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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editorial</td>
<td>9</td>
</tr>
<tr>
<td>Jacinta A. Opara</td>
<td></td>
</tr>
<tr>
<td>Overcoming the Gender Gap in Math, Science and Technology: A 21st Century View</td>
<td>11</td>
</tr>
<tr>
<td>Hanna David</td>
<td></td>
</tr>
<tr>
<td>Constraints in Teacher Education and Effects on Teaching and Learning of Home Economics in Primary Schools</td>
<td>25</td>
</tr>
<tr>
<td>Matilda James Igbeni</td>
<td></td>
</tr>
<tr>
<td>Developing Teaching Manpower Through Emerging Myths and Realities in Nigeria Institutions.</td>
<td>31</td>
</tr>
<tr>
<td>Ashimole Agnes Uchechi</td>
<td></td>
</tr>
<tr>
<td>Exploring Literary Perspectives on Environmental Education for Sustainable Development</td>
<td>39</td>
</tr>
<tr>
<td>Jacobson Emmanuel Kwakfwaan and Na’omi James Gwang</td>
<td></td>
</tr>
<tr>
<td>Standardizing the Motivational Competencies of Academically Qualified Teachers and Professional Teachers in Nigerian Secondary Schools</td>
<td>49</td>
</tr>
<tr>
<td>Ahiauzu, Levi Uche and Princewill C. Osiah</td>
<td></td>
</tr>
<tr>
<td>Role of Non-Formal Education (NFE) Under Universal Basic Education UBE Law in Nigeria</td>
<td>61</td>
</tr>
<tr>
<td>M. U. Ojuah and Arikpo B. Arikpo</td>
<td></td>
</tr>
<tr>
<td>Role of Technical Scientific Research Education in Sustainable Development and Conservation in Sudan</td>
<td>71</td>
</tr>
<tr>
<td>Abdeen Mustafa Omer</td>
<td></td>
</tr>
<tr>
<td>The Nigerian Learner: Past, Present and Future</td>
<td>91</td>
</tr>
<tr>
<td>Lyss H. Obomanu</td>
<td></td>
</tr>
<tr>
<td>Administrative Competency Needs of Principals for Effective UBE Administration at JSS Level in North West Geo – Political Zone of Nigeria</td>
<td>95</td>
</tr>
<tr>
<td>Adegbemile, Oluwadare; Abdullahi, Ayobami B; Azike, Alphonsus A; and Nzurumike, Ngozi</td>
<td></td>
</tr>
<tr>
<td>The Ideal Teacher and the Motivated Student in a Changing Environment</td>
<td>107</td>
</tr>
<tr>
<td>Cecilia. O. Okoro; and Eke Kingdom Chukwudi</td>
<td></td>
</tr>
</tbody>
</table>
Exploring Emerging Myths and Realities in Citizenship Education in Nigeria: Towards Overcoming the Dilemmas of Nation-Building
C. C. Okam; and Danladi Sa’adu Ibrahim

E-Health in Biomedical for Sustainable Development-Its Role and Challenges in Bayelsa State, Nigeria
Oluwayemisi Agnes Olorode and Olawolu Elizabeth Oladunni

Role of Culture Between Influencing Factors and Student Electronic Learning Satisfaction
Mahwish Waheed

Difficult Sounds in Ibibio 2 ½ to 4 ½ Years Old Monolingual Children: Pedagogical and Clinical Implications
Ekaete Evangel Akpan

Leadership Style and Business Educators’ Job Performance in Senior Secondary Schools in a Changing Environment
Ozuruoke, A. A, Ordu, Pac; and Abdulkarim, Musa
Editorial

The original papers that appeared in this special issue were presented at the International Conference on Teaching and Learning (ICTL 2011) held in September 5-8, 2011 at Omoku-Nigeria. The Conference was organised by the African Chapters of the International Association for Teaching and Learning and the International Society for the Scientific Research in collaboration with other partners.

The concise essays in this Special Volume of JESR offer unusually insights and demonstrate the value, utility of methods, conception and perspectives. As a whole, the essays illustrate a range of theoretical, analytical and descriptive approaches by scholars and professionals to understand human as well as social sciences. Given the structure and paradigm of development maladies in society, it is fundamental that the circumstances facing education and associated policy constructs be given priority in development agenda.

The editorial team of the Journal of Educational and Social Research deserves appreciation. Special thanks go to Professor Antonello Biagini, Professor Francesco Randazzo, Professor Dorina Orzac, Professor Daniel Pommier Vincelli, Professor Giovanna Motta, Professor Roberto Scierrone and Professor Dario Testi. Dr Francesco Randazzo steered us through the intricacies of the publication. Your services were exciting, encouraging, challenging, energizing and motivating.

This publication justifies a state of art in promoting education in the context of north-south collaboration. The conference was made possible by the generous support from many institutions, the invited speakers, editors, reviewers and delegates. The International Scientific Committee (ISC) and the Local Organising Committee (Adhoc-LOC) deserve special commendation for their services which ensured this success of the entire project. This gesture is highly appreciated. Keep it up!

Dr. Jacinta A. Opara

Visiting Associate Professor , Universidad Azteca, Mexico and
President, African Association for Teaching and Learning
Overcoming the Gender Gap in Math, Science and Technology: A 21st Century View *

Hanna David

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Distinguished Ladies and Gentlemen

Any country wishing to be an integral part of the 21st century financial, academic, and social community needs to reach full participation of women in science and technology at all learning stages and all advanced positions. When this is not the situation, 50% of the work force is not fully contributing to the modern world, which is in a constant need for more highly qualified professionals. Participation of young girls in math and science classes, as well as in computer competence, has already been improved in many countries that started studying the problem of under-presentation of females in so-called "masculine" areas. In many more countries young females excel in math, science and technology in high school and college (e.g. the United Kingdom, The United States, Israel). Other countries invest a lot of effort in order to reach equity in achievements of girls and boys (e.g. the Scandinavian countries), but in spite of their affirmative action regarding many aspects of public life, and their laws helping to reach gender equity in the private arena, gender gaps in educational achievements still exist. On the other hand, in the ex-USSR new republics there has been a long tradition of full participation of women in all professions, and without any special intervention areas such as medicine and engineering have been equally divided between males and females for many decades. In this lecture I am to present the situation regarding gender inequity in math, science and technology at all educational and professional levels and to suggest effective ways to close existing gender gaps in school, university and "real life".

Introduction

Nigeria has proceeded far beyond the "raising of awareness of gender equity" stage in many life aspects. In the last 20 years literacy has increased in Nigeria substantially in general and among women in particular (Eze, 2010; Jaulmes, 2007). Here is the list of the main institutions that have contributed to dealing with the gender issue both in education and employment in Nigeria:

I. Committee on the Elimination of Discrimination against Women (2004a, 2004b, 2007);
III. Nigerian Association of University Women (2009). A group of graduate women interested in improving the mental, social, and physical lives of women and girls in Nigeria. Its main activity: empowering women to excel in life;

* Being a keynote speech delivered at the 1st International Conference on Teaching, Learning and Change organised by International Society for Scientific Research (ISSR) and International Association for Teaching and Learning (AATL) held at Federal College of Education (Technical) Omoku, Rivers State, Nigeria. September 5-8, 2011
IV. The Center for Development and population activities (2011);

In addition, education and employment of women in Nigeria, as well as the women’s situation, are discussed in many newspapers on a regular basis. For example: Eze’s (2010) article or the Afrique en lingue article (Education-Nigeria: Ensuring education for girls, women, 2011). More extensive, scientifically-based reports have been published in journal articles about this issue. For example: Ukpore (2009) wrote about "Sustainable development in Nigeria: Roles of women and strategies for their improvement", and Ojobo (2008) wrote about "Education: A catalyst for women empowerment". Let us cite Ojobo’s abstract, as it both summarizes the problem of gender gaps in education in Nigeria and offers a way to solve it:

The article examines the place of education as a catalyst for women empowerment in Nigeria. The paper, using primary and secondary sources of data, has shown that in spite of all the laudable goals and objectives of education, Nigerian women still suffer a lot of constraints and inhibitions which militate against their personal and national development. The paper therefore recommends, among others, the involvement of women in educational policy formulation, extensive enlightenment campaigns, the discarding of stereotypical division of work into men’s and women’s job, and women must organize themselves to meet the challenges of a positive and meaningful role in the struggle for personal and national emancipation, development and progress (ibid, p. 75).

Personal Versus National Need for High Quality Professionals in Science, Engineering and Technology

A modern country needs as many students as possible specializing in math, science, and technology in order to compete with the world economics, supply work places for the less educated or contribute to the national economics by attracting foreign investments and increasing exported goods. This is one of the main reasons for encouraging more women to be a part of the high-level professional work-force (Eidelman, 2006). This obviously contributes to national strength; there is high positive correlation between participation of females in the work force and the wealth of the country. Nigeria scores no. 32 in the world in its Purchasing Power Parity (The World Factbook 2010), which means it has a potential of becoming a rich country with a much higher life quality for all its citizens when more women take part in developing its economics and turning its natural treasures into financial advantages. At the same time, education and high prestige positions also contribute to the well-being of females as individuals and as a group.

Women have proved themselves to be able to "make it" in all influential areas, even at the highest possible levels, such as politics, business or science. It can thus be concluded that we are far beyond the stage of proving that "it is possible". The aim of each county must now be increase dramatically the percentage of these women, a target that is to be achieved only by intensive intervention for the benefit of large sub-populations of women who have not yet reached the point where they advance relying only on their merit; they still need some external help. Let us describe some potential ways of helping the less privileged women.

One such group is underprivileged university students. This is the majority of the female population, who neither take part in the educational opportunities offered nor participate in the upper level of the work market, namely, in occupations that are neither manual nor clerical, and have but very limited progress opportunities; women from the economic, ethnic, and geographical periphery.

One such intervention that has already proven to be of great help for underprivileged talented, ambitious and diligent women is a mentoring program tailored especially for them.
Mentoring Programs: Background and Review

At the turn of the 21st century a substantial reform has occurred in the structure of higher education: learning in academic institutions has become more accessible to larger sub-populations, as more academic and communal colleges have opened their gates to students from underprivileged backgrounds. Girls living in the periphery, minority girls, girls from immigrant families, as well as girls from traditional families have mostly benefited from this "educational revolution".

However, for many high ability female college students the opportunity to get a higher degree does not reflect their true potential. In many cases the teaching staff in the college is still young and inexperienced in nurturing gifted, talented students, or consists of retired university professors who teach part-time and dedicate most of their resources to research. In addition, many of these excellent students, coming from a traditional background, are not used to attracting special attention and care, especially from male instructors.

For such a student the mentoring option, especially by a female mentor, might be of great help both as a part of the teaching and learning process and for helping design the student's professional future.

Mentoring of each of the sub-groups of talented students has the potential to make a change, the result of which is extending the educational as well as the career limits of underprivileged female students.

Mentoring programs have been developed in many EU member countries during the 90s in the academia as well as in the industry. The European Commission has sponsored a "Mentoring for Women in Europe" program, and there are already positive results in three European countries – Germany, Finland, and Sweden. The percentage of women leadership positions in these countries has increased since the funding of this project. The "Mellow – Life Long Mentoring Of Women in and/or towards technical jobs", which is also sponsored by the European Community, is a part of the "Leonardo-da-Vinci" program in the Netherlands, England, Ireland, and Germany. In addition, there are training programs in the fields of engineering, which take place in Greece, Spain and Finland. For schoolgirls summer camps have been offered, and for female university students – special summer university courses.

Engineering associations, industrial companies, universities, the government and other organizations have been giving constant support to the British project: “Women into science and engineering [WISE]” (WISE, 2010). The WISE Annual Awards are given in recognition of companies and individuals who have actively addressed the issue of promoting Science, Engineering and Construction to girls and young women. Among the WISE awards are: The WISE Excellence Award; WISE Partnership Award; WISE Outreach Award, and WISE Special Judges Award. Trish Goodchild, the winner of the 2010 WISE Outreach Award, said that "The Outreach Award in particular is given to a University who has implemented and is determined to sustain a set of successful outreach strategies to support and encourage more female students into STEM subjects". However, the success of this program has also to do with the fact that the effort to reach females who are to be a part of this British program starts already in primary school (ibid). Indeed, it is much easier to succeed when starting early, but it is never too late to start.

Coaching and mentoring women has been carried out in Switzerland both by Swiss universities and by The Swiss Association for Women Engineers [SVIN] (SVIN, 2010). Here is the organization's credo:

The Swiss Association of Women Engineers (SVIN) is a not-for-profit, professional organization for individuals with an interest in engineering. The members of our national organization are engineers from various branches and allied fields, corporations and persons interested in supporting the aims of SVIN. SVIN is dedicated to the advancement of women in engineering fields, business, education and industry and strives to motivate young women to pursue a career in engineering.

In addition to the activities aimed at older females, the Swiss Association of Women Engineers has initiated the "KIDSInfo" setup for children, focusing on young girls (KIDSInfo, 2010). Its latest activity has been the 2nd festival for children “Hérisson sous gazon”, on June 19, 2010, at Charrat, Valais. Girls participating in the festival had an opportunity to experience "everyday electricity", such as building electrical circles, understanding how everyday tools work, and most importantly – breaking the male stereotype of
dealing with machines and instruments and fixing them when necessary. Mentoring programs have been taking place in industrial institutions throughout Europe. For example: Telekom has established a mentoring program of its own. Activities like “A girls’ technology day” have been organized in many industrial research centers in England, Germany, Austria, Finland, and Sweden.

How Can a Mentoring Program Help?

Mentoring as means of under-represented populations to gain participation in the main-stream education system and reach higher levels of employment has been known for many decades. A mentor for underprivileged female college students has many tasks, educational, psychological, and social. Here are the main ones.

I. Identifying the high abilities of the mentees at the earliest possible educational stage and making plans for their fulfillment. Let us start with an example. If the mentor discovers that her mentee has a special gift for languages, she should encourage her to develop this gift in order to acquire proficiency in a few languages before getting the degree. This will enable the student to continue her studies in one of the linguistics departments, in an MA translators track or in a literature department where her language knowledge will be considered an asset. It will also give her more possibilities in the market place, allowing her to choose to become a literary, technical or legal translator, or perhaps to prefer simultaneous translation. In any case – being proficient in a few languages will increase both her opportunities and her potential salary.

II. Raising the awareness of the students of their real educational and professional situation. Many underprivileged young women do not even know that there are huge differences between university and college education, that an academic degree does not necessarily mean getting a job where education will be taken into consideration that most first degrees are not professional degrees and that different higher education institutions are valued differently with regard to their quality. The first task of the mentor working with a BA college student or with a female university student whose expectations do not go far beyond getting a degree in a non-scientific subject should be helping her to know these simple facts. The mentor should be very clear in explaining that a first degree from a second rate college is usually sufficient just for clerical, administrative jobs, while a good university could serve as an “open ticket” for a better education and a wealthier future.

III. Being role-models for the students. Role-models must not necessarily be of the same gender, ethnic group or religion, but it is preferred that they be similar in as many components as possible to their mentees. For example: a female older woman from a traditional background who is a wife and a mother, in addition to being a successful academic, can be a living example to a young woman from a traditional family, where the main task of women is perceived as raising a family.

IV. When possible, meeting the student's family member who might hinder her aspirations in order to "soften" their objection gradually. It is highly recommended, especially for students from a rural background, that the female mentor visit the mentee's parents. In that case the resistance to leaving home, acquiring a high-prestige family, or the delaying of marriage, which usually accompany higher education, might lessen, making the student's life easier.

A Practical Issue: Cost and Benefits of a Mentoring Program

In many existing mentoring programs, aimed to raise the participation of girls and young women in math, science and technology, the mentors have volunteered to their task without any payment (CyberMentor, 2009; MentorING, 2008; Mentoring an der TUM, n.d.; Schneiderdorfer et al., 2003). In all these programs the mentees contribute to the mentors as they are all good students willing to participate in science and engineering studies at the earliest possible stage. Thus the cost of the mentoring program will be minimal. A
young diligent female student who is happy to get all the advantages an older professional can give will be eager to help the mentor in any possible way. The mentor, on the other hand, will be obligated both to the high education institution where she works and to the future advancement of good students in the various fields of knowledge.

Summary

A mentoring program is just one idea for helping young underprivileged high ability women to reach the full extent of their potential. As many other mentoring programs have been successful both abroad and in Israel, it is time for that special effort to be invested in a large population that has been underprivileged in spite of their proven abilities and high motivation. The program is based on the good will and willingness to invest in the next generation of young women who are both intelligent and diligent, and as such can be enriching not only to the mentees but to their mentors as well.

Gender and Education

The State of the Art in Math and Science

Participation of women in high prestige occupations, especially in the areas of technology and “hard” science, has been low in spite of efforts made by many concerned countries. The under-representation of women has focused in the areas of mathematics, technology, physics and engineering (Amancio, 2005; Braithwaite & Tacitus, 2001; Frauen in der Informations Gesellschaft, 2000). The main obstacle to learning high level science and technology has been a lack of mathematics knowledge (e.g. Hassi et. al, 2010).

Gender Differences in Participation and Achievements in Math, Computers and Technology, and Science

Math and science are the keys to technology. Therefore it is crucial to bridge existing gender gaps in these two areas in order to maintain access to underrepresented groups to technology-related occupations.

Gender Differences in International Examinations in Grades 4 and 8 Math and Science

Findings from international examinations.

