mapping by high-knowledge students or both control groups. In addition, students’ disposition toward self-generated concept mapping had a progressive positive change, regardless of students’ level.

Concept mapping, EFL, self-generated

Introduction

Reading is a process that involves numerous metal activities; therefore, in order for students to understand the main idea of a text, they need to employ tools which can advance text comprehension (Kang, 2004). Research has shown that visual displays have the potential for making content information more understandable to readers and offer assistance in making connections between concepts (Schnotz, 2002; Winn, 1994). Furthermore, the use of visual displays may be used as a tool which utilizes information from a text (Kang, 2004) and ultimately support the comprehension process while reading (Kang, 2004; Winn, 1994). In other words, visual displays, such as diagrams, maps, graphic organizers, and pictures (Hayati & Shariatifar, 2009; Kang, 2004) can be used as a type of reading strategy by possibly converting difficult information into a simplified layout (Kang, 2004).

Particularly, when reading in a foreign language where texts can be complex, there is a need to promote learning by using cognitive tools (Tergan, 2005). External, representations of text-relevant knowledge in visual form are proposed to aid readers’ ability to deal with comprehensive texts in the EFL classroom (Kang, 2004). Notwithstanding the importance of students’ active participation in the classroom, the nature and quality of visual displays is of paramount importance for the benefit of classroom experience that is intended to produce gains. Therefore, students’ self-generated, external representations are important in learning as it can aid students in developing strategies to organize their knowledge which may affect their academic achievement (Tergan, 2005).

This study will focus on students’ generated visual displays while they engage in reading texts in the EFL classroom. In particular, students will generate concept maps which represent EFL texts that students have read in the classroom.

Visual Displays

A self-generated, visual display shows a relationship between the object and its domain of reference (Kang, 2004; Winn, 1994) in an organized and explicit form (Tergan, 2005). Each individual feature may act as a representation of an idea of a larger construct (Schnotz, 2002, Winn, 1994), subsequently providing a structure for the integrations and subsequent recall of information (Winn, 1994). In the realm of education, a particular framework has the potential to aid students’ learning through interacting with their background knowledge and the learning environment (Kang, 2004). In other words, visual displays, such as self-
generated concept maps, can be a useful educational tool which assists in learning and facilitating students' acquisition of meaningful and important information (Novak & Gowin, 1985, Schnottz & Kulhavy, 1994; Schnottz, 2002) as students actively build and interpret information (Kang, 2004).

Students' background knowledge is instrumental in determining how visual displays will be generated while reading a text. Through schematic representation, students begin to fine-tune their comprehension as they make connections with their background knowledge and the text at hand (Kang, 2004; Schnottz, 2002; Kalyuga, Ayres, Chandler & Sweller, 2003; Verdi & Kulhavy, 2002). Eventually, students learn how to educate themselves which can lead to a progressive change in their learning (Novak & Gowin, 1985). Hence, "Every activity, when carried to a point of sufficient proficiency, creates its own ... ways of thinking" (Novak & Gowin, 1985: 10).

Classroom interaction is linked to language learning; therefore, linguistic and cognitive knowledge are tied to students' active participation in socioculture events and activities (Hall & Walsh, 2002). Furthermore, effective learning which comes from active student participation can ultimately shape their language development (Vygotsky, 1978). Effective learning and increased motivation for a subject rely on educational experiences, appropriate subject matter and connecting previous schemas to new learning (Bruner 1978; Gardner, 1978) when knowledge is related to concepts already known (Novak & Gowin, 1985). Thus, the emphasis on students' prior knowledge is important in determining how students generate and process visual displays (Verdi & Kulhavy, 2002) during reading comprehension in an EFL classroom.

In determining educational objectives, emphasis should be put on the teaching method (Garret & Shortall, 2002; King, 1971). Recent research suggests that students need to be taught how to use language in ways that surpass prior experience; thereby, promoting growth (Poehner, 2007; Sternberg, 2007). Therefore, successful learning may occur when teachers supply students with diverse experiences, which cause them to actively toil over a task (Ghaith & Bouzaineddine, 2003). Previous studies have found that students who were using learner control with choices pertaining to instructional events in a lesson often outperformed students who were not in control of their studies (Craft, Chappel & Twinging, 2009; Klein & Keller, 1990; Schnackenberg & Savenye, 1997). Consistent with the link between diverse classroom experience and successful learning, Mason (1995) employed the use of students' original analogies in a science class. In addition, the study revealed that when students use self-generated analogies there was an increase in learning. Understanding the influence in learning through the use of multimedia, such as in visual displays, is essential to developing teaching methods (Butcher, 2006). Butcher (2006) extended the use of multimedia by investigating students' learning outcomes and processes when including diagrams. Shariatifar (2009) expanded the link between self-generated, special displays and mapping strategies in an EFL university course. The research showed that the graphic displays used in mapping strategies included the most important topics in the text. However, the results showed no gains were made by students who included mapping.

Tools employed in teaching methods are of critical importance to students' development (Hall & Walsh, 2002; Vygotsky, 1978); therefore, students' visual displays can assist students in noticing, ordering, and remembering items from the text (Novak & Gowin, 1985). One example of a visual display is concept-mapping which is used to present information. A concept map is a graphic representation that transits basic information in addition to presenting hierarchical relationships and structures which may not be observable initially to the reader (Shariatifar, 2009). Maps make it possible to re-use and retrieve information, represent ideas and the relationships between them, as well as illustrating the way the reader perceives interrelationships (Chang, Chen & Sung, 2002). According to Novak & Gowin (1984), a concept map consists of nodes, representing concepts, and links that represent the relationships between concepts. The nodes are the main ideas and the links specify the relationship between the nodes as well as offering students a “skeletal representation” of the text (Hayati & Shariatifar, 2009, p. 55, Novak & Gowin, 1985, Tergan, 2005). The main goal of concept maps is to assimilate new information with previously learned material which may lead to higher comprehension and possibly exceed difficulties in comprehending texts (Novak & Gowin,
1985) across a variety of frameworks (Chang, Chen & Sung, 2002, Shariatifar, 2009). Concept maps, can serve as a scaffold to cognitive development as they may lower cognitive load, enhance connections between complex constructs, and offer paths for retrieving and accessing knowledge (Novak & Gowin, 1985; O'Donnell, Dansereau & Hall, 2002). Moreover, concept maps can make the macrostructure of a text more salient by providing a visual roadmap showing ways to "connect meaning to concepts," (Novak & Gowin, 1985: 20) as it allows previous knowledge to be incorporated into new ideas (Adema-Hannes & Parzen, 2005). This finding is consistent with other research (Hall, Dansereau & Skaggs, 1992; Rewey, Danereau & Peel, 1991), indicating that students who employed the use of concept maps recalled more information.

Consistent with the link between concept maps and higher comprehension, students' self-generated, concept maps can be used as a mediating tool in order to raise students' performance to a level that they could not have achieved on their own (Vygotsky, 1978). Nesbit and Adesope (2006) reviewed 55 quasi-experimental studies in which students learned by creating, changing, or viewing node-link diagrams. The review argued that the use of concept maps was associated with elevated knowledge retention across an extensive scope of educational levels and subject areas.

In addition, research (Novak & Gowin, 1985; BouJaoude & Attish, 2003; Brandt, Elen, Helleman, Heerman, Couwenberg, Volckhaert & Morisse, 2001; Stensvold & Wilson, 1990) has shown that concept mapping is a skill that needs time for mastery and improvement. Furthermore, it is most effective if used continuously over the course of instruction (Brandt, et al. 2001). BouJaoude and Attish (2003) claim, that when students create concept maps repeatedly, they may acquire skills to revise and modify their mapping techniques which can lead to better understanding. Taken together, research provides emerging evidence that visual displays assist students in creating learning schemas which support connections between what is already known and what is learned in the classroom (Craft, Chappel & Twinging, 2009; Ghaith & Bouzeineddine, 2003; Klein & Keller, 1990; Schnackenberg & Savenye, 1997). However, there is a lack of research which studies the effects of concept mapping in EFL high school classes. The present study attempts to fill the current literature gap by including students' self-generated concept mapping in a grade 12, EFL class, in Israel.

Cognitive Load and Instruction

Traditional methods of teaching may heighten cognitive demand, which can lead attention away from important aspects in learning (Chandler & Wales, 1991). Furthermore, not all learning activities appropriately direct attention for better learning and lower cognitive load. The cognitive load theory proposes that effective learning material aids achievement by directing cognitive resources toward activities that are pertinent to learning instead of towards activities that do not promote learning (Chandler & Wales, 1991). In the case of reading comprehension, students begin to interact with the text in order to further their comprehension. However, some students may be subjected to cognitive overload as they strive to integrate new semantic elements with the text's meaning (Coots & Snow, 1980). Cognitive overload may occur because students do not possess cognitive strategies for text organization skills which can occur in any reader, yet more likely among poor readers (Garner & Alexander, 1989). Poissant, (1994) obtained results in accordance with students' lack of cognitive strategies which can decrease cognitive overload insomuch as low-literate readers had difficulty finding similarities between concepts in reading comprehension as opposed to the literate readers. Thus, students' attention may become misguided and cognitive abilities could be directed at tasks which are not advantageous to learning (Chandler & Wales, 1991).

Low-literate readers may lack the schemas necessary to process information in their working memory; therefore, guidance in the form of concept maps can act as a surrogate for the missing schemas (Kalyuga, Ayres, Chandler & Sweller, 2003) Furthermore, without any form of instructional guidance, low-literate readers may succumb to cognitive load, which can lead to inefficient learning (Artino, 2008). However, high-literate learners are able to use relevant schemas; therefore they don't necessarily need added instruction.
If, however, high-literate learners are provided with instruction and they are unable to evade using the information which is in the form of redundant instruction, they may face cognitive overload (Artino, 2008), resulting in expertise reversal effect (Kalyuga, Ayres, Chandler & Sweller, 2003). Thus, it might be more beneficial for high-literate learners to be exempt from instructional guidance, which may reduce cognitive load, thereby improving learning. Kalyuga, Chandler and Sweller (1998) proposed that for more experienced learners, removing repetitious material is more beneficial because it lowers the cognitive load that is related to processing repetitious information. Kalyuga (2007) provides an explicit example of expertise reversal effect by suggesting that comprehensive external guidance given to knowledgeable learners can hamper their learning in relation to the degree that they could have attain with nominal instruction. Moreover, teaching methods and tools that are optimal for low-knowledge learners may obstruct the performance of more knowledgeable learners (Kalyuga, 2007).

This research attempts to fill the literate gap pertaining to the use of cognitive strategies, more specifically, concept mapping, which can elevate grade 12, EFL students reading comprehension.

**Purpose of the Study**

The purpose of the study presented here is to investigate the impact of the adoption of student, self-generated, concept mapping while reading texts in a grade 12, and EFL high school. To this end, two questions will be addressed.

1. How has students' reading comprehending developed throughout the process of student-generated, cognitive mapping in a foreign language?
2. What are students' dispositions toward self-generated, cognitive mapping while engaged in reading comprehension in a foreign language?

**Method**

In order to ensure the use of triangulation and to improve validity and reliability in the research (Patton, 2002); the sources of data included semi-structured interviews, a focus group, and document analysis-assessment of three tests completed after every lesson. Transcriptions were written from semi-structured interviews and focus group.

The search for meaning from the transcribed data began with identifying smaller units of meaning in each individual source of data (Creswell, 2003; Maykut & Morehouse, 1994) by highlighting key units and writing relevant notes pertaining to each data source. From all sources of data, reoccurring concepts, phrases, topics, patterns, and themes were generated in order to discover what is relevant in the data (Maykut & Morehouse, 1994). In addition, SPSS was used for the descriptive analysis of tests.

Participants for this study were recruited from a grade 12, EFL classroom in Israel. The participants produced maps composed of concepts which represented the content of comprehensive texts in an EFL classroom. In the experimental group, student generated concept mapping was used. The participants were divided into two groups according to their levels: low-knowledge learners AND high-knowledge learners. The control group, which did not partake in self-generated concept mapping, was divide into two groups, which represented both low and high knowledge learners.

**Procedure**

The training in concept mapping included a twenty minute presentation of mapping techniques, followed by one guided practice lesson. The mapping technique demonstrated was a modification of Novak and Gowin's (1984) educational application of concept mapping. In this approach, students were introduced to the construct of a concept and the connection concepts have to them personally. Next, students were shown
procedures that aided in sorting out particular concepts from the text in order to identify relationships between
them. Novak and Gowin (1984) stress the importance of maps which “present a way to visualize concepts
and hierarchical relationships between them” (28).

In all three sessions, participants were given ninety minutes to create a map according to the text that
the class read. Low-knowledge learners and high-knowledge learners were given different text which
reflected the specific levels of the students. While the participants worked on their maps, the researcher was
available to answer any questions about the texts and to offer advice about creating self-generated maps.
Upon completion of the self-generated concept maps and reading the texts, students were given a test.
During the tests, students were privy only to the text and the researcher did not answer any questions about
the test or the text. The tests were comprised of a reading comprehension text in English. Each test
consisted of open ended and multiple choice questions, in addition to writing a composition of 120 words on a
specific topic. In addition, students partook in an interview after each session in order to achieve the effect of
mapping on their academic achievement and their disposition toward self-generated mapping while reading
a text in English. The duration of the research was over a three week period.

The self-generated, concept maps were used to provide data in charting the relationship between
students’ academic achievement as they were involved in self-generated mapping. The maps were analyzed
hermeneutically, whereby the emphasis was placed on expressions of comprehensible meaning
(Ghahremani-Ghajar & Mirhosseine, 2005) and no formal grade was given to the maps.

Results

The data collected and analyzed included: (a) scores for reading comprehension tests; (b) focus group prior
to research; and (c) students’ responses to interviews following each test.

Students’ mean scores and standard deviations are presented in Table 1. It is evident that for all three
tests, mean scores for self-generated, concept maps in low-knowledge students were higher and students’
achievement was more homogeneous, compared to self-generated, concept maps in high-knowledge
students. Furthermore, whereas a marked improvement from test1 to test3 (53, 66, 77) characterizes the
achievement of low-knowledge students who engaged in self-generated, concept mapping. No such
improvement is evident for the high-knowledge students, from test1 to test 3 (68.2, 63.4, 65.4), who
employed self-generated, concept mapping. This difference in improvement over three tests indicates that
the self-generated, concept mapping for low-knowledge students set a different learning process compared
to high-knowledge students.

### Table 1: Means and Standard Deviations for Low and High Knowledge Students

<table>
<thead>
<tr>
<th>Students’ Level</th>
<th>Test1</th>
<th>Test2</th>
<th>Test3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>53.0</td>
<td>66.0</td>
<td>77.0</td>
</tr>
<tr>
<td>N</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SD</td>
<td>7.34</td>
<td>4.69</td>
<td>8.20</td>
</tr>
<tr>
<td>High-knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>68.2</td>
<td>63.4</td>
<td>65.4</td>
</tr>
<tr>
<td>N</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SD</td>
<td>12.9</td>
<td>11.0</td>
<td>9.60</td>
</tr>
</tbody>
</table>

*Note. N=Number of subjects; SD=Standard Deviation; M=Mean*

Table 2, reveals that high-knowledge students’ test scores for test4 (70.8) increased more significantly then
when they did not engaged in self-generated concept mapping. There is an increase of 5.4 points when high
knowledge students did not employ self-generated concept mapping.
Table 2: Means and Standard Deviations for Test Scores of High Knowledge Students

<table>
<thead>
<tr>
<th>Students' Level</th>
<th>Test1</th>
<th>Test2</th>
<th>Test3</th>
<th>Test4</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-knowledge students</td>
<td>M 68.2</td>
<td>N 4</td>
<td>SD 12.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N 4</td>
<td>4</td>
<td>11.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD 9.60</td>
<td>4</td>
<td>9.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Note. N=Number of subjects; SD=Standard Deviation; M=Mean

The scores for both control groups, low-knowledge (64.0, 76.6, 55.6) and high-knowledge (57.5, 66.0, 61.0) students, did not demonstrate any significant influence on students' text comprehension (see Table 3).

Table 3: Means and Standard Deviations for Test Scores of Control Group

<table>
<thead>
<tr>
<th>Students' Level</th>
<th>Test1</th>
<th>Test2</th>
<th>Test3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-knowledge students</td>
<td>M 64.0</td>
<td>N 3</td>
<td>SD 9.64</td>
</tr>
<tr>
<td></td>
<td>N 3</td>
<td>3</td>
<td>13.86</td>
</tr>
<tr>
<td></td>
<td>SD 6.11</td>
<td>3</td>
<td>6.11</td>
</tr>
<tr>
<td>High-knowledge students</td>
<td>M 57.5</td>
<td>N 3</td>
<td>SD 9.19</td>
</tr>
<tr>
<td></td>
<td>N 3</td>
<td>3</td>
<td>5.65</td>
</tr>
<tr>
<td></td>
<td>SD 8.48</td>
<td>3</td>
<td>8.48</td>
</tr>
</tbody>
</table>

Note. N=Number of subjects; SD=Standard Deviation; M=Mean

In summary, self-generated, concept mapping by low-knowledge students had a significantly greater influence on students' text comprehension than did the self-generated, concept mapping by high-knowledge students or both control groups. In other words, in comparing the mean scores of the three groups, low-knowledge students, high-knowledge students and two control groups, on the reading comprehension tests, a significant difference among students' performances in the three groups occurred. Low-knowledge students, scored the highest and made the greatest gains throughout the testing followed by high-knowledge students and the control groups respectively. This suggests that the use of student self-generated, cognitive mapping during reading comprehension has significant outcomes on students' performances, when they are engaged in reading a text in a foreign language, particularly English.

Students' responses to the interviews were used to determine their disposition towards self-generated cognitive mapping. In a focus group, prior to students' use of self-generated, concept mapping revealed that low-knowledge students had lower self-confidence (100%), felt that they needed additional help (100%), thought that mapping would improve their understanding of text (66.6%) as well as possibly causing them to think differently while reading (33.3%). In addition, none of the low-knowledge students thought that their attendance would improve or that mapping would not cause improve in their grades. Conversely, high-knowledge students stressed less that they needed additional help (66.6%), thought that mapping would improve their understanding of text (33.3%), and had lower self-confidence (33.3%). In addition, high-knowledge students stated that self-generated mapping would not increase their grades (33.3%) and their attendance would improve class (33.3%). Furthermore, students did not think that self-generated mapping would cause them to think differently while reading a text. In addition, both high and low knowledge students stated that they were excited about self-generated mapping (33.3%- see Table 4).
Table 4: Students’ Dispositions Concerning Self-generated Concept Mapping Prior to Instruction

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Need additional help</th>
<th>Show low self-confidence</th>
<th>Think differently while reading due to mapping</th>
<th>Grades will not improve as a result of mapping</th>
<th>Excited about mapping</th>
<th>Attendance will improve as a result of mapping</th>
<th>Understand ing of text will improve as a result of mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low knowledge students</td>
<td>3</td>
<td>100%</td>
<td>100%</td>
<td>33.3%</td>
<td>0%</td>
<td>33.3%</td>
<td>0%</td>
<td>66.6%</td>
</tr>
<tr>
<td>High knowledge students</td>
<td>3</td>
<td>66.6%</td>
<td>33.3%</td>
<td>0%</td>
<td>33.3%</td>
<td>33.3%</td>
<td>33.3%</td>
<td>33.3%</td>
</tr>
</tbody>
</table>

In the first interview after students engaged in self-generated, concept mapping both low and high knowledge students were in agreement pertaining to their negative disposition concerning self-generated mapping. Students in the low knowledge group stressed that mapping was "a waste of time" and "very hard." Similarly, high knowledge students acknowledged that, "...personally it didn’t help...It mostly disturbed me than to help me, I am used to a certain method when I do unseens. I just do unseens and this interrupted me." In addition another student stated, "I hate this... it takes more time." In addition, one representative from each group showed a positive attitude when involved in self-generated, concept mapping: "Yes it helped me understand more." Only high knowledge students stated that self-generated mapping hindered their ability to read the text. This can be seen in the following examples, "Yes it was a lot of load on me but not only, because I got used to doing it differently and now it is something new" and "... but it takes more time to read and more pressure." Both low and high knowledge students stated that self-generated mapping may have positive reading benefits. High knowledge students stated, "I read deeper, better ... to find something for the mapping in the text" and "I understand it better...the truth it is better to read this way." Similarly, low knowledge students said: "...first I read more comprehensively and do the mapping. Then read again and check what I did" and "I will read every paragraph and summarize and check. Summarize every paragraph and write a sentence to summarize what the main idea is in general for all."

In the final interview, all low-knowledge students expressed a progressive change in their comprehensive reading throughout the research (see Table 5). All low-knowledge students stated that they did not read the text comprehensively in test1; however, in test2 and test3 students proclaimed that they read the text in a more comprehensive manner. This can be seen when D. stated: "I must read it [text] again because I need to do the mapping. And I need to understand the text in order to do it [mapping]. In contrast, there was no change in high-knowledge students' comprehensive reading. This is shown when one high knowledge student showed no significant change in the way the text was read: "I am just reading and answering the questions," as opposed to R, who said," now I read all and write the main idea of each part (map)."
Table 5: Comprehensive Reading of Text

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Test1</th>
<th>Test2</th>
<th>Test3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low knowledge students</td>
<td>3</td>
<td>100% - no comprehensive reading</td>
<td>100% - comprehensive reading</td>
<td>100% - comprehensive reading</td>
</tr>
<tr>
<td>High knowledge students</td>
<td>3</td>
<td>66.6% comprehensive reading 33.3% - no comprehensive reading</td>
<td>66.6% comprehensive reading 33.3% - no comprehensive reading</td>
<td>66.6% - comprehensive reading 33.3% - no comprehensive reading</td>
</tr>
</tbody>
</table>

In the final interview (see Table 6) both low and high knowledge students were in agreement pertaining to their improved understanding when they were involved in self-generated, concept mapping. This can be seen in the following examples: "I understand the text more from the mapping," and "it helped me to understand the material better." In addition, both groups stated that self-generated mapping caused them to read differently because "...if you don't understand the text, you can't do the mapping. If I can't do the map then I failed." Another student claimed that self-generated, mapping helped him read more comprehensively and without mapping he wouldn't have read the text he would "read the questions and then look for the answers in the text." Students in the low-knowledge groups had higher positive dispositions about self-generated mapping than the high-knowledge students (66.6%/33.3%). However one low knowledge student felt that "it (mapping) is a waste of my time." In addition, low knowledge students stated that as a result of self-generated mapping they read the text more than once (66.6%); however 66.6% of the high knowledge students said that they only read the text once. Finally, both groups created comprehensive maps. For example: "I read ... and wrote the main idea (in the map)" and "I wrote that he (Armstrong) created the organization (points to map)....then I extended the idea (points to the arrows in the map) that he (Armstrong) helps people..."*

Table 6: Students' Responses to Self-generated Concept Mapping after Research

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Disposition Positve/ Negative</th>
<th>Read text differently</th>
<th>Read text many times</th>
<th>Improve understanding</th>
<th>Created Comprehensive Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low knowledge students</td>
<td>3</td>
<td>66.6% Positive</td>
<td>100%</td>
<td>66.6% Read text more than once</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>High knowledge students</td>
<td>3</td>
<td>33.3% Positive</td>
<td>100%</td>
<td>66.6% Read text once</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Discussion

Using student-generated, concept mapping resulted in better achievement in comprehending EFL texts in grade 12 for low-knowledge learners as opposed to high-knowledge learners. Results showed that the mean scores for three progressive tests were higher for the low-knowledge learners than that of both the high-knowledge learners and the control groups.