In Mathematics

In 2007 36 countries participated in The Trends in International Mathematics and Science Study (TIMSS) at grade 4, and 48 participated at grade 8. Among 4th grade students, significant gender differences favoring boys were found in 12 countries; gender differences favoring girls were found in 8 (Mullis et al., 2008, Exhibit 1.5). In grade 8 significant gender differences favoring boys were found in 8 countries, favoring girls – among 16 (ibid, Exhibit 1.5).

More careful analysis of TIMSS 2007 reveals that in regard to the actual results, gender differences have been reduced in the last two decades substantially, and in many countries their direction has turned over and girls score significantly higher than boys. However, if we look at the "Self confidence in learning mathematics" result (ibid, Exhibit 4.11) we shall see that among high self confidence math students, substantial gender differences favoring boys have been discovered in most countries participating in the TIMSS 2007. Only in 4 countries, Kazakhstan, Kuwait, Qatar and Tunisia, more girls than boys belonged to this category, while in 22 countries, including countries where the actual achievements of girls were higher than those of boys, boys
scored higher regarding self-confidence in math learning.

A similar picture has been revealed among 8 grade math students: only in Bahrain, Cyprus, Qatar and Saudi Arabia girls were the majority among "high self-confidence in math learning" students, while in no less than 26 countries there was a significant difference favoring boys in "high self-confidence in math learning" (ibid, ibid). This could have been understood had boys scored higher in math in these countries, but that was not the case. Of the 26 countries with boys having a majority among high self-confidence students in math learning, in most cases there was no actual reason for this high self-confidence, as only in 8 countries boys scored better than girls (ibid, Exhibit 1.5).

We can conclude that girls' self-confidence in math learning must be improved even when they actually do very well in school. It has been proved that belief in one's own math ability is the single component influencing more than any other the actual achievements among junior high school students (David, 2009). Thus girls who do not believe in their math ability have worse prospects to go on learning it than those who believe in their ability to improve and develop in this area.

In Science

Of the 36 countries participating in the science part of the TIMSS 2007 at grade 4, significant gender differences favoring boys were found in 8 countries; gender differences favoring girls were found in 6 (Martin et al., 2008, Exhibit 1.5).

It is of special importance to note that the advantage of boys in math, even at an early stage – grade 4, is highly correlated with advantage in science. Of the 8 countries, where significant gender differences favoring boys were found among grade 4 science students, 7 were also in the 12-country list with significant gender differences in mathematics. The eighth, El-Salvador, which had also significant gender differences favoring boys in science, had also quite large gender differences in math among grade 4 students (9 points), though this difference was non-significant (Mullis et al., 2008, Exhibit 5.1; Martin et al., 2008, Exhibit 1.5).

Of the 6 countries where girls scored higher than boys in science in grade 4, 4 – Armenia, Qatar, Tunisia and Kuwait – also had gender differences favoring girls among 4th graders in mathematics (ibid).

In grade 8 significant gender differences favoring boys were found in 8 countries, those favoring girls – in 16 (Martin et al., Exhibit 1.5).

Conclusion

1. Islamic Countries Have Higher Gender Differences Favoring Females in Math and Science. in Actual Achievements

**Grade 4 science:** Of the 6 countries, where gender differences favoring girls were found, 4 were Muslim: Algeria, Qatar, Tunisia and Kuwait; 2 are mainly Christian, with other influencing religions: Georgia with about 10% of Muslims, and Armenia with a variety of minorities, including Kurds who practice Sunni Islam (ibid);

**Grade 4 math:** gender differences favoring girls were found in 8 countries, 5 of which were Muslim: Tunisia, Kuwait, Qatar and Yemen (Mullis et al., Exhibit 1.5).

**Grade 8 science:** gender differences favoring girls were found in 16 countries, 8 of which were Muslim: Egypt, Jordan, The Palestinian Authority, Saudi Arabia, Kuwait, Oman, Bahrain, and Qatar (Martin et al., Exhibit 1.5).

**Grade 8 math:** gender differences favoring girls were found in 16 countries, 7 of which were Muslim: Jordan, Kuwait, Saudi Arabia, Bahrain, The Palestinian Authority, Qatar and Oman (Mullis et al., Exhibit 1.5).

In self-confidence

**Grade 4 math**
Among high self-confidence grade 4 students, significant gender differences favoring girls were found in the
TIMSS 2007 only in 4 countries – all Muslim: Kazakhstan, Kuwait, Qatar and Tunisia (Mullis et al., 2008, Exhibit 4.11).

**Grade 8 math:** significant gender differences favoring girls regarding high self-confidence in math were found in 4 countries, 3 of which were Muslim: Bahrain, Qatar and Saudi Arabia (ibid).

**Grade 4 science:** Among high self-confidence grade 4 students, significant gender differences favoring girls were found in the TIMSS 2007 in 10 countries – 5 of which were Muslim: Algeria, Kazakhstan, Kuwait, Qatar and Tunisia (Martin et al., Exhibit 4.11).

**Grade 8 science:** Among high self-confidence grade 8 students, significant gender differences favoring girls were found in the TIMSS 2007 only in 4 countries – all Muslim: Bahrain, Kuwait, Qatar and Turkey (ibid)

### 2. Gender Differences Favoring Boys are not Necessarily Larger in Countries Where Achievements are Higher

There has been found no correlation between gaps in achievements and the achievements themselves. Let us see some of the findings.

**Grade 4 mathematics:**
Of the 8 countries with gender differences favoring girls in grade 4, four had scored much higher than the international mean (Singapore Russian Federation, Kazakhstan and Armenia); the other 4 – all Arab countries – scored under it (Mullis et al., 2008, Exhibit 1.5).

**Grade 8 mathematics:**
- The country which scored the highest in the world in the TIMSS 2007 – Singapore – had a significant gender difference of 15 points favoring girls.
- Of the 16 countries with significant gender differences favoring girls, 5 scored above the international mean and one, Thailand, scored exactly at the international mean – 453 (ibid). On the other hand, of the 8 countries with significant gender differences favoring grade 8 boys only one – Australia – had achievements higher than the international mean. It can thus conclude that in most cases increasing the level of girls has a contribution to the country's mean, and in well-educated countries an increase in girls' achievements is accompanied by an increase in boys' achievements.

**Grade 4 science:**
Of the 6 countries with gender differences favoring girls in grade 4 one – Armenia – had scored well above the international mean (Martin et al., 2008, Exhibit 1.5).

**Grade 8 science:**
Of the 14 countries with gender differences favoring girls in grade 8 two had scored well above the international mean and who more just a little under it (ibid). It seems, thus, that while the correlation between gender differences favoring girls and the actual scores is negligible in math, it is a little higher in science.

### 3. Something is Rotten in Denmark: Being "Western" Does not Necessarily Mean Having Small Gender Differences in Educational Achievements

The TIMSS 2007 show that only non-Western countries had overcome the gender gap favoring boys in grade 4 and 8, both in math and in science. Let us examine the results in detail.

**Grade 4 mathematics**
Of the 8 countries where gender differences favoring girls have been found among 4 grade students there was not even one western country: of the 6 Muslim countries 4 were Arab (Tunisia, Yemen, Qatar and Kuwait); the other two were both ex-USSR countries (Kazakhstan and Armenia), Kazakhstan is also Muslim. The remaining two countries were Singapore and the Russian Federation (Mullis et al., 2008, Exhibit 1.5).

**Grade 8 mathematics:**
Of the 16 countries where significant gender differences were found, there was not even one Western
country (ibid).

**Grade 4 science:**
Of the 6 countries where significant gender differences were found, there was not even one Western country (Martin et al., Exhibit 1.5).

**Grade 8 science:**
Of the 14 countries where significant gender differences were found, there was not even one Western country (ibid).

4. Do Gender Differences Increase with Age? Will Gender Differences in Achievements, Favoring Boys, in Grade 4 Predict Similar or Even Larger Differences in Grade 8?

In 2007, gender differences favoring boys were found in 12 countries among 4 grade students in mathematics, but only in 8 countries among 8 grade students (Mullis et al., exhibit 1.5). A somewhat different picture was found in the science part of the TIMSS 2007: in 8 countries gender differences favoring boys were found among 4 grade students; in grade 8 the number increased to 11 (Martin et al., 2008, Exhibit 1.5).

It is of special importance to note, that most countries where gender differences favoring boys existed in grade 4 did not prove to be able to close them in grade 8 (ibid). Furthermore, in most cases these gender differences became larger in grade 8 (ibid).

Summary

*Unlike what we have all been taught to believe, high achievements do not necessarily result in widening gender differences in math and science achievements. In many more cases increased achievements have been shown in countries where gender differences have been decreased.

* Trying to decode the mystery of the reasons for gender differences in achievements by finding common characteristics of countries where gender differences favor girls requires is far beyond the scope of this work, if at all possible.

* As most studies about gender differences in general and educational gender differences in particular are conducted and published in the US, it is possible – maybe even likely – that these studies do not reflect the situation in other countries.

* In spite of the fact that there is no simple correlation between gender differences in math and science at grade 4 and those at grade 8, the connection between them should not be ignored. From an educational point of view it means that preventing gender differences or closing them when they already appear at the earliest possible age helps to avoid such differences at a later stage.

The Main Objective: Improving the Education and Employment of Women in IT Society

A straight line can be drawn along the path from early education to future occupation in the areas of science and technology. When we look at the global picture, the data is far from being satisfactory. Let us look first at the European situation. Europe can be divided according to participation of women in technology and science, both in industry and in the academia, into three main groups: 1. The German-Flemish Group, which includes Germany, Austria, Switzerland, Belgium, The Netherlands, and to some extent Denmark. This group scored the worst regarding female achievements in high school in science and technology, female participation in "typically male" academic areas and female participation in high prestige careers in these fields. 2. The Southern countries – Greece, Turkey, Portugal, Spain, and to some extent Italy. They have scored the best in all abovementioned educational and occupational stages. 3. France and Scandinavia – except for Denmark (to some extent except for Norway as well) – they have average scores regarding female education and occupation level. England, Scotland, and Ireland belong to this group as well – they are characterized by
mixed results, namely high level of gender differences in some areas, low level of such differences in others, and average gender differences in the remaining fields. Let us see what happens in these three groups at all educational levels, with some examples of particular countries within each educational and occupational level.

There is an accepted assumption, which we have already shown to be true when discussing gender differences in math and science at age 10, that until the age of 12 girls do at least as well as boys in all subjects, including mathematics and science. According to this assumption, at age 12, because of social-cultural pressures, girls, particularly the more talented, start to underachieve in mathematics (e.g. Arnot, et al., 1998; Bailey, et al., 1997; Boaler, 1997; Campbell, & Sanders, 1997; Lundenberg, 1997; Wilgosh, 1998; Zorman & David, 2000). As a result, the percentage of girls studying enough mathematics to enable their further education in prestigious professions is smaller than that of boys. Let us see what has already been done to improve this situation at the various stages of education.

School Programs

Because of the necessity to encourage girls – at the youngest possible age – to participate in extra-curricular math and science activities, a number of programs have been developed in Europe for primary and junior high school girls. Let us survey them briefly.

Teaching single-sex classes. The National Association for Single Sex Public education (NASSPE) has recently reported that

In March 2002, when NASSPE was founded, only about a dozen public schools offered single-gender classrooms. As of January 2011, there are at least 524 public schools in the United States offering single-sex educational opportunities. Most of those schools are COED schools which offer single-sex CLASSROOMS, but which retain at least some coed activities (NASSPE, 2011).

The program was developed in the US for primary and junior high school girls. Its aims: to raise the level of self-esteem among girls; to raise the assertiveness level of girls; to improve cooperative work among boys.

Gender-Responsive Pedagogy (GRP)

The Forum for African Women Educators – FAWE – developed the Gender-Responsive Pedagogy (GRP) model to address the quality of teaching in African schools. The model trains teachers to be more gender-aware and equips them with the skills to understand and address the specific learning needs of both sexes. It develops teaching practices that propagate equal treatment and participation of girls and boys in the classroom and in the wider school community.

The credo and main objectives of the program are as follows:

The GRP model trains teachers in the design and use of gender-responsive:

- Teaching and learning materials.
- Lesson plans.
- Language in the classroom.
- Classroom interaction.
- Classroom set-up.
- Strategies to eliminate sexual harassment.
- Management of sexual maturation.
- School management systems.
- Monitoring and evaluation.

Gender-Responsive Pedagogy was initiated in 2005 and has been introduced in Burkina Faso, Chad, Ethiopia, The Gambia, Guinea, Kenya, Malawi, Namibia, Rwanda, Senegal, Tanzania, Uganda and Zambia.
Impact of FAWE’s GRP Model

- Improvement in girls’ retention and performance.
- Greater participation of girls’ in the classroom.
- Improved gender relations within schools.

Over 6,600 teachers have benefited from FAWE’s GRP training since 2005 (Gender-Responsive Pedagogy, 2005).

A whole school policy approach to gender reform, Different aspects of the program were developed in England (Acker, 1988; Arnot et al., 1998; Ruddock, 1994) and in Norway (Imsen, 1996; Undheim et al., 1995). Its main objectives are establishing a school policy that focuses on equity at all functioning levels. Wilson (2003) had presented her program for overcoming the shortage of women in computer science. Her program consists of two main parts: 1. Improve the recruitment for potential computer scientists 2. Encourage college students to take computer studies as a major. According to her, the first part is the more important one; when it is not done on time it is usually too late to correct it later. It includes:

- Programs concentrated on working with girls in elementary and middle schools to teach computer skills and thus to bolster confidence in computer competence,
- Programs directed toward role modeling and mentoring for middle and high school girls showing successful women in the field of computers.
- Summer programs directed at reducing the male “stereotyping” of computer problem-solving activities by involving girls in an “all-girl” computer camp.

Some of the efforts purported to reduce the attrition of women in college computer courses are:

- Formation of peer support groups among the women studying computer science, with “upper-classwomen” mentoring “under-classwomen”,
- Use of cooperative learning techniques rather than the competitive/individualistic approach to writing computer programs,
- Offering supplemental class sessions for those with lesser computer experience,
- Making connections with other disciplines to have more practicality in computing assignments.

A program for attributional retraining to improve the performance of talented girls in math, physics, and chemistry (Heller, 1998, Ziegler, Dresel, & Schober 2000) was developed in Germany. The "Assessing women in engineering" organization (2005, n.d.) has dealt with most of the important issues regarding encouragement of girls, adolescent females and young women to study math, engineering and technological issues. The organization supplies written materials on the following topics:

1. Attribution Theory
2. Career Development Theory for Women in Engineering
3. Cooperative Learning
4. Family Influence on Engineering Students
5. Gender Differences in Math Performance
6. Gender Differences in Science Achievement
7. Mentoring and Women in Engineering
8. Psychological Sense of Community for Women in Engineering
9. Self-Efficacy and Women in Engineering
10. Psychological Sense of Community for Women in Engineering
11. Self-Efficacy and Women in Engineering
12. Visual Spatial Skills

Ort to the 21st century (Rom, 1996) was developed in Israel. Its aims: to educate more girls and boys towards a degree in engineering, and to advance girls in hi-tech. The program functions successfully up to now; the percentage of girls participating in math and science in Ort schools is not smaller than that of boys (Loten,
Computers: A Necessity to the IT World
Starting as Early as Possible

Improving the employment situation of women in the IT society is one of the main objectives of each developing as well as developed society. Therefore, let us first look at the already existing European programs aimed at supporting and encouraging young girls and professional women at the various stages of their schooling and career. These programs are to serve as models to be fully or partially adopted.

A popular way to enhance maximal exposure of all students – with a special focus on girls – to educational and recreational web-sites, is to be up-to-date and to supply the information about available web-sites to the students. For example – a short list of those that might be interesting for girls: There is evidence that while being exposed to the Internet decreases reading ability among boys, that is not the case among girls (DeBelle & Chapman, 2006; Vigdor & Ladd, 2010). Girls benefit from computer games as much as boys do, while preparing themselves to have better future occupations, to serve in higher level positions, and to improve their financial situation. In countries where computers are comparatively expensive, and schools do not offer free use of them, here is some advice that might increase participation of girls in computer use.

Support girls who want to indulge in computer games by ensuring they get equal time to that of the boys. That can be done by allotting half of the available computers to girls (Furger, 1998), by forming – when students need to work with a partner – only girls' or boys' pairs, so that the boys wouldn’t take control of the computer while letting the girls watch them, and by encouraging girls to deal with the more technical parts of the work with the computer, e.g. installing new programs, preparing floppy disks for the entire group, and especially learning new programming languages.

In addition to these means, all teachers, headmasters and counselors should participate in special gender-equity in-service training, as the positive attitude of the school’s staff towards science education at the primary education stage is crucial for the success of such a program.

Summary

The way to gender equity in math, science, computers and technology, at all educational and occupational levels, is still long. Only when a country adopts a national program aimed to decrease the gap, only when all girls, adolescent females, young women and older women have access to the program most suitable for them – only then will the prospects to bridge the gap increase. Without the talent, diligence, ambition and motivation of 50% of the population no education, cultural or financial system can flourish. Thus, it is the task of the educators to persuade all authorities involved that while better education for females is indeed expensive, the benefits to come from it are much higher and long-lasting than any other investment.

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Constraints in Teacher Education and Effects on Teaching and Learning of Home Economics in Primary Schools

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Abstract: Education is the key to successful or unsuccessful development of any nation. Rao (2008) noted that education gives the unity and solidarity of all existence, works for the happiness and welfare of all beings, and frees from disputations and contradictions, upholding the vision of harmony and tolerance. Based on this, there is need for quality teachers through which educational standards can be raised for effective manpower development. Primary education being the foundational level, upon which other educational levels are built, requires quality teachers for a sound educational background for children. Producing quality teachers requires everything necessary to be provided. However, studies have shown that there are constraints in the production of quality teachers for primary schools. Therefore, this paper examined some of these constraints and recommended possible steps to be taken to improve the quality of teachers for effective teaching of home economics in primary schools. Some recommendations made included; (1) making adequate equipment and facilities available for effective teaching; (2) adequate funds to be made available for effective running of Colleges of Education; (3) review and update of entering requirements into teacher education programmes; (4) special screening tests to be conducted by Teachers Registration Council of Nigeria, etc.

Key Words: Constraints, Teacher, Effects, Teaching and Home Economics

Introduction

Every profession is important and prestigious but permits me to say that the most important and most prestigious is teaching profession because teaching profession can be seen as the mother of all profession. This is because every profession is born out of teaching. Also, the future of every individual and nation lies in the hands of the teacher. Ukeji (1986) in Ihua-Maduenyi (2002) confirmed this when he observed that if a doctor makes a mistake, perhaps one person might die, if a lawyer makes a mistake, perhaps, one person might go to jail, if an engineer makes a mistake, may be a bridge might collapse, but if a teacher makes a mistake, generations yet unborn will come to suffer the effect of that mistake. This explains the importance of a teacher in the society and in nation building. No wonder Nnubia (2001) quoted Iroegbu (1993) as saying that no person ever argues that education and teacher are the life wire and mainstay of the nation. And in the National Policy on Education it is stated that, since no education system may rise above the quality of its teacher, teacher education shall continue to be given major emphasis in all educational planning and development. This is to say that the present quality of Nigerian education is the quality of Nigerian teacher.

Federal Government of Nigeria realizing this has it in her policy statement among others that the goal of teacher education shall be to produce highly motivated, conscientious and efficient classroom teachers for all levels of our educational system (FRN2004, p39). But contrary to the above policy, Awanbor (2001) observed that the training of teachers for the various educational sectors in Nigeria has never produced the much desired goals, first in terms of the number and latter in terms of quality. This failure to achieve the desired goal in teacher education might result from the implementation policy. Just like, Oni (2001) noted that in contemporary Nigeria, wide gap exists between policy formulation and policy implementation. He added that the disparity between these two, to a greater extent, leads to unwanted failure and disheartening consequence.

This problem of disparity between policy formulation and policy implementation has been experienced decades ago including periods of military regime. And not much seems to have been done to arrest the situation. Ihua Maduenyi (2002) noted that within this period of military intervention, the educational sector in
general experienced haphazard implementation of programme and policies as well as unfulfilled promises and abandon of projects by government, the result of which was decay of existing facilities. Here we are, still lamenting on falling standard of teacher education and low quality teacher production, expectation of the new millennium year notwithstanding. This is why Awanbor (2001) opined that the new millennium is on the lips of every one as if it is a new national anthem, yet not much and not enough is being done to re-orient teachers in their training to meet the challenges that the new millennium brings. If quality teachers must be produced for quality education in Nigeria in general and in primary schools in particular, the implementation of teacher education policy must be given proper attention it deserves.

Primary Education

Primary education is the education given in institutions for children aged 6 to 11 plus. Since the rest of the education system is built upon it, the primary level is the key to the success or failure of the whole system. The duration shall be six years (FRN2004:14).

The goals of primary education in Nigeria as stated in the National Policy on Education are as follow:
(a) Inculcate permanent literacy and numeracy, and ability to communicate effectively;
(b) Lay a sound basis for scientific and reflective thinking;
(c) Give citizenship education as a basis for effective participation in and contribution to the life of the society;
(d) Mould the character and develop sound attitude and morals in the child;
(e) Develop in the child the ability to adapt to the child’s changing environment;
(f) Give the child opportunities for developing manipulative skills that will enable the child function effectively in the society within the limits of the child’s capacity;
(g) Provide the child with basic tools for further educational advancement, including preparation for trades and crafts of the locality.

These goals are laudable but can only be met if quality teacher education is given adequate attention. It is on this note that Rao (2008) opined that improving the quality of education in the developing countries requires teacher training as a critical intervention process in the task of raising standard.

Quality Home Economics Teacher Education for Improved Teaching and Learning in Primary Schools

The good intension of the Federal Government of Nigeria for quality education is reflected in the National Policy on Education. In section 8 sub-section B (72), it is stated that Teacher Education Programme shall be structured to equip teachers for the effective performance of their duties. In the same section sub-section B (79), it is also stated that effort toward the improvement of quality education at the primary and secondary level shall include appointment of academically and professionally qualified persons as teachers and head teachers (FRN, 2004). Available records, according to Olusegun (2001) show that right from missionary era efforts have been made to produce professionally qualified teachers for the primary schools. For instance, the phasing out of grade 111 teacher colleges and later grade 11 teacher colleges were the steps taken to improve the quality of teachers in primary schools. This probably was as a result of low out-put of primary school teachers and the poor quality of teachers produced from the teacher colleges. Consequently, the National Certificate in Education [NCE] became the minimum teaching qualification for entry into teaching profession [FRN, 2004]. Introduction of Sandwich programmes, Associate Certificate Education [ACE] and Satellite campuses became necessary in order to help Grade III and Grade II teacher certificate holders to upgrade their knowledge and certificates and to be retained in teaching profession. Nevertheless, Olusegun (2001) maintained that all the efforts made so far at improving the quality of teachers at primary schools level have not been producing the much desired results. To improve the quality of teachers, particularly, Home Economics teachers in our schools, adequate steps need to be taken in the implementation of policy of
teacher education. Studies however, have revealed that there are many factors responsible for the production of poor quality teachers for primary schools in Nigeria. These factors are the constraints in the production of quality Home Economics teachers for quality primary education.

Constraints in Teacher Education and Effects on Teaching and Learning of Home Economics in Primary Schools

Constraints, according to Hornby [1998] are things that limits or restricts. Constraints in the context of this paper are those things that limit the production of quality teachers in teacher training programmes. Most things that aid production of highly qualified professional teachers are lacking in our educational system which result in producing poor quality teachers. Some of these constraints are:

Facilities and Equipment

Equipment and facilities are either lacking, inadequate or not enough for effective teaching in schools. Ikenga, Afolabi and Oru (2009) observed that even when some of these essential equipment or tools are available, they are not functioning or are obsolete.

Home Economics Education requires provision of functional equipment and facilities for production of quality teachers. Home Economics is a subject that needs to be taught well in primary schools so that the children can relate what they learn in schools to home situations for meaningful family living. Okejim (2008) said that lack of material resources for education especially at the basic level has untold consequences on the quality of education. Oluasegun (2001) opined that it is often said that teachers teach the way they have been taught. Obidi (2001) advised that if primary schools are to attain the purpose for which they are established, in other words, if they are to succeed in helping pupils to acquire knowledge, understanding and skills, they should follow the curriculum activities enunciated in the National Policy on Education. It is only an efficient teacher that can follow the curriculum activities strictly. It is stated in the Policy that teaching at the primary educational level shall be by practical, exploratory and experimental methods. A Home Economics teacher who was not taught well will not be able to teach well, especially as a skill oriented subject, one that did not acquire basic skills in manipulation of equipment to produce certain goods and services will not be able to teach effectively even with adequate provision of equipment. Therefore, poor quality teacher will also produce poor quality pupils which will result to poor quality education. There is therefore, need for provision of adequate equipment and facilities in teacher training programmes for good quality education in Nigeria.

Funding

Colleges of Education are not adequately funded. This makes it difficult for the college managements to run the colleges properly. Enene (1999) noted that depressed economy and financial commitments of government in other sectors of their economy have resulted in grossly inadequate financial allocation to Colleges of Education. Oni (2001) gave an instance when he observed that poor funding manifests itself in every aspect of the school system, as a result, the seemingly poor performance of students in JAMB and SSCE science examination in recent times has been attributed to factors ranging from acute shortage of science teachers, lack of science laboratories, lack of Home Economics workshop, ill-equipped laboratories to lack of political will on the part of government to fund education. Ikenga, et al (2009) observed that because of this poor funding, basic equipment are disturbingly lacking in Nigerian schools. According to Awanbora (2001), the prevalent state of poor funding in institutions of learning has left them to contend with dilapidated and run-down structures, inadequate infrastructures and facilities most of which are outdated and obsolete.

Poor funding of education and consequent production of ill-equipped teachers, result to college graduates
loosing confidence and sheering away from teaching, resulting to lack of teachers in the school system, especially in primary schools where one teacher teaches all the subjects which is contrary to the education policy statement. The policy statement is that in pursuance of the goals of primary education that specialist teachers of particular subjects in which Home Economics is one shall be provided. Findings of the study by Nnubia (2001) revealed that a lot of factors are responsible for shifting of Home Economics teachers from the educational systems which include non-involvement of the teachers in management decision making, poor funding and poor societal perception of the course. It is believed that if teacher education programmes are properly funded and the National Policy on Education properly implemented, quality and conscientious Home Economics teachers will be produced which will in turn result to improved standard of Nigerian education.

Teachers Welfare

Teachers’ welfare has never been taken as a priority by any government in Nigeria. The teachers are worst hit in welfare packages of public servants in this country. Enene (1999) noted that most staffers in colleges of education do not have decent accommodation neither do they have good office space to themselves. Ihua-Maduenyi (2002) observed that in 1999, teachers were owed over five months salary and schools closed down also for over months in Rivers State and several other states in the federation. Leave bonus and other legitimate claims due teachers were not paid for two years. Awanbor (2001) observed that teachers from primary level to tertiary, all work in largely similar conditions-poorly motivated, poorly paid and circumscribed socially and economically. A teacher who is not motivated to work can not put in his best. And a student teacher, seeing the condition under which his teacher works will not be interested in teaching. He will rather prefer seeking for a job elsewhere in a related area to his area of specialization where condition of service is better.

Entry Qualifications Into Teacher Training Programmes

One major problem in producing competent teachers for our schools is getting the right caliber, orientation and intelligent people who will take up teaching as a career and not just opting for it as a last resort. Colleges of education have become dumping grounds for frustrated JAMB candidates. Many students who find themselves in colleges of education particularly in technical colleges are there not because they are interested in teaching profession. They are there because they could not make it through JAMB to the university to read the career of their choice. To such students, colleges of education become the last resort. These students entered colleges of education through pre-NCE programme which has been an express way to NCE programme. These same students on graduation are employed to teach Home Economics in primary schools where children are supposed to be given a sound foundation education upon which their educational progress is built. Such students only produce there kinds. Even now that the pre-NCE students are required to write JAMB examination before proceeding to NCE programme, if not properly checked , the purpose will still not be achieved.

Crowded Classroom

As more students graduate from secondary schools so also the population of students in teacher programmes keeps increasing. This increase in students population poses serious problem in the teaching of Home Economics as the facilities and equipment available are neither enough nor adequate for teaching and learning. This is affecting acquisition of adequate skills by the student teachers. Large number of students in class also makes it difficult for the teacher to give adequate attention to slow learners. The students under this condition find it difficult to teach in primary schools on graduation, firstly, because they are not efficient and secondly, because primary school classes are always large, especially in urban areas. With these
conditions, pupils can not be taught well and the result will be a poorly laid foundation which leads to low standard of education.

Improving Teachers Education for Effective Teaching and Learning of Home Economics in Primary Schools.

The quality of teachers largely determines the quality of education in the society (Oni, 2001). This means that the present poor quality of education in Nigeria is a reflection of poor quality teachers. Therefore, for effective teaching to take place in primary schools, quality of teachers must be improved. The following are suggested:

1. Federal and state governments should endeavor to supply adequate and enough equipment, tools and facilities for effective training of teachers with the libraries equipped with current books
2. Adequate funds should be made available for smooth running and management of teacher training programmes
3. Teachers’ salaries and claims should be paid promptly. New teachers’ salary scheme should be implemented as soon as possible.
4. Adequate and descent accommodation should be provided for teachers, irrespective of level.
5. Entry requirements into teacher training programmes should be reviewed upward. There should be a special diagnostic assessment test properly conducted as a screening measure before admitting students into pre-NCE programme.
6. Teacher Registration Council (TRC) should take up the responsibility for admission of students into NCE programme.
7. A Board called Teachers Registration Examination Board (TREB) should be set up whose responsibility should be the conduction of examination called Teachers Selection Examination (TSE) to check and harmonize standard in admission policy of colleges of education. And any misconduct by the intending student /s observed before, during and after examination should attract outright expulsion.
8. Effort should be made to control students’ population to avoid over crowded classrooms. There should be teacher-student ratio peculiar to teacher training programmes and which should be strictly be adhered to.
9. Adequate supervision of the teachers’ activities and conducts should be made always at all levels.

Conclusion

There has been a drastic fall in the standard of education in Nigeria in recent times. Since education determines the level of development of any nation, there is an urgent need for the improvement of standard of education at all levels in Nigeria. It has been noted that improving quality education has to start with improving quality teachers. Therefore, special attention should be given to teachers’ education by all stakeholders. Equipment, tools and facilities necessary for quality teacher production should be provided in all teacher institutions. And regular supervision of schools is very important and should be taken seriously.

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Developing Teaching Manpower Through Emerging Myths and Realities in Nigeria Institutions

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Abstract This paper examines the development of teaching manpower through myths and realities in teaching and learning in Nigerian education system. It x-rays the programmes of teacher education and the content of the curriculum which will yield qualitative education for the economic development of our nation. It is noted that teachers’ education curricular should be integrated with constructive pedagogy. The idea will empower the learners (students) to construct new knowledge by providing opportunities for them that will enable the students to test academic theories through real world application of knowledge that is relevant to their lives. Teachers’ professional competency was also looked at as well as the implication of effective teaching and learning. It is concluded that school should continue to embark on curricular reform culture as to enable the society to face the changes and challenges that the society normally encountered as they interact daily with their immediate and outside environment.

Keywords: Curriculum, Integration, Manpower, Development, Programme

Introduction

It is obvious that teachers are absolutely essential in the entire education system of any nation. They are the pivot on which education wheels revolve. The effectiveness of any educational system depends greatly on the educational attainment of teachers because no system of education can be qualitatively higher than the quality and commitment of its teachers. The fact remains that teaching and learning depend on teachers for there can be no meaningful socio-economic and political development in any country without teachers. It is on teachers’ numbers, quality and devotion that rest the effectiveness of all educational arrangements, development and growth. Even the educational planners may have the best educational policies and designs on earth, the government may vote the largest sun of its revenue to education, but the ultimate realization of any set of aims for education depends on the teacher. It is the teacher who will ultimately be responsible for translating policy into action and principles into practice in their interactions with their students. Ukeje (1996) supported this fact when he stated that education unlocks the door to modernization, and added that it is the teachers who hold the key to that door. Afe (1992) states that the realization of the educational objectives depends on the quality and quantity of the available teaching manpower. This can be influence by the availability of adequate training and retraining programmes for those about to teach and those already teaching respectively. Hence, the efficiency of teacher training should be the main determining factor in the success or failure of education to meet the country’s needs.

The training is the policies and procedures designed to equip prospective teachers with the knowledge, attitudes and skills they require to perform their tasks effectively in the classroom, school and wide community. With regard to the issue of supply and demand of teachers, Afe (1991) stated that next to students are teacher as the largest most expensive and crucial inputs of an educational system. This fact is also viewed by the government who in various documents recognized the central importance of teachers in the educative process, Adodo, (1998). Based on the conviction that education is a tool for empowering the people of a nation and also the best legacy any nation can bequeath to its citizenry, this fact had led Nigerian government to decide to make education available and affordable to its citizen.

Education is the most powerful instrument for social progress. It is the greatest power get known to man for his own improvements. It is defined as the aggregate of all the process by means of which a person
develops abilities, skills and other forces of behaviours of positive, and sometimes of negative value in the society in which he lives. Fafunwa, (1982). Education is a tool used for the integration of the individual into the society so that he can achieve self realization, develop national consciousness, promote unity and strive for social, economic, political, scientific, cultural and technological progress. Afe (1995). Teachers are the heart and soul of the educational enterprises, indeed, the life of the school system depends on them. Teachers belong to the profession which has the only potential of determining the social economic, political and moral destiny of every Nigerian citizen. This fact underscores the necessity for teacher education to be perceived as a sacred duty that must never be toyed with if teaching must fulfill its divine professional mandate of cultivating generations of highly responsible disciplined and useful Nigerians.

However, teacher education should be regarded as the bedrock for national development. Talabi (1985) Bofarin (1986) Afe (1995) the major problem facing the nation has been that of getting teachers of quality. For teacher quality to rise above the educational system, a strong teacher education programme is required. On this note that the federal Government planned and implemented teacher education programmes using conventional and non-conventional training method. The National policy on Education (1981) section 9: 57 states that teacher education will continue to be given a major emphasis in all our educational planning because no education can rise above the quality of its teachers. Section 9.75 highlights that the National teachers' institute will organize programmes for in service training of practicing teachers. Opportunities will be provided so that every teacher at regular intervals will undergo in service training.

Teacher Education Programme

This programme is divided into initial teacher training (a pre service course before entering the classroom as a fully responsible teacher).

- Induction (the process of providing training and support during the first few year of teaching or the first year in a particular school).
- Teacher development or continuing professional development (CPD) an in-service process for practicing teachers).
- Initial teacher Education programme organization.