The technique of student, self-generated, concept mapping as a tool, placed students in a novel experience which involved them in an active process of comprehensive reading. This would lead to the
conclusion that self-generated, concept mapping might be favorable for all students, but this is not the case. The significant benefits of using self-generated, concept maps with low-knowledge learners and elevated grades can be interpreted by suggesting that concept mapping may provide students with a way to attend to difficult information by incorporating new information with previously learned material (Novak & Gowin, 1985) in a comprehensive EFL text. Moreover, concept maps may offer low-knowledge students guidance in necessary schemas that are important in learning (Kalyuga, Ayres, Chandler & Sweller, 2003). Conversely, high-knowledge learners showed no significant effect from concept mapping in their learning. This result is similar to other research where a treatment may interfere with students' customary approach to learning and comprehension (Brandt, et al., 2001; Stensvold & Wilson, 1990).

What deserves attention is the lack of achievement for the high-knowledge students when they were engaged in self-generated, concept mapping. The mapping may have caused high-knowledge students to direct their cognitive resources toward activities that are not pertinent to learning (Chandler & Wales, 1991) as they already possess the relevant schemas that are effective in learning (Stensvold & Wilson, 1990). This can be seen when because high-knowledge students' achievement level elevated when they did not engage in self-generated, concept mapping. High-knowledge learners may prefer to use a different style of learning from that required which may ultimately improve their learning (Kalyuga, 2007). In other words, self-generated, concept mapping might be a form of redundant instruction which can hinder advancement (Artino, 2008). In this study, generated concept maps for high knowledgeable students may have limited their understanding of the text (Kalyuga, et al., 2003). The same results were found by Stensvold and Wilson (1990) when comprehension tests were lower for high-knowledge students who created their own concept maps than those that did not. Conversely, low-knowledge students, who constructed their own concept maps scored higher. Hence, research suggests that concept maps may have a limited effect on high-knowledge students (BouJaoude & Attieh, 2003; Stensvold & Wilson, 1990).

Studies have shown that construction of concept mapping is a difficult (BouJaoude & Attieh, 2003; Novak & Gowin, 1985: Stensvold & Wilson, 1990) and that students need extensive training to master the technique (Novak & Gowin, 1985). Both groups expressed initial difficulty in creating self-generated, concept maps. The low-knowledge learners, despite initial difficulty in creating concept maps, revealed a progressive advancement in their test scores. In addition, it is possible that self-generated mapping caused the low-knowledge learners to increase their repeated readings of each text. As opposed to the high-knowledge learners, who did not increase the number of times that they read each individual text and showed no advancement in test scores.

Other findings emerged when analyzing the data from students' interviews. Analysis of students' answers during the final interview revealed both groups created comprehensive maps regardless of students' level. These results indicate that all students mastered concept mapping skills, despite either group's test results. As concept-mapping was a new and different technique, students developed an understanding of it; however, the mapping may have complicated rather than facilitated knowledge acquisition for the high-knowledge learners (Brandt et al., 2001).

This study revealed that students' disposition toward self-generated concept mapping had a progressive positive change, regardless of students' level. One reason posited for this is that effective learning and increased motivation for a subject rely on educational experiences, appropriate subject matter and connecting previous schema to new learning (Bruner 1978; Gardner, 1978). In determining educational objectives, emphasis should be put on the teaching method (Garret & Shortall, 2002; King, 1971). Therefore, successful learning may occur when teachers supply students with diverse experiences. Furthermore, real development transcends learning only when students toil over a task (Ghaith & Bouzeineddine, 2003). Recent research suggests that students need to be taught how to use language in ways that surpass prior experience; thereby, promoting growth (Sternberg, 2007). Confirming this perspective are results indicating that cognitive mapping aids students in identifying main ideas in the text and ultimately gaining information.
from the text (Hayati & Shariatifar, 2009). Thus it is possible that self-generated concept mapping caused students to process the text at a deeper level.

Conclusion

This study provides some insight into the use of concept mapping as a tool in the EFL classroom. It offers significant results concerning the differentiated effect on low and high knowledge students' performance in comprehensive reading of texts in English for non-native speakers. In so much as, self-generated, concept mapping by low-knowledge students had a significantly greater influence on students' text comprehension than did the self-generated concept mapping by high-knowledge students or both control groups. In addition, the results of this research exposed students' progressive affective change pertaining to self-generated mapping, regardless of advancement in grades. Although there is ample research pertaining to the use of concept mapping in many classrooms (BouJaoude & Attieh, 2003; Chang, Chen & Sung, 2002; Novak & Gowin, 1985; O'Donnell, Dansereau & Hall, 2002; Shariatifar, 2009), there is a lack of empirical research in the EFL classroom. In addition, to the best of my knowledge there is no research that compares students' self-generated, concept mapping and their disposition towards this activity in the EFL classroom.

However this study is not without limitations. First, it is difficult to draw strong generalizations from one study with a small population. Secondly, the duration of the study took place over a short period of time; whereby, students produced only three concept maps. Students may have needed more time to get a better command of generating concept maps. Moreover, both groups did not read each text the same amount of times, which may have caused a difference in test scores.

The results of this study showed that students increased their understanding of comprehensive texts English, as well as an elevation in students' positive disposition regarding self-generated, concept mapping, regardless of improvement in their grades. In addition it showed that students, self-generated, concept-mapping had a differential effect on achievement in reading comprehension for low-knowledge learners. Consequently, self-generated, concept-mapping can be used to engage students in constructing and altering their own knowledge schemas. Nevertheless, self-generated, concept-mapping may become more effective in helping high-knowledge learners too, if they are encouraged to repeatedly reread each comprehensive text while they are engaged in mapping. If after repeated attempts at mapping and there is no significant advancement it may be wise to heed to previous research and not use self-generated mapping with high-knowledge students.

From a theoretical perspective, little attention has been paid to students' comprehensive development and dispositions toward the process of student-generated, cognitive mapping in a foreign language. Therefore, more research needs to be done on the use of self-generated, concept-mapping, in the EFL classroom. In addition, future research should focus on self-generated mapping and high-knowledge students so that they do not encounter the expertise reversal effect. Moreover, new studies should be done to further test the effects of self-generated, concept-mapping with larger number of students, at different levels, and at different schools. Another recommendation is to use this technique in other subject levels.

References


Technical College Teachers in Nigeria: Issues, Problems and Challenges

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Abstract This paper is centered on the problems and prospects of the technical college teacher in Nigeria it explicates the relevance of technical education programme The paper recognizes the implications of the National Policy on Education (NPE) for technical (technological) education, the new curriculum development by the National Board for Technical Education (NBTE), the changing business and technology environment, the personal, professional and public image of the technical teachers. the teachers of technology have certain peculiarities which must be taken care of. before they can effectively carry out their professional roles. the paper craves the indulgence of federal and state governments as well as private organizations to support the technical programmes at all levels of educational system, that is, the aspect of funding, provision of infrastructure, training materials, motivation, in-service training and knowledge update among other things.

Introduction

Technical education programme in Nigeria evolved in response to technological an industrial needs of the people. It has received the backing of the National Policy on Education (NPE 1977 revised in 1981). The fields of science, Technology and Engineering have got much to offer in the area of economic development and provision of modern conveniences to mankind. This is why governments, institutions and managements emphasize the need for practically oriented technical education curriculum and the need also to provide effective teaching of technical subjects in Nigerian colleges (Nkweke 2007).

For anybody to assume the duty of serving as a technical teacher, such a person is expected to possess the needed competencies for imparting technical knowledge and skills, especially now that the emphasis is on competency-based learning (Davies 2001) Today, efforts are geared towards retrieving Nigeria from the shackles of technological dependence This is why the Nigerian youths are encouraged to be creative and inventive oriented through participation in introductory technology, technical education and engineering studies (Wokocha 1985).

Technical teachers have to provide quality technological training that keeps pace with quality control in technology education This means that the technical teachers have to plan their lessons based on good instructional objectives as well as see the learners through practically. Furthermore, the benefits of technology cannot be over-emphasized Whereas science produces knowledge, technology produces gadgets. Technology applies scientific knowledge in providing solutions to practical problems that plague and puzzle mankind. Technology is the capacity to ensure that human needs are supplied through the utilization of tools and machinery In other words, mankind put in labour so as to come out with inventions and discoveries to satisfy his needs, This explains why people undertake farming work to obtain food, build houses to obtain shelter, weave and produce clothes to wear against adverse weather- conditions Mankind also works to discover electricity, pipe-borne water, and many other modern conveniences (Nathaniel 2002). Despite this usefulness of technical education, vocational and technical education in Nigeria are bedeviled with certain constraints (Aghenta 1985) Technical education contends with training that borders on acquisition of knowledge and skills in woodworks metalwork, electrical/electronics, welding and fabrication, building, auto-mechanics etc including workshop organization and management There are five technical institutions in Nigeria outside the universities namely- pre-vocational and vocational schools at post primary level: the technical colleges, the polytechnics and the colleges of education (technical) at the post secondary level established to provide a base for technological take off of this country, which according to Ekpenyong
(1995) are being crippled by lack of funds and inadequate infrastructures. There is doubt also if the technical college teachers are adequately motivate to do their Jobs as facilitators of knowledge.

Concept of Technical Education

What is called "Technology Education" was formerly restricted to technical education which according to Aina (1994) meant skill training in crafts and in certain trades such as building, auto mechanics and woodwork. Now the major fabric of technology education involves training in the process of applying both science and technical education to practical problems right from primary to tertiary level of education. This is because it aims at developing practical skills as well as the creative and Innovative abilities and facilitates decision making skills and problem solving abilities. The two terms technical and technology education are often used interchangeably as they are in many parts of this paper.

Its aim is to train students in the application of science knowledge to the solution of practical problems facing society, not merely to train them in manual and technical education. IS taken to mean technology education. In addition, technical education within the content of craftsmanship is seen by many as education for self-reliance, which leads to national development. It is the education which provides the persons that have received it with self-employment thereby contributing to the society in which he/she lives. It is for this reason that authors like Toby (1997), Sofolahan (1989), Fafunwa (1991) attributed under-development to low level of technology which marks the socio-cultural difference between developed and developing worlds.

Technical/technology education is a major component of vocational education. The Nigeria Educational Research and Development Council (NERDC) (1998) stated that vocational education is that form of education which is obtainable at the technical colleges. This is equivalent to senior secondary education but designed to prepare individual to acquire practical skill, basic and scientific knowledge and attitude required as craftsmen and technicians and sub-professional level. The technical college teacher according to Ekpenyong (1995) must be versatile in their areas and in the general and science education courses.

Objectives of Vocational and Technical Education

The goals of vocational education according to Nigeria educational research and development council NERDC (1998) shall be to:

a) Provide the trained manpower in the applied sciences and business particularly at craft, advanced and technical levels.

b) Provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development.

c) Give the necessary training and impart skills to individuals who shall be self-reliant.

In pursuance of the above goals, the main features of the curricular activities for technical colleges shall be structured in foundation and trade modules. The curricular for each trade shall consist of four components namely: General Education: Theory and related courses; workshop practice, industrial training and small business management and entrepreneurial training.

Problems of the Technical College Teacher

The problems of the technical college teacher are many and they arise from: inadequate supply of instructional materials; lack of adequate motivation, poor professional, personal and public Image; lack of well equipped library for research workshop; frequent curriculum changes, lack of well articulated In-service education programme for technical teachers, insufficient university admission for training of technical
teachers etc. However, not all the problems will be examined because of limited space and time. Nevertheless some of the problems are:

1. **Inadequate Supply of Technical Workshop.** Most technical colleges cannot boast of adequate functional workshops even when the teachers may be ready to teach the students, in spite of poor remuneration. There are some cases where technical equipment were supplied but no workshop to install the equipment. This certainly led to frustration on the part of the technical college teachers.

2. **Inadequate Supply of Instructional Materials.** Instructional materials and consumables in technical colleges are very expensive and the federal and state governments have not been providing funds to address this critical area. All we are getting is just lip service to technical education. Even when the teachers are ready to improvise instructional materials, the little amount of fund needed could still not be received from the college authorities.

3. **Lack of Adequate Motivation** Technical college teachers are subjected to deplorable working conditions. Hardly are they found in furnished offices, instead they are put in large staff rooms, a times with students type of desks and chairs, whereas their counterparts in other sectors could have executive air-condition offices, private secretary or even messengers and reserved packing spaces, and could belong to prestigious clubs and association, be entitled to tree lunch etc. these help to boast their ego as they are looked upon as being successful. Therefore, if education ate the technical college level will be restored to acceptable level, hygiene-motivator principles must be applied in the administration for the purpose of getting teachers to have satisfaction from their job. (Ariwerikuma, 1986).

4. **Poor Professional, Personal and Public Image** While the general attitudes of the public towards technical education and technical teachers have been found to be negative, the teachers themselves act and talk that way instead of reorienting and correcting the misconceptions that the public have about technical education. The general public must be made to recognize that technical teachers are the backbone of any nation for technological development.

5. **Lack of Well Equipped Library for Research Work/Project.** Technical College Teachers that are ready to carry out some research work/projects cannot do this successfully because the libraries are not stocked with up-to-date textbooks and periodicals in their area of specialization. Where the textbooks are available locally, the teachers could not afford them because of meager salaries. Therefore, the technical teachers may - not be motivated to embark on any project that will be useful to society.

6. **Frequent Curriculum Change in Technical Colleges** With the establishment of National Business and Technical Education Board (NABTEB) few years ago all technical colleges are mandated to use the curriculum developed by NABTED’s curriculum which differs from the former West African Examinations Council (WAEC) technical syllabus. The curriculum is very comprehensive and has more courses. This according to Ekpenyong (1995) means that the technical college must be versatile in their areas and in the general and science education courses.

7. **Lack of Well-Articulated In-services Education Programme for Technical Teachers** It has been observed that some of the technical college teachers do not have any teaching qualification and no provision has been made for them by the employers in this area to serve as incentives for these teachers. They should be encouraged to attend some vocational teacher education programme during long vocation to equip them as professional teachers and not cheaters.
8. **In-sufficient University Admission for Training of Technical College Teachers** University admission either on full-time or part-time basis for technical teachers at bachelor, masters and doctorate levels are not sufficient. There are only few universities in Nigeria that offer technical education and thus admitting only a few selected out of a great number that apply each year. The technical college teacher with all their predicaments play vital role in the overall development of this nation as they continue to strive harder with available resources to mould Nigeria’s tomorrow technologically base and development by imparting and training the Nigerian child to be self employed, self reliant, and also provide the technological background for students that would want to become technologists or engineers for the good of Nigeria.

**Prospects of Technical College Teachers**

1. **Mandatory Continuing Professional Development (MCPD)** There is provision in the National Policy on Education (NPF)4th Edition (2004) relating to Mandatory Continuing Professional Development (MCPD). An individual shall be able to choose between continuing full time study, combing work with study or embarking on full time employment without excluding the prospect of resuming studies later on. Professional development avails teachers the opportunity to develop and demonstrate their profound competence against set standards such an opportunity will be original, creative and though provoking. Professional development is absolutely essential for the strength, vibrancy and future of the teacher profession

2. **Use of Information Technology for Teaching and Learning** Information technology (IT) is affecting education in revolutionary ways and the momentum is irreversible. Information Communication Technology (ICT) programmes has been incorporated in all teachers training programmes Technical College teachers may use IT as teaching and learning tool to harness the advantages of educational delivery. The virtual library as a platform for sharing knowledge is aimed at rejuvenating Nigerian schools through the provision of current books, journals, and other information resources using digital technology. The objective of National Virtual Library Project include among others the improvement of the quality of teaching and research at all levels of education in Nigeria through the provision of current book, journals and other library services information and communication technology facilities will ensure that the benefits of the virtual library permeate all levels of education in Nigeria.

3. **Technical Teacher Training Programme (TTTP)** The generality of the people are becoming aware of the economic value of technical education as the avenue for turning the economy and technology around. According to Edigin (2000) the federal government’s recognition of vocational and technical education as a powerful tools for technological development has created public awarenss of the indispensability of this aspect of education. This is seen through the establishment and expansion of more institution of vocational and technical education to provide the needed manpower in the sector. The technical teachers training programme (TTTP) introduced by the federal ministry of education is a deliberate attempt to brighten the future of the technical college teachers by sponsoring them to the higher heights of the ladder in their profession.

4. **Professional Diploma in Education** All teachers in education institutions shall be professionally trained. A one year professional diploma in education (former technical registration council of Nigeria (TRCN) has been structured to equip technical teachers without teaching qualification for effective performance of their duties. This will facilities the extension of the best professional development programmes to the teacher.
Conclusion

Technical college teachers in Nigeria encounter several problems in their teaching job. These problems range from inadequate supply of infrastructural materials, poor professional personal and public image. Lack of teacher motivation, lack of well articulated in-servic education programmes for technical teachers to insufficient university admission. The technical college teacher can now demonstrate a state of pride and job satisfaction with the Mandatory Continuing Profession Development (MCPD), Professional Diploma in Education (PDE) and Technical Teachers Training Programme (TTTP) put in place to brighten their future and elevate them to higher heights of the profession.

Recommendations

- The federal and state governments should make frantic efforts to provide functional technical/vocational workshops in the various vocational trades.
- Management in technical colleges and the governments should release funds for the procurement and distribution of training materials to teachers in technical colleges.
- The teachers registration council of Nigeria (TRCN) should ensure that only trained technical teachers with professional teaching qualifications should be employed and allowed to teach in technical colleges.
- Needed classroom facilities should be provided by government for effective teaching/learning of technical education courses.
- Technical education teachers should be encouraged to proceed on in-service training for update on emergent issues and development in technical courses.
- Universities should increased the number of admission (intakes of interested candidates) into the technical disciplines in view of the fact that we are now in technological era.
- Technical colleges should be adequately funded to enable students and staff embark on designing and constructing prototypes that could be developed to parents by the private sector.

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The Classroom and New Learning: An Investigation of Interrelationship Among Pre-Service Teachers' Statistical Reasoning, Attitude Towards Statistics, and Learning Approach on Achievement in Statistics

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Abstract The study sought to investigate interrelationships amongst statistical reasoning, attitude towards statistics, learning approach and achievement in educational statistics. Ex-post facto research design was adopted for the study. The sample consisted of 358 (114 males and 244 females) fourth year pre-service teachers from University of Calabar and Port Harcourt in the South-South Geopolitical Zone of Nigeria. The data for the study was collected using two instruments named: Statistical Reasoning Learning Approach Questionnaire (SRALAQ), and the Educational Statistics Test (EST). Analyses of data were carried out using multiple regression and path analysis. The results showed that: there is a significant composite effect of pre-service teachers' statistical reasoning, attitude towards statistics and learning approach on achievement in educational statistics; and there are significant paths through which the independent variables determine achievement in educational statistics. The strongest of these paths is between statistical reasoning and learning approach and attitude towards statistics and learning approach. Learning approach was found to be a significant direct predictor ($\beta = .225, t = 2.581, p< 0.010$) of pre-service teachers' achievement in educational statistics at 0.05 level of significance. A meaningful causal model which could be used to explain the causal relationship amongst the variables in the study also emanated. The causal model showed that pre-service teachers' achievement in educational statistics could be explained directly and indirectly. The direct effect was 81.45% while the indirect effect was 18.55%. The magnitudes of the effects of the predictive variables in the study in order of their importance are 0.429 for learning approach, 0.151 for statistical reasoning and -0.036 for attitude towards statistics. The implications of the research findings are addressed.

Keywords: Statistical reasoning, attitude towards statistics, learning approach, achievement in educational statistics.

Introduction

A detailed analysis of 3rd year pre-service teachers’ results in educational statistics reveals a poor performance, and studying the external’s reports on students’ performance in statistics related topics in the West African Examination Council’s results also reveals a poor performance but there is a growing demand for the inclusion of statistics in the training of most discipline (Giesbrecht, 1996 & Ndiyo, 2005).

The understanding and interpretation of statistical reports among specialists in statistics and non-specialists is an essential core skill in the society today. Empirical studies, newspaper articles, journals and magazines commonly describe misinterpretation by the general public of information that is presented in either numerical or graphical formats. This trend in public knowledge has been traced to deficiency in elementary and middle school mathematics and statistics learning. In other words, there is a gap between understanding of basic concepts in statistics and the technical capacity to apply them (Biehler, 1997; WAEC, 2002; WAEC, 2003 & WAEC, 2004).

Understanding basic concepts in statistics involves what the student is able to do with statistical contents like recalling, recognizing, and discriminating among statistics concepts while the technical capacity to apply them has to do with the skills that students demonstrates in using statistics concepts in specific problem solving. Now for us to teach statistics to enhance conceptual learning, it behooves on us to study the way students think and learn. That is, we must study statistical reasoning.
Statistical reasoning in the view of Garfield and Chance (2002) refers to an individual ability to interpret, critically evaluate and when relevant, express their opinion regarding statistical information or data as well as other related argument, and it is a topic of great interest to many types of persons like:

- Psychologist who study how people make judgment and decision involving statistical information.
- Doctors and others in the medical profession, who need to understand and interpret risks, chances of different medical outcome and test results.
- Journalist and science writers who are interested on how to best explain and critique statistical information.
- Political analysts who are interested in studying and interpreting polls and election results.
- Statistic teachers who want to teach students not only a set of skills and concepts but also to reason about data and chance.