This training programme takes place mostly in institution of higher education. It may be organized based in two models namely consecutive model and concurrent model. In consecutive model a teacher obtains the first qualification in one or more subjects (after the first university degree). He then furthered his studies to obtain a post graduate degree (master in education) as an additional teaching qualification. In concurrent model, a student will simultaneously studies both one or more academic subjects and the ways (methods) of teaching that subject which makes him to qualify as a teacher of that subject. This implies that every subject has its own specific method. A supplemental component of university based course work would be community based teacher education, a situation teacher candidates immerse themselves in communities that will allow them to apply teaching theory to practice. Community based teacher education will help to challenge teacher candidates assumptions about the issues of gender, race and multicultural diversity.

Curriculum

The issue of what knowledge, attitude, behaviours and skills teachers should possess is the subject focus. This is in regards that teachers are entrusted with the transmission to learners of society's belief, attitude and deontology, as well as information, advice and wisdom and with facilitating learners acquisition of the key knowledge, attitude and behavior that is needed for one to be active in the society and in economic development.

The curricula of teacher education can be splinted into:

- Foundational knowledge and skills. This aspect is about education related area of philosophy
of education, history of education, educational psychology and sociology of education.

- Content area and method. This will include ways of teaching and assessing a specific subject. Though it may not be possible to know in advance what kinds of knowledge and skills pupils will need when they enter adult life for one to exactly assess what kind of knowledge and skills that teachers will possess. More emphasis will be place on transversal or horizontal skills (such as learning to learn or social competences which cut across traditional subject boundary and thereby demanded the traditional ways of designing the teacher education curriculum and ways of working in the classroom)

- Practice at classroom teaching or at some other form of educational practice is supervised and supported thought not always. It can take the form of field observations, student teaching or internship. Supervised field experiences. Field observation will include observation and limited participation within a classroom under the supervision of the classroom teacher.

- Student teaching includes a number of weeks teaching is assigned in the classroom under the supervision of the classroom teacher and supervisor from the university.

- Internship- teaching candidate is supervised within his or her own classroom.

These three areas will form the basic organization of teacher education programmes. Courses modules and other activities will be organized within any of them. This structure will make it more logical or rational to complement the teaching manpower development of the conventional school system. The fact behind this is that education is needed to produce skilled and reformed manpower and the knowledge required for technological advancement and economic growth of the nation.

- **Induction of the beginning teachers.** Teaching involves the use of a wide body of knowledge about the subject being taught and another set of knowledge about the most effective ways to teach that subject to different kinds of learner, this requires teachers to undertaken a complex set of tasks every minutes. A lot of teachers experience their first year in the teaching profession as stressful. Even this had led some percentage of teachers who enter the profession after completing initial training to leave the profession after their first teaching post. Hence induction of new teaching into teaching profession becomes imperative. There is a distinction between inducting a teacher into a new school (explaining the school’s vision, procedures etc) and inducting a new teacher into the teaching profession (providing the support necessary to help the beginning teacher to develop a professional identity and to further develop the basic competences that were acquired in the colleges.

### Ways to Help Beginning Teachers During their First Years in the Profession Include

- Mentoring: Assigning a mentor that will provide emotional and professional support and guidance to the new beginning teacher. Others include
- A peer network
- Input from educational experts
- Support for the process of self reflection.

The essence of these programmes is to increase the retention of beginning teachers in the profession to improve their performance and to promote the teachers' personality as well professional well being.

### Continuous Professional Development

Actually the world teachers are preparing young people to enter is changing rapidly; this also has affected the teaching skills required. For this effect no initial course of teacher education is adequate enough to prepare a teacher for a career of 30 or 40 years. Continuous Professional Development (CPD) is the process by which
teachers like other professionals reflect upon their competences, maintain them up to date, and develop them further. This training will enable them to perform their job satisfactorily.

**Objectives of Teacher Education**

Objectives of Nigerian teacher education as contained in the national policy of education (1981) revised (1987) is as follows:

- To provide highly motivated conscientious and efficient classroom teachers for all level of our educational system.
- To encourage further the spirit of inquiry and creativity in teachers.
- To help teachers to fit into the social life of the community and society at large and enhance their commitment to the National objective.
- To provide teacher with adequate intellectual and professional background for their assignment and to changing situations not only in the life country but also in the wider world.
- To enhance teachers commitment to the teaching profession.

NPE (1989, P.38)

**History of Teachers’ Education in Nigeria**

The beginning of teacher education dates back to the coming of the Christian missionaries in the second half of the 19th century. Taiwo (1980) credited the church missionary society (CMS) with initiating teacher training in Nigeria in 1883 when it established a teacher training institute in Abeokuta. Fafuwa (1974) credited that same CMS with establishing the first teacher training college in 1959, while Adesina (1977) cited 1896 when the CMS opened St. Andrew’s college Oyo. The missions produced teacher’s evangelists on a limited curriculum with the assistance of the colonial government that promulgated the education code and ordinances to complement the effort of the missionaries through granting aid to the mission.

The 1925 memorandum on education, the formation of the Nigeria union of teacher (NUT) and the 1947 constitution were significant landmarks. The Phelps stokes commission report of 1922 paved the way for the 1925 memorandum on education for governments recognition of education to provide education adapted to local conditions; while at the same time conserving all sound elements in local tradition and social organization. According to Fafunwa (1990) the 1925 memorandum, more than any other commission report, guided the Nigerian education policy and development from that time to independence in 1960.

The 1947 constitution, which divided the country into three regional administrative units, decentralized educational administration by classifying education as a regional service. As a result, a great challenge was thrown to teacher education by the universal free primary education schemes of the western and Eastern regional governments in the 1950’s. This scheme was succeeded by the universal Basic Education (6-3-3-4) which was established by National policy on education in (1977-1981). This programme was launched by the then president, Chief Olusegun Obasanjo in September 30, 1999.

**Teachers’ Professional Competences**

Teacher’s professional and academic competencies are seen in their ability to make use of the learning opportunities available in the environment. This means their willingness to take active part to analyze changes in the environment with other members of the work community to see these changes in relation to teachers and the school possibilities to determine which changes and outcomes that are of the greatest relevant to the socio-economic and political development of the community’s need.

Teachers competence will be enhance as they have close contact and diverse interaction with its environment as well as being able to anticipate and influence factors which will bear upon teaching in the
future. So this calls for teachers having mastered their various subjects to also have command over a wide repertoire of different teaching methods and strategies (pedagogy) as well as understanding of the learning process of students. Shulman (1987) in introduction of pedagogical content knowledge stressed the combination of content knowledge and pedagogic skills that are necessary for the organization of classroom situations and activities of learners. He defined pedagogical content knowledge as “the particular form of content knowledge that embodies the aspects of content most germane to it's teach-ability” it means that both teacher expertise and teacher knowledge of the subject matter differ from ordinary scholarly knowledge and pedagogy. In other words, teachers should be able to fuse the knowledge of the subject matter and pedagogical knowledge into pedagogical content knowledge in their classroom activities.

This will also include an understanding of what make the learning of a specific concept difficult and the instructional strategies that could help in presenting different aspects of the instructional process. Knowledge of what motivate students’ attitude toward different subjects is also embedded in the pedagogical content knowledge. With all these facts mentioned, particular attention should be devoted to bring reforms in teacher education in terms of academization and professionalization. Again teacher’s idea of man, his conception of knowledge and learning are the foundation on which successful teaching is built.

The fact remains that teacher who knows their work and its meaning are the foremost goal of teacher education. Being a teacher means ones ability to encounter change and influence change. Therefore changes in pupils, their living environment and society as a whole require sensitivity and willingness to anticipate future development.

One of the challenges of teachers is still the ability to analyze change in the environment with other members of the work community to see these changes in relation to the teachers and the school possibilities to determine which changes and outcomes are of the greatest relevance to the development of teaching.

Teacher education needs close contact and diverse interaction with its environment in order to be able to anticipate and influence factors which will bear upon teaching in the future. This is so because being a teacher in future will mean ones willingness to take active part in influencing social development.

The Concept of Myths and Realities

Myths and realities are terms used to clarify the importance of academic and vocation integration in relation to emerging pedagogy teaching and learning practices, and school to work efforts. They reflect the philosophy upon which academic and vocational integration is based. This means that academic must forge connection between knowledge development and its application in the work place. It aids in school reform and its effectiveness in modifying curriculum content, teaching practice and school structure to enhance students preparation for work.

Curriculum integration involves the infusion of academic content into vocational programmes which enhances academic performance. This is achieved when students engaged in learning experience that situated in real-life contexts that afford in depth understanding and the development of higher-order thinking skills. Pisapia and Riggings (1997) Stase, (1997). The curriculum integration reflects the process of contextualization by bringing authentic work element to abstract academic subjects. This will contributes to the development of students’ critical thinking and collaborative skills as well as those that prepare them for skilled job. This integration involves four major aspects; the integration of experience, social integration, the integration of knowledge and integration as a curriculum design. Learning experience are designed to integrate knowledge in context of its use, knowledge is developed and used to address relevant issues not only in preparation for future tests. Learning activities also involve the application of knowledge in real-life settings where students can experience problem solving and the intricacies of social interaction. Teacher externships supported through school reform legislation, afford teachers opportunities to learn how academic and vocational concepts are applied on the job and ways that they might tie their curriculum to the broader social purposes of the community. Constructivism of teaching is to empower learners to “construct new
knowledge” by providing opportunities for them to test academic theories through real-world application of knowledge in a setting that are socially relevant to their lives. Beane (1998) noted several factors reflecting support of the pedagogy as follows.

- Growing support for active learning and knowledge construction in place of rote memorization and the accumulation of knowledge constructed by others.
- Interest in patterns of brain functioning as related to learning.
- An emerging awareness that knowledge is socially constructed influenced by one’s prior knowledge and social, cultural, and academic experiences.

The teaching of students is centered on project-oriented instruction, problem-based learning as well as contextual teaching and learning to promote strategies for implementing constructivism. In fact, the aims and objectives of integrating academic and vocational education in teaching and learning situation is a welcome development in our educational reform, but for this useful innovation to be effectively implemented to achieve its objectives, the role of teacher education becomes paramount. This is because teachers are responsible for the intellectual and emotional development of those in his charge. He must therefore be deeply familiar with the behavioural science, sociology as well as technical. They need to be adequately trained and well grounded with the knowledge of the select subject content and pedagogical skills in order to have in depth understanding and the development of higher order in their thinking skills. Is the teacher that will incorporate the reform pedagogical approaches in cross-disciplinary, multidisciplinary, interdisciplinary and work-related integration model to the learners which will help them (students) to see the connections between subject areas that will enable them to recognize the interrelated aspects of all learning and life experiences? Again a situation where highly competitive, multicultural workplace, integrated skills and personal qualities are in great demand, technical innovation have altered the way work is performed, and new management processes have changed the way people perform it. School-to-work and tech prep legislation calls for school reforms. Is the teacher that will prepare students with the academic technical, adaptive and interactive skills they will need in this changing workplace rather than competing with their integration. It will enhance it. The effort of school to work extent subject area to workplace experiences that affords social integration as well.

The benefits of myths and realities to teacher education: The knowledge of school based and work-based learning offer educators (teachers) an opportunity to connect classroom to workplaces by increasing students’ exposure to authentic work practices that provide opportunities to apply abstract concepts or knowledge to real problems. Stasz (1997, P. 218). School-based learning gives students an opportunity to use academic in authentic work-place contexts through such means as applied academics. It provides on the job training, supervision by workplace mentors, and instruction in general workplace competencies and all aspects of the industry. Stasz and Kaganoff (1997, P.). Work-based learning engage students in worksite learning experiences. It afford students an opportunity to receive mentoring and instructions for industry-recognized skills. Pisapia and Riggins (1997). Each of these practices offers students the potential to engage in problem solving, teamwork, and communication within the job context; taking into account the unique aspect of the jobs purpose, work tasks organizational structure, job culture, and etc.

Implication

The job of the teacher is always concerned with human beings and the development of human minds at their most impressionable stage. This implies that a teacher who is highly trained and approved qualified and competent will be competent enough to transmit the knowledge and skills acquired to the learner effectively. The learner (student) will in turn construct knowledge through their interpretive interaction with the experiences in their social environments. He will be able to constructs new knowledge and ideas of doing things or solving problems with in and outside his environment. Through his constructive knowledge he will be able to create job for self-reliance instead of being a job seeker thereby contributing to the development of
the nation’s economy and also aids in alleviating poverty in the society as he employ other people to work with.

Conclusion

The role of school reforms and its effectiveness in modifying curriculum content, teaching practices and school structure to enhance students’ preparation for work is obvious. This can be more achievable if the teacher who is the instructor is adequately trained and well equipped to carry out his teaching assignment effectively, because teaching is more than doing. The professional competency of a teacher acquired in course of his training will enable him to prepare and integrate individual for work into the society as to improve its economy and proffer solution to the challenges that the society normally faced as the result of their daily interaction with their immediate and outside environment. It is recommended that school should reform its curriculum within five years so that it will suit the changes and challenges encountered by the society. This will also enable the school to ensure that the co-ordination of the integration of academic and vocational education remain standard.

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Exploring Literary Perspectives on Environmental Education for Sustainable Development

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Abstract The focal thrust of this paper is to explore literary perspectives as expeditious in environmental education for sustainable development. Niyi Osundare’s ‘They Too Are The Earth’, Ayi Kwei Armah’s The Beautiful Ones Are Not Yet Born, and John Keat’s ‘Bright Star, If I Were…’ are painstakingly interpolated pursuant to the pedagogical treasure in Literature necessary for environmental education. The gory implications of environmental degradation are highlighted and some suggestions articulated.

Keywords Environment, Education, Environmental Education, Development, Literature

Introduction

Today, the world is understandably frantic in view of the rather gloomy prognostication of the implications of an impending collapse of environmental order; regrettably, consequent upon the inordinate ambition of humanity to competitive advancements particularly in the sciences and technologies.

Dakur and Dangyil (2006:248) assert that:

It is axiomatic that human beings, have come to grip with the reality of continuous degradation of the environment resulting from development activities. Hitherto, during the pre-industrial era, when human population was small and man had not developed sophistication in science and technology, he was rather oblivious of the changes that occur in his environment, perhaps because such changes were insignificant. Today, the story is never the same.

Saleh, Mandungs and Bitrus (2006:53) corroborate that:

Man, in his quest to improve his standard of living and make the world a more comfortable place to live, has caused diverse structural and biological changes in the environment which, if not checked, in the long can cause a total breakdown of the environment and complete collapse of the ecosystem.

This paper not only takes considerable interest in the appalling implications of the gradual degradation/depletion of the earth or the environment, but explores literary concerns as a pedagogical facility instructional to environmental education for sustainable development.

Conceptual Consideration

The key terms ‘environment’, ‘education’, ‘development’, and ‘Literature’ shall be accorded some consideration in order to lend interpretation within the contextual parameter of this discourse.

Hornby (2005:490) defines ‘environment’ as ‘the natural world in which people, animals and plants live.’

Dimka (2008:362) asserts that the environment includes water, air, land and physical properties and the inter-relationship that exist among and between them and human beings, other living creatures, plants and micro organisms. The environment is, thus, the sum total of all physical, biological and ecological factors.

The environment is, therefore, a consideration of the properties and the interplay of all the elements the make up the earth: the hydrosphere, the lithosphere, the biosphere, and the atmosphere.

Robinson and Davidson (2007:419) define ‘education’ as ‘1. the process teaching, 2. instruction received, 3. the process of training and improving…’
Dajal, Saleh and Atawal (2006:63) quoted the International Workshop on Environmental Education (1975) definition of ‘environmental education’ as education aimed at developing a world population that is aware of and concerned about the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitments to work individually and collectively towards a solution to current problems and the prevention of new ones.

Thus, environmental education can be conceived in terms of its functionality as a pedagogical facilitation for teaching, instruction and learning with a view to elicit desired positive responses for mutual environmental interaction/disposition.

Dakur and Dangyil (2006:249) describe the term ‘development’ as ‘an on going process of transformation of social and economic factors towards achieving specialization, equitable distribution of resources and increasing the material welfare of people.’

Dangyil and Dachomo (2006:225) quote Nwana (1995) on ‘development’ as ‘a multi-dimensional process that involves changes in structure, attitudes and institutions as well as the acceleration of economic growth, the reduction of inequality and reduction of poverty.’

Development, in this context, is the systematic process of positive change that cuts across all aspects of human interaction, and with other endowments of nature.

The term ‘Literature’ fundamentally designate fictitious and imaginative writings (poetry, prose fiction and drama) that are especially distinguished in form, expression, and emotional power. It serves a myriad of positive functions that generally sharpens and shapes humanity’s consciousness to such a lofty latitude that appreciate nature’s endowments. (Abrams 2005:152/3, Ibitola 2005:1, Amaechi 2005:1-3)

THEY TOO ARE THE EARTH (by Niyi Osundare)

They too are the earth
the swansong of baggers sprawled out
in brimming gutters
they are the earth

under snakeskin shoes and Mercedes tyres
They too are the earth
the sweat and grime of
millions hewing wood and hurling water
they are the earth

muddy every fore like naked moles.
They too are the earth
The distant groan of thousands buried alive
in hard, unfathomable mines
They are the earth

5 of gold dreams and blood banks
They too are the earth
the old dying distant deaths
in narrow abandoned hamlets
they are the earth

10 women battling centuries of maleficient slavery
Are they of this earth
who fritter the forest and harry the hills
Are they of this earth
who live that earth may die

20 Are they?
(Nwachukwu-Agbada, Bangbose and Atere 2003:270)
Setting

The poem has four ordinary locales. First, the despicably appalling ghetto/slum milieu that harbours the underprivileged and the destitute (lines 2,3,…); Second, the drifters scheduled to unskilled menial labour (lines 7-10); Third, the miners and such other manual excavators, (lines 12-15); Fourth, the bane of the privileged/rich who busy in destructive construction projects (line 21). The extended setting cuts across all geo-political demarcations to depict not only the inordinate adventurism of humanity into advancements in science and technology but of man’s inhumanity to man in terms of inequality and unequal opportunities and distribution of wealth.