The concept- “students’ statistical reasoning” thus addresses students’ ideas and comprehension of statistics. This includes assessing the degree of students understanding of what questions can or cannot be answered using probability and statistics as well as applying probability and statistics concepts in appropriate situations.

Suffice to say that the teaching and learning of statistics is not only hampered by cognitive variables in this case-statistical reasoning but some non-cognitive variables such as attitude towards statistics and learning approach. Attitude is a learned predisposition to respond positively or negatively to a given object, situation, concepts or person. As such, it possesses cognitive, affective and performance dimensions. In other words, attitude involves negative or positive feelings that results from positive or negative experiences over time in learning a topic, in this case statistics. Learning approach is the typical way students tend to study. That is, their learning strategies. But why pre-service teachers?

Pre-service teachers are the focus of this study because they are the tools to use if we are to achieve the growing demands for the inclusion of statistics teaching in the training of most discipline. This is so because on graduation, they would either teach at the Nursery, Primary, Secondary or Tertiary levels of learning.

**Purpose of Study**

The general purpose of this study is to evaluate the interrelationships among pre-service teachers’ statistical reasoning, attitude toward statistics, and learning approach on achievement in educational statistics. Specifically, the study sought answers to the following research questions:

1. What is the composite effect of pre-service teachers’ statistical reasoning, attitude towards statistics, and learning approach on achievement in educational statistics?
2. What are the significant paths through which pre-service teachers’ statistical reasoning, attitude towards statistics and learning approach determines achievement in educational statistics?
3. What is the most meaningful causal model involving pre-service teachers’ statistical reasoning, attitude towards statistics, and learning approach on achievement in educational statistics?
4. What proportion of the effect of pre-service teachers’ statistical reasoning, attitude towards statistics and learning approach on achievement in education statistics is direct and indirect?

**Methodology**

**Subject**

The subjects for this study involved, 358 4th year undergraduate students from Faculty of Education University of Calabar and University of Port Harcourt (114 males and 244 females), selected through proportional stratified random sampling procedure.
Instrumentation

A questionnaire tagged “Statistical Reasoning Attitude Learning Approach Questionnaire” (SRALAQ) with Cronbach alpha reliability coefficient ranging from 0.72 to 0.87 for each of the sub-dimensions of the instrument and an achievement test tagged “Educational Statistics Test” (EST) with reliability index of 0.83 were used for data collection. The questionnaire consisted of four major parts. The first part sought information about the students’ demographic variables (gender, school, and department), while the second part of the questionnaire is on students’ statistical reasoning with 20 items, attitude towards statistics (36 items), and learning approach (20 items).

Procedure for Data Analysis

Path analysis was utilized to explain the connections between statistical reasoning, attitude towards statistics, learning approach and achievement in educational statistics. The basic aim of path analysis is to provide an estimate of the magnitude and significance of hypothesized causal connections between sets of variables and it is achieved through the use of input and output path diagrams (Wright, 1934 & Asim, Uwe, Ekuri, Asuquo, & Ekpiken-Ekanem 2007). The statistical procedure (utilizing the statistical package for social science program-SPSS) was computed to provide answers to the research questions.

Path Analysis

The linear relationships among the three independent variables and the dependent variable form the basis for hypothesizing a theoretical model which addressed the linkages between the sets of variables in this study as shown in Figure 1. Causal modeling as defined by Wright (1934) is a technique for selecting those variables that are perceived to be determinants (causes) of the effects and then attempting to isolate the separate contributions to the effects made by each cause through the application of path analysis technique.

![Figure 1: Hypothesized causal model](image)

Identifying and Trimming the Paths in the Model

The investigators identified the important paths in the model by constructing the resultant structural equations using the technique of path analysis theorem and Wright’s law. For the trimming of the paths in the model,
the theory of statistical significance and meaningfulness were used in order to provide a more adequate testing of the theory under consideration. According to Land (1969), for the model to be meaningful, the absolute value of the path coefficient should be at least .05.

**Structural Equations for the Hypothesized Model**

The equations implied in the hypothesized model in Figure 1 are:

\[
X_1 = \epsilon_1 \\
X_2 = p_{21} X_1 + \epsilon_2 \\
X_3 = p_{31} X_1 + p_{32} X_2 + \epsilon_3 \\
X_4 = p_{41} X_1 + p_{42} X_2 + p_{43} X_3 + \epsilon_4
\]

**The New Parsimonious Model and its Structural Equations**

To determine the path coefficients in the hypothesized path model, path analysis procedures was utilized. Table 1 show the various path coefficients (expressed in beta weights) in the path model and their level of significance. Path whose coefficients are significant at .05 probability level were retained otherwise, they were trimmed. This made it possible to have the most meaningful model.

Table 1 shows the paths in the hypothesized recursive model, the standardized path coefficients and the level of significance for each of the path coefficients. The result showed that the standardized path coefficients ranged from -.036 for P41 to .429 for P21. The result further revealed that out of the six paths in the hypothesized model, two paths (P21 and P42) were significant at .05 levels. On the basis of the theory meaningfulness of a model, the paths P32 and P43 were retained while the other two paths (P31 and P41) were trimmed out since they were considered weak and thus not strong enough to be included in the new model.

**Table 1: A Table showing Path Strengths and Significance Levels (P-Values) of the Independent Variables in the Study that explains Pre-Service Teachers’ Achievement in Education Statistics**

<table>
<thead>
<tr>
<th>Paths</th>
<th>Beta weights (β)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P_{21}</td>
<td>.429*</td>
<td>.000</td>
</tr>
<tr>
<td>P_{31}</td>
<td>.006</td>
<td>.921</td>
</tr>
<tr>
<td>P_{32}</td>
<td>.104</td>
<td>.077</td>
</tr>
<tr>
<td>P_{43}</td>
<td>.073</td>
<td>.167</td>
</tr>
<tr>
<td>P_{42}</td>
<td>.151*</td>
<td>.010</td>
</tr>
<tr>
<td>P_{41}</td>
<td>-.036</td>
<td>.538</td>
</tr>
</tbody>
</table>

*Significant at 0.05 level

**Structural Equations for the New Parsimonious Model**

The resulting path equations arising from the new most meaningful model are as follows:

\[
X_1 = \epsilon_1 \\
X_2 = p_{21} X_1 + \epsilon_2 \\
X_3 = p_{32} X_2 + \epsilon_3 \\
X_4 = p_{43} X_3 + p_{42} X_2 + \epsilon_4
\]

Based on the above equations, the new hypothesized model was obtained as shown in Figure 2. The figure shows that only four out of the six hypothesized paths survived the trimming exercise.
Validation of the New Model

To verify the efficacy of the new model, the reproduced correlation coefficient (using the new path equations) were compared to the original correlation coefficients as shown in Table 2. Table 2 shows that the discrepancies between the original and reproduced correlation are very negligible and thus is an indication that the pattern of correlation in the observed data is consistent with the most meaningful model.

![Figure 2: The most meaningful model in the study](image)

Table 2: The Original and Reproduced Correlation Matrix of Pre-Service Teachers’ Statistical Reasoning, Attitude towards Statistics, and Learning Approach on Achievement in Educational Statistics

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.000</td>
<td>.431</td>
<td>.051</td>
<td>.033</td>
</tr>
<tr>
<td>2</td>
<td>.429</td>
<td>1.000</td>
<td>.107</td>
<td>.153</td>
</tr>
<tr>
<td>3</td>
<td>.045</td>
<td>.104</td>
<td>1.000</td>
<td>.088</td>
</tr>
<tr>
<td>4</td>
<td>.069</td>
<td>.159</td>
<td>.089</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Discussion of Findings

The results of path analysis in Table 1 revealed a significant composite effect of pre-service teachers’ statistical reasoning, attitude towards statistics and learning approach on achievement in educational statistics. The results of the regression ANOVA showed that the test is statistically significant (F=3.241, p<0.022) at 0.05 level of significance. The predictive equation arising from the analysis in Table 1 showed that learning approach is a significant direct predictor ($\beta$=.225, t=2.581, p<0.010) at 0.05 level of significance of pre-service teachers’ achievement in educational statistics as such, it contributed highly in its’ individual and composite capacity to the predictive equations. Since the magnitude of beta weights is taken to be directly proportional to the degree of effects of the independent variable, it can be seen from Table 3 that two variables (X2 and X3) have direct causal effect on students’ achievement in educational statistics. In all, the direct effect is about 81.45% while the indirect effect is only 18.55%.
Table 3: Proportion of Total Direct and Indirect Effects of the Variables in the Study

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variable</th>
<th>Total effects</th>
<th>Direct effects</th>
<th>% of direct effect</th>
<th>Indirect effect</th>
<th>% of indirect effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Attitude towards statistics</td>
<td>.033</td>
<td>-</td>
<td>-</td>
<td>.033</td>
<td>12.00</td>
</tr>
<tr>
<td>2.</td>
<td>Learning approaches</td>
<td>.154</td>
<td>.151</td>
<td>54.91</td>
<td>.003</td>
<td>1.09</td>
</tr>
<tr>
<td>3.</td>
<td>Statistical reasoning</td>
<td>.088</td>
<td>.073</td>
<td>26.54</td>
<td>.015</td>
<td>5.46</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.275</td>
<td>.224</td>
<td>81.45</td>
<td>.051</td>
<td>18.55</td>
</tr>
</tbody>
</table>

Conclusion

Based on the outcomes of this study it could be concluded that pre-service teachers’ statistical reasoning, attitude towards statistics and learning approach had significant influence on achievement in educational statistics. This implies that achievement in educational statistics can be explained based on the variables in the study and thus, the investigators posits that in order to change students’ achievement in educational statistics, a direct causal change would be more meaningful and spontaneous than the indirect strategy.

Recommendations

In order to enhance students’ achievement in educational statistics, statistics teachers/ instructors should adopt more practical teaching strategies that would encourage students to develop positive attitudes and adopt learning approaches that will enhance their achievement in the subject. This can be actualized by giving students learning tasks in form of projects, classroom paper presentations which would make them to focus on the main ideas, principles, and subsequent applications. In addition, the government through statistics institutions and statistics agencies such as the National Bureau of Statistics should draw up statistics curriculum that would incorporate in the teaching of statistics practical projects that would help the students to draw on real life experiences in order to solve statistics puzzles.

More so, statistics departments in schools and statistics agencies such as National Bureau of Statistics should organize regular seminars and workshops to counsel students on the importance of statistics to any economy. Such seminars and workshops should lay emphasis on learning strategies that will encourage deep approach vis-à-vis surface learning approach to learning which is a catalyst to higher achievement in statistics as well as measures of developing positive attitude of students towards statistics.

References


Demand, Supply and Utilization of Secondary School Teachers in Kabba/Bunu District of Kogi State, Nigeria

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Prototype Engineering Development Institute (PEDI)
Ilesa, Osun State, Nigeria

Abstract: This study examined the demand, supply and utilization of secondary school teachers in Kabba/Bunu Local Government Area, Kogi State. Ten secondary schools were selected from the Local Government (comprising of three schools in urban areas and seven schools in rural areas), using stratified random sampling techniques. Nine teachers were randomly selected from teachers in senior classes in urban schools and six teachers in rural schools. Relevant data were collected through the use of highly structural and validated questionnaires, titled “Demand, Supply and Utilization of Secondary School Teachers (DSUSST)” and “Utilization of secondary school teachers (USST)”. The research instrument was administered to selected secondary school principals and subject teachers respectively. The data were analyzed using simple percentage, mean, ratio, Pearson product moment correlation statistics and multiple regression analysis at 0.05 levels of significance. The result of the study revealed that there are inadequate basic science and English Language teachers in both rural and urban schools; there are no incentives for teachers in rural schools and 81 percent of the teachers are qualified. Based on the findings, it is recommended that supply of teachers should be carefully planned and properly executed while meaningful incentives like leave bonus, free medical treatment for teachers and their families, 15% basic salary as incentives for teachers in difficult terrains should be given to the teachers especially teachers in rural areas.

Introduction

Education continues to be seen worldwide as the vital instrument for national development. Hence, most countries invest in education. Consequently, the place of the teacher as an essential factor for educational development is of prime importance. According to Abdulkareem (1997), despite the fact that our way of life are subject to constant structural, functional and technological changes, the teacher remain the key factor in the educational system.

Nowadays, most parents and guardians are more curious about the quality of education given to their children and wards in schools. Quite often, they show their concern by demanding that the schools should teach better than in the past. If quality instruction is to be maintained in schools, it becomes imperative to get the school adequately staffed with highly diligent and well motivated teachers (Afolabi, 2004).

As said by Momoh Tony, the former minister for information and culture, in the guardian newspaper (21st August 2008) “If you want to build a city, you must first build a man, and if you refuse to build a man, the kind of city he would eventually build might well be like some types of huts we used to have in some of the Nigerian villages today”. The qualities of teachers in the secondary schools determined the quality of product that is produced in our secondary schools.

Kabba/Bunu Local Government Area is one of the sixteen Local Government Areas in Kogi State. It was cast out of the old Oyi Local Government Area of the then Kwara State in August 1991. It is amazing to note that the increasing enrolments in our secondary schools these days do not commensurate with the supply of teachers in such secondary schools. Of course, a great deal would have to be done with regard to teacher’s salaries and conditions of service before we can expect to retain the right caliber of teachers in the profession. The low esteem in which teachers are put in Nigeria and their poor service conditions have generated the public slogan: “Teachers’ reward is in heaven”. Whether this slogan is used in mockery or in sympathy with the teachers, it strongly attests to the fact that teachers are possibly not adequately catered for in this country. To worsen the situation, some school principals do force their teachers to teach subjects they do not know or in which they were not previously trained. What obtains in such situations is that such teachers go into book to copy or dictate to students. It is erroneously believed by some people that anybody
can teach. According to the Federal Republic of Nigeria (2004, p.34), in the National Policy on Education, “Teacher Education will continue to be given a major emphasis in all our educational planning because no education system can rise above the quality of its teacher”. The aim of teacher education is to produce personnel equipped with the knowledge of the subject matter and the teaching skills to teach in our school system. Education being the life wire of any nation for all facets of development should be quite alive and active. Many educationists and researchers believe that if enough quality teachers are adequately supplied and are effectively utilized, it would help to enhance the performance of the teachers that were employed to teach in various field of study. This would also help to achieve better students’ academic performance and thereby could lead to the achievement of educational objectives. The level of academic performance in our secondary schools today could be attributed to the level or quality of teacher supply and utilization. The teacher demand, supply and utilization have significant roles to play in ensuring a successful implementation of effective educational planning programme. The fact that the teacher has a unique influence on student’s academic performance is generally recognized, this makes the Nigerian government realize the importance of a teacher in achieving her laudable national goals and objectives (vision 2020) and also inculcating of national values to the citizens.

Ijaiya (1998, p.89) while writing on the supply of teachers in Kwara State Secondary Schools, said though teacher supply has always been a major problem in the state, the current economic downturn in the country may worsen the situation. Nwankwo (1999) viewed education wastage as inadequate utilization of teachers which resulting from dropout, repeaters, premature withdrawals, misguided types of education and non-employment of school leavers. Teacher utilization which could as well mean teacher performance cannot be effectively achieved if people do not embrace the profession with maximum interest and zeal to put in their best. However, over the years the teaching profession has been characterized by teachers of multifarious backgrounds, quality training and higher qualifications. With the emergence of the so-called greener pastures, the profession began to lose the best of its work force (Ciwar, 2004). It therefore followed that only those who could not get better jobs stayed on while new entrants to the profession used it as a stepping-stone. Worse still, others who were not trained, as teachers but had no other job went into the profession. In some cases, those trained to teach and are prepared to teach were not employed because employers especially the local and state governments preferred to hire unqualified teachers because they are cheaper to maintain. The teacher is charged with the responsibility of transforming the nation’s education programme into reality. Hence, the teacher factors in terms of quantity, quality and utilization in our education programme should be periodically evaluated. Therefore, an investigation into the demand, supply and utilization of secondary school teachers in Kabba/Bunu Local Government Area would help in throwing more light on the critical areas of staff needs in the schools, and the extent to which the teachers are being utilized for maximum productivity.

Purpose of the Study

The purposes of this study therefore were to:
(i) examine the gap between demand and supply of secondary school teachers in Kabba/Bunu Local Government Area and the causes of the imbalances;
(ii) identify the influence of imbalances on the demand and supply of secondary school teachers;
(iii) examine the quality and relevance of teachers posted to secondary schools in Kabba/Bunu Local Government area;
(iv) project the teachers demand between 2010 and 2020 (including annual requirement for the period);
(v) identify roles of government and other bodies in the recruitment of qualified teachers to meet up with the increasing enrolment of the students;
(vi) examine the level of teachers utilization;
vii) examine the extent to which the teachers are satisfied with their jobs and the efforts being made by the government and schools to direct and retain the teachers in the service for maximum utilization and
(viii) suggest ways or methods by which teachers demand and utilization can be adequately met for improved teaching and learning activities in secondary schools.

Research Questions and Hypothesis

This was based on the problem earlier set out in this study. The following questions and hypothesis formed the premises upon which data was collected, treated and analyzed.

Research Questions

1. What are the criteria used by the teaching service commission in supplying teachers to the schools?
2. What are the specific subjects that usually attract high demand for teachers?
3. What are the specific subjects that usually attract high supply of teachers?
4. What is the level of teacher’s utilization in the schools?
5. What is the level of teachers supplied in relation to teachers demand in the schools?
6. Is there any difference in teachers supply between rural and urban areas?

Research Hypothesis: There is no significant relationship among demand, supply and utilization of secondary school teachers.

Sample and Sampling Technique

The target population for this study comprised of 15 public secondary schools in Kabba/Bunu Local Government Area, Kogi state. The sample consists of those schools that had been presenting candidate for senior school certificate examination (SSCE). Ten public secondary schools were selected using stratified random sampling techniques; which make up 66.67% of the sampled schools. The schools were grouped into urban and rural schools. Three schools out of four schools in urban areas were selected and seven schools out of 11 schools in rural areas were selected. Six subject teachers in rural schools and nine teachers in urban schools were drawn from the teachers teaching senior classes using random sampling techniques. A total of 69 subject teachers and 10 principals were used for the study.

Instrumentation

Two types of instrument were used to collect the data for this study. These were a questionnaire and records obtained at the Planning, Research and Statistics department of the Kogi State Ministry of Education.

A questionnaire titled “Demand, Supply and Utilization of Secondary School Teachers’ Questionnaire (DSUSSTQ)” was given to the principals of the sampled schools for completion and “Utilization of secondary school teachers’ questionnaire (USSTQ)” was administered to the sampled teachers in each of the sampled schools.

Checklist about the number of schools, teachers and student enrolment from Planning, Research and Statistics Department (PRS) in Kogi State Ministry of Education were also collected.

Method of Data Analysis

The analyses of the data collected for this study were done using descriptive and inferential statistics. The research questions were analyzed using simple percentage, mean, ratio and a generated formula to show
whether some of the questions should be upheld or rejected. The research hypothesis was analyzed using Pearson product moment statistic and multiple regression analysis at 0.05 level of significance.

Data Analysis and Results

Research Questions Analysis

**Question 1:** what are the criteria used by the Kogi State Teaching Service Commission for supplying teachers to the schools?

**Table 1:** Criteria for supplying teachers to the schools

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total Score</th>
<th>%</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Population</td>
<td>38</td>
<td>25.33</td>
<td>1st</td>
</tr>
<tr>
<td>Location of school</td>
<td>29</td>
<td>19.33</td>
<td>3rd</td>
</tr>
<tr>
<td>Principal’s influence</td>
<td>38</td>
<td>25.33</td>
<td>1st</td>
</tr>
<tr>
<td>Age of school</td>
<td>19</td>
<td>12.67</td>
<td>5th</td>
</tr>
<tr>
<td>Statutory policy</td>
<td>26</td>
<td>17.33</td>
<td>4th</td>
</tr>
</tbody>
</table>

Table 1 presents the criteria for supplying teachers by Kogi State Teaching Service Commission to secondary schools in Kabba/Bunu Local Government Area. The student population and the principals’ influence in the teaching service commission are the basic criteria used in supplying teachers to the school which has a total score of 38 each; while age of school and statutory policy are not a significant factor in supplying teachers to the school. This is because they have a total score of 19 and 26 respectively. These criteria of supplying teachers to schools contributed to uneven distribution of teachers among secondary schools and also resulted to dishonesty, corruption and favoritism among senior or top public officers of the Teaching Service Commission in the supply of teachers to schools. That is why teachers supply to schools should be based on critical areas of need of each school rather than the principal influence in the Teaching Service Commission.

**Question 2:** what are the specific subjects that usually attract high demand for teachers in the schools?

**Table 2:** Subject areas that attract high demand for teachers in the school

<table>
<thead>
<tr>
<th>Subject areas</th>
<th>Rural schools</th>
<th>Urban schools</th>
<th>Grand total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>English Language</td>
<td>7</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Mathematics</td>
<td>7</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Economics</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Government</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Physics</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Commerce</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Chemistry</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Biology</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Lit. in English</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Prin. Of Account.</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

In Table 2, English Language and Mathematics are the subjects that have the highest demand for teachers in the schools with 100% each (both in rural and urban schools), followed by physics and chemistry which have 90% each but in higher demand in rural schools than in urban schools(100% in rural schools and 66.67% in
urban schools). It is shown that commercial and art subjects have little demand for teachers, for example commerce, Government and principle of account have 10%, 30% and 20% respectively; which are not demanded for in urban schools. Therefore, there is a high demand for teachers in English language and basic science subjects in secondary schools in Kabba/Bunu Local Government Area. This is in line with Nuhu (2004) who said one of the most prevalent and easily identifiable problems found in teacher production, utilization and turnover pattern was the shortage of teachers in some subject areas. Production for years has been inadequate in some subject areas such as mathematics, physics, chemistry and technical subjects (p. 220).

Question 3: what are the specific subjects that usually attract high supply of teachers in the schools?