Background

The poem is in the category of modern pro-life socialist affiliation that strives to underpin undue class distinction and its derogatory implications. It also reveals the suicidal tenacity of humanity who in the inordinate quest for superiority/advancement in science and technology disturbs the mutual interaction of nature’s endowments.

Themes

The poet esteems/explores the theme of collectivism in the ownership/membership of the earth/environment. In other words, all interactive participants/elements that constitute the earth; the hydrosphere, the lithosphere, the biosphere, and the atmosphere all share relative rights/privileges to mutual existence (the title, lines 1,4,6,8,11,14,16 and 19).

Second, the poet subtly laments and condemns in totality the pernicious tendencies/adventurism of humanity, particularly the privileged, to plunder/destroy and degrade natural environmental order/balance by the brazenly incongruous application of results/outcomes and products of scientific and technological experiments; sophisticated heavy plants and machinery, and assorted chemical substances.

‘The fact that man since time immemorial has been interfering with his environment and has led environmental change cannot be contested’. Dashe and Daniel (2008:354).

Man’s quest for modern industrial civilization has led to misuse of the environment to the point that a global tragedy appears more imminent than ever… Millions of people throughout the world are exposed to hazardous wastes from industrial plants, refineries, tanneries and agricultural fields/activities. Dajal and Atawal (2006:61).

This paper highlights ahead the gory implications of humanity’s degradation of the environment.

Third, the poet explores the theme of oppression and lack of care on the one hand, then poverty and survival on the other (lines2,3,5,7,8,10,12,15,17,18 and 19).

THE BEAUTIFUL ONES ARE NOT YET BORN (by Ayi Kwei Armah)

Setting

The geopolitical, socio-economic and cultural setting of the novel/prose text The Beautiful Ones Are Not Yet Born is ordinarily the disillusioned post independence, neo-colonial Ghana in the eras of Nkrumah. The extended setting covers most, if not all, of the nations on the African continent where the post independences experience(s) leave a sour taste in the mouth since corruption in its ramifications is celebrated as the rule rather than the exception.
Background

The background is the lamentable betrayal of trust informed by the brazen post independence corrupt tendencies of particularly government officials in most African countries. This corrupt tendency is hugely administrative, political, infrastructural and environmental.

Themes

Theme dominate theme is environmental degradation as a result of corruption/mismanagement of the wealth of nations with impunity (the very first chapter introduces this theme aptly).

Was there not something in the place and about the time, everything, in fact that sought to make it painfully clear that there was too much of the unnatural in any man who imagines he could escape the inevitable decay of life and not accept the decline into final disintegration? (The man, 47-48).

The full import of this expression conveys a gloomy prognostication of the imminent collapse of a system occasioned by the self-destructive course of humanity in a way that disregards the principles of collective determinism and mutual interaction amongst all environmental elements.

Women, so horribly young, fucked and changed like pants, asking only for blouses and perfume from diplomatic bags and wigs of human hair scraped from which decayed white woman's corpse?

Again, apart from the apparent literal implication of gross disregard for gender consideration, the metaphorical interpretation should not be lost. First, women as symbols of fertility and procreation, subjected to sexual abuse is not only pervasive but a deviation from our sense of collective responsibility and determinism. Second, the concept of the woman as a symbol of fertility is metaphorical for the earth/land or environment. In this context, the environment suffers wanton destruction/degradation informed by the ‘larger than life’ disposition of humanity. Needless to add that most third world nations strain to copy, transfer and or borrow technologies that are not only counterproductive in the long run but (they) are not ready/prepared for.

The song cautions that:

Those who are bless with power
And the soaring swiftness of the eagle
And have flown before,
Let them go.
I will travel slowly,
And I too will arrive. (p51)

The expressions ‘more haste, less speed’ and ‘slow and steady wins the race’ admonishes particularly third world nations to allow growth and development at their own pace; Rome was not built in a day!

Environmental and Resource Problems and their Causes

The human imprint is everywhere on earth, from the highest mountains to the deepest ocean depths; from dry deserts to lush tropical forests; from frozen Arctic ice caps to the cloudless atmosphere.

Key Environmental Problems. We face a number of interconnected environmental and resource problems. Four of these problems: possible climate change from global warming, acid rain, depletion of stratospheric ozone, and urban air pollution: results from the chemicals we have put into the atmosphere (mostly from burning fossil fuels). A fifth problem, the continued poisoning of the soil, water, and air by pesticides and numerous other toxic wastes, is primarily the result of not relay on pollution prevention. Another six problems – depletion of nonrenewable minerals (especially oil), depletion and contamination of ground water, deforestation, soil erosion, conversion of productive crop land and grazing lands to deserts (desertification), and species lost (biodiversity depletion) – results from exponentially growing depletion and
degradation of Earth’s capital. Population growth (more consumers) and environmentally harmful forms of economic growth (increasing resource depletion, pollution, and environmental degradation) can intensify these problems.

Root Causes of Environmental Problems

The first step in dealing with the environmental and resource problems we face is to identify their underlying causes. According to environmentalists, these include:

- Rapid population growth.
- Simplification and degradation of parts of Earth’s life support systems.
- Poverty, which can drive poor people to use potentially renewable resources for short-term survival and also often exposes the poor much high health and environmental risks.
- Widespread use of relatively cheap and environmentally damaging fossil fuels (especially oil and coal).
- Rapid and wasteful use of resources with too little emphasis on pollution prevention and waste reduction.
- Overuse and degradation of global common property resources, which are owned by none and available to all.
- Failure to encourage Earth-sustaining forms of economic development and to discourage Earth-degrading forms of economic growth.
- Failure to have market prices represent the overall environmental cost of an economic good or service. This promotes the inefficient and wasteful use of resources by concealing the true cost of the products we produce and buy.
- Our urge to dominate and manage nature for our use.

Global Warming/Projected Effects

Global warming is the increase in the average temperature of Earth’s near-surface air and oceans since the mid-20th century and its projected continuation. According to the 2007 Fourth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC), global surface temperature increased 0.74 ± 0.18 °C (1.33 ± 0.32 °F) during the 20th century.[2][A] Most of the observed temperature increase since the middle of the 20th century has been caused by increasing concentrations of greenhouse gases, which result from human activity such as the burning of fossil fuel and deforestation.[3] Global dimming, a result of increasing concentrations of atmospheric aerosols that block sunlight from reaching the surface, has partially countered the effects of warming induced by greenhouse gases.

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<tr>
<th>S/No</th>
<th>Country/Region</th>
<th>Projected effects of global warming</th>
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<tbody>
<tr>
<td>1</td>
<td>Africa</td>
<td>a. The most vulnerable to global warming with adaptive capacity.</td>
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<td></td>
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<td>b. By 2020 between 75-250 million will be exposed to water stress.</td>
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<td>c. Agricultural production will be severely affected with increase in drought episodes.</td>
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<td>d. Low lying coastal areas will be severely affected by the end of the 21st century.</td>
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<tr>
<td>Region</td>
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| Asia                | a. Himalaya’s ice cap projected to melt cause flooding, avalanches from slopes and water resources affected.  
                        b. Fresh water to decrease by 2050s due to climate change thereby affecting a billion people.  
                        c. Crop yield increase up to 20 percent in east and Southeast Asia and decrease by 30 percent in central Asia by mid 21st century.  
                        d. Hydrological cycle changes with increase flood and death due to diarrhea disease.         |
| Australia/New Zealand | a. Water security problems intensify by 2030 in both countries.  
                        b. Lost of Biodiversity in ecologically rich areas by 2020.  
                        c. Increased risk of rising sea level and increasing frequency of storm and flooding 2050.  
                        d. Production from agriculture and forestry decline due to increased drought frequencies. |
| Europe              | a. Heat waves increase retreating glaciers, shift in species ranges  
                        b. High temperatures and drought will be experienced Southern Europe.  
                        c. Summer precipitation to reduce with corresponding decrease in forest productivity in Central and Western Europe. |
| Latin America       | a. Productivity of some crops and livestock projected to decrease thereby creating food insecurity.  
                        b. Increased risk of flooding in low lying areas due to projected rise in sea level.  
                        c. Changes in precipitation and disappearance of glaciers. |
| North America       | a. Aggregate yields of rain-fed agriculture increase by 5-20 percent.  
                        b. Coastal communities will be increasingly stressed by climatic change impacts.  
                        c. Heat waves increase with adverse health impacts.  
                        d. Warning in Western Mountains is projected to decrease snow pack, more winter flooding and reduced summer flows. |
| Polar Regions       | a. Reductions in the thickness and extent of glaciers, increase coastal erosion.  
                        b. Reduced traditional ways of life and reduced heating caused by human communities.  
                        c. Specific ecosystems vulnerable to barriers and species invasion lowered. |
| Small Islands       | a. Sea-level rise will threaten vital infrastructures.  
                        b. Reduced water resources by the mid 21st century.  
                        c. Deterioration in coastal conditions such as erosion of beaches, reduced tourism trade. |

**Control Measures for Sustainability**

Here are the major strategies many environmentalists and scientists believe are needed to have a sustainable society:

- Reduce the waste of matter and energy resources.
- Place more emphasis on pollution control and waste reduction.
- Compost, recycle, and reuse at least 60% by weight of matter the resource we use.
- Make things that last longer and are easier to reuse, recycle, and repair.
- Shift to more dependence on locally available renewable energy from the sun, wind, flowing water, and biomass.
• Help sustain Earth’s biodiversity with emphasis on protecting vital habitats for wild species.
• Use potentially renewable resources such as water, soil, plants, and animals no faster than they are renewed.
• Use or modify economic and political systems to develop a mix of economic incentives, taxes, and regulations that reward Earth-sustaining behaviour and that discourage Earth-degrading behaviour.
• Slow rate of population growth.
• Reduce poverty.

(Rowntree, Lewis, Price & Wyckoff 2000; Miller 1996; Dachal & Guse 2008)

BRIGHT STAR, WOULD I WERE… (by John Keats)
Bright star, would I were steadfast as thou art-

Not in lone splendour hung aloft the night
And watching, with eternal lids apart,

Like nature’s patient, sleepless Eremite,
The moving waters at their priestlike task

Of pure ablation round earth’s human shores,
Or gazing on the new soft-fallen mask

Of snow upon the mountains and the moors –
No- yet still steadfast, still unchangeable,

Pillow’d upon my fair love’s ripening breast, 10
To feel for ever its soft fall and swell,

Awake for ever in a sweet unrest,
Still, still to hear her tender-taken breath,

And so live ever - or else sworn to death.

Setting

John Keat’s ‘Bright Star, Would I Were…’ and ‘Ode To Autumn’ in the likes of William Wordsworth’s ‘Daffodils’, ‘Lines Written in Early Spring’, S.T Coleridge’s, ‘Elegy’, ‘On Revisiting the Sea- Shore’, and D.H Lawrence’s ‘Snake’ all belong to the prestigious category of romantic poems that celebrate and esteem with verve and vitality the subtle, solemn and simple truths of nature’s attraction and beauty. This consideration is amidst the choking hustle and bustle of ordinary material advancement which ultimately robs humanity of not only the serenity but the therapeutic facilitation of nature’s seemingly ordinary endowments.

Background

The poem is a subtle protestation to humanity’s inordinate tenacity that tends towards materialism and competitive advancements in science and technology galvanized hugely by the industrial revolution. This frenzy was such a pervasive seductive distraction that stole the heart of humanity from appreciating the mutual interaction and balance necessary in nature’s dynamism.
Themes

The preoccupation of poet is gentle entreaty for humanity to desist from the destruction of the environment and appreciate the self-sustaining capacity of nature and celebrate its beauty.

- Nature shares a strong mutual affinity with humanity.
- Nature imbues humanity with aesthetic considerations.
- Nature is therapeutic.
- Nature is serene, gentle and accommodating.
- Nature guarantees spiritual upliftment.
- Nature entertains.

Some Benefits of Teaching / Learning Literature

- Literature reserves a fundamental educative function as it strives to improve the lot of humanity through exposure to knowledge in every facet of life.
- Literature makes constructive commentaries and criticism of society/life thereby informing society of its drift towards development or destruction with a view to balancing society’s focus.
- Literature is celebrated for its entertainment potential; it enhances leisure and relaxation.
- Literature is a formidable tool for the propagation of history, politics and culture.
- Literature provides a diagnostic, analytic, preventive and prescriptive commentaries on/to life.
- Literature facilitates language acquisition and language learning.
- Literature broadens one’s mental horizon.
- Literature is didactic in orientation.
- Literature is a tool for the preservation of culture.


Suggestion / Recommendation

- Literature as an interdisciplinary subject area is a treasured vehicle for sustainable development through environmental education.
- Literature should be accorded a core/ compulsory status as English and Mathematics at primary and secondary school levels.
- Literature should be incorporated, as a course in the General Studies Department of all tertiary institutions of learning.
- Literature should be accorded a Double Major course status in tertiary level of education.
- Literature/ Literary facilitation bodies should be established to enable the teachers to attend and contribute to workshops, seminars and conferences.
- There should be adequate motivation and material facilitation to the teaching/ learning of Literature.

Conclusion

The appalling fact of the catastrophic extent to which, particularly, humanity have contributed to environmental devastation/ degradation necessitates/demands urgent decisive commitment to environmental education. This paper has propositioned the utilization of the latent potentials of Literature in this unavoidable task.
References


Standardizing the Motivational Competencies of Academically Qualified Teachers and Professional Teachers in Nigerian Secondary Schools

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Abstract

Little attention has been paid to student learning difficulties and co-teachers stimulating themselves in creating effective secondary schooling in Nigeria. Also, our education industry has been recorded as one of the least in stimulating national development. Researchers have attributed this to the employment of non-professional teachers in the teaching and learning processes. Besides, we recognize that the intimidating work environment has been insinuated to suggest a sense of helplessness in school effectiveness and improvement in Nigeria. However, this study, therefore, is about the fundamental role played between academically qualified teachers with their counterparts who are professionally qualified teachers in motivating students and co-teachers to attain educational objectives. Some statistical procedures were employed—Mean Point Value, T-test of Significance, Cross Tabulation. The survey revealed that professionally qualified teachers tend to motivate students and co-teachers effectively than teachers who are academically qualified.

Introduction

The importance of being able to explain and predict students and co-teachers outcomes has led to a number of studies on teachers’ motivational competencies (e.g., Marshall 1987; Mercer & Fisher 1998; Hardre & Reeves 2003; Niederhauser 1998) as part of a larger effort to ensure school effectiveness and improvement (e.g., Scheerens & Creemers 1989; Creemers 1994b, 1994c; Scheerens 1994, 2000). However, most of such findings and conclusions resulting from research have often provided evidences from the West, not only in the UK, USA, Canada and Australia but other parts of the West such as Finland, Germany, France, Sweden and so on. Though it took a decade or more to manifest in the West according to Barber and White (1997). This body of research has now had a major impact on educational policies at national, local and school levels in the West. My search of the literature shows that little evidences exist for African secondary school in general and Nigeria in particular. However, while carrying out their job assignments, teachers often find that there are negative outcomes (e.g., inability to motivate students and co-teachers) that instigate information search and where these derivations originate. According to the OECD (1989) the slow recruitment of qualified teachers, inability to recruit the right calibre of teachers and the lack of motivation for in-service training activities in most developing countries are some of the reasons for this unhealthy development. In Nigeria, teachers who are academically qualified and those that are professionally qualified are engaged to carry out instructional process. By academically qualified teachers, I mean teachers who have academic training as a result of enrolment into an educational institution and obtain qualifications such as HND, B.Sc., B.A, M.A, M.Sc., and so on. While professionally qualified teachers, are teachers who get professional training that gives them professional knowledge, skills, techniques, aptitude as different from the general education. They hold for example B.Sc. Ed, B.A Ed, B. Ed, M. Ed, and so on. Therefore, this study has sought to look at the two categories of teachers found in Nigerian secondary schools, which will produce remedies that might be taken to prevent these unhealthy consequences of teachers’ motivational ability. For me the purpose of this comparison is to enable one identify where and how one can do better, by finding and...
implementing better practices and performance where it is found. It is a continuous process of measuring performance and seeking fresh approaches to bring about effectiveness and improvement in performance.

Research Objectives

Since this study is a part of a wider study that embraces teachers teaching competencies and how it affects school effectiveness and quality improvement, I explicitly sought to learn from other research on teachers’ motivational competencies and apply its lessons to policy on, for example, failing schools in Nigeria. I will also identifying ‘best practices’ of academically and professionally qualified teachers, which will enhance teachers’ motivational competencies. Specifically, this study is designed to:

1. Theoretically and empirically know how teachers’ motivational competencies improve students and co-teachers ability to achieve educational objectives.
2. Evaluate the extent to which academically qualified teachers and professional teachers demonstrate effective familiarity with co-teachers.
3. Assess the extent to which academically qualified teachers and professional teachers encourage co-teachers to work effectively.
4. Establish the extent to which academically qualified teachers and professional teachers use rewards and punishment wisely.
5. Explore how academically qualified teachers and professional teachers guide co-teachers on how to plan and carry out their job effectively.
6. Investigate academically qualified teachers and professional teachers interaction process competence and how it affects students learning ability.

This study is addressed to those involved in educational planning, principals and teachers, especially parents and administrators who participate in policy making about school effectiveness and improvement in Nigeria. The findings of this study may have implication for other developing countries. It is also hoped that the academic community will find this empirical study an added input into the school effectiveness and improvement literature at least from the perspective of a developing country.

Motivation as a Strategy for Teaching and Learning

Schools have much to learn by examining the informal pedagogy of everyday life; the principles of good teaching are no different for school than for home and community. When true teaching is found in schools, it observes the same principles that good teaching exhibit in informal setting (Tharp & Gallimore 1998, p. 93).

Whereas, some researchers (e.g., Creemers 1994b; Creemers 1994c) is of the view that quality teaching is found in the school, this is because it is presumed that teaching and learning go on well in the school environment. In addition, it is equally acknowledged that good teaching are supposed to be carried out by highly qualified teachers who can motivate students to learn under diverse condition (Hardre & Reeves 2003). Therefore, motivation in this context is seen as one of the qualities of achieving good teaching and learning, the phrase “student’s motivation to learn” has to some degree different meaning. Hermine Marshall defines it as the meaningfulness, value, and benefits of academic tasks to the learner regardless of whether or not they are intrinsically interesting (Marshall 1987, pp. 135-150). While Carole Ames remarks that motivation to learn is characterized by long-term quality involvement in learning and commitment to the process of learning (Ames 1990, pp. 409-421). However, student motivation naturally has to do with students’ desire to participate in the learning process. But it also concerns the reasons or goals that underlie their involvement or non-involvement in academic activities. Although students may be equally motivated to perform task, though, the sources of their motivation may differ (Lumsden 1994). Students who are intrinsically motivated undertake an activity for its own sake, for the enjoyment it provides, the learning it permits, or the feelings of accomplishment it evokes. Extrinsically motivated students perform in order to
obtain some reward or avoid some punishment external to the activity itself such as grades, stickers, or teacher approval (Lepper 1988, pp. 289-309). Anyway, students are primarily intrinsically motivated towards learning than extrinsically oriented toward learning. A growing body of evidence suggests that intrinsically motivated students tend to employ strategies that demand more effort and that enable them to process information more deeply (Beare, Caldwell & Millikan 1989, pp. 42-61; Lepper 1988, pp. 289-309). Condray and Chambers (1978, pp. 61-84) also found that when students were confronted with complex intellectual tasks, those with an intrinsic orientation use more logical information-gathering and decision-making strategies than do students who are extrinsically oriented. Furthermore, students with an intrinsic orientation also tend to prefer tasks that are moderately challenging, whereas extrinsically oriented students gravitate toward tasks that are low in degree of difficulty. Extrinsicly oriented students are inclined to put forth the minimal amount of effort necessary to get the maximal reward (Lepper 1988, pp. 289-309). Although every educational activity cannot, and perhaps should not, be intrinsically motivating, these findings suggest when teachers can capitalize on existing intrinsic motivation (Harris 1991). The question remains that what factors influence the development of students’ motivation? According to Brophy (in Lumsden 1994), motivation to learn is a competence acquired through general experience but stimulated most directly through modeling, communication of expectations, and direct instruction or socialization by especially parents and teachers. For example, when children are raised in homes that nurture a sense of self-worth, competence, autonomy, and self-efficacy, they will be more suitable to accept the risks inherent in learning (Beare, Caldwell & Millikan 1989). Equally, when children do not view themselves as basically competent and able, their freedom to engage in academically challenging pursuits and capacity to tolerate and cope with failure are greatly diminished. The sources to which children attribute their successes and failures have important implications for how they approach and cope with learning situations (Ibid). In Hardre and Reeve’s study, “A Motivational Model of Rural Students’ Intentions to Persist In, Versus Drop Out, of High School” it was found that there are large differences in teachers’ beliefs about, and orientations toward, motivating students. Beliefs ranged from a strong bias toward student and family responsibility for effort at school, through a moderate view, to the belief that a large burden of the responsibility for promoting students’ motivation falls to teachers and schools.

Asked how they identified whether students were motivated in class, some teachers had difficulty saying, and more admitted that they often lacked effective strategies for promoting students’ motivation. Large majority of teachers see students’ motivation as impressionable believing that they actually could make a difference, and they actively tried to intervene for students’ lack of motivation when they see it (Hardre & Reeve 2003, pp. 347-356). However, these beliefs teachers themselves have about teaching and learning and the nature of the expectations they hold for students also exert a powerful influence (Raffini 1993).

According to Deborah Stipek, students are expected to learn if their teachers expect them to learn (Stipek 1988). Although, school wide goals, policies, and procedures also interact with classroom climate and practices to affirm or alter students’ increasingly complex learning-related attitudes and beliefs, and developmental changes comprise one more strand of teachers’ motivational competencies (Ames 1990, pp. 409-421). Students are not the only ones that need motivation to go on with their exertion; teachers stimulating themselves are also essential for effective schooling. Teacher-to-teacher interactions are powerful factor in student’s motivation process. Because as co-teachers interact and tell each other the problem they encounter in their various class, they tend to discuss and make useful suggestion to each other on how to handle situations in their instruction processes. For example, co-teachers review is an intentional process of gathering information and evidence about the effectiveness of the teaching and learning process on the educational environment and how positive they encourage fellow teachers in carrying out their teaching job effectively (see Stiggins 1986, pp. 51-58; Stiggins & Duke 1990; Dunkin 1997, pp. 37-51). The purposes include providing assurance that students are able to achieve what the courses requires them to achieve and to improve teaching practices. Co-teachers offer the capacity to critically review and improve enhanced teaching through the exchange of ideas. To resort to and providing constructive critical co-teachers feedback about teaching because quality teaching is regarded as a fundamental aspect of the academic role expected
of teachers. Also, co-teachers are a valuable source of formative feedback on whether goals are achieved (Koch & Burghardt 2002; Niederhauser 1998).

Promoting Motivation to Learn in Schools

Obviously motivation is a critical issue in education; it is seen as an essential component of teaching. For this reason it is prospective to address students’ motivational needs. Hardre and Reeve (2003) and Austin, Dwyer and Free body (2003) identified three important elements in student’s motivation to learn—the learning environment, classroom instruction, and interpersonal interaction. Some motivational elements at all of these levels are generally within the teacher’s control, and all of these can positively or negatively influence students’ academic inspiration. First, teachers can motivate by features of the environmental design, which includes their indirect effort to motivate students by arranging the classroom-learning environment in ways that promote or perceptions. Teachers, can motivate students by using motivating strategies, which include direct efforts to motivate individuals or groups of students (e.g., activate or remediate their current motivation), are highly adaptive based on specialized student needs and circumstances. Motivating strategies are individualized and arise out of the teacher’s specific beliefs and perceptions of individual students’ states and traits. As well, in terms, reduce students’ motivation. Teachers, can motivate students by using instructional strategies, which include features of their instruction (e.g., scope, sequence, materials, media, interactions) that are intended to facilitate students’ motivational characteristics, such as attention, interest, engagement, effort, value, and competence teachers motivational motivational teachers use language to help students initiate and regulate (manage) their class-related activities. When teachers use informational, flexible language, teachers nurture students’ own initiative, helping them find reasons to act because they want to, rather than because the teacher says so. Conversely, students often fail to reach their full potentials due to low motivation. Some of these factors that affect their motivation may relate to a country’s education system in general. Others are institutional and cultural views (Niederhauser 1997, 8). For example, the use of power in schools is seen as important in motivating students which also helps in determining high student achievement: Teachers use this method to influence student’s compliance in the classroom (Cheng, Cheung & Tam 2002). However, their investigation was only limited to grade six students. Cheng (1994a, pp. 221-239) defined power base as the use of reward power, coercive power, position power and personal power or professional power in classroom to ensure students compliance. Researchers especially in Africa and Asia see power as a valuable tool for effective teaching and high students’ academic achievement (Cheng, Cheung & Tam 2002, pp. 138-155). However, to motivate the unmotivated students, teachers should recognize that even when students use strategies that are ultimately self-defeating such as withholding effort, cheating, procrastination, and so forth, their goal is actually to protect their sense of self-worth (Lumsden 1994; Raffini 1993).

Some Basic Principles of Motivation

Unfortunately, as children grow their passion for learning frequently seems to shrink (Hardre & Reeve 2003, pp. 347-356). Learning is often associated with hard work instead of delight. A large number of students, more than one in four, leave school before graduating. Many more are physically present in the classroom but largely mentally absent; failing to invest themselves fully in the experience of learning (Lumsden 1994).

Therefore, the purpose of this section is to determine significant differences that exist between some basic principles of motivation, which are applicable to teaching and learning in some situations and which may well help teachers to encourage students and reduce the dropout rate in our secondary school:

**The environment:** Teachers who create warm and accepting yet professional atmospheres will promote persistent effort and favourable attitudes toward teaching and learning (Beare, Caldwell, & Millikan 1989, p.
This strategy will be successful in children and in adults. Interesting visual aids, such as booklets, posters, or practice equipment, motivate learners by capturing their attention and curiosity (Lepper 1988, pp. 289-309; Stipek 1988). In the same way, strong and lasting memory is connected with the emotional state and experience of the learner. It means that people remember better when the learning is accompanied by strong emotions. When a teacher makes something funny, exciting, happy, loving, or perhaps even a bit frightening, students will learn more readily and the learning will last much longer. Emotions can be created by classroom attitudes, by doing something unexpected or outrageous, by praise, and by many other means. For example, the day a teacher comes to class with a bowl on his head and speak as an alien observer about humans will be a day and lesson students will remember (Harris 1991).

**Incentives for motivating learning**: Motivation includes privileges and receiving praise from the teacher. The teacher determines an incentive that is likely to motivate an individual at a particular time. In a general learning situation, self-motivation without rewards will not succeed. Students must find satisfaction in learning based on the understanding that the goals are useful to them or, less commonly, based on the pure enjoyment of exploring new things. According to Harris (1991), extrinsic motivators in the form of rewards can help students who do not yet have powerful intrinsic motivation to learn. Rather than criticizing unwanted behavior or answers, reward correct behavior and answers. Harris further suggested that rewards could and should be small and configured to the level of the students. Everyone likes the feeling of achievement and recognition; rewards for good work generate good feelings (Niederhauser 1997).

A number of individuals, predominantly children of certain ages and several adults have little capacity for internal motivation and must be guided and reinforced continually. The use of incentives is based on the principle that learning occurs more effectively when the student experiences feelings of satisfaction. However, caution should be exercised in using peripheral rewards when they are not extremely necessary, because their use may be followed by a decline in internal motivation (Condry & Chambers 1978, pp. 61-84). Correspondingly, students respond with interest and motivation to teachers who appear to be human and caring. According to Harris (1991), such personalizing of the student and teacher relationship helps students see teachers as approachable human beings and not as unfriendly authority figures. The teachers should show that they care about their students by asking about their concerns and goals. For instance, what do they plan to do in the future? What things do they like? Such teachers will be trusted and respected more than the ones who are all business (see, Niederhauser 1997; Lumsden 1994; Austin, Dwyer & Freebody 2003).

**Readiness to learn**: Schools are or should be about helping students grow. While a variety of approaches may prove successful, success is often measured too narrowly. Too often we inhibit real success by ignoring students’ reaction to their own learning (Dillon 2001, pp. 97-98). This is because at times student’s readiness to learn comes with time, and teacher’s role is to support its development (Ames 1990, pp. 409-421).

However, Harris (1991) notes that one of the major keys to motivation is the active involvement of students in their own learning. Standing in front of them and lecturing them is thus a relatively poor method of teaching. It is better to get students involved in activities, group problem solving exercises, helping to decide what to do and the best way to do it, helping the teacher, working with each other, or in some other way getting physically involved in the lesson (Mercer and Fisher 1998). Assigning students homework that involves helping teachers is a step in the right direction to bring out the inner self of students that are ready to learn (Austin, Dwyer & Freebody 2003).

**Instructional material**: In all-purpose, the best-organized material makes teaching meaningful to the individual. One method of motivation includes relating new tasks to those already known (Niederhauser 1997, p. 8). For example, even before young people were reared in a video environment, it was recognized that memory is often connected to visual images. In the middle ages people who memorized the Bible or Homer...
would sometimes walk around inside a cathedral and mentally attach certain passages to objects inside, so that remembering the image of a column or statue would provide the needed stimulus to remember the next hundred lines of text (Harris 1991). On another hand, Maehr and Midgley opined that other ways to relay meaning are to determine whether the students being taught understand the final outcome desired and instruct them is to compare and contrast ideas (Maehr & Midgley 1991, pp. 399-427). (see also, Highet 1963; Stones 1966). On the whole, none of the method mentioned above will create continual inspiration unless the goals are realistic for the learner. To have learners assist in defining goals increases their probability of understanding those goals and wants to reach them. Nevertheless, students sometimes have unrealistic notions about what they can accomplish. Possibly they do not understand the precision with which a skill must be carried out or have the deepness of understanding to master some instructional materials. To identify realistic goals in any case is an essential part of the professional teacher's vocation; therefore, teachers must be skilled in assessing student's readiness or student's improvement in the direction of stated objectives.

Research Methodology

It is hypothesized that “there are no significant differences between the motivational competencies of teachers who have academic qualification and teachers who have professional teaching qualification.”

Research Instrument

Questionnaire was the main instrument used in this study to collect data. Nworgu's (1991, pp. 93-94) characteristics of a good questionnaire were applied in designing the questionnaire. The characteristics are: relevance, consistency, usability, clarity, quantifiability and legibility. The questionnaire was also designed with the help of my colleagues in the office to elicit information from the respondents that will help the researcher gather information on teacher's motivational competencies towards students and co-teachers educational achievements. It equally has face validity because the feedback from my academic colleagues helped in assessing that the measure apparently reflects the content of the concept in question (Bryman & Cramer 1990, p. 72). A suitable design was structured along a four-point likert-type scale (summatated) of strongly agree (4), agree (3), disagree (2) and strongly disagree (1). A summated rating scale, one type which is called likert-type scale is a set of attitude items, all of which are considered of approximately equal "attitude value" and to each of which subjects respond with degree of agreement or disagreement (intensity) (Kerlinger 1973, p. 496). Section A of the research questionnaire describes respondents' background information, they include: gender, age, status, subject's taught, academic qualification, professional qualification and length of service. While section B comprises of possible motivation competencies. The simplicity of the questionnaire was based on the fact that since different category of people were chosen as my respondents, the need to make the questionnaire as simple as possible was inevitable.

Research Population

The research population for this study is drawn from Rivers State of Nigeria. The population comprises of principals, subject heads and teachers from ten (10) randomly selected secondary schools (see table 1). The reasons for choosing subject heads is that they directly supervise teachers activities as regards teaching and therefore stands a better chances of measuring their teachers' input and output. The services of the supervisors of education are not left out. Out of the total number of respondents 76 (25.3%) were academically qualified, while 224 (74.7%) were professionally qualified.
Table 1: Categories of Respondents and the number of Responses Used

<table>
<thead>
<tr>
<th>Categories of Respondents</th>
<th>Number of Responses Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>270 90 %</td>
</tr>
<tr>
<td>Principals</td>
<td>10 3.3 %</td>
</tr>
<tr>
<td>Supervisors</td>
<td>20 6.7 %</td>
</tr>
<tr>
<td>To Number of Responses</td>
<td>300</td>
</tr>
</tbody>
</table>

Procedures

To arrive at the intended comparative analyses, several sets of statistical analyses were conducted using mean point value, standard deviation, variance, and t-test of significance (N-300). One-way-analysis of variance (ANOVA) was employed to test the relationship between variables and respondents’ background information. The t-test of significance was computed to test for statistical significant differences in the variables. It is a statistical significant set at p < 0.05 to assess if the researcher’s level of confidence observed in the sample also exists in the population.

Reliability of the Study

A measurement to assess reliability was seen as suitable in this investigation since the respondents more especially teachers had answered the questions because they were directly affected in that the study focused on their motivational competencies which is part of a determinant for their professional competencies.

Because in research statistics, when a research instrument has been ascertained of its reliability it now give bases for continuity. The reliability estimates for the sum variables were computed by the following: (Mean square variance between subjects – residual variance) / (mean square variance between subjects) (Koponen 1977, p.104; Kautto-Koivula 1993, p.161). Thus, the result from the table below reveal differences in the paired reliability estimates, which is normal. However, the cumulative alpha reliability of (0.84) shows a strong reliability of the research instrument (see Bryman & Cramer 1990, p. 71; 2001, p. 63; Saunders, LewisThornhill2000,p.361).

Table 2: The reliability of paired variables for teachers holding academic and professional qualification

<table>
<thead>
<tr>
<th>1. Variables</th>
<th>Reliability Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEACHERS’ MOTIVATIONAL COMPETENCIES</td>
<td></td>
</tr>
<tr>
<td>1. (a) academic qualification demonstrates familiarity with co-teachers effectively (Exchange ideas)</td>
<td></td>
</tr>
<tr>
<td>(b) professional qualification demonstrates familiarity with co- teachers effectively (Exchange ideas)</td>
<td>.76*</td>
</tr>
<tr>
<td>2. (a) academic qualification encourages co-teachers to work effectively.</td>
<td></td>
</tr>
<tr>
<td>(b) professional qualification encourages co-teachers to work effectively.</td>
<td>.76*</td>
</tr>
<tr>
<td>3. (a) academic qualification use reward and reinforcement wisely.</td>
<td></td>
</tr>
<tr>
<td>(b) professional qualification use reward and reinforcement wisely.</td>
<td>1.0**</td>
</tr>
</tbody>
</table>
4. (a) academic qualification guide co-teachers on how to plan and carry out their job professionally.  
(b) professional qualification guide co-teachers on how to plan and carry out their job professionally.  