Table 3: Subject areas that attract high supply for teachers in the schools

<table>
<thead>
<tr>
<th>Subject areas</th>
<th>Rural schools</th>
<th>Urban schools</th>
<th>Grand total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>English language</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1</td>
<td>14.29</td>
<td>0</td>
</tr>
<tr>
<td>Economics</td>
<td>3</td>
<td>42.86</td>
<td>1</td>
</tr>
<tr>
<td>Government</td>
<td>4</td>
<td>57.14</td>
<td>2</td>
</tr>
<tr>
<td>Physics</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Commerce</td>
<td>3</td>
<td>42.86</td>
<td>1</td>
</tr>
<tr>
<td>Chemistry</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Biology</td>
<td>1</td>
<td>14.29</td>
<td>2</td>
</tr>
<tr>
<td>Lit. in English</td>
<td>1</td>
<td>14.29</td>
<td>1</td>
</tr>
<tr>
<td>Prin. Of Account.</td>
<td>2</td>
<td>28.57</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3 indicates that Government has the highest percentage of teacher supply in rural schools with 57.14% while Biology and Government have the highest percentage of teachers supply in urban schools with 66.67% each. It can be seen from the table that English Language, Physics and Chemistry have the lowest percentage of teacher supply both in rural and urban schools with 0% each; which shows that teachers supply is very low (inadequate) in mostly all the subjects being offered. This finding was in line with the view of Dagana (2001) that stated that teacher supply has been a crucial issue in Nigeria’s educational practices. Yet it has never received the attention it deserved.

Question 4: what is the level of teachers’ utilization?

Table 4: Teaching periods of teachers in rural and urban schools

<table>
<thead>
<tr>
<th>Teaching periods</th>
<th>Rural Schools</th>
<th>Urban Schools</th>
<th>Total teaching periods (urban &amp; rural)</th>
<th>Average teaching periods (urban &amp; rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of tr</td>
<td>%</td>
<td>No. of tr</td>
<td>%</td>
</tr>
<tr>
<td>1 – 9</td>
<td>2</td>
<td>7.14</td>
<td>5</td>
<td>11.9</td>
</tr>
<tr>
<td>10 – 18</td>
<td>9</td>
<td>33.33</td>
<td>16</td>
<td>38.1</td>
</tr>
<tr>
<td>19 &amp; above</td>
<td>16</td>
<td>59.26</td>
<td>21</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>27</td>
<td>100</td>
<td>42</td>
<td>100</td>
</tr>
</tbody>
</table>
It can be clearly seen from Table 4 that the teachers with over 19 teaching periods have the highest percentage of teachers both in rural and urban area with 50% and 59.26% respectively and they are having an average teaching period of 18.99.

Table 5: Teacher/Student ratio in rural and urban schools

<table>
<thead>
<tr>
<th>No. of Students to one teacher</th>
<th>Rural Schools</th>
<th>Urban Schools</th>
<th>Total</th>
<th>Average teacher/student ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 24</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>1:3.7</td>
</tr>
<tr>
<td>25 – 40</td>
<td>5</td>
<td>20</td>
<td>25</td>
<td>1:18.52</td>
</tr>
<tr>
<td>41 &amp; above</td>
<td>21</td>
<td>17</td>
<td>38</td>
<td>1:77.78</td>
</tr>
<tr>
<td>TOTAL</td>
<td>27</td>
<td>42</td>
<td>69</td>
<td>1:47.09</td>
</tr>
</tbody>
</table>

Table 5 shows that 77.78% of teachers in urban schools have a teacher/student ratio of 1:41 and above while 47.62% of teachers in the rural schools have a teacher/student ratio between 1:25 and 1:40; and 40% of their teachers have a teacher/student ratio of 1:41 and above. The average teacher/student ratio of secondary schools teachers is 1:47.09.

Table 6: Teachers' number of committee in urban and rural schools

<table>
<thead>
<tr>
<th>No. of committee</th>
<th>Rural schools</th>
<th>Urban schools</th>
<th>Total</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1:7.41</td>
</tr>
<tr>
<td>2 – 3</td>
<td>15</td>
<td>24</td>
<td>39</td>
<td>1:55.56</td>
</tr>
<tr>
<td>4 &amp; above</td>
<td>10</td>
<td>12</td>
<td>22</td>
<td>1:37.03</td>
</tr>
<tr>
<td>TOTAL</td>
<td>27</td>
<td>42</td>
<td>69</td>
<td>1:3.26</td>
</tr>
</tbody>
</table>

Table 6 shows that, 55.56% of the teachers in urban schools belong to two or three committees while 37.03% belong to four and above number of committees. 57.14% of teachers in rural schools belong to two or three committees and 33.33% belong to four and above number of committee. It can be seen that the average number of committee that teachers belong to is 3.26.

Using Tables 4, 5 and 6, the teachers’ level of utilization for this study were measured using a generated formula below;

\[ T_u = \frac{TP_{av}}{18} \times \frac{T/S_{av}}{40} \times \frac{C_{av}}{2.5} \]

Where \( T_u \) = Teacher utilization

\( TP_{av} \) = Average teaching periods

\( T/S_{av} \) = Average teacher/student ratio

\( C_{av} \) = Average number of committee;
While 18, 40 and 2.5 are constant, using the recommended teacher student ratio of 1:40 as the base line (NERDC, 1997).

\[
T_{lu} = \frac{18.99}{47.09} \times \frac{3.26}{2915.22} \\
= \frac{18}{40} \times \frac{2.5}{1800} \\
= 161.96\%.
\]

The level of teachers’ utilization using the three factors of teacher/student ratio, number of teaching periods and number of committee teachers belong to is 161.96%. Therefore, the secondary school teachers in Kabba/Bunu Local Government Area are over-utilized.

This situation has also led to the comments of (Ali, 2004) that “one is saddened to observe that the utilization of teachers, at the classroom level, in the primary and secondary schools of some states in Nigeria is too politicized that it can be characterized as less than adequate and deteriorating. The current over-all economic inertia that is strangulating Nigeria is not an excuse to under fund education but this has led to some misuse of primary and secondary school teachers and their trade unions” (p.5).

**Question 5:** what is the level of teachers supplied in relation to teachers demand in schools?

**Table 7:** Level of teachers supplied in relation to teachers demand in schools

<table>
<thead>
<tr>
<th>Years</th>
<th>Teachers demand</th>
<th>Teachers supply</th>
<th>Differences</th>
<th>% of teachers supply to demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>309</td>
<td>240</td>
<td>69</td>
<td>77.67%</td>
</tr>
<tr>
<td>2006</td>
<td>336</td>
<td>242</td>
<td>94</td>
<td>72.02%</td>
</tr>
<tr>
<td>2007</td>
<td>340</td>
<td>245</td>
<td>95</td>
<td>72.06%</td>
</tr>
<tr>
<td>2008</td>
<td>352</td>
<td>248</td>
<td>104</td>
<td>70.45%</td>
</tr>
</tbody>
</table>

Table 7 shows that the teachers demand in 2005 was 309 while its corresponding teachers supplied was 240 which has a difference of 69 which indicate that teachers supplied was 77.67% of its corresponding teachers demand which to an extent is high. Looking through the Table 9 shows that there is an increasing teacher’s demand every year which is not proportionate to the teachers supplied. That is, the percentage of teachers supplied to demand is decreasing every year from 77.67% in 2005 to 70.45% in 2008.

**Question 6:** is there any difference in teachers supply to rural and urban schools?

**Table 8:** Teachers supplied to rural and urban schools

<table>
<thead>
<tr>
<th>Years</th>
<th>Rural</th>
<th>Urban</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of trs</td>
<td>No. of trs</td>
<td>No of trs</td>
</tr>
<tr>
<td>2005</td>
<td>101</td>
<td>139</td>
<td>38</td>
</tr>
<tr>
<td>2006</td>
<td>100</td>
<td>142</td>
<td>42</td>
</tr>
<tr>
<td>2007</td>
<td>106</td>
<td>134</td>
<td>28</td>
</tr>
<tr>
<td>2008</td>
<td>104</td>
<td>141</td>
<td>37</td>
</tr>
</tbody>
</table>
Table 8 indicates that the urban schools have higher percentage of teachers despite the fact that, seven schools in rural areas and three schools in urban areas are selected for this study. Some secondary schools in the rural areas have seven teachers including the school principal which is not even enough for the senior classes alone.

Research hypothesis:
There is no significant relationship among demand, supply and utilization of secondary school teachers.

Table 9: Multiple regression analysis of relationship among Demand, Supply and Utilization of secondary school teachers

<table>
<thead>
<tr>
<th>Variables</th>
<th>Teachers demand</th>
<th>Teachers supply</th>
<th>Teachers utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers demand</td>
<td>1.000</td>
<td>0.634</td>
<td>0.561</td>
</tr>
<tr>
<td>Teachers supply</td>
<td>0.634</td>
<td>1.000</td>
<td>0.852</td>
</tr>
<tr>
<td>Teachers utilization</td>
<td>0.561</td>
<td>0.852</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Results in Table 9 show that the correlation coefficients of teachers demand and teachers supply is 0.634, while the coefficient relationship between teachers supply and utilization is 0.751 and the coefficient relationship between teachers demand and teachers utilization is 0.561. This means that the variables-demand, supply and utilization of teachers are inter-related. That is, the level of teachers demand affects its supply and the level of teachers utilization is also determined by manner and number of teachers supplied to schools, among other factors.

Table 10: Multiple regression analysis on the relationship among Demand, Supply and Utilization of secondary school teachers

<table>
<thead>
<tr>
<th>Mode</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>Cal. F-value</th>
<th>Critical F-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2</td>
<td>231.32</td>
<td>1.891</td>
<td>11.34</td>
<td>0.243</td>
<td>Rejected</td>
</tr>
<tr>
<td>Residual</td>
<td>78</td>
<td>2884.2</td>
<td>10.14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10 shows that the calculated F-value of 11.34 is higher than the critical F-value of 0.243 at 0.05 level of significance and at 78 degrees of freedom which indicated that the hypothesis is rejected. That is, there is significant relationship among demand, supply and utilization of secondary school teachers in Kabba/Bunu Local Government Area, Kogi State. That is, demand for teachers, supply of teachers and utilization of teachers are inter-related and depend on one another. Therefore, the under supply of secondary school teachers in Kabba/Bunu Local Government has resulted into the Over-utilization of the teachers in the schools.

Conclusion

Based on the findings of this study, the following conclusions were drawn:

The teacher is seen as a central figure among the various agents of education who see to the development and growth of a nation. For the school to accomplish its goals, a well balanced personality, highly satisfied, competent and motivated teachers must be adequately available in schools.

The imbalances in demand and supply of secondary school teachers in the local government had resulted to over utilization of the teachers, poor student academic performance and high rate of examination malpractices among students and teachers which brought about poor educational standard of secondary schools in Kabba/Bunu Local Government Area.
Lack of basic infrastructures and incentives for rural teachers which are “on paper only” does not encourage teachers to accept their postings to rural areas which have been a challenge in getting qualified and competent English Language and Basic science subject teachers in rural secondary schools in Kabba/Bunu Local Government Area.

Recommendations

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

(i) The teacher is responsible for transforming the nation’s educational programme into reality. Hence, the teachers factors in terms of quantity, quality and utilization in schools should be periodically evaluated that is, the zonal inspectorate of the Teaching Service Commission in Kabba/Bunu Local Government should go round the schools to check if teachers in each school are adequate or not and to see if the right caliber of teachers is supplied to the schools.

(ii) Teachers should be supplied to schools by the Teaching Service Commission based on the principals’ request and critical areas of need in the schools rather than principal influence in the Teaching Service Commission.

(iii) The conditions of service for teachers already on ground must seriously be overhauled with a view to retaining qualified teachers in the teaching profession and teacher utilization in the schools would improve.

(iv) The community should work hand in hand with the school in the provision of educational facilities, employment of part-time teachers and creating job enrichment to teaching to enhance effective utilization of teachers.

(v) All educational stakeholders especially the State Ministry of Education and Parent Teachers Association should strive to improve the standard of living of teachers in the rural areas by providing necessary facilities and regular payment of their stipulated incentives.

(vi) There is need for more vigorous research that would identifies training procedures that can influence the production of effective teachers, in planned and predictable ways.

(vii) All higher institutions that run a degree programme should focus more on the production of English Language and basic science teacher to teach in secondary schools.

References


A Comparative Analysis of Universal Basic Education Programme in Nigeria and the “Grundskola” Education Programme of Sweden

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Abstract

The formation of educational policies is complex by nature. The complexity owes not only to the fact that education is a sector where it is difficult to identify the underpinnings and their effects to be foreseen, but also to the diversity of interests that education represents for the different actors in society. In the dynamics of educational management, within the large context of a global quest for Education for All (EFA), the Nigerian UBE and the Swedish Grundskola programmes have a fundamental principle in common. Compared to other socio-economic sectors, educational development involves more difficult and multidimensional problems. Faced with financial constraints, governments in many countries are not able to meet the broad social demands without adopting restrictive measures within the education sector, while rationalising the use of allocated resources. Because there are too many actors, variables and the interrelations between these, the result of Education for All (EFA) with the Grundskola was successful perhaps, based on some of the issues discussed while that of the Nigerian Universal Basic Education (UBE) programme proved abortive.

Introduction

The Universal Basic Education Programme in Nigeria and the “Grundskola” Education Programme of Sweden are situated within the large context of a global quest for Education for All (EFA). Both programmes have a fundamental principle in common, that is everybody must have access to equivalent education. Education has essentially been a social process in capacity building and maintenance of society since the creation of human beings. To cope with the changing realities and uncertainties of human life, education has been a weapon with which to equip the people to acquire relevant knowledge, skills and habits for surviving in the modern world. Herein the entire world has shown concerns for “Education for All” (EFA) since 1968 (Obayan, 2002).

It was a bold attempt to focus the resolve and resources of governments, international agencies, non-governmental organizations (NGOs), teacher, parents, and communities on the need to improve educational opportunities everywhere. The highlight of the World Declaration on Education for All among other things includes: “…satisfying basic learning needs requires an expanded vision which encompasses, universalizing access and promoting equity, focusing on learning, broadening the means and scope of basic education, enhancing the environment for learning and strengthening partnership” (Bernard Van Leer Foundation Newsletter p.5). This assumption formed the springboard of the framework of Universal Basic Education (UBE) in Nigeria in 1999 and “Grundskola” in Sweden in 1998. Both programmes are situated within the large context of a global quest for Education for All (EFA). Both have one fundamental principle in common, that everybody must have access to equivalent education.

Differences on the Impact to Each Country

Nigeria is a signatory to the 1990 Jomtiem Declaration of Education for All. The Nigerian educational statistics of 1996 showed that only 14.1 million children are enrolled in primary schools out of the 21 million children of school going age (Federal Ministry of Education, 1999). As a response to EFA and the declaration, Nigeria repositioned its key role towards a new education vision by establishing the UBE programme which takes universal access to basic education as fundamental. This is in consonance with section 18(3) (a) of the 1999 Nigeria Constitution dealing with the fundament principles of the state policy.
states that: Government shall strive to eradicate illiteracy and to this end government shall as when practicable provide free, compulsory and universal primary education (Nigerian Constitution, section 18).

UBE is thus planned as the right to have one’s basic learning needs met in various setting such as home, community, school, out-of-school educational, cultural and everyday life activities. It also involves various agents such as family, local and broader community, State Government, civil society such as local associations like rural cooperatives, Parents Teachers’ Association etc.

In the same vein, the Grundskola of Sweden is also a nine-year compulsory education programme (primary and lower secondary). As the name is, the programme takes the form of a 9 year comprehensive schooling for children aged 7 to 16. It is provided in one-all-through compulsory phase school known as Grundskola. Many children receive their compulsory schooling from one and the same school. Grundskola is non-selective, full-time and co-educational.

The similarities between the two programmes lie in the fact that:

- Both are compulsory, free, comprehensive, and co-educational and everybody has access to equivalent education. The Swedish Education Act stipulates equal access to equivalent education for all children and young persons regardless of sex, geographical location and social and economic circumstances (Sou, 1997). Grundskola programme consists of compulsory and comprehensive schooling with “Sami-schools for “Sami”-speaking children (Sameskolan), special school which comprises ten grades for children with impaired sight and those who are deaf or partially deaf with secondary handicaps, compulsory school for those with learning difficulties and compulsory school for intellectually handicapped. This is called Sarskola (Skolverket, 2000). Thus the inclusive approach to education is full embedded in the programme.

- Like the Grundskola, the UBE programme consists of formal basic education encompassing the first 9 years of schooling for all children, nomadic education for school age children of cattle rearers and migrant fishermen and literacy and nonformal education for out-of-school children, youth and illiterate adults. The duration of the formal aspect of the programme is 9 years. The 9 years consists of the primary and junior/lower secondary education. For the UBE, the primary level is a six year course for children between ages six years and eleven plus and the junior secondary is a three year course for children between 12 years and 15 years. Each of these levels of education is received in a separate school.

Goals of the UBE and Grundskola Programme

The specific objectives of UBE in Nigeria as stipulated by the Federal Government of Nigeria include:

- Developing in the citizenry a strong consciousness for education and a strong commitment to its vigorous promotion;
- Providing fee, compulsory, universal basic education for every Nigerian child of school-going age;
- Catering for drop-outs from the formal school system through improved relevant adult literacy programme;
- Catering for drop-outs and out-of-school children/adolescents through various forms of complementary approaches to the provision and promotion of basic education
- Ensure the acquisition of the appropriate levels of literacy, numeracy, manipulate and skills (FGN p.2)

Whereas, the goals of the Swedish Grundskola include to:

- impart knowledge and help pupils develop into responsible persons and members of the society (International Programme Office for Education and Training 1997). The document further stated that education involves:
• Passing on a cultural heritage values, traditions and language, knowledge from one generation to the next.
• That the school has the task of preparing pupils for living and working in society.
• It involves providing pupils with opportunities for taking initiative and responsibilities as “we” and creating the pre-conditions for developing their ability to work independently and solve problems (Outbuildings Department, 1996).

Summing up the major tasks of the Grundskola, it is evident that the programme aims at harmonious development of the children by stimulating them towards self development and personal growth. In the same vein, the UBE programme initiative is for acquisition of literacy, numeracy and skills for children. The programme is geared towards life-long learning which does not necessarily end with the formal aspect of the programme. This perhaps makes UBE differ significantly from the Grundskola.

Content, Methodology and Organization

In Sweden, the Ministry of Education defines the underlying values, basic objectives and guidelines of the school system. Then the head of each school in consultation with teachers and other staff draw up a school plan which is based on the national objectives (Lewy, 1996). Municipalities are responsible for the implementation of national curriculum. It is the teachers, together with the children that establish learning goals bearing in mind the needs and circumstances of different groups of children.

In Nigeria, it is the Nigeria Education Research and Development Council (NERDC) that is responsible for curriculum development. However, the Ministry of education provides the guidelines and implementation strategies. Recently, the states created the state Universal Basic Education Board (SUBEB) which has been saddled with the responsibility of the control of the UBE programme. In Nigeria, the goals are already set out for teachers to work towards attaining them. Neither teachers nor pupils are seldomly involved in the drawing up the school plan to suit the needs of the locality.

In Sweden, the Grundskola education provides perspectives in all school subjects. The statutory curriculum consists of core or basic subjects. These are Swedish, English and Mathematics. These subjects are given prominence position in the subject time table. English is mandatory as the first compulsory foreign language. The teaching of English language begins at the third year or fourth year of the nine year programme. This varies from one municipality to the other. In the same vein, the core subjects of the UBE programmes in Nigeria include English language, Mathematics, Social Studies, General Science and Nigerian Language.

However, English language is taught in the school as a subject in first: three years of the formal schooling but it becomes the medium of instruction at the third year of schooling. Thereafter, it is the language of textbook, examination communication etc. The reason for this cannot be far fetched. This is because English is a lingua franca in Nigeria. It is unfortunate that there is a language policy in the UBE programme which stipulates that “The mother tongue or the language of the immediate environment should be used as the medium in the first three years”. The basis for this policy is rooted in the fact that it has been established that children are better grounded in learning when they are taught in their mother tongue. This has been researched into and proven right (Fafunwa, Macaulay; Osokoya, 1989; Ande, 1983). Unfortunately, this policy is not implemented particularly in the privately owned Nursery and Primary Schools. Even in the public schools, the teachers use bilingual medium of instruction (English and mother tongue).

In addition to the study of English language in Sweden’s Grundskola, other foreign languages that the children study include German, French, Italian, Portuguese, Russian, Finnish, Spanish, and Chinese. In Nigeria it is only French that is another foreign language that is being studied in privately owned Nursery and Primary Schools but French is a compulsory subject at the Junior Secondary School.

Another initiative of the Grundskola curriculum content is the introduction of Information and Communication Technology (ICT). This is principally being used as tools for teaching (Tommy Lagergren,
2000). It is on record that Sweden provides 60,000 teachers with multimedia computers and training programme using ICT in the classroom for about 40% of Sweden teachers improve internet access for schools. This no doubt would have created a greater variety in the work of teachers thereby transforming the learning environment of the school into more exciting workplaces for both teachers and children. Nigerian children are yet to experience and enjoy the benefits of ICT in the classroom, classroom environment, and the use of ICT as part of school paraphernalia is still far fetched. A national basic health scheme is still at the proposal stage and yet to be incorporated into the UBE scheme (Oduolowu, 2002). Whereas, these are already part and parcel of the Grundskola. In essence the result of Education for All (EFA) with the Grundskola was successful perhaps, based on some of the issues discussed while that of the Nigerian Universal Basic Education (UBE) programme proved abortive.

A Lesson for Nigeria and Some Other Countries

There is no doubt in the fact that the Nigerian Universal Basic Education (UBE) programme has a lot to gain from the Grundskola of Sweden. Some of the issues are directly or indirectly entrenched in policy guidelines contained in the implementation blueprint for the UBE scheme. Which if properly implemented will enhance the programme to yield better results. There is a programme of initiative for early child care and socialization for children below the statutory school age of six years in the UBE programme. However, the provision is neither compulsory nor free for children. As a result of this, only 47% of pre-school aged children benefit from the programme. Many factors hinder access to the programme. Such factors range from inability to pay to ill health of children (SAPA,1993). The need to provide compulsory and free pre-school programme for these children, like is done in Sweden, cannot be over-emphasised. Among other things, it will establish a strong footing and provide uniformity of entry behaviour for all the children.

Often the argument of the huge financial implications is put forward. The provision could be limited to just one year prior to the statutory school year of the primary education. Another area, where benefit could be derived from Grundskola is in the pattern that Swedish children receive their compulsory education of 9 years in one and the same school. The benefit of this lies in that the monitoring and follow-up work on the learners is more effective. This no doubt could enhance productivity. This might not be easy to implement in the Nigerian setting i.e. to make children receive the nine year programme in the same school.

However, the principle of continuous close monitoring and supervision of the learning programme for a period of nine years cannot be underestimated. Even, with the Nigerian setting, there should be a follow-up or monitoring mechanism designed for these learners from primary school to the junior secondary level. These records could be kept by the various teachers. The information on each learner could be used to counsel and guide their development and progress. The goals of UBE should be broadened to have an international perspective. This will enable the children to see their own reality in a global context and be able to create international solidarity. They will be equipped with closer cross-cultural and cross border contracts like those of the Grundskola in Sweden. The demands of the 21st century have put a lot of pressure on the Nigerian children like all other children of the world. The Nigerian children can easily relate with these problems and from tender age proffer solutions to them. Thus, learning is made relevant to them.

Although the Nigerian primary education curriculum development is excellent, it is plagued with inefficiency. Ivowi (1999) asserted that it is overloaded, and that there are as many as sixteen subjects on the school time-table (SAPA, 1993). Ivowi doubted whether teachers can do justice to all of them or that six to eleven year old pupils can assimilate so much content. It is important therefore to review the curriculum – expunge irrelevant content and include new contents in line with global demands. In addition, programmes such as values education can be added. This could aim at combating perennial issues such as corruption, lack of patriotism, advanced free fraud and religious and ethnic clashes that the nation is facing. Learning from the Grundskola experience, interdisciplinary teaching and thematic studies should be promoted. This however, has implications for teacher preparation and in-service training. In-service and pre-service trainees
should be equipped with the skills of using these approaches. It will go a long way to solve to a great extent the problem of curriculum.

The provision of school health care is completely missing in the UBE programme and this is a very important component part of the Grundskola. It is pertinent to promote a holistic view of children by including nutrition, preventive health and encouraging healthy living. As it has been pointed out earlier on, many children do not attend school for reasons for ill-health (SAPA, 1993). It is therefore imperative to make provision for school health care even if it is only at the primary level. There should be school doctors who should carry out health checks and monitor children development and preserve and improve the physical and mental health of the children. There should also be school nurses who could be involved in elementary nursing. Like the Grundskola, the nutrition of children could be supplemented through provision of school meal for them. The meal could cater for the inadequacy in protein in-take of a majority of the Nigerian children.

For the Nigerian children to cope with the demands of the 21st century, the place of Information and Communication Technology cannot be over-emphasized. Too little work is been done in this area in Nigeria. Like the Grundskola, it is imperative to train and re-train teachers in ICT and other modern approaches of teaching. Interdisciplinary teaching and thematic studies if introduced into the school setting will solve most of the problems inhibiting the successful implementation of the curriculum demands. There is need to strengthen the regulatory roles of the various agencies responsible for the implementation of UBE. The Federal government needs to enact necessary legislation for the scheme, the state governments to initiate and execute specific projects for the local government to co-ordinate, supervise and monitor the implementation, local support and enabling environment for the execution of the scheme, voluntary agencies, non-governmental organizations and individuals to encourage and support increased enrolment, retention and completion by target groups in the programme of the scheme.

Summary and Conclusion

There is no doubt in the fact that the programme is expensive. UBE implies improved funding. Sufficient fund must be directed towards the magnitude of activities to realize the objectives. The available funds must be directed to areas that will make a difference such as school buildings, equipment, textbooks, teacher preparation, instructional materials etc. Above all, wasteful spending must be eliminated from the programme. The policy recommends a continuous evaluation of progress. The starting point of this evaluation is to compare existing practice with policy stipulations.

This will provide a framework for policy revision. Furthermore, in order to adequately respond to the changing needs of the society, it is necessary for the government to understand the existing practice as compared to national goals. If these are taken care of, the UBE programme in Nigeria will produce the desired outcome which is the true dream of the nation.

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Guidance and Counselling Implications of Examination Anxiety as a Predictor of Students' Attitude Towards Examination Malpractices

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Abstract The study investigated the relationship between examination anxiety and students' attitude towards examination malpractices in tertiary institutions in Delta State. The population of the study consisted of 12,000 first year regular students in eight tertiary invitations in Delta State. The proportional stratified sampling technique was used to select a sample size of 1,200 subjects who responded to the Examination Anxiety and Attitude Questionnaire. Data collected was analyzed with correlation and multiple regression statistics and it was found that there is a positive relationship between examination anxiety and attitude towards cheating in examinations. Students who possessed high examination anxiety were more predisposed towards cheating in examinations. Therefore it was recommended that measures of examination anxiety could be used by Counsellors to identify students who were likely to engage in examination malpractices so that proactive therapies could be administered on them prior to their sitting for the actual examinations.

Keywords- Guidance, Counselling, Examination, Anxiety.

Introduction

Examination anxiety which is also referred to as “test anxiety” in literature is a state of uneasiness, worry or feelings of uncertainty about an impending or on-going evaluation programme (Okorodudu & Ossai, 2004). Examination anxiety as an educational phenomenon is well documented in research literature. For example, Spilberger & Vagg (1995) identified two types of anxiety states which impede academic performance. These are “State” and “Trait” anxiety. “State” anxiety manifest in form of tension, apprehension, nervousness and worry as well as other related physiological stimulation which emanate from the stimulation of the autonomic nervous system. “State” anxiety is identifiable from bodily reactions such as excessive perspiration, trembling hands, increased heartbeat and so on. These are symptoms of state anxiety. Most students actually experience “state” anxiety at the moment of taking important examinations but the degree of its intensity will depend among other things on the students' level of Trait Anxiety. Trait anxiety is a relatively stable proneness to react to situations or impending events with high level of worry or apprehension. Trait anxiety accounts for individual differences in the tendency to respond to situations perceived as threatening with elevations in “state” anxiety symptoms. For example, the amount of “state” anxiety exhibited by a student who is preparing for or actually writing examinations will depend on the students' level of trait anxiety. Hence, individuals could be classified as having either high or low examination anxiety levels.

Studies have shown that high levels of trait examination anxiety lead to poor academic achievement (Mealey & Host, 1992; Austin, Partridge, Bitner & Wadlington, 1995; Cassidy, 2001; Sweetnam, 2002; Okorodudu & Ossai, 2004). Typically, students who are high on examination anxiety tend to perform poorly in academic work due to their lack of knowledge in the subject matter as well as the cognitive distraction created by task-irrelevant thinking in the examination situation (Musch & Brother, 1999).

Based on this premise of high examination anxiety leading to poor academic performance, the present study seeks to examine the relationship between examination anxiety and students' attitude towards examination malpractices. The study intends to establish levels of examination anxiety as likely predictors of students' proneness to engage in examination malpractices.
Theoretical Framework

Three theoretical models exist for the explanation of the relationships between examination anxiety and academic performance. These are, the interference model by Sarason (1988); deficit model by Birenbaum & Pinku (1997); and interference-deficit model by Musch & Brother (1999). The interference model portrays the examination-anxious student as one who knows the course material, but forgets all that he has learnt during examination thereby failing to recall already learnt material (Hembree, 1990). This theory further states that students with high levels of examination anxiety tend to divide their attention between task (test-taking) demands and negative self-preoccupations (worry and emotions) under examination conditions hence performance is interfered with. The poor academic performance of highly anxious students was, therefore, seen as a consequence of this interference by negative thoughts and emotions during examinations. On the basis of this model, examination anxiety reduction counselling techniques are applied on students who show high levels of anxiety. The deficit model of examination anxiety, on the other hand, accounts for low academic performance of highly anxious students in terms of insufficient knowledge of the course material due to poor study habits and the metcognitive awareness of this lack of knowledge of subject matter during examinations. Thus, the thrust of the deficit theory is that poor academic performance is traceable to inadequate mastery of course material rather than interference in recalling material that has been thoroughly learned. The deficit-interference model does not consider either of the two models (interference and deficit) as mutually exclusive. The two models are seen to be complementary rather than contradictory.

The present study is anchored on the deficit model. It considers the examination anxious student as one who does not study adequately for examination hence he or she looks for the easy way out. In other words, the tendency to engage in examination malpractices is premeditated and planned for. This agrees with the attitudinal theory of Reasoned Action, and Planned Behaviour. There is a link between attitude, intention and behaviour as far as engaging in examination malpractices is concerned. Positive disposition towards examination malpractices leads to the intention to engage in the act which in turn triggers the planning for the cheating behaviour during examinations.

Purpose and Significance of the Study

The major purpose of the study is to establish the nature of the relationship between examination anxiety and students’ attitude towards examination malpractices in tertiary institutions in Delta State. The study also examined the moderating effect of gender on the relationship between examination anxiety and students’ attitude towards examination malpractices. Specifically, the study sought to determine whether students who have high examination anxiety levels are more favourably disposed towards engaging in examination malpractices. It also intends to determine whether there are differences in male or female disposition towards examination malpractices. The study is significant because it will provide the basis for using measures of examination anxiety as a determinant of students’ disposition towards examination malpractices. Thus, Counsellors and teachers will be able to identify students who are likely to engage in examination malpractices on the basis of their scores on an examination anxiety inventory. Such students will, there, be subjected to proactive counseling or reorientation before they sit for the actual examination. This preventive approach will help to eradicate examination malpractices from our educational system. Hence, the Nigerian Society will benefit a lot from the results of this study.

Research Questions

The following research questions were answered in the study:

(i) What is the nature of the relationship between examination anxiety and students’ attitude towards examination malpractices?
(ii) Does gender moderate the relationship between students' examination anxiety and their attitude towards examination malpractices?

Research Hypotheses

The two null hypotheses tested in the study at 0.05 level of significance were:
(i) There is no significant relationship between examination anxiety and students' attitude towards examination malpractices in tertiary institutions in Delta State.
(ii) Gender does not significantly moderate the relationship between students' examination anxiety and their attitude towards examination malpractices in tertiary institutions in Delta State.

Method of the Study

The correlation research design was used in the study. The correlation design provides a basis for determining the degree of association between two variables. Though, it does not allow for cause-effect interpretation, it gives an indication of prediction of outcome in the relation between two or more variables. The population of the study consisted of 12,000 first year regular students in tertiary institutions in Delta State. Freshmen were used for the study because they are relatively inexperienced hence they freely exhibit symptoms of examination anxiety and attitude towards examination malpractices. As students progress in academic years those with inappropriate examination anxiety level and notorious attitude towards examination malpractices may either drop out or are expelled or they improve. Hence, most studies on examination anxiety and academic performance focus on freshmen such as Musch & Broder 1999; Elliot, McGregor & Gable, 1999; Diaz, Glass, Arnkoff & TanofskyKraff 2001; Okorodudu & Ossai, 2004. The proportional stratified sampling technique was used to select a sample size of 1300 but after administration of the instrument, 1200 that completed the questionnaire correctly were used in the data analysis. Proportional stratified sampling technique was used because it allowed for selection of subjects in such a way that identified sub-groups of the population such as institution, courses and gender were represented in the sample in the same proportion that they existed in the population.

The research instrument was tagged Examination Anxiety and Attitude questionnaire". It consisted of 45 items divided into two sections. Examination Anxiety section had 20 items while the Attitude towards examination malpractices section had 15 items. The four-point likert format was used in the instrument with strongly Agree (AS) = 4 points; Agree (A) = 3 points, Agree (A) points, Disagree (D) = 2 points; and Strongly Disagree (SD) = 1 point. The items in the Examination Anxiety section were adapted from the Test Anxiety Inventory (TAI) by Spielberger (1980) while items in the Examination Attitude section were constructed by the researcher. However, all 45 items were validated using thirty Nigerian Subjects and their reliability index were also ascertained. The Cronbach Alpha method was used to determine the measure of internal consistency which is indicative of construct validity and internal reliability (Okorodudu, 2004). Cronbach Alpha for the Examination Anxiety = 0.71 and the Examination Attitude = 0.67. Test-retest correlation coefficient(r) for the Examination Anxiety over a four week interval = 0.79 and Examination Attitude = 0.87. These indices were indicative of high construct validity and reliability. Face and content validity were ascertained by three experts in educational measurement and evaluation. Data collected with the instrument was analyzed with correlation and multiple regression and the hypotheses were tested at 0.05 level of significance.
Results

The correlation Coefficient (r) between examination anxiety and examination malpractices is .58 (P<0.05). This indicated that there is significant positive correlation between the two variables. Therefore, the answer to research question 1 is that there is positive Correlation between examination anxiety and students’ attitude towards examination malpractices in tertiary institutions in Delta State. Null hypothesis 1 is also rejected. There is significant relationship between examination anxiety and students’ attitude towards examination malpractices in tertiary institutions in Delta State.

Data in Table 1 below was used to answer research question 2 and test hypothesis 2

Table 1: Moderating Impact of Gender on the Relationship between Examination Anxiety and Attitude towards Examination Malpractices

<table>
<thead>
<tr>
<th>Variable **</th>
<th>B</th>
<th>SEB</th>
<th>Beta</th>
<th>t</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>15.92</td>
<td>1.02</td>
<td></td>
<td>15.61*</td>
<td>Significant</td>
</tr>
<tr>
<td>Exam Anxiety</td>
<td>.41</td>
<td>.02</td>
<td>.58</td>
<td>20.50*</td>
<td>Significant</td>
</tr>
<tr>
<td>Gender</td>
<td>35</td>
<td>49</td>
<td>02</td>
<td>.71</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

**Dependent Variable: Attitude towards Examination Malpractices *P<0.05**

Data in Table 1 above show that gender does not significantly moderate the relationship between examination anxiety and attitude towards examination malpractices. The entry of gender into the regression did not affect the significant t-value of the relationship between examination anxiety and attitude towards examination malpractices (t = 20.50, P<0.05). Moreover, the relationship between gender and attitude towards examination malpractices is not significant (t = 0.71, P>0.05). Therefore, the answer to research question 2 is that gender does not moderate the relationship between examination anxiety and students’ attitude towards examination malpractices in tertiary institutions in Delta State. Null hypothesis 2 is upheld.

Discussion of Results and Implications for Guidance and Counselling

The major findings of this study are that there is significant positive relationship between examination anxiety and students’ attitude towards examination malpractices in tertiary institutions in Delta State; and that gender does not significantly moderate this relationship. This implies that students who manifest high examination anxiety levels are more likely to be positively disposed towards engaging in examination malpractices irrespective of their gender. This finding tends to support the deficit model theory of examination anxiety as propounded by Birenbaum & Pinku (1997). This theory states that students who are highly anxious of examinations seem to lack concentration when studying. This may account for their resort to examination malpractices. Such students, therefore, may have insufficient knowledge of the course material. Without engaging in examination malpractices, such students would end up with poor academic performance as suggested by Musch & Broder (1999); Cassidy (2001); Okorodudu & Ossai (2004). The finding that gender is a non-moderator of the relationship between examination anxiety and students’ attitude towards examination malpractices is consistent with findings in similar studies by Musch & Broder (1999), Ogunsanya (2003) and Ossai (2003). This is not surprising as reports have shown that male and female students engage in examination malpractices (Ogunsanya, 2003; Ogunlowo, 2004; Onyechere, 2004).

The findings of this study have implications for the Counselling profession. Proactive or preventive counseling approach should be adopted by Guidance Counsellors to reorientate students who are prone to engaging in examination malpractices. Proactive counseling refers to professional services provided by a
trained Counsellor to prevent a student from engaging in examination malpractices and this is predicated on objective assessment of students study habits prior to sitting for examinations (Ossai, 2004a). For this preventive approach to be effective, more professionally trained Counsellors should be employed to render skillful counseling services to the teeming population of students in our educational institutions. Moreover, the success of this preventive approach is also dependent on availability of standardized psychological tests in Nigeria schools such as Study Habit Inventories, Examination Anxiety and Attitude Inventories, Personality Test Inventories, and so on. A conscious effort should be made to administer the psychological tests on a cross section of students and the results from such test administration should be properly interpreted and used as a basis for inviting students for Counselling interviews (Ossai, 2004b).

Conclusion and Recommendations

This study has thrown up the view that measures of students’ examination anxiety gives an insight into their likely attitude towards examination malpractices in tertiary institutions in Delta State. Be that as it may, the following recommendations are made:

(i) Standardized examination anxiety inventories should be made available for Counsellors in tertiary institutions.
(ii) Teachers and Counsellors should be trained or retrained on the procedures for administration, scoring and interpretation of scores of standardized examination anxiety inventories in relation to students’ attitude towards examination malpractices.
(iii) Examination Attitude Inventories should be developed for use in tertiary institutions;
(iv) Measures of students’ examination anxiety and attitude towards examination malpractice could be used to identify students who are likely to engage in examination malpractices;
(v) Reorientation programmes and proactive counselling, should be organized for students who show tendency to engage in examination malpractices.

References


Role Models and Life Histories of Teacher Trainers as Tools for Effective Teacher Education: A Case for Geography Teacher Trainers in Uganda

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Abstract Two hundred (310) undergraduate and postgraduate students participated in this study. The participants were requested to write down the best and worst teachers in their life right from primary to high school which is 14 years of schooling. They had to identify qualities that made that teacher good and role model and likely to influence their development as geography teachers. Results show that students value and love teachers that are intelligent and have good knowledge of the subject matter, approachable, morally upright, approachable/accessible, honest and guides the students, smartly dressed and presentable. They particularly liked geography teachers that used the environment round the school as a laboratory making the subject real and relevant, used fieldwork as a method of teaching, use of maps, pictures, graphs regularly in class. They particularly hated teachers who sexually abused students, discriminated against dull students, had no teaching aids, didn’t mark books, consequently no feedback, no fieldwork in Geography. Through discussions and peer teaching teacher trainees demonstrated their creativity through the teaching methods and materials they used. They promised to continue developing alternative teaching methods and materials for their own professional career development.

Keywords: Life histories, Role models, Teacher Training, Geography

Introduction

Learning to teach is a matter of learning the technical skills which enable individuals to function effectively in the education system (Elliot 1993). Effective teaching requires knowledge and understanding of the subject the student teacher is going to teach, and learning the curriculum. Teaching students implies exposing the individuals to knowledge and skills as well as practical experience as a basis for professional learning. Training a teacher is collaboration between academics and practitioners in the field. People learn how to teach from watching and imitating others (observation). They learn from experience and reflection (Stuart et. al., 2009; Korthagen et.al., 2006; Tailor et. al., 1997). Teachers also learn through practice, acquiring knowledge and reflecting on their experience (Elliot, 1993; Tailor 1997). Learning about teaching is also enhanced through student teachers doing research on their own practice. This study was based on the constructionist theory of learning which involves students constructing knowledge and skills through the process of reflecting on their past experiences (life histories) and their past and present teachers whom they regard as role models (Vygotsky, 1986). The research focused on the training of Geography teachers in the Department of Humanities and Languages at the School of Education, Makerere University.

A role model, according to Kaahwa (2009), is a person who has qualities that one would like to have. The role model affects a person in such a way that one would be a better person. Role models may be people holding responsible positions in society or may be working people. Teachers acquire explicit images of what it means to be a teacher and use these guidelines to their own actions, often without realizing where the images come from (Stuart et. al., 2009). The society also looks up to the teacher as a role model, a good instructor, disciplinarian, an expert on everything or as a wise counselor (Stuart et. al., 2009). Some teacher trainees remember some teachers very clearly, both good and bad. Such memories may be part of the motivation for one to become a teacher - to copy an admired teacher - role model (Calderhead and Sharrock 1997). Teachers in society provide leadership, are useful in explaining government policies and documents written in foreign and technical language. Teachers are also at times leaders of social movements like environmental activities, are formal and non formal educationists. These are attributes which make their students look up to them as role models. Pre-service teachers' first role models are their own teachers when they were pupils. Life histories are experiences of family of learning and being in school. It is these
experiences that mould the educational thinking of present teachers. This includes the many varied experiences the pre-service teachers come with to teacher education colleges (Knowles and Holt-Reynolds 1997, Stuart et. al., 2009). The concept “life histories” is sometimes referred to as biographies: “these are experiences of 12 years or more, observing and participating in their learning at school as well as in University classrooms introduce a tension unique to teacher education” page 88. Personal histories are an evidence of accumulation, integration, editing and synthesis across the actors, actions and consequences of multiple experiences to form a cohesive and coherent belief system (Knowles et.al 1997: Ozgun-Koca et.al 2006). Life histories provide an essential foundation for pre-service teachers’ knowledge of classrooms, teachers, students and instructions which they use to think about the values of ideas they encounter as they develop knowledge about teaching (Godson 1989)

This study focused on the training of geography teachers for secondary schools. Ozgun –Koca et.al (2006) argues that teachers’ pre-service beliefs about their subject area and its teaching is shaped by their experience as students. This means knowledge of the nature and scope of geography, in this case, the subject specific content knowledge. In the case of Uganda, pre-service teachers bring with them experiences as learners in geography classes from primary school where the subject is encountered as a component of social studies, through secondary school to University. As a result of this experience, strong beliefs about the subject are formed. These experiences influence the way they think through the teaching process, their choice of the teaching career and ways in which they are involved in professional development (Ozgun-Koca et.al 2006; Godson, 1989).