5. (a) academic qualification interacts with their students respectfully.  
(b) professional qualification interacts with their students respectfully.  

Cumulative Alpha (Reliability)  

* accepted as reliable  
** accepted as very reliable

Results

The first set of the statistical analysis for this study started with an analysis of respondent’s answers using mean, standard deviation and variance. These three statistical procedures were recorded. The rationale underlying these measures are to unearth to what extent teachers influence co-teachers and students to achieve positive outcomes. The empirical findings show that teachers with professional qualification demonstrate better familiarity with co-teachers as such motivate co-teachers to work effectively (m = 3.72, SD = 0.53, and variance 0.28) as against (m = 1.71, SD = 0.77 and variance = 0.59) for academically qualified teachers. On how to encourage co-teachers, the study revealed that the encouragement of co-teachers to work effectively is accepted by the respondents to be enhanced by teachers with professional teaching qualification. This is shown in their mean, standard deviation and variance thus (3.67, 0.52, 0.28 / 1.66, 0.72, 0.53). Whereas, on the application of the wise use of rewards and punishment, the analysis shows that professionally qualified teachers’ mean, standard deviation and variance (3.44, 0.56, 0.31) are more than that of teachers with academic qualification (1.83, 0.76, 0.57), which shows that the effective use of rewards and punishment are an essential part of professional teaching. Regarding the guidance of co-teachers to plan and carry out teaching job effectively, teachers with professional teaching qualification (m = 3.71, SD = 0.53, and Variance 0.28) as against teachers with academic qualification (m = 1.77, SD = 0.80 and variance = 0.65) reveals that professionally qualified teachers guide co-teachers on how to plan and carry out their job effectively. The results also reveal that professionally qualified teachers tend to interact with their students effectively more than the academically qualified teachers; they cited approachableness as a factor in professional teaching which they possess more than their counterparts who hold only academic qualification. This is depicted in their mean, standard deviation and variance, thus 3.76, 0.53, and 0.28 against 2.11, 0.92, and 0.85 respectively. (see table 3).

Table 3: Response on whether motivational competencies of teachers improve their effectiveness

<table>
<thead>
<tr>
<th>Competencies (Variables) Items</th>
<th>Trained Teachers (Professionally Qualified)</th>
<th>Untrained Teachers (Academically Qualified)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>3.72</td>
<td>.53</td>
</tr>
<tr>
<td>2</td>
<td>3.67</td>
<td>.52</td>
</tr>
<tr>
<td>3</td>
<td>3.55</td>
<td>.56</td>
</tr>
<tr>
<td>4</td>
<td>3.71</td>
<td>.53</td>
</tr>
<tr>
<td>5</td>
<td>3.76</td>
<td>.53</td>
</tr>
<tr>
<td>Total</td>
<td>3.68</td>
<td>.53</td>
</tr>
</tbody>
</table>
The second set of statistical analysis is a t-test analysis of paired sample statistics of respondents’ perception of teachers’ motivational competencies. The purpose of this is to further verify my analytical information; the t-test analysis is aimed at determining if there are significant differences between respondents’ means.

The result showed that there are significant differences between academically qualified teachers and professionally qualified teachers compared to 17.8% respectively. Finally, regarding teachers interaction process competencies, the result revealed that as high as 85.7% against 14.3% agree to the fact that trained teachers have a more propensity to effectively interact with their students than their fellow teachers who are academically qualified. The overall cross tabulation result showed that professionally trained teacher are more result oriented than their counterparts who are academically trained. The fourth set of analysis was the use of ANOVA aimed at testing if there are significant differences between the attitudes of the respondents towards teacher’s motivational competencies. The analysis showed that the between-group mean square to the within-group mean square is close to 1. (F-ratio 1.83 Df = 299, p > 0.27). Thus, there are no significant differences in the opinion of respondents’ background information towards academically qualified teachers and professionally qualified teachers in their motivational competencies. The overall ANOVA analyses of all the respondents have strong support for professional development.

Discussion of Results

The results from the data analyses on co-teachers demonstrating familiarity with their counterparts and co-teachers encouraging each other to work effectively revealed that professionally trained teachers tend to stimulate themselves more than the academically trained teachers. Likewise, professionally qualified teachers are more likely to encourage co-teachers more effectively in their collaborative effort. Collaboration is seen as part of teacher preparation programs. This begins with the understanding that all teachers will be able to work with each other. The argument is that every teacher needs to study teaching techniques, subject area(s), disability, individualization, accommodation and skills for collaboration in the school system to be effective. In addition, they are essential part of effective schooling (Friend and Cook 1996). Also, teacher-to-teacher interactions are powerful instrument in student’s motivation processes because as co-teachers interact and tell each other the problem they encounter in their various classes as they tend to discuss and critically review and develop enhanced teaching through the exchange of ideas, as well as make useful suggestion to each other on how to handle situations in their teaching-learning processes (cf. Stiggins 1986, pp. 51-58; Stiggins & Duke 1990; Dunkin 1997, pp. 37-51). Equally, the results from this empirical study suggest that teachers with professional qualification motivate their fellow teachers more effectively on how to plan and carry out teaching assignments. The respondents’ rating displayed a compatible view with other research studies in the West. A large number of the respondents (82.2%) observed that even if teachers do their work, they do not do them well. To help them do a more effective job, co-teachers give them specific guides to use and plan their job effectively to accomplish objectives. For example, co-teachers bringing their resources—skills, training and perspectives to their job are an effective way of improving themselves. These resources are combined to strengthen teaching and leaning opportunities, methods and effectiveness (Suzanne 1997). One advantage that is clearly developed from this relationship according to Dieker and Barnett (1996, pp. 5-7) is that professionally qualified teachers have expertise in many areas and combining these skills makes them more effective in meeting the needs for themselves and their students. Therefore, teacher-to-teacher motivation is an important ingredient for success in schooling; however, additional skills will be needed to realize the goals teachers’ set for themselves and their classes. A plausible explanation for respondents’ answers on the use of rewards and punishment during instructional process showed a positive response because the use of power in schools is seen as important in determining high student achievement.

Teachers use this method to influence student’s compliance in the classroom. This was evident in Cheng, Cheung and Tam (cf. 2002, pp. 138-155) study; however, their investigation was only limited to grade 6 students. Cheng (1994a, pp. 221-239) viewed power base as the use of reward power, coercive power,
position power and personal power or professional power in classroom to ensure students compliance (see also Freiberg & Freebody 1995; Austin, Dwyer & Freebody 2003). Power is also accepted by researchers especially in Africa and Asia as a valuable tool for effective teaching and high students’ achievement (Cheng, Cheung & Tam 2002, pp. 138-155). This is what Cheng (2000, pp 207-225) called cultural factors. These cultural factors according to Cheng extends to the cultural forces shaping the features of school processes and dominating the effectiveness of education in terms of students’ academic achievement. Interestingly, the result concerning teachers’ interaction process competences also showed positive outcome in favour of professionally trained teachers. This is evident in all the statistical approaches employed in analysing the data obtained for this study. These responses display attitudes that are compatible with school effectiveness and improvement effort. Collins Concise Dictionary defines interaction as to act on or in close relationship with one another; a mutual or reciprocal action. Whereas, Freiberg and Freebody (1995, p. 198) describes classroom interaction as sequences of directives and compliance through which the classroom participants work interactively towards the visible completion of a task through the production of answers. While Austin, Dwyer and Freebody (2003, p. 26) conclude that in this directive-compliance sequence, the teacher gives a directive and selects a student as respondent, the student responds and teacher denotes whether or not the response complies with the directive. Also, in Amalaha’s study (1979) “children’s behavioural problems” he found out that students manifest cognitive and social problems in school as a result the classroom teacher should be involved in assisting the student in solving them. Due to lack of effective early stimulation, students may show weakness in some areas of their study. Therefore, they need care, respect, acceptance, support and recognition (Beare, Caldwell & Millikan 1989, p. 154). If such a situation arises, teachers need to throw in the towel to have full grasp of the situation and then embark on remedial to alter the effects of lack of stimulation with the help of their co-teachers. On the other hand, some children are problem behavior cases. Problem behavior according to Amalaha (1979, p. 232) is a behavior that is characterized by an inability of the child to meet the demands of the school environment. It may include inability of a child to get along with other children, inability to achieve self-reliance, and inability to adhere to the values prescribed by a system. Many students come to school having developed problem behavior because their parents allow their children to get what they want when they exhibit problem behaviour such as ‘temper tantrum.’ In such a case, according to Amalaha, the reinforcement of problem behavior results in the repetition of the behavior. The student brings this attitude to school to confront the classroom teacher. Similarly, according to Stones (1966, p. 383), when students come with specific emotional problem, it is impossible to go into much detail about the emotional problems, which individual students may have. But it is important that teachers realize that they exist and they are able to identify them. Children who are of a nervous temperament, popularly described as ‘highly strung’, need sympathetic treatment from their teachers. Teachers’ task should not be to reinforce their nervous behavior by giving them attention because of it, but rather to help them to acquire confidence.

Such students will need more encouragement than the average students and will react more strongly to failure. Encouragement and success in their schoolwork, the sympathetic understanding of their teachers, and a friendly cooperative atmosphere in the classroom will help them to develop more confidence. The question now is that what can the teachers do with the help of their fellow teachers to help? To help students with this problem, according to Amalaha (1979) citing Gibson is to find out what the students acceptable interests and capabilities are, and then find a group of the same grade with similar interest for the student to meet socially. To do this is not part of the talk-and-chalk work, but it has to be done to help the students in need of assistance. It helps to give the child a factual knowledge through the assistance of professional teachers. However, Stones (1966, p. 385) advocates that teachers should recommend children to the guidance clinic when it is obvious that the problem is beyond their reach. The guidance clinic of a school is staffed with experts—professional educational psychologists, psychiatrists, and psychiatric social workers. Their duty is to diagnose the difficulties of children referred to them and recommend a course of action.
Summary of Major Findings

Succinctly, the data collected from teachers, principals and supervisors of education, and their subsequent analysis revealed that highly effective school teachers encourage the creativity of students and co-teachers in finding better ways to solve their educational problems. Specifically, the study yielded the following six major findings.

1. Teachers with professional qualification demonstrate better familiarity with co-teachers.
2. Professionally qualified teachers encourage co-teachers to work effectively.
3. The use of rewards and punishment wisely tends to be associated to teachers that hold professional teaching qualifications.
4. Professionally qualified teachers effectively guide co-teachers on how to plan and carry out their job professionally.
5. Teachers with professional qualifications interact with their students more positively.
6. There are no significant differences in the opinion of respondents based on their background information.

Conclusion and Implication

However, from the findings summarized in the preceding paragraphs, more than a few conclusions and implications may be drawn. One of the main objectives of this research has been to outline the complex role of teacher motivational competencies and to explicitly state my stands in developing teaching in the education community from the perspective of a state in a developing country—Nigeria. Contrary to the research hypothesis, there are significant differences between the two categories of teachers used in this study. The current findings show strong support that professionally qualified teachers are inclined to motivate students and co-teachers effectively in the entire variables tested. We can say that using professionally competent teachers in the teaching and learning process may be a very good course of action, not only because the students will enjoy the instructional activities, but because they are valuable factors that will enhance the intellectual growth of both teachers and their students. The plausible explanation of this study lie in the differences the two categories of teachers exhibit. The protection of students and teachers to achieve educational objectives depends not only on professional teachers expertise and skills, but also to a greater extent on the effective coordination and efficacy of professional teachers. Emphasise on effective teachers motivational competencies carries more importance in term of co-teachers efficacy and students achievement. dditionally, to motivate students to learn, teachers should first of all take time to get to know their students individually at the start of the term. Second, is to have students fill out individual plan for resources. Third, at the beginning of each term, teachers should also take their time to explain their approach to their students. This could be accomplished by communicating in simple sentence and by giving brief demonstrations of typical classroom activities. Teachers should not assume, for example, that students accustomed to teacher-centered classroom would automatically understand the reasoning behind pair work or activities designed to create interactive learning environment.

References


Role of Non-Formal Education (NFE) Under Universal Basic Education (UBE) Law in Nigeria

M. U. Ojuah
Arikpo B. Arikpo

Abstract The paper described the concept and scope of Non-Formal Education (NFE), traced the origin of Universal Basic Education (UBE) in Nigeria and tried to explain the set-backs in the implementation of Universal Basic Education scheme in Nigeria. The relationship between the objectives of Non-Formal Education and Universal Basic Education under the Universal Basic Education law was highlighted and a proposal for a way forward for the implementation of Universal Basic Education in Nigeria through Non-Formal Education System was discussed.

Introduction

There is no doubt that Non-Formal Education (NFE) plays a critical role in the full and appropriate implementation of Universal Basic Education (UBE) Scheme, especially in the third world countries where over two thirds of the population have no access to Basic Education offered through the formal school system. In Nigeria for instance, Ngwu (2003) observed that;

The formal school system is characterized by a near total collapse in functioning and inputs. Nigeria has the fifth largest illiterate and innumerate population in the world with almost half the citizenry still unable to read and write even though the country started the Universal Primary Education (UPE) Programme in 1976; the National Mass Literacy Programme in 1982 and the Universal Basic Education (UBE) Programme in 2000. Despite all these initiatives, the country’s level of educational development is estimated to be fifty years behind that of educationally advanced countries (P. viii).

Similarly, Abubakar (2008), in his article, captioned, “Stakeholders Examine Basic Education Challenges” reported inter alia that;

(i) According to the UBEC boss, with over 10 million children of school going age not in school, there was the urgent need by all stakeholders to wake up from slumber, as there were still thousands others with special needs who desired attention and must be catered for.

(ii) His counterpart in the National Agency for Mass Literacy and Adult Education (NMEC), Dr. Dayo Ojagunju provided a more horrifying picture of the number of illiterates, when he said that, over 60 million of Nigerians were not able to read or write. The situation, he said would make nonsense of any effort being made by the UBEC, unless attention is paid by States and Federal Governments to the non-conventional education, just like its counterpart (the formal system) (P. 2).

Coincidentally, based on the UBE ACT 2004, Obong (2006) said, “Universal Basic Education” is defined thus; “Universal Basic Education” means, early childhood care and education, the nine years of schooling, adult literacy and non-formal education, skills acquisition programmes and the education of special groups such as nomads and migrants, girl-child and women, almajiri, street children and disabled groups (P.2). Under the law of UBE however, it thus appears that, Non-Formal Education’s role is yet to be made compulsory or mandatory, free and universal, thereby raising several issues on the effective implementation of Universal Basic Education Programmes as a means of providing functional literacy for all in Nigeria. Consequently, in the remaining part of this paper or discussion, an attempt is made to;

(i) Describe the concept and scope of Non-Formal Education.
Briefly trace the origin of UBE in Nigeria.

Explain the set-backs in the implementation of UBE in Nigeria.

Describe the relationship, if any, between the objectives of Non-Formal Education and Universal Basic Education in Nigeria under UBE law.

Identify obstacles, if any, currently militating against NFE programmes’ implementation under UBE law.

Propose a way forward for implementation of UBE in Nigeria through NFE system.

Summarize and conclude the discussion above.

References

Concept and Scope of NFE

Several scholars and practitioners have attempted the definition of Non-Formal Education, such as Coombs (1973), Coombs with Ahmed (1974:8), Ngwu (2003) and Arikpo (2007). Non-Formal Education is defined by Coombs (1973:11) and Coombs with Ahmed (1974:8), according to Ngwu (2003:13) as; “any organized educational activity outside the established formal system whether operating separately or as an important feature of some broader activity – that is intended to serve identifiable clienteles and learning objectives”. This definition tends to distinguish non-formal education from the formal education system. Arikpo (2007:56) supported this view when he opined that, “Non-Formal Education, as a form of adult education, offers programmes essentially, based on the principles and practice of “Extra-Mural and Remedial Studies. Similarly, Ngwu (2003:24) said, “the view that, non-formal education can substitute for and/or complement formal education in both developed and developing countries” was shared by majority of writers on the subject. Also, Islam and Mia (2007) shared the same view, by explaining that;

Non-Formal education operates alongside the formal education system. It is flexible in terms of curriculum, organization and management, responsive to the needs of special group of learners and inclusive of all who wish to learn (P.2).

The faith in the potentials of Non-Formal education as a powerful vehicle for development, has been retained by many advocates knowledgeable in its scope. For instance, Ngwu (2003:25) in Arikpo (2007:56), see Non-Formal Education as a means to;

(i) Provide education to those for whom schooling is not a realistic alternative.
(ii) Circumvent cultural obstacles that prevent some people from utilizing school effectively.
(iii) Use scarce educational resources more efficiently and modify the schooling system itself.

Origin of UBE Scheme in Nigeria

Ejar, Enyl and Osam (200613-15) in their article, “Towards Building the Universal Basic Education Programme on a Firm and Sustainable Foundation in the New Millennium”, gave the historical antecedents of UBE in Nigeria, summarized as follows:

(i) That during the colonial period, the Chief Obafemi Awolowo led government of the defunct Western Region introduced the Universal Primary Education Programme (UPE) in 1955.

(ii) In 1974, the Gowon Administration declared its intention to adopt the same policy as a national policy. However, Gowon’s administration did not last long enough to implement this policy.

(iii) The Obasanjo’s regime took up the challenge, and in 1976, the Universal Primary Education Programme (UPE) was launched by General Olusegun Obasanjo at the Oke Suna Municipal Primary, Lagos. Mean while, the Somade Committee appointed by the Federal Ministry of Education in 1969 to work on the UPE projects, submitted its report in 1970, and recommended the phased-implementation of the programme. However, these recommendations were not made public.