Values of Using Role Models and Life History in Training Teachers

Researchers in teacher education e.g. Knowles and Holt – Reynold 1997; Claderhead and Sharrock 1997; Godson 1989; Korthagen et.al 2006 have identified some of the values of using life histories and role models in training teachers. Below is a list of some the values that have been identified:-

- It is a window into pre-service teachers’ perspectives about themselves. It exposes their needs about the process of becoming teachers.
- It reveals the difficulties that prospective teachers experience.
- It is a tool for gauging the effectiveness and relevance of the teacher trainers’ instructions and programmes.
- It develops pre-service thinking and writing skills.
- By sharing their life histories, qualities of their role models , teamwork and trust, relationships are developed among the pre-service teachers.
- It is a foundation for action research among pre-service teachers and teacher educators.
- Pre-service teachers will develop a reflective approach to their own teaching based on well thought out personal theories.
- This approach is an essential tool for linking practice and theory (Oztal et al 2009, Tailor 1997)
- Life histories act as a filter by which pre-service teachers judge the work of new ideas, theories and practices as they are presented to them in class. Pre-service teachers lack contemporary classroom experiences as teachers and normally rely on former experiences as students. They use this to project how they will behave as teachers in future.
- It helps teacher educators identify individual differences in the teacher trainees. It helps teacher educators clarify teacher trainees’ attitudes/ beliefs and what they bring with them to the class.
Theoretical Framework

This study was based on the constructivist theory of learning as defined by the Vision project (2004):

“It emphasizes the importance of knowing the students’ cognitive level and misconceptions about what it is to be learnt. It is based on the view that learning is personal exploration and that the teacher must come to some understanding of observation, lines of enquiry and personal cognitive strategies by the students. Most approaches in cognitive of the individual determine how new information is systematically selected, interpreted and finally incorporated into the existing cognitive structure. Constructivist perspectives also suggest that students understand themselves and their surroundings, developing tentative models and individual strategies for problem solving. The recognition of existence of alternative frameworks suggest a conception of the learning process as a conceptual change in which the intuitive misconceptions of students must be replaced, say scientific formulations” (pp 20)

0zgun-Koca et al (2006) and Tailor (1997) in a similar way emphasize the importance of the constructivist theory of learning in the training of teachers. They argue that it is a learner-centered environment in which past experience of the pre-service teacher is respected. The learners construct their own knowledge by anchoring new information to pre-existing knowledge. Stuart et al (2009) further states that some of this knowledge comes from their own personal life histories, the rest from formal training courses, the schools they teach at and from the wider social and cultural context in which they live. This construction of knowledge is interactive, inductive and collaborative. The teacher educator acts as a facilitator, provides pre-service teachers with a variety of experiences from which learning is built. The process maximizes social interactions between the learners so that they can negotiate meaning to what is exposed to them.

In constructivist teacher education programs there is less emphasis on skills and more on personal knowledge and on thinking skills. Constructivist teaching methods include role plays, debates, reflective journal writings, etc. which are most effective in influencing behaviour change (Mugimu 2009)

Context of Geography Teacher Education at the School of Education

Geography as a teaching subject in the School Education is offered to both Arts and Science students from the faculties of Arts, Science and Faculty of Economics & Management at Makerere University. The Geography department in the faculty of Arts is fully staffed and offers many courses in both human and physical geography. In the faculty of Arts, Education students are normally advised to study content courses which they are likely to teach in secondary schools likely geomorphology, climatology regional papers of Uganda, East Africa and others like Research and practical geography. Education students study geography along with another teaching subject such as Economics, History, Religious Studies, and Biology, in the faculties where they are offered.

In the School of Education, geography teacher trainees are offered professional education courses like: Education Psychology, Foundations of Education and Management and Curriculum and Teaching Media courses. Students in their second and third years of study undertake school practice at secondary schools in Uganda. It is important to note that the majority of professors and lecturers in the Geography department in the faculty of Arts are not necessarily professional teachers; some of them lack a teaching certificate. It is the School of Education which is staffed with lecturers and professors who as a requirement must have a teaching certificate.

As a result of liberalization and privatization of education in Uganda, the numbers of both day and evening students increased four times between 2000 and 2010. As a consequence of this, the classes became larger with typical class-sizes of 200 – 300 students for some courses. The School of Education infrastructure was built in the 1930s to accommodate 20 - 40 students (Kagoda 2011). This has resulted in
congestion and lack of adequate teaching materials. Lectures are conducted in dinning halls that have the capacity to accommodate such large classes. This uncontrolled expansion was not matched with adequate funding and well qualified teacher educators. Geography is a very dynamic practical subject which calls for a lot of teaching materials and use of a variety of teaching methods (Benoit, 1982). Large classes render it impossible to use a variety of teaching methods and subsequently only the lecture method is used by lecturers. Teachers in secondary schools graduating from this kind of education system are likely to teach/imitate the way they were trained (Kagoda, 2011).

Statement of the Problem

A quality geography teacher is a product of quality theoretical and practical knowledge and skills the teacher gets exposed to as a trainee while at the University. The School of Education lecturers including geography lecturers still use the traditional methods of training teachers. This old paradigm assumes knowledge is transferred from the instructor to the student. The students are regarded as passive vessels to be filled with knowledge and skills. The instructors believe that their duty is to classify and sort out students. This results in an impersonal relationship between instructors and teacher trainees. Learning turns out to be individualistic and very competitive. Since the instructor is an “expert”, banking/teaching methods dominate in the lecture rooms. Teacher trainees have to memorize what is given to them and then reproduce it in tests/examinations.

This study critically explores how a new paradigm of teacher education can be integrated in the current geography teacher education. The new paradigm assumes that knowledge is constructed by both teacher trainees and instructors. Teacher trainees are constructors, discoverers and transformers of knowledge. The instructor’s role is to develop the competences and talents of teacher trainees: a paradigm that encourages the use of cooperative learning and team work among students and instructors; use of reflective journals/narratives, dialogue and constructivist approach to teacher education (Freire, 1972; Nevin et. al., 1995). This approach creates a learning environment which is diverse in culture and community. It develop self esteem making it relevant to the teacher trainees.

Purpose

The main purpose of this study was to explore the use of role models and life histories in the training of geography teachers.

Objectives

1. To explore the personal experiences and role models of the geography teacher trainees.
2. To discuss and think through teacher trainees attitudes and beliefs in light of the contemporary context of theory and practice of teaching.
3. To guide students try out new classroom practices and experiment with new behaviour and new methods.

Methodology

This study was carried in the School of Education, Makerere University in the years 2007 – 2009. Undergraduate and postgraduate geography teacher trainees participated in this study. The method employed to collect data was purely qualitative using narratives written by teacher trainees, class discussions, class presentations and peer teaching. The researcher taught two groups of undergraduate teacher trainees and two groups pursuing a postgraduate diploma in education. A total of 250 undergraduates and 60 postgraduate students participated in the study.
Students writing about their experiences (life history) provides a window into their perspectives about themselves and their needs. It revealed the Teacher Trainees’ (T.Ts) anxiety regarding the process of becoming teachers and the difficulties they face. The teachers were able to write down their memories, attitudes, beliefs, their personality and assumptions without fear. This helped the researcher to identify gaps and understand what needs to be done to help them become teachers. Class discussions were used to deliberately challenge the T.Ts to reflect on their attitudes, assumptions, beliefs and preconceptions about becoming a teacher and the teaching career as a whole. Class presentation helped me to identify individual students’ communication skills, public speaking skills, mannerism, the English language grammar etc. in peer teaching, the teacher trainees either worked as individuals or as a group of two. The T.Ts made lesson plans with objectives, teaching methods, teaching aids and references etc as instructed. Each T.T was given thirty minutes to present the lesson to their peers on a topic of their choice. Other T.Ts pretended to be students of a class as instructed. Information was collected through observation of the lesson, discussion/critic of the lesson by peers, the T.Ts own narration of his/her experience as a teacher, her/his choices as decisions made in the preparation and presentation of the lesson. The researcher observed at least 10 lessons in each of the undergraduate groups (20 in total) and at least 5 lessons (10 lessons) of the postgraduate classes which tended to be smaller.

Presentation of Data and Discussions

The first objective focused on the personal experiences and the role models of teacher trainees (T.Ts). Listed below are what teacher trainees considered to be attributes of a good teacher (role models):

- Our teacher was knowledgeable, very intelligent in geography content. He used to give us notes.
- The teacher was honest, a guide and counselor. He was cheerful, friendly, kind and sympathetic; inspiring us to work hard.
- He was morally upright, showed authority, competence, decisiveness, energetic, creativity and integrity. He never got involved with mature students.
- He was smart, decently dressed with good shoes.
- He used descent language and commanded respect from the students.
- He interacted with parents which helped him deal with individual problems of students.
- He participated in community activities.
- He worked closely with parents when going for fieldwork.
- Used to work in a team with other teachers.

Since the teacher trainees were asked to reflect on their life from primary, secondary schools and university, the above attributes appear to be general in character. Teachers perform many functions; they are role models even in the community where they live. Teachers who are intelligent, honest, morally upright and approachable are loved by students. Stuart et. al. (2009), however, argues that students may not know why teachers behave the way they do. On that note, the good teacher is also prescribed by society. Society judges a teacher’s character which also influences their children’s attitude toward a particular teacher. A postgraduate student adds: “in the field of education a teacher is supposed to be a good role model in both eyes of his/her students and the society as a whole”. Working closely with parents as well as teaming up with other teachers in the school is what Apple (1995) describes as democratic behaviour in schools. Democracy here means allowing all stakeholders in a school to participate in the running of schools and the children’s learning. One of the most important functions of teachers is to be a counselor to the students they teach. They also have a duty to help parents understand the curriculum being followed in schools and how the students can be helped to learn right from their homes.
There were responses made specifically to geography teachers, considered to be their role models.

- The geography teacher used good teaching materials; maps, pictures, graphs, specimen, charts and many others to help us understand.
- He used fieldwork in senior five many times; this helped us develop skills like collecting data through interviewing, observing nature, and drawing sketches.
- She used to do extensive research to be up-to-date using the internet, attending workshops, and conferences.
- Used the environment as a geography laboratory to teach facts. This made geography real. We learnt about soils, swamps, forests and the water bodies.
- Encouraged us to form discussion groups and to carry out extensive research.
- The teacher used a variety of teaching methods, question and answer, chalk and talk, lecture method.
- The teacher encouraged us to join school clubs like environment protection clubs, geography club, wildlife club, debating clubs and many others.

Developing research skills, reading skills, observation skills, recording data and its analysis is very good for geography students. Working in groups is a foundation for cooperative learning where weak students are helped by the sharing of information (Nevin 1995). The T.Ts here experienced geography in its reality by using field work especially in the environment near the school. The T.Ts, however, do not mention geography text books which are up-to-date. Relevant geography text books are rare or unavailable from Ugandan schools even in university. Use of computer/e-learning is limited to a few top schools in the country. At university, there are computer labs but they are not yet used for teaching. It is also interesting to note that the “variety of methods” mentioned are “banking” methods, and this is what they have experienced throughout their life. The severe shortage of teaching materials including text books, the examination oriented systems of education and congestion in lecture rooms renders learner centered methods impossible and time wasting to both teacher educators and T.Ts.

Responses of teacher trainees of teachers regarded as poor role models include:-

- The teachers used to beat us in both primary and secondary schools.
- Inadequate illustrations and teaching aids; for map reading and photographic interpretation, lack of update text books, pamphlets are also outdated with many mistakes. This made geography difficult to us and many hated it.
- Teachers discriminated against dull students in favor of bright ones.
- Teachers were persistently absent; used old outdated notes. Notes were given without explanations.
- Geography teachers were poorly dressed, wore gumboots or bathroom sandals instead of shoes; used to make us clean the chalkboard with handkerchiefs.
- Sex abuse, drunkenness, dishonesty were some of the characteristics of the geography teachers in our schools.
- There are no good books in the book banks at the university. Students reproduce lecture notes in the examinations/tests.
- There are no geography rooms/laboratories in secondary schools. There are no newspapers for students, no computer labs which are easily accessible.
- No marking, no feedback, no corrections, geography teachers go ahead to discourage students about the mathematics in geography.
The teaching profession is essentially service to the citizens and therefore calls for commitment if one is to be a good geography teacher.

Corporal punishments, although abolished in schools, is secretly used in schools especially if students are not performing to the expected standards. This sometimes makes teachers discriminate against dull students and move on with bright ones. Uganda being one of the poorest twenty-five countries in the world, explains why teachers are busy looking for money elsewhere instead of regularly attending to their students (Kagoda, 2011). Geography as a subject of study is poorly conducted in both secondary schools and university as (as mentioned above). The image of a geography teacher and the language used in class also influences the attitudes of teachers toward the subject which appears to be difficult to students. The scientific aspect of geography if not well handled will discourage students. A postgraduate diploma student offering geography at a postgraduate diploma level adds on; “most geography teachers in secondary schools are not qualified teachers. This causes students not to understand their teaching process. They lack proper handwriting on the blackboard, use lecture method, dress poorly which consequently causes students to fail”

Another postgraduate student added; our teachers in secondary and at Makerere University teach their students in an environment which cannot win the attention of the learners. Teachers therefore need to consider the factor of environment when choosing places as classroom and such an environment should not have objects which can attract the attention of the learners.

Those two graduate teacher trainees were already teaching in two different poorly resourced schools and not likely to have well qualified teachers who tend to expensive in terms of salary. Secondly remote schools (far from urban centers) do not normally attract well qualified teachers (Kagoda 2011)

The second objective was to guide teacher trainees discuss and think through their attitudes and beliefs in light of the contemporary contexts of theory and practice of teaching. Students were asked to read aloud their narratives in class after which a discussion of their presentation followed.

Issues Arising out the Discussion Follow Below:

- Students were not aware of the value of learner centered teaching methods. They believed that a teacher who gives team marks to enable them pass examinations is a "good" teacher.
- Fieldwork projects were examinable at a national level (Uganda National Examinations Board UNEB). Some teacher trainees never experienced field work at school but their geography teachers provided them with facts to use in the external examinations. Teacher trainees therefore do not know the value of fieldwork in geography education.
- Teacher trainees believe a good geography teacher is one who completes the UNEB syllabus; that is the examination syllabus.
- Interdisciplinary approach to teaching where similar topics are taught together with teachers from other departments is not mentioned by students of mathematics in geography, chemical weathering, etc the scientific aspect of geography is difficult for students of geography.
- Use of computer in teaching geography is ignored by all secondary schools even at University.
- Use of role play, debates, drama, music, cross-word puzzles and a variety of teaching aids made by a teacher using local materials is not mentioned.
- The belief that a teacher is the authority in the subject content and not to be challenged by the students.
- To become a teacher, one needs to learn how to make a scheme of work and lesson plan.

The above may not be exhaustive but it indicates the gaps a teacher educator has to fill while training a geography teacher.
The third objective was to guide students try out new practices and experiment with new behaviour and new methods. The students (TTs) were asked either in a pair or as individuals to write a lesson plan and present it in class through peer teaching. They either pretended to teach O-level or A-Level (S.5 or S.6).

Issues Arising out of the Peer-Teaching Classes:

- Students (TTs) were authoritative in behavior in the sense that they would not allow their students to talk. They wanted complete silence while they dictated notes.
- Some were relaxed and tried out group discussion in teaching. Although it was not well done, at least they tried.
- Knowledge of geography content was just satisfactory, for example one was confused about the origin of the mountains of the East African region. She listed mountain Ruwenzori as a volcanic mountain and resisted criticism.
- Place names and location of places on maps was another weakness of the teacher trainees.
- Very few students developed lesson plans for paper I; Physical geography for A’Level. The reason given by T.Ts was that they were not confident in that area. Another paper they never felt comfortable to teach was the Regional Geography of Uganda.
- One third year undergraduate teacher trainee taught physical geography focusing on erosion using music. The T.Ts were amazed when their colleague went in front of the class with a guitar. He asked the class to repeat after him as he sung the song he composed; focusing on agents of erosion, giving examples of some places in Uganda with prominent features of erosion. He used photographs to show such places he was singing about.
- One teacher trainee used field work method of teaching. We were made to get out of the class and went round the university lecturers’ residences to the play ground through the retail shops of Kikoni outside the university fence. She made a survey of the place to be visited, noted features to be studied, and informed the shopkeepers about the visit. This was not the usual fieldwork trips normally carried out in some of the secondary schools.

The teaching materials – below are few examples of what happened in the peer teaching classes.

- Four students photocopied passages which the students read aloud in class and later answered questions developed by the teacher trainees.
- One teacher trainee brought a fishing basket used by fishermen in the swamps and other shallow waters in rivers and lakes of Uganda. I myself had never seen a fishing basket and so I had the opportunity to learn from my students. She eventually demonstrated how it is used.
- One teacher trainee made traditional canoes used in fishing by fishermen using banana fibers. It was amazing.
- One T.T made a soil profile using an empty water bottle.
- Another one made a cross-word puzzle to teach senior two about the farmers calendar in one of the regions of East Africa.
- Others used clay to teach about the river profile.

The researcher was overwhelmed by the creativity of the teacher trainees in the aspect of teaching aids. This is lacking in most of the secondary schools in Uganda. The teacher trainees promised to try out this kind of creativity and become facilitators in class instead of being authoritarians. After observing each class, the teacher trainees criticized the lesson and this improved on the subsequent presentation. They scrutinized the topics, the objectives, the references if any and the teaching aids. They also focused on the undesirable mannerism as the T.Ts presented. The introduction of the lesson and the conclusions were also discussed.
By the end of the lesson the presenters gained confidence instead of loosing hope, they became empowered as more and better lessons were presented.

Conclusions

Teachers who are knowledgeable, confident, approachable, honest, morally upright are admired by students as well as the community where the school is situated. Teachers who are punctual at school, guide and counsel students, are hard working and enthusiastic about their job are also described as being good by the teacher trainees interviewed. Geography teachers who used a variety of teaching methods, many teaching materials, and used fieldwork were an inspiration to teacher trainees.

Use of corporal punishments, sexual abuse, drunkenness, absenteeism, refusal to mark tests, lack of feedback etc were attributes of a poor role model according to teacher trainees. Discussions with teacher trainees reveal that they are not aware of alternative methods of teaching apart from the teacher-centred methods of lecture, question and answer and chalk and talk.

The teachers believed that fieldwork in geography was good as it allowed them to see places as an excursion exercise.

Networking with other subject teachers, teamwork and other interdisciplinary activities like joint debates, fieldwork are considered not of value.

Use of computer in teaching geography has not been practiced in their learning experience in secondary schools up to university. None of the students placed any value to it.

The belief that a teacher is an authority and not to be challenged by the students is strongly embedded in the teachers beliefs.

The Teacher Trainees Teaching Practices in Class (Peer Teaching)

It was revealed in the exercise that:

- Teacher trainees have positive attitude towards “new” practices they were exposed to. They were creative and confidently tried out new methods of teaching like use of music, fieldwork, cross-word puzzles, and debates; methods not normally used by geography teachers. Teacher trainees confidently made a variety of teaching materials.

- It was revealed that some students were not confident in teaching physical geography, map work, photograph interpretation and the regional geography of Uganda. Reasons given were lack of textbooks which are up to date, lack of teachers who confidently teach in schools and fear to fail.

Recommendations

There are gaps in the teacher training perception of becoming a teacher. Teacher Trainees have attitudes and beliefs that need to be explored by teacher educators in all subject areas for purposes of demystifying the process of becoming a professional teacher. Teacher educators need to try out alternative methods of training teachers which are more learner-centered. Such methods should enable teacher trainees create their own knowledge like construction, cooperative learning and teaching.

Teacher trainees have the potential to become good and empowered teachers if they are given the opportunity to do peer teaching and made to develop their own teaching aids. This will stop the usual lamentation that there are no teaching aids is schools.
Acknowledgement

I am grateful to the send year undergraduate and postgraduate diploma students of geography who attended and participated in this study (2007/2008,2008/2009)

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Stress and Retirees of Higher Education Institutions (HEIs) in Nigeria

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Abstract - This study examines a study of stress on retirees. The study also identifies the cause of stress and strategies for reducing stress on retirees at the Federal University Pensioner Association (FUPA), University of Ibadan Chapter. The population of the study comprised 4000 male and female retirees of (FUPA). The sample of the study was 400 selected from the University of Ibadan Chapter using simple random sampling technique. A questionnaire was used for data collection. Data collected were analyzed applying frequency counts and mean statistic. Findings revealed that standing for a long time can cause stress for retirees. The finding of the study also revealed that non payment of gratuity and pension can cause stress for retirees. The findings of the study further showed eight strategies for reducing stress. Based on the findings recommendations were made.

Keywords: Nigeria, Retirees, Stress, University

Introduction

When a person is born, he\she undergoes series of changes from childhood to old age. As a child, he\she is taken care of till he\she gets to a certain age when he\j takes care of himself/herself. As from the age of 65, a person attains old age and gradually moves to a period of dependence. If he\she is an employee of government, he\she will be retired one day.

Retirement, Blonna (2005), is the period when a worker stops working either in public service or private service due to age or many years of service or voluntary. Employees in various organizations whether in government or the organized private sectors have a minimum numbers of years they can be in active employment. The retiring age differs from country to country. In Nigeria for example, Imhabekhai (1998) stated that as a result of the 1988 civil service reforms, the retirement age was 60 years or 35 years of active service. Recently, the Nigeria government increased the retirement age of an academic staff to 70 years and 35 years in service depending on the one that comes first.

Udoh (2003) simply defined stress as a pressure from outside that can make one feel tense inside. Selye(1976) in Udoh (2003) referred to stress as a non-specific response of the body to any demand. This demand he contended may be pleasant or unpleasant and that in either case, the response of the body is the same. Udoh stated that a civil servant who just retired from service or is on the threshold of retirement or is retired prematurely generate a kind of feeling often manifested by a pounding heart, anxiety, apprehension and sometimes fear caused by change in their situations. Thus common signs of stress are nervousness, trembling, dimness, pounding heart, inability to slow down or relax, abnormal eating habits and troubled breathing (Channing, L, Bete C. Inc, 1988).
Statement of the Problem

It has been observed by the researchers that retirement from service for many workers evokes some stress. Gratuity payment and pension allowances are often delayed by bureaucratic bottlenecks for several months or years. This often causes painful experiences to retiring offices who may a times are asked by the Federal Government to present themselves physically. The process which is known as “I am alive”. The Federal government does this in order to fish out ghost retirees. These retirees come from different parts of the State and whenever they are asked to come, many of them stay under the scotching sun; some of them are on medication because of one ailment or the other. Such ailments may be hypertension, arthritis, diabetes, cancer of the lungs, severe cold and so on. Some of them face a lot of transport hazards because they have to travel down to show themselves. Exposing them into this type of stress could make them die before the collection of their pensions and gratuities. This study therefore looks into the study of stress on retirees of the federal Universities Pension Association, University of Ibadan Chapter.

Purpose of the Study

The general purpose of the study is to look into the study of stress on retiree in the University of Ibadan Chapter of the Federal Universities Pension Association. Specifically, the study. Specifically, the paper sought to
1. Determine the causes of stress on the retirees

Research Questions

The following research questions guided the study:
1. What are the causes of stress on the retirees?
2. What are the strategies for reducing stress on retirees?

Method

The design of the study was a descriptive survey design. The population of the study consisted of 4,000 retirees both male and female in the University of Ibadan Chapter of the Federal Universities Pension Association (FUPA). The sample of the study was 400. Simple random sampling was used to select the sample. The instrument used was a structured questionnaire used for collecting data. The questionnaire was divided in three sections namely: Section A, Section B and Section C. Section A tapped the demographic variables about the respondents while section B consisted of statements relating to the causes of stress and section C related to items on strategies for reducing stress on retirees. Their responses were elicited using a four point Likert scale of Strongly Agree(SA), Agree(A), Disagree(D) and Strongly Disagree(SD). The researchers went personally to the Ibadan during one of the retirees’ meetings to collect data. The instrument was validated by two adult educators. The two experts were requested to validate the instrument in terms of:
1. Clarity of instruction to the respondents,
2. Proper wording of the items and
3. Appropriateness and adequacy of the items in addressing the purpose of the study. Their recommendations served as guide to modification of items in the instrument.

The reliability of the instrument was determined utilizing Crombach alpha method. The coefficient alpha for the three sections were 0.96, 0.96 and 0.96. These values indicate that the instrument was highly reliable. The method adopted for analyzing data include frequency counts and mean scores in respect of the research
questions. Decision was taken. Any mean score of 2.5 and above was regarded as Agreed while those below 2.5 were regarded as disagreed.

Results

Table 1 shows that 220 or 55% of the respondents were males while 180 or 45% were females. This showed that there were more males among the retirees than females. Table 2 shows the responses of retirees on the causes of stress on them. In items 1, 2, 3, 4, 5, 6, 7, and 8 the mean scores are above the decision rule of 2.5. This means that the respondents agreed that all the items in the table cause stresses on them. Table 3 presents the collective opinions of respondents used for the study. The collective opinions were decided by determining the mean opinion of the respondents on strategies for reducing stress on retirees. The respondents agreed on items 9, 10, 11, 12, 13, and 14 as strategies for reducing stress on the retirees. This shows that there were no discrepancies in their opinions and this serves as a confirmation of the mean decisions.

Table 1: Distribution of Respondents by sex

<table>
<thead>
<tr>
<th>S\No</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>220</td>
<td>55</td>
</tr>
<tr>
<td>Female</td>
<td>180</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
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</tr>
</tbody>
</table>

Table 2: Mean Responses of Retirees on Causes of Stress on Retirees

<table>
<thead>
<tr>
<th>S\No</th>
<th>Items</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
<th>Mean</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Financial insecurity</td>
<td>112</td>
<td>137</td>
<td>79</td>
<td>72</td>
<td>400</td>
<td>2.72</td>
<td>Agree</td>
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<tr>
<td></td>
<td></td>
<td>448</td>
<td>411</td>
<td>158</td>
<td>72</td>
<td>1089</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Standing for a long period of time</td>
<td>94</td>
<td>232</td>
<td>51</td>
<td>23</td>
<td>400</td>
<td>2.99</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>376</td>
<td>696</td>
<td>102</td>
<td>23</td>
<td>1197</td>
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<td>3.</td>
<td>Excessive travelling</td>
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<td>158</td>
<td>81</td>
<td>24</td>
<td>400</td>
<td>3.02</td>
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<tr>
<td></td>
<td></td>
<td>548</td>
<td>474</td>
<td>162</td>
<td>24</td>
<td>1208</td>
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<td></td>
</tr>
<tr>
<td>4.</td>
<td>Sickness such as hypertension, diabetes, cancer, hepatitis etc</td>
<td>156</td>
<td>148</td>
<td>77</td>
<td>19</td>
<td>400</td>
<td>3.10</td>
<td>Agree</td>
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<tr>
<td></td>
<td></td>
<td>624</td>
<td>444</td>
<td>154</td>
<td>19</td>
<td>1241</td>
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<tr>
<td>5.</td>
<td>Retirement from service</td>
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<td>131</td>
<td>62</td>
<td>15</td>
<td>400</td>
<td>3.25</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>768</td>
<td>393</td>
<td>124</td>
<td>15</td>
<td>1300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Death of a family member</td>
<td>114</td>
<td>123</td>
<td>13</td>
<td>153</td>
<td>400</td>
<td>2.51</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>456</td>
<td>369</td>
<td>26</td>
<td>153</td>
<td>1004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Non payment of gratuity and pension</td>
<td>205</td>
<td>125</td>
<td>20</td>
<td>50</td>
<td>400</td>
<td>3.21</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>820</td>
<td>375</td>
<td>40</td>
<td>50</td>
<td>1285</td>
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<td></td>
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<tr>
<td>8.</td>
<td>Unable to cope with the new situation of retirement</td>
<td>143</td>
<td>165</td>
<td>51</td>
<td>41</td>
<td>400</td>
<td>3.20</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>572</td>
<td>495</td>
<td>102</td>
<td>41</td>
<td>1210</td>
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Table 3: Response of the Respondents on Strategies for Reducing Stress on Retirees

<table>
<thead>
<tr>
<th>S/No</th>
<th>Items</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
<th>Mean</th>
<th>Decision</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>Planning for future</td>
<td>191</td>
<td>132</td>
<td>60</td>
<td>18</td>
<td>400</td>
<td>3.25</td>
<td>Agree</td>
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<tr>
<td></td>
<td></td>
<td>764</td>
<td>39</td>
<td>120</td>
<td>18</td>
<td>1298</td>
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<tr>
<td>10</td>
<td>Saving/investment</td>
<td>137</td>
<td>112</td>
<td>79</td>
<td>72</td>
<td>400</td>
<td>2.72</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>411</td>
<td>448</td>
<td>158</td>
<td>72</td>
<td>1089</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Retirement Education</td>
<td>114</td>
<td>123</td>
<td>13</td>
<td>153</td>
<td>400</td>
<td>2.51</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>456</td>
<td>369</td>
<td>26</td>
<td>153</td>
<td>1004</td>
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<tr>
<td>12</td>
<td>Having leisure time</td>
<td>140</td>
<td>134</td>
<td>99</td>
<td>27</td>
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<td>Agree</td>
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<td></td>
<td></td>
<td>560</td>
<td>402</td>
<td>198</td>
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<td>1187</td>
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</tr>
<tr>
<td>13</td>
<td>Playing indoors games</td>
<td>165</td>
<td>100</td>
<td>87</td>
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<td>2.96</td>
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<td></td>
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<tr>
<td>14</td>
<td>Prompt payment of pension and</td>
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<td>62</td>
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<td>400</td>
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<td></td>
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<td>26</td>
<td>153</td>
<td>1004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Eating balanced diet</td>
<td>205</td>
<td>125</td>
<td>20</td>
<td>50</td>
<td>400</td>
<td>3.21</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
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<td>375</td>
<td>40</td>
<td>50</td>
<td>1285</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of the Findings

The summary of the findings are stated below:

1. The causes of stress are financial problems, excessive travelling, non payment of gratuity and pension, unable to cope with the new situation of retirement, and death of a family member.
2. Strategies for reducing stress are planning for the future, saving/investment, retirement education, having leisure time, playing indoor games and prompt payment of pension.

Discussion

The findings of the study revealed that changes in life’s circumstances cause stress in today’s society. This view corroborates with Channing L. Bets.co Inc. (1988) who opined that such changes in life circumstances can cause stress especially when they are sudden or disagreeable. According to Udoh (2003), the causes of stress are limitless. They pointed out that personal loss, financial insecurity, strained working conditions, insurmountable bills to pay, broken engagement, an unhappy marriage, death of a family member, jobs changes, illness/injury, changes in life style and retirement impose a tremendous amount of stress on people. The findings of the study also revealed that excessive travelling and standing for a long period of time cause stress on retirees. This view supports Udoh (2003) who stated that excessive travelling and long hours of work caused by stress may result in anxiety and depression. The findings of the study showed that retirement from service, non payment of gratuity and pension, illness are some of the factors causing stress on retirees. The findings of the study corroborates Udoh(2003) who stated that reduced pension or gratuity which is paid very late or never paid at all impose tremendous stress on retirees. Many of the retirees die of stress emanating from being unable to adapt or cope with their new situation.

The findings of the study showed some strategies for reducing stress on the retirees. These strategies involved planning for the future. Many of the respondents agreed that planning for the future will reduce stress on the retirees. Many people are ill prepared for retirement even when they see it coming. Most people forget that what is expected to happen tomorrow has to be planned for today. Planning for retirement is thus important for a good plan will greatly reduce the amount of stress. The question arises. How would the retirees plan before the retirement comes? A good planner would start by looking for some things to do in
future today. The planning could start today and not tomorrow. Planning for the future would make the retirees to be self-reliant and idle. Retirees could think of establishing extra mural schools, private primary and secondary schools, vocational centres, investing in agriculture and so on. Retirees could then start saving or investing their money in reputable banks. By the time they retire, they would have something tangible to fall on instead of having stress.

The findings of the study also revealed that retirement education is one of the strategies of reducing stress on the retirees. This findings supports Imhabekhai(1998) who stated that retirement education involves making several opportunities available to retirees. It may involve vocational skill acquisition which includes the provision of vocational skills that will equip the retired officers for self employment. This will enable retirees to earn additional income to offset the reduction in income brought about by retirement. Imhabekhai also highlighted that retirement education provides courses on how to establish and effectively managed small scale business enterprises. Retirement education helps retirees to make active use of their retirement life rather than wasting away their valuable time. The boredom of staying idle at home can be very nostalgic to retired people who are not gainfully engaged. Active employment after retirement can help to increase the individual’s life span.

The findings of the study further revealed that having leisure time and provision of indoor games could reduce stress on the retirees. This finding is in support of the view of Omolewa (1981) and Imhabekhai (1998) who stated that games are essentially means of relaxation, some can be used in teaching some skills and attitude. Games also can be used to reinforce cognitive learning. Imhabekhai (1998) listed some games which could be useful for learners. These included scrabble, monopoly, and chess game. Scrabble can be used in teaching word power or vocabulary development. Monopoly is used in teaching investment. Chess game is used in teaching hierarchy of authority in administration and defence and war programmes. Playing these games in leisure periods could reduce stress on the retirees.

The findings of the study further showed that prompt payment of pension and gratuity could reduce stress on the retirees. This finding corroborates the view of Udoh (2003) who stated that prompt payment of pension and gratuity can reduce stress on the retirees.

Furthermore, the findings of the study revealed that exercise and eating balanced diet could reduce stress on retirees. This finding further support Udoh (2003) who stated that exercise is good for relaxing that uptight feeling. Walking, jogging, cycling or any favourite sport or form of physical exertion will help to let off steam and walk out stress. Delano (1999) also asserted that balanced diet ensures healthy life.

Conclusion

Stress appears to be very common in today’s society. Stress can make us unhappy, depressed and miserable. They situation can be hard on retirees because they are old people. If the condition is not treated on time, stress could lead to anxiety, tension and even death. Stress and the problems they cause can be cured. Prompt and correct treatment can help most persons to return to normal life. Retirees could last longer if they could plan well and invest in their future.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. The Federal government of Nigeria should try as much as possible to pay up the gratuity and pension allowances of their retirees on time.
2. The retirees should not wait till the time they are retired before they plan. They should start planning for the future immediately they are employed as civil servants.
3. The Federal government should have a conducive environment for the retirees whenever they come for physical appearance.
4. Retirees should also endeavour to take some exercises that could make them strong.
5. Retirees should eat balanced diet and take enough fruits that could give them enough nutrients in the body.

References

The Nigerian Mangrove and Wildlife Development

S.A. Abere
B.A. Ekeke

Department of Forestry & Environment
Rivers State University of Science and Technology, Port Harcourt, Nigeria

Introduction

The Nigerian mangrove ecosystem is mostly fragmented deltaic formation located in the River Niger Delta. Occasionally what should have been continuous and uniform mangrove forest in the Delta Islands are interrupted by beach Ridge Island forests sandwiched between the coastal beaches and the estuarine mangrove and island within the mangrove forests. The beach ridge forests typically contain lowland rainforest species. Some have large areas of high quality forests with high concentrations of biodiversity as in Andoni area.

All the major towns and rural mangrove dependent communities such as Abonnema, Bonny, Buguma, Brass, Nenme etc in the Niger Delta area located on such beach ridge forest Islands within the mangrove ecosystem.

Greatly influenced by both downstream freshwater flows and upstream diurnal tides, the mangrove forests have low plant species diversity and elevated productivity. Although the standing biomass is low averaging 150 ton per hectare, productivity is known to be relatively high – 15 to 20 ton per hectare per year for river mouth and creek edge stands. Productivity is lower for the inner mangrove zones which are composed mainly of stunted trees. The litterfall and accumulation of organic matter are the basis for aquatic food chain linking decomposers to marine and estuarine fish, mollusks (such as oysters and periwinkles), and crustaceans (especially shrimp and crabs). The sustainable productivity of the mangrove in these life-sustaining products is the major concern of the Nigerian mangrove communities.

Fragmentation, deforestation and degradation of the mangrove ecosystem by petroleum exploration and related industrial activities and domestic uses are major concerns to the mangrove communities, the Nigerian environmentalists and conservationists.

Community struggles in the Nigerian mangroves are directed towards operators of petroleum and allied industries for provision of alternative employment, healthcare facilities, improved rural technologies etc in place of destroyed life-supporting mangrove bases. The struggle manifests as various levels of protests, demands criticisms and occasionally violent demonstration by the aggrieved youths of the Niger Delta areas, particularly oil producing communities. This chapter presents features of the Nigerian mangrove ecosystem, some cases of communal ecosystem deforestation and degradation and measures taken to restore them for the benefit of the rural communities.

Size and Floristic Compositions

Nigeria has the largest mangrove forest in Africa and the third largest in the world. The mangrove forest extends from Badagry in the West to Calabar in the East covering a total area of 10,000km² along the coast. Defined by regular saltwater inundation, the mangroves form a vegetation band 15 to 45km wide parallel to the coast. The mangrove region is widest on the sides of the Niger Delta 35 – 45km and narrows towards the centre to a width of 15km except for the channel of the Brass River, which has extensive mangroves far
upstream. Acid sulphate, silty clay, clay loam and peat locally called “chikoko”, soils predominate in the
mangroves. They tend to be saline and have almost neutral pH when wet. However, when the soils are
exposed and thus become dry, the sulphides are oxidized to sulphuric acid, rendering the soil very acidic with
pH 3. Bare areas which characterize mangrove areas dredged for petroleum well development are results of
oxidation of acid sulphate mangrove soils exposed during dredging. At pH 3 to 3.4 which characterize such
dredge spoil dump areas the soil appears too toxic for plant establishment.

The mangrove forests of Nigeria comprise principally only three families and six species as follows:

1. **Rhizophoraceae (the red mangrove):**

   *Rhizophora racemosa*, *R. harrisonii* and *R. mangle*. Of these *Rhizophora racemosa* is the most abundant
taking about 90% of the mangrove forests. It occurs at the outer body of water. It forms a dense growth
throughout the region. It is also the biggest of the three species attaining heights of up to 40m and dbh>90 cm at maturity. Being a pioneer, from the water body, it is followed by *R harrisonii* which attains heights of 5-10m and *R mangle* with heights less than 5m. In their distribution, *R harrisonii* occurs usually between *R racemosa* and *R mangle* the latter occupying the harder parts of the mangal soil.

2. **Avicenniaceae – (white mangrove) Avicennia africana.**

3. **Combretacea – Lagancularia racemosa and Conocarpus erectus.**

*Nypa fruticans* (Nypa Palm) an exotic palm has spread through the Eastern Delta and is common around the
mouths of the Bonny and Imo Rivers. This exotic species has high national income value in its natural range
where it is also cultivated and sustainably managed. So far attention is not being paid to its management in
Nigeria. In degraded areas, sedges, grasses especially *Paspalum vaginatum* and the fern *Acrostichum aureum* thrive.

The most striking feature of the mangrove forests of Nigeria is the zonation of the dominant species
more or less parallel with the shoreline, each zone except the overlap, consists of one tree species. Zonation
is related to the physiological characteristics of the different species, corresponding to the frequency and
duration of tidal immersion, soil compaction, the extent of accumulation or erosion of soil and the salinity of the ground water.

Zonation suggests that there is a succession associated with aeration and subsequent changes in the level of land in relation to the water. The growth of vegetation in a particular zone also helps to create conditions for another plant association so that one community succeeds another until eventually an island type of vegetation not tolerant of sea water is established.

*Rhizophora racemosa*, being a pioneer grows on the soft muddy banks of the brackish creek. It is followed by the shorter *R. harrisonii* and *R. mangle*, which progressively prefer drier habitats. *Avicennia africana, Laguncularia racemosa* and *Conocarpus erectus* are progressively found on firmer landward grounds.

**The Mangrove Soils**

The dominant feature of the Nigerian coast is the Niger Delta which consists of swampy ground separated by narrow fresh or brackish lagoons (around Lagos) and anastomosing creeks. The network of creeks, separated by muddy deltaic deposits is not stable, since changes in currents and the rate of flow of the river causes erosion of materials already deposited and deposition continues to extend outwards.

Mangroves occur on the muddy banks of creeks where the water is brackish. Two soil types are roughly distinguished:

(a) The soft mud area with “tall” *Rhizophora racemosa* (bordering the water courses in small bands of usually ≤ 100m).

(b) The relatively hard fibrous mud with a level surface just below high tide level with short, *R. mangle*. The three non-*Rhizophora* species occur in very limited areas and numbers and are economically unimportant except for limited uses.

*Rhizophora racemosa* can grow to tall heights and grows best under brackish water influence. *R. harrisonii* and much more *R. mangle* can stand higher saline concentrations. They are found on compacted soils formed of fibrous materials accumulating faster than decomposing, thus forming with increasing age a higher elevated increasingly dense layer, locally called “chikoko”, with high saline concentration. A succession from *R. racemosa* to *R. mangle* can be identified, *R. mangle* grows only to scrub height mainly on tidal flats. Treeless areas of “chikoko” mudflats are expanding on account of extremely high salt concentration. An estimated area of 40,000 ha. of unproductive “chikoko” exists in the Nigerian mangroves.

The time required for the transition from fresh alluvium to mature “chikoko” is about 100 years. Usually the Niger deposits enormous quantity (up to 40 million tons) of fresh silt annually into the system. There is also continuous erosion and redeposition of “chikoko”. In the transportation of the silt, the wash-load is subjected to consolidation, drying, oxidation, reduction and salinisation. Mangroves colonise the silt with the formation and incorporation of organic matters and the resultant accumulation of ferrous sulphide which renders the soil unsuitable for the growth of tall mangrove, *R. racemosa*. The circle is completed by the erosion and redeposition of the soil which promote further chemical changes and the conditions suitable for the colonizing mangrove are once more restored.

**Yield and Utilization**

Yield data for the Nigerian mangroves suggest that accurate information is yet to be established. Earlier estimates suggest that the Nigerian mangrove forests carry an enormous stock of standing volume. With a conservative estimate of 250m³ per hectare the total volume of mangrove in Nigeria is estimated at 250
However, a recent calculation indicates that Nigeria’s mangroves would have a total standing volume of 30 million m³ and exploitable volume of 10 million m³.

Except for traditional uses mangrove species are not currently commercially utilized in Nigeria. In addition to fuel wood, local communities collect large variety of mangrove products such as food (crabs, shrimps), honey, medicine, dyes, thatching and numerous other household products from the mangroves. Mangrove salt and periwinkles (*Tymopanonus fuscusut*) are both important income sources for local people. Generally, the fishing population in the mangrove area are dependent on the mangroves to all intents and purposes.

**Ownership**

Traditionally mangrove swamps are community-owned. Communities rather than individuals held rights to most rural land. Today all land is legally vested on the state government though individuals and communities continue to use the land. The Federal Government owns all mineral rights. This is a source of anger and protests for communities in which oil developments is going on, as the industrial exploitation of natural resources from lands occupied by the rural communities does not appear to benefit such communities and has even led to impoverishment of agricultural soils on which the communities depend for livelihood.

**Threats to the Mangrove Ecosystem**

The Nigerian mangrove forests were earlier considered to be the least disturbed of the forest zones of Nigeria. That is not the situation today. In order to develop the Niger Delta areas, canals and road construction have been extensive since 1980. The Nigerian Oil Industry is located mostly in the mangrove forests. The activities of the numerous oil exploration companies have led to fragmentation, deforestation and degradation of the mangrove forest ecosystem. For example Shell Petroleum Development Company alone has shot over 120,000km of seismic lines and created vast degraded bare areas (yet to be estimated) resulting from dredging activities in the mangrove forest. Impacts of other petroleum development companies such as Mobil, Elf, Agip, Chevron on the Nigerian mangroves are yet to be estimated.
Since slots and canal creation do not consider the impact on local communities and ecosystems a lot of environmental degradation and linked socio-economic problems are common. Destruction of fishing grounds and forest die back are just but a few such problems.

Mangrove Silviculture

The Nigerian mangrove is not being managed although it has potentials for numerous industrial uses. Consequently no standard silvicultural systems have been established. However, the “tall” *R. racemosa* has been recognized as the species with dependable potential for several industrial uses. It is good timber, and tannin/rayon source species. The Forestry Department of the Rivers State University of Science and Technology, Port Harcourt, Nigeria, has been investigating nursery and plantation techniques, for *R. racemosa*. With the use of inorganic fertilizer the sprouting time of mature *R. racemosa* propagule has been reduced from 35 to 20 days. The seedling is ready for planting out in three months with six foliage leaves.

A seven year old *R. racemosa* plantation established with nursery-raised seedlings on four (4) hectares of “chikoko” mudflats recorded 88+ 1.5% survival, 5 ± 0.2m mean height, 5.5 ± 0.2cm mean dbh and 6.0m² mean crown cover in vigorous and good form. Studies of the natural regeneration patterns of the mangrove species indicate that natural regeneration is very inadequate and slow inspite of the enormous number of propagules produced per tree. It also shows a lot of population clustering in the order tree ≥ seedling sapling. At maturity natural stand spacing is ≥ 3.6m.

Conservation

The depletion of the Nigerian mangroves is a cause of serious environmental and economic concern. It is clear that serious depletion of the Nigerian mangroves is increasing markedly without sufficient monitoring, concern, or thought.

The biological and ecological importance of this Nigerian estuarine wetlands necessitates their conservation and management especially as society is now looking to the shallow coastal seas and estuaries to augment the supply of protein. The continuing deforestation and degradation of the mangrove resources
will reduce, not only the terrestrial and aquatic production and wildlife habitats but more importantly resource availability to the dependent rural communities which will be seriously impaired.

As a measure to educate and involve the dependent rural communities in mangrove conservation, the Mangrove Forest Conservation Society of Nigeria (MFCSMN) an NGO has acquired a 9 hectare piece of land at Iwokiri in Ogu/Bolo Local government Area of Rivers State of Nigeria for establishment of a Integrated Mangrove Conservation and Research Centre. It is a community-based poverty alleviating project. The objective is to foster mangrove conservation, development, utilization and self-supporting education. It is estimated to cost N361,292,358.37 about $3,631,355.00.

This is the first and most positive step taken in Nigeria towards improving the mangrove-dependent communities by providing utilitarian conservation and sustainable self-supporting education. As a pragmatic, commodity-based and an adaptive integrated research and training institution, financial, technical and positive supports from organizations world wide shall have contributed immensely towards the development of the mangrove-dependent communities in Nigeria. It is a sustainable new dimension.

**Rehabilitation of Degraded Bare Mangrove Soils**

Characteristic of Nigerian petroleum development wellheads, slots and canal construction in the mangrove forests are several hectares of elevated dry, bare (void of any vegetation) and degraded mangrove soils. The Nigerian mangrove soil is an acid sulphate soil with pH 6.2 to 6.6. Containing Iron pyrites (FeS and FeS2). Dredge spoils from petroleum well slots and canals in mangrove forests are dumped extensively around the wellheads, and canals one to two meters far above tidal floods. The continuous exposure of the soils to atmospheric air leads to oxidation of the pyrites and the formation of sulphuric acid (H2SO4) which is abundantly released unto the soil reducing the soil acid level to pH 3. Under the hot tropical condition no plant can survive under pH 3 soil acidity hence the dredge spoils dumps remain bare, void of any vegetation. It is common to see 10 ha of such bare areas in a single location at an average of 3ha per slot. The total area has not been determined for the entire Nigerian mangrove forests.

Foresters in the River State University of Science and Technology, Forestry Department have been able to evolve re-vegetation technique for the bare areas by woody species selection and without external inputs such as fertilizer or lime. These include *Syzygium guineense*, *Dalbergia ecastaphyllum*, *Alchornea cordifolia* and *Chrysobalanus icaco* all indigenous to the area and appear naturally adapted to the acid condition but have to be planted in the rainy season.

This soil therefore supports lowland rainforest species and have potential for agro-forestry after re-vegetation as the nutrient levels are adequate for food crop production. Low pH is the only problem of the area. Rehabilitation of these disturbed mangrove soils will provide further opportunity for food production among the mangrove communities.

**Some Important Wildlife of Nigeria**

The available composition of the mammalian fauna has been documented by some researchers. (Brown, 1967; Howell, 1968; Child, 1974; Pelink, 1974; Milligan, 1979; Omoniwa, 1984 and Abere, 1986). These studies reflect those species which are associated with Sudan-Guinea Savanna woodland and include roan, hartebeest, oribi, hunting dog and Patas monkey. Species associated with perennial water system are waterbuck, kob, redbuck and green monkey. The major species associated with fringing forests is the red-flanked duiker, Hippopotamus and Manatee which occur in pools and rivers. At least 12 orders of mammals have been identified, 55 of birds, 3 of reptiles; 9 spp of amphibians, 14 orders of fish have been documented on the Borgu Sector of the Kainji Lake National Park alone.
Wildlife Conservation

Wildlife development efforts of government have been geared towards, protecting all known animal species in Nigeria from extinction. Other objectives of wildlife programmes include its conservation for sustained production of animal protein and for tourism. Specific projects and activities geared towards improved management of Nigerian wildlife resources include the development of National Parks, establishment and management of wildlife breeding centres; implementation of endangered species Decree No. 11. of 1985; establishment of wildlife rescue centres; and monitoring of wildlife habitat, and population. The financial allocation, N31.8 million by both Federal and State Governments in the last development plan, 1981 – 1985, is expected to be substantially increased in future plans.

In 1985, an endangered species Decree was promulgated in order to give municipal effect to the convention on International Trade (and traffic) in Endangered species of fauna and flora (CITIES). This decree has provisions that seek to stop illegal trade in endangered wildlife and wildlife products.

It has been severally discussed that wildlife in many of the reserves has been decimated almost to extinction. In fact there are few surviving wildlife around areas of high human population density. The tendency to finish what is left of Nigeria’s wildlife by illegal hunters has prompted the government to enhance anti-poaching campaigns and patrol of conservation areas through adequate and timely funding.

Proposals for the creation of more conservation areas of varying status are being considered while two wildlife Rescue Centres are about to take off. These programmes may ultimately be used to enhance insitu conservation through re-introduction of some animal species into their original habitats.

Domestication of wildlife species seems to be the alternative to poaching if the popular ‘bushmeat’ delicacy of Nigerians will be sustained. The emphasis is on people being continuously encouraged to raise some wildlife species at the back yard or some other vantage areas of their living premises. Species that are encouraged are, the guinea fowl, African giant snail, grasscutter, and cane rat.

Problems of Wildlife Development

Perceived Problems

These include lack of knowledge. A state in which both government and the people are either not informed or are inadequately informed of the need to develop the wildlife resources naturally available to them. The wildlife and wildlife resources are often taken for granted – i.e. as nature’s gift to man and so may not need fending or replenishment enhancement. A situation where people go into the bush and kill by trapping or shooting animals without regard to sex or age.

In some cases where due to sheer experience or continued prolonged exposure to relationship with wildlife, - animals and other life - forms of note people have noticed reduction in population or instability in animal incidence and abundance, hunters still do their thing – crop all available individuals to satisfy the “needs” of the people. This is a problem because whereas the need is there for protein supplement, the renewability of the resources is compromised. This really should be opportunity cost reality – to kill out or to source for alternative.

The other or seeming only alternative is that of domestication. Domestication of wildlife species comes with it a whale of problem the greatest of which is probably SOCIAL ACCEPTANCE of the domesticatable species.

Scientists have outlined the domestication process but this is clad with economic problems associated with litter size weight (body) growth rate and protein quality. All these are purely economical, difficult to overcome as they are there poses a rather stiffer problem that of social taboo. Most wild species are either totems or deities in certain parts of the country and indeed the world. Superstition prevails over realities.
Established Problems

These are problems of enforcement of laws, regulation and rules / legislation due mostly to inadequate sanctions and or lack of corporate will. The skin of a python would yield fine handbags, belt and shoes etc. that would fetch about N10,000 (ten thousand Naira) and that python would have lived for 10 – 20 yrs but the law stipulates a fine of N500 for killing a python. The result is that poachers will dare to kill the python and pay the fine if caught than obey the Law. Also just 2 elephant tusks may cost N2m, (two million Naira) but the meat only about N500,000 and the fine to pay on killing an elephant illegally is N300,000 so the poacher again opts to kill the elephant and if caught prepares to pay N300,000 and makes a gain of N2,200,000.

Another problem is that of Government lording it over the community that actually owns the bush as the very community members will be the chief defaulters. They must be told why they must not harvest forest products.

Indirect Development

In the mangrove ecosystem, the coastal ridge barrier forest lands, wildlife development had been more indirect than direct. In fact there has not been any programme planned to develop the wildlife of the mangrove areas, the deltaic systems and the coastal barrier island regimes in Nigeria. Attempts have been made at conservation efforts nationwide and forest protection but the wildlife status has not even been properly documented in the mangrove areas.

However, the wildlife is undergoing steady development due mainly to native laws and customs as most creeks, rivers and streams are communally owned or controlled. There are rules and regulation for use of these natural resources. There are also beliefs and traditional authorities on some if not all the natural resources available to the “waterside people”.

These community members maintain SACRED places, sanctuaries and refugia, connoted differently as EVIL FORESTS, shoreline/river bank, shrines (mermaid houses). The result is that most animals finding peace, tranquility and safety in such places would rather always resort to the places than roam and be killed by poachers who will never venture into such prohibited places. These places now become protected areas as our parks, zoos and ranges.

Effects of Deforestation

When terrestrial land areas (bushes) are exploited for whatever reason(s) such as clearance for agriculture, infrastructural development or mineral prospecting – (seismic activities) etc, the result is deforestation. When this occurs, vegetation covers are removed and the animals feel naked and forced to move. This forced
migration of the various species of wildlife can be both advantageous and disadvantageous to the wildlife. They would be forced to run into predators or inadvertent danger – death or injury by machines or drowning for those that cannot swim. They can if lucky to escape all dangers, find themselves a safe refuge and blossom-increase in population. They may also be exposed to researchers who would not have been able to locate them before the deforestation and so be enlisted for studies. This will also trigger off survivorship instinct in them and make them alive resulting to succession and better adaptation to the new environment they find themselves.

**Forced Coexistence**

Another way wildlife in the mangrove ecosystem have been developed is inevitable exposure to man and other rather unacceptable species. A situation where antelope would be visiting the creeks and rivers to rummage for food. The antelope is a herbivore and does not feed on animals but require the cover of the dense mangrove forest since there has been a clearing of the vegetation up land. The antelope is not amphibious as it cannot live inside water but it evolved to be a good swimmer and can outwit its predators that cannot swim by associating with the mangrove environment. Common species in this system are the reptiles, birds and insects. The only mammals being hippopotami and manatee.

Some natural disaster such as wind throws and thunderstorm have resulted in decimation of the coastline, riverbank ecosystems to the end that an intermediate zone is created between the shoreline and the pure terrestrial land. Most fringing forest species of wildlife result from such actions and even the large mammals are cut up in what is more brackish than saline water body and they thrive there. There too they are protected as many hunters will be searching for them either up land or in the rivers.

Certain reptiles and carnivorous mammals lurk around living accommodation to prey on domestic animals because they cannot cope with the exposure of the disturbed forest for hunting – pythons seizing hens and goats and foxes stealing meat from homes. Some birds of prey hanging out around village settlements for careless domestic fries etc. All these constitute partial domestication of wildlife species as they soon loose their fear for man.
Wildlife development therefore follows closely the forest development efforts since one could hardly talk of wildlife without mentioning vegetation and so with soils.

Conclusion

Mangrove land use does not appear to generate competition in Nigeria. Community struggles are directed toward alternative income-generating employment of direct compensation for damaged, polluted or utilized community life-supporting base, the mangrove forest, by industrial development operators. This is because the deltaic nature of the mangrove forests confers limited and specialized species on the ecosystem.

Nigerian foresters have succeeded in determining woody plant species that can be used to revegetate exposed bare toxic dredge spoil dump sites. There is, however, need for research to determine pragmatic and adaptive integrated land use potentials of the mangrove areas in the face of man-induced decline of the productive potentials of the ecosystem.

The Mangrove Forest Conservation Society of Nigeria has positively proposed an Integrated Mangrove Research and Training Centre (IMRTC) for sustainable mangrove utilitarian conservation skill development among the dependent communities. This needs recognition and various supportive contributions and encouragement.

An exclusive mangrove land use policy has become very necessary to save the remaining forests and ensure mutual development of the communities and the wildlife therein.

Bibliography

Impact of Unregulated Privatization of Education in Nigeria: An Appraisal of the Lead City University- National Universities Commission Dispute

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Abstract The proliferation of private institutions (Nursery, primary, secondary schools and tertiary institutions) throughout the country coupled with frequent closure of schools prompted this research. The findings in this study show that the privatization of education that took place between 1980 and 1990 through the granting of private licenses to individuals was done indiscriminately without proper supervision and monitoring. Further investigations show that the beneficiaries of the privatization exercise are either serving or retired senior public office holders. Thus, making it difficult to ensure compliance (standards). The study also reveal that while monitoring, regulation and control of tertiary institutions in the country is effective through the National Universities Commission (NUC), regulation and control is completely absent at the nursery, primary, and secondary school levels. However, the systems political theory was applied while explaining and analyzing the subject-matter. In terms of methodology and scope, descriptive analysis and secondary sources of data (textbooks, published articles and journals) were relied upon. Nevertheless, cases of unrest and other forms of crisis facing the education sector in Nigeria can be minimized and curtailed if the government (local, state and federal) through its regulatory agencies (ministries, departments, boards and commissions) conducts regular and periodic evaluation and supervision of existing private schools and institutions throughout the country. This will no doubt ensure compliance, prosecution and revocation of existing licenses of schools and institutions that fail to meet approved standards.

Keywords: Private institutions, Privatization, Education, Private licenses, Supervision, Monitoring, Private schools, and Tertiary institutions.

Introduction

The educational system in Nigeria is faced with series of problems ranging from policy inconsistency, unregulated proliferation of private schools, colleges and universities. The teachers too are also poorly paid and motivated that they have no option but to become emergency businessmen and women. It is on record that successive administrations have also played bad politics with various polices that have not really advanced the cause of education in the country. Thus the problems and consequences generated as a result of the federal government’s privatization of education in Nigeria forms the major thrust of this paper.
Methodology and Scope

This aspect of the study provides a description of the sources of data used and the applicable methodology. Most of the data used for this study were culled from published scholarly works (textbooks, published articles and journals) and descriptive analysis. Although the paper is centered on the impact and consequences of the federal government’s education policy (privatization of education) in Nigeria, it was limited to the Lead City University-National Universities Commission (NUC) dispute.

Theoretical Framework

The systems political theory was applied in this study in order to explain the problems facing the educational system in Nigeria. The theory deals with interrelationship and interdependence among individual, groups, institutions and sub-systems or environment. The Nigerian State clearly represents what system scholars describe as input, output, feed back and conversion box which is the regulatory mechanism. According to system scholars, input here refer to actions, contributions and demands while output represents reactions from the political system (government) that gets to the people in form of projects and polices through a process called feedback. The decision of the federal government in the 1980’s to privatize education by granting operational licenses for the establishment of private schools, colleges and universities in the country represents an input of government while the proliferation of schools and institutions coupled with abuse and non-compliance by private operators which has led to frequent closure and industrial unrests in the sector also represent what is regarded as output. Advocates of the systems theory further argue that with good policies and programmes in place through an effective input and output process, conflict and industrial unrest within any political system will be minimized. The theory is relevant in this context because any unchecked conflict in the education sub-sector could spread and constitute a threat to other sectors and the entire political system as a whole. Proponents of this theory include David Easton, John Locke, Almond and Verba.

Summary of the General Objectives of the National Policy on Education.

The federal ministry of education bulletin (2007) listed the following as the general objectives of the national policy on Education.

1. The inculcation of national consciousness and national unity.
2. The inculcation of the right type of values and attitudes for the survival of the individual and the Nigeria nation.
3. The training of the mind in understanding of the world around, and finally
4. The acquisition of appropriate skills, ability and competence (mental and physical) as equipment for the individual to live and contribute to the development of his society, community and the nation as a whole.

The policy further divided Nigeria’s school structure into the following three stages:

a. The primary school stage,
b. The secondary school level, and
c. The higher education stage (Kalama: 2008P.19).

Privatization of Education in Nigeria and Issues Involved

In spite of the philosophy and good objectives of Nigeria’s education policy, access to qualitative education in Nigeria remains a serious national problem. The term privatization refer to the transfer of ownership from the government (public) to private ownership. Thus, privatization of education means allowing private individuals and organizations to own and manage schools, colleges and tertiary institutions in Nigeria. It is on record that
privatization of education in the country promoted healthy competition but lack of proper monitoring, supervision and control led to inadequate funding, industrial unrest and frequent closure of schools throughout the country. However, the crisis between the Lead City University and the National Universities Commission (NUC) which led to the closure of the Lead City University will be appraised in order to explain the impact and consequences of unregulated privatization of education in Nigeria.

An Appraisal of the Lead City University- National Universities Commission Dispute Over Accreditation

In a newspaper report captioned “NUC directive; Lead City Varsity Postpones Examinations, deploys Riot Policemen in Campus” published in The Punch Newspaper of Thursday, 27th January, 2011, the authorities of Lead City University, Ibadan, postponed the 2010/2011 session’s first semester examinations by two weeks. The report shows that the postponement was necessitated by the face-off between the university and the National Universities Commission.

It will be recalled that the National Universities Commission (NUC) had alleged that the university (Lead City) had no accreditation for its law, nursing and post-graduate programmes hence, directed that the Lead City University discontinue the unaccredited programmes without further delay. In addition, the commission warned that it would not hesitate to begin the process of withdrawing the university’s operating license if the school fail to show proof that it had discontinued the programmes within six weeks (January 27th-28th February 2011). This development prompted aggrieved students to go on rampage on the campus, destroying school facilities. On the other hand, the university’s Registrar, Dr. Oyebola Ayeni, in a press release assured the students that the situation was being addressed and that the presidency and the ministry of education stepped into the matter with a view to resolving it amicably in favour of parents and students. According to the registrar, “students are hereby advised to avoid any inciting actions which may lead to breakdown of law and order that may hinder the positive support that we are getting from the presidency and the federal ministry of education.”

Analysis Showing the Impact of Unregulated Privatization of Education In Nigeria

The position and views of eminent Nigerians and scholars were analyzed in order to arrive at a justifiable conclusion. In a newspaper report captioned, “primary, post-primary schools, most neglected- NASU”, published in The Vanguard Newspaper of Thursday, the 8th of October, 2009, Lagos Non-Academic Staff Union of Educational and Related Institutions (NASU), stated in Lagos that despite the importance of primary and post-primary schools as the bedrock of education, both were the most neglected in Nigeria. The union therefore called on the government to do everything possible to resolve the industrial unrest in Nigeria universities lamenting that the fallen standard of education was being worsened by the ongoing strike by the university unions. Lagos State Chairman of NASU, Comrade Steve Agboga, spoke at a meeting of NASU members in schools and colleges trade group council, across the country, at the Yaba College of Technology, noted: “primary and post-primary schools are very important sectors not only to NASU but to the world. It is the bedrock of formative education,” he stated. I am yet to see any of our leaders who did not pass through primary or secondary education, he asked rhetorically. In a related development, General Yakubu Gowon, GCFR, in a lecture titled “Alarming Decline in Education Standard; Reversing it and Moving Forward”, delivered at the 2nd personality lecture of the Afe Babalola University, (ABUAD), Ado Ekiti, Ekiti State, Nigeria, on the 21st of January, 2011 and published in The Nation Newspaper of Thursday, the 3rd of February, 2011, noted that consistently inconsistent educational polices have caused a great deal of confusion in Nigeria’s educational system. While expressing his displeasure he recalled, “at some point, there
was a policy on just primary education, followed by universal basic education (UBE), now I hear talks of an attempt to once more review the policy," he wondered. On tertiary education, he stated that the proliferation of tertiary institutions in the country has reduced the quality of instructors, given the rate at which universities are mushrooming. Specifically, he cautioned that the time has come, therefore, for all approving authorities, especially the National Universities Commission (NUC) to be more circumspect in granting approvals for the establishment of institutions of higher learning. For institutions to qualify for accreditation, it must meet the highest standard of expectations and excellence right from the start. Education is a good platform to launch the rebirth of our dear nation (Nigeria,) he concluded.

The above position clearly show that the federal government’s decision to privatize education in Nigeria led to the neglect of public schools and institutions while lack of supervision, monitoring and control characterized the post-privatization era. The crisis that led to the closure of the Lead City University and several others clearly confirm this fact. The decision to include unaccredited courses like law, nursing and post-graduate programmes in its curricula is also an indication that non-compliance and violation of approved standards by private schools, colleges and tertiary institutions were some of the consequences that characterized the federal government’s post-privatization era (1982-2010).

While blaming the policy inconsistency and industrial unrest in the education sub-sector on the character and attitude of political office holders, Dr. Bola Adekola, Registrar of Fountain University in Osogbo, Osun State, expressed concern that politicians aspiring to be president have not really focused attention on what they will do to improve the quality of education at all levels. In newspaper report captioned “How to Improve Education in 2011,” published in The Nation Newspaper of Thursday, 6th January, 2011, the registrar re-affirmed his position when he said, I expect education to take the front burner in this year’s election as part of issues to be discussed. It is disappointing that those presidential aspirants are not talking about education, he lamented.

Also reacting to the problems confronting the educational system in Nigeria, Prof. Ukachukwu Awuzie, National President of the Academic Staff Union of Universities (ASUU), argued that government needs to play less politics and implement more long-lasting programmes in the sector. He re-affirmed this position when he said “my expectation is that the government should play less politics with education and be more realistic. We should be going into more lasting and holistic rather than adhoc programmes, he advised.

Conclusion

The above analysis clearly show that unregulated privatization of education in Nigeria led to the proliferation of all types of schools, colleges and tertiary institutions throughout the country. Lack of effective supervision and monitoring on the part of the government at all levels also encouraged abuse and non-compliance by private school proprietors. This development as reflected in the Lead City University and National Universities Commission dispute is responsible for the unrest and several other crises confronting the educational system in Nigeria. Since education, especially primary and post-primary education is the bedrock of formative education. Conscious efforts should be made by the government and stake holders in the sector to ensure that there is stability, peace and industrial harmony in the education sub-sector in Nigeria.

Recommendations

The following recommendations will no doubt help to improve the quality of education and learning in Nigeria.

1. Since the problems facing education in Nigeria can not be effectively addressed without revisiting the foundation which is primary and post primary education, there is urgent need to improve the quality and welfare of teachers and lecturers through regular wage reviews, training–retraining and
award of scholarships and research grants to teachers and lecturers who wish to develop themselves academically.

2. In line with the position expressed by General Yakubu Gowon as sighted earlier in this paper, the National Universities Commission (NUC) and other regulatory agencies should be more circumspect in granting approvals for the establishment of institutions of higher learning in the country. For any institution to qualify for accreditation, it must meet the highest standard of expectation and excellence right from the start.

3. With reference to the views expressed by Prof. Ukachukwu Awuzie, National President of the Academic Staff Union of Universities (ASUU) as sighted earlier in this paper; the government should play less politics in the appointment of people that manage educational institutions and agencies in the country. They should put round pegs in round holes to avoid policy inconsistency and somersaults.

4. The federal government should ensure adequate funding and infrastructural development in existing public schools and tertiary institutions in order to maintain standards and also enhance the quality of learning and teaching.

5. In order to check the high rate of failure and poor performance of students in subjects like English language, Mathematics and Science related subjects, there is need for the introduction of instructional technology through the training of some Nigerians who will then return home and impart the knowledge to others.

6. State and federal ministries of education should ensure periodic appraisal and evaluation of existing public and private schools and institutions in order to enforce compliance. Such appraisals through the setting up of visitation panels and commissions will enable the authorities to revoke licenses of erring schools/institutions and also determine the nature of assistance required.

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