(iv) In 1973, the Federal Ministry of Education revised the implementation schedule in order to achieve
the maximum 100% enrolment in 1982. The then Federal Military Government assumed the full responsibility for funding the programme, having the states as mere agents. However, by 1981, it became quite clear that, all the projects made and funds allocated for the programme were either grossly inadequate or mismanaged, hence the Federal Government withdrew all grants and subventions to the states and local governments, and this sort of ended the scheme.

(v) In 1988, the defunct Babangida regime tried to resuscitate the programme by introducing the free Primary Education Scheme. The defunct Babangida Administration, had plans to introduce a 9-year free basic education programme, which according to the then Minister of Education, Prof. Babatunde Fafunwa, included giving youths and adults essential knowledge, skills as well as attitude that contemporary society demands for wholesome living. This programme did not leave the drawing board, however, according to Newswatch (January 17; 2000:11). This particular attempt at eliminating illiteracy, included the establishment of the National Commission for Mass Literacy, Adult and Non-Formal Education in 1990, the launching of the International Literacy year at the National Theatre, Igamu, Lagos in 1990, the establishment of State Agencies for Adult and Non-Formal Education within the decade of 1982 to 1992, the establishment of Nomadic Education Commission, the National Primary Education Commission and the Women Commission giving them legal status through the enactment of relevant decrees and edicts. However, their efforts have not succeeded in raising the literacy rates in Nigeria to the desired level.


(i) The Act mandates every Government to provide free, compulsory and universal basic education for every child of primary and junior secondary age. Parents are obliged to ensure their children enroll and complete the basic education cycle. Penalties are prescribed for non compliance by parents.

(ii) Services in public primary and junior secondary schools shall be free of charge. Penalties are prescribed for persons who charge or receive fees in respect of primary and junior secondary education in public schools.

(iii) While recognizing the statutory responsibility of states and local governments in the provision of primary and secondary education, the Act provides for Federal Government’s intervention in basic education as assistance to states and local governments in Nigeria for purpose of uniform and qualitative basic education throughout Nigeria.

(iv) The Act establishes the Universal Basic Education Commission (UBEC) its functions, membership and terms of appointment of members.

(v) The Act provides three sources of funding for implementation of the UBE, viz;

(a) The Federal Government Grant of not less than 2% of its consolidated Revenue Fund.

(b) Funds or contributions in the form of Federal Guaranteed Credits.

(c) Local and international grants.

For any State to benefit from the Federal Government block grant, such a state shall contribute not less than 50% of the total cost of projects as its commitment in the execution of the projects. However, the responsibilities for the disbursement of the funds lies with the Universal Basic Education Commission.

The Act also provides for the establishment of State Universal Education Board (SUBEB) and Local Government Education Authority (LGEA) for States and Local Governments respectively.

The Act provides sanctions for parents who fail to send their children and wards to school. The Act is also a call-to-action on the issue of poverty as a hindrance to schooling. This has led to the abolition of user fees and provision of free textbooks in the core subjects.
Set-Backs in the Implementation of UBE in Nigeria

Inspite of the enormous effort of the Federal Government made towards the provision of Basic Education in Nigeria, especially under the UBE law or Act of 2004, yet several key stakeholders have reported major obstacles in the implementation processes. Some of these stakeholders are notably; Arubayi (2007), Abubakar (2008) and Eddy and Akpan (2009). For instance, Professor Eric Arubayi, a one time Ag. Vice-Chancellor, Delta State University, Abraka, and now Professor of Educational Administration and Planning in the same University, delivering the 26th Adeniran Ogunsanya College of Education Distinguished Lecture Series in (2007), titled, “An X-Ray of Problems and Issues of Free and Compulsory Education in Africa and Challenges to Nigerian School Administrators, described the following, among others, as some of the obstacles to the UBE implementation in Nigeria; viz:

(i) Relevant data that are required for planning are either not available or falsified. Data on enrolment, promotion rate, repetition rate, dropouts, withdrawals, per pupil cost, funding, to mention a few are very relevant to educational planning. For instance, Fafunwa according to Arubayi (2007:2) reported that the problem of inadequate planning, as a result of over-falsification or underestimation of data, also plagued the UBE scheme that was launched in 1999.

(ii) In his contributions, Abubakar (2008:2) reported among others that;
(a) The scheme, itself has been subject of perception, more often seen as a kind of milk cow or avenue for sharing of national cake.
(b) There are allegations that some state governments have been paying lip service to the issue of payment of counterpart funding, necessitating some states governments not having been able to access their funding to rehabilitate the primary and junior secondary which are supposed to be the target of the programme.
(c) Statistics indicated that there were about 590,665 teachers attending to pupils population of 24.77 million across the country, with about 338,758 additional teachers required to achieve the EFA goals by 2015.

(iii) In their empirical study, titled “The Prospect of UBE Programme in Akwa Ibom State; South-South Nigeria, Eddy and Akpan (2009:047-049) found out among others that;
(a) On planning the UBE scheme, 87% of the respondents agreed that poor planning is one of the major problem that is facing the successful implementation of the scheme.
(b) On funding the UBE scheme, 90% of the respondents agreed that the UBE programme is not properly funded.
(c) On lack of qualified teachers, 60% of the respondents agreed that, there are qualified teachers, while 70% also agreed that the teachers were not adequate for the successful implementation of the scheme.
(d) On proper implementation of the UBE Scheme, 90% of the respondents agreed that the Scheme was not properly implemented.
(e) On the issue of population explosion being a problem for the UBE Scheme implementation, 100% of the respondents agreed.

The above findings, it should be noted, are not peculiar to Akwa Ibom State, but a national crisis, which has been making it quite difficult for the Nigerian government specifically and other African countries in general, to implement any programme on key social and economic development, such as functional illiteracy and poverty rates reduction, women and special interest groups empowerment. In this regard, Dike (2002) in his article titled, “The State of Education in Nigeria and The Health of the Nation”, disclosed that, “soon after Mr. President launched the UBE Programme in 1999, the Federal Government reported that, the falling standard of education in Nigeria is caused by acute shortage of qualified teachers in the primary school level,... that about 23% of the over 400,000 teachers employed in the nation’s primary schools do not posses the Teachers Grade II, even when the National Certificate of Education is the minimum educational requirement one should posses to teach in the nation’s primary school... That most of the schools are in
dilapidated states... that out of less educated local government counsellors are paid higher salaries than those of University Professors", etc, (P.2).

Relationship Between the Objectives of NFE and UBE Under UBE Law

The primary relationship between the NFE and UBE objectives under the UBE law as far as this paper is concerned is the provision of “Functional Basic Education” (FBE) for all citizens resident in Nigeria, especially the youths, women and other illiterate adults. Basic literacy so to say, has always been sort after, due to it’s empowerment capabilities on the recipients, which make them to be gainfully employed either by someone else or by themselves. “Basic Literacy of the reading, writing and counting instructional objectives was officially introduced in Nigeria by the Missionaries in 1842” (Omolewa, 1988:2). Mohamed (1989:2) observed that, in literacy development, the beginning emphasis is on the teaching of the 3hrs-reading, writing and “arithmetic”. Arikpo (2007:7) listed other advantages of basic literacy to include the following:

(a) It enables the learner to know and appreciate the education of others.
(b) It helps in managing one’s business personally.
(c) It lays foundation for further education.

It was as a result of having received this basic education that every Nigerian/African who completed the scheme successfully gained employment with the colonial administration as clerks, mission teachers, etc. As expected, the objective of basic literacy, according to Akinpelu (1989) in Arikpo (2007:10-11) shifted to Functional Literacy in 1960 at the Montreal, Canada’s Ministers’ Conference. This shift gave rise to the Tehran, Iran Education Minister’s Conference in 1965, where functional literacy was formally adopted as a new concept and strategy for literacy education. Omolewa (1985) thus defined functional literacy as, “the ability to read and write plus the ability of the (adult) learner to apply skills to major knowledge anew” (P.4). Kagiotcibasi (2005) in Kolawole and Adepoju (2007) said functional literacy is particularly important in developing countries, especially in rural areas where education has not reached significant population. What constitutes basic education is always changing in line with the challenges which the society faces, but the recipients must be those who are required to have it, as the minimum skills for gainful employment. It is in this regard, that basic education shifted its objectives to vocational literacy about 1975, according to Arikpo (2007:13) and Akinpelu (1989:4). Arikpo (2007:14) argued that, vocational skills development is an improvement from functional skills development, just like functional skills development is an improvement from basic skills of the 3Rs. Akinpelu (1989) said that the new model acts as follows: It releases the person’s power and energy to act; it frees him from all shackles in the way of his authentic self development; it makes him self-reliant and self-confident, restores his humanity; his self-pride as being the subject, rather than an object, agent rather than passive recipient of other peoples benefactors... hence, earning it the name, “Psycho-socio Literacy Model (P. 4).

By way of comparison, the objectives of Non-Formal Education and Universal Basic Education under UBE Law are seeking, among others, to produce individuals who, upon completion of their courses of study, acquire basic education that enable them to have; basic, functional and vocational skills in the same person, upon completion successfully, for either gainful employment by someone else or by themselves, so as to reduce incidence of poverty. For instance, the Federal Republic of Nigeria National Policy on Education (NPE) 2004, section 3:13 describes Basic Education as follows:

Basic Education shall be of a 9 year duration comprising 6 years of primary education and 3 years junior education. It shall be free and compulsory. It shall also include adult and non-formal education programmes at primary and junior secondary levels for adults and out of school youths (P.12). Both the Non-Formal Education (NFE) and Universal Basic Education (UBE) Programmes are the programmes of governments of Nigeria established by enabling legislations, known variously either as Decree or Act (Federal) Edict (State) and Ordinance (Local) governments. In effect, their operations are legitimate, and based on merit.
Obstacles Militating Against Successful Implementation of NFE Programmes Under UBE Law

A major obstacle against the successful implementation of NFE programmes under UBE law is structural in nature. The Non-Formal Education programme in Nigeria under the law does not have training structures of their own, which both staff, learners and other key stakeholders could enter into freely and carry out their legitimate duties. In terms of physical structures, the buildings and premises used for Non-Formal Education Programmes, are essentially hired from other organizations or individuals on temporary basis. Both the instructors and learners function on part-time basis, which tends to affect the administrative staff effectiveness. According to Hall (1974) in his article, “The Nature and Consequences of Structure”, he said that:

*The idea of structure is simple. Buildings have structures in the form of beams, interior walls, passways, roofs, and so on... The analogy of organizational structures to those of buildings is not perfect, since organizations are not built by architects, but by people within them. But the factors that affect or determine the structure of buildings do the same for organizations* (P.10).

The interacting influences of size, technology, environment and choice on organizational structures, do affect their effectiveness. By organizational structure, Blau (1974:12) in his Book “On Nature of Organizations” meant... “the distributions, along various lines of people among social positions that influence the role relations among these people”. Also, ranks or hierarchy, the positions that people fill in an organization have rules and regulations that specify, in varying degrees, how incumbents are to behave in their positions.

Organizational structures serve two basic functions, according to Hall (1974:102). *First, such structures are designed to minimize or at least regulate the influence of individual’s variations on the organization. Second, structure is the setting in which power is exercised, in which decisions are made and in which the organizations activities are cart-led out.*

The impact of ambiguous and too often, non-existing professional structures, for the practice of Adult and Non-Formal Education Programmes, concerning the implementation of Nigeria’s UBE programmes by the Non-Formal Education people in Nigeria, has been quite disadvantageous. For instance, under the UBE law, Nigeria’s “Basic Education” scope, although universal, has been quite “restrictive”, and largely in favour of the “Universal Basic Education Commission (UBEC) and its States and Local Government Structures. While under the UBE law, massive projects in form of buildings, recruitment of staff and teachers, training of staff and teachers, books, vehicles and other teaching and learning facilities are provided for UBEC and its SUBEBS partners, such structures are none existent as far as the National Mass Education Commission (NMEC) and its State Agencies for Adult and Non-Formal Education (SAANES) counterparts are concerned. The degree of autonomy enjoyed by UBEC and SUBEBS, etc, is never provided for NMEC, and SAANES. These structural constraints on the implementation of UBE in Nigeria, however, overlook the fact that, all those who due to various extenuating circumstances, could not have access to the UBE programme in Nigeria under UBEC and SUBEBS platforms, shall as of necessity and by law, be provided their Universal Basic Education by the NMEC, SAANES and Local Government NFE staff, including those that require continuing and remedial education offered by the Departments of Adult and Continuing Education of Federal and State Universities. It is estimated that those who require UBE programme in Nigeria under UBE law, through the NFE system constitute about 66%, because UBEC and SUBEBS structures could only accommodate 33% as per Table 1.
Table 1: Numbers of 1999 Primary School Final Class Pupils and the Percentage that Transited to Junior Secondary School One in all States of Nigeria and Abuja Federal Capital Territory

<table>
<thead>
<tr>
<th>State</th>
<th>No of Primary VI Pupils in 1999</th>
<th>No of JSS1 Students in 2000</th>
<th>% of Pupils Transiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abia</td>
<td>102,275</td>
<td>16,374</td>
<td>16.01%</td>
</tr>
<tr>
<td>Adamawa</td>
<td>58,661</td>
<td>5,815</td>
<td>9.91%</td>
</tr>
<tr>
<td>Akwa Ibom</td>
<td>76,000</td>
<td>21,727</td>
<td>28.59%</td>
</tr>
<tr>
<td>Anambra</td>
<td>59,461</td>
<td>32,063</td>
<td>44.02%</td>
</tr>
<tr>
<td>Bauchi</td>
<td>81,756</td>
<td>13,785</td>
<td>16.66%</td>
</tr>
<tr>
<td>Bayelsa</td>
<td>32,708</td>
<td>6,369</td>
<td>19.17%</td>
</tr>
<tr>
<td>Benue</td>
<td>67,152</td>
<td>9,637</td>
<td>14.35%</td>
</tr>
<tr>
<td>Bomb</td>
<td>81,008</td>
<td>6,629</td>
<td>8.18%</td>
</tr>
<tr>
<td>Cross River</td>
<td>50,200</td>
<td>15,323</td>
<td>30.52%</td>
</tr>
<tr>
<td>Delta</td>
<td>86,537</td>
<td>40,536</td>
<td>46.84%</td>
</tr>
<tr>
<td>Ebonyi</td>
<td>42,283</td>
<td>2,513</td>
<td>5.94%</td>
</tr>
<tr>
<td>Edo</td>
<td>101,373</td>
<td>45,321</td>
<td>44.71%</td>
</tr>
<tr>
<td>Ekiti</td>
<td>43,840</td>
<td>6,127</td>
<td>13.97%</td>
</tr>
<tr>
<td>Enugu</td>
<td>42,647</td>
<td>23,643</td>
<td>55.02%</td>
</tr>
<tr>
<td>Gombe</td>
<td>56,766</td>
<td>17,650</td>
<td>31.09%</td>
</tr>
<tr>
<td>Imo</td>
<td>82,554</td>
<td>13,916</td>
<td>16.86%</td>
</tr>
<tr>
<td>Jigawa</td>
<td>72,927</td>
<td>4,656</td>
<td>6.38%</td>
</tr>
<tr>
<td>Kaduna</td>
<td>57,927</td>
<td>17,955</td>
<td>31.20%</td>
</tr>
<tr>
<td>Kano</td>
<td>159,741</td>
<td>32,286</td>
<td>20.31%</td>
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<tr>
<td>Katsina</td>
<td>74,589</td>
<td>13,398</td>
<td>17.96%</td>
</tr>
<tr>
<td>Kebbi</td>
<td>25,738</td>
<td>19,540</td>
<td>75.92%</td>
</tr>
<tr>
<td>Kogi</td>
<td>65,934</td>
<td>17,501</td>
<td>27.38%</td>
</tr>
<tr>
<td>Kwarra</td>
<td>42,670</td>
<td>14,533</td>
<td>49.61%</td>
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<tr>
<td>Lagos</td>
<td>93,801</td>
<td>3,433</td>
<td>99.61%</td>
</tr>
<tr>
<td>Nasarawa</td>
<td>310,024</td>
<td>16,383</td>
<td>42.07%</td>
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<tr>
<td>Niger</td>
<td>40,432</td>
<td>19,295</td>
<td>47.72%</td>
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<tr>
<td>Ogun</td>
<td>59,947</td>
<td>41,906</td>
<td>69.91%</td>
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<td>Ondo</td>
<td>66,757</td>
<td>30,295</td>
<td>45.38%</td>
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<tr>
<td>Osun</td>
<td>63,477</td>
<td>38,719</td>
<td>60.10%</td>
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<tr>
<td>Oyo</td>
<td>112,800</td>
<td>67,841</td>
<td>60.14%</td>
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<td>Plateau</td>
<td>53,701</td>
<td>28,620</td>
<td>53.30%</td>
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<tr>
<td>Rivers</td>
<td>50,853</td>
<td>28,769</td>
<td>56.57%</td>
</tr>
<tr>
<td>Sokoto</td>
<td>52,822</td>
<td>11,647</td>
<td>22.04%</td>
</tr>
<tr>
<td>Taraba</td>
<td>52,004</td>
<td>5,728</td>
<td>2.43%</td>
</tr>
<tr>
<td>Yobe</td>
<td>78,735</td>
<td>9,461</td>
<td>12.02%</td>
</tr>
<tr>
<td>Zamfara</td>
<td>30,619</td>
<td>6,860</td>
<td>22.40%</td>
</tr>
<tr>
<td>FCT Abuja</td>
<td>20,675</td>
<td>10,936</td>
<td>52.89%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,391,779</strong></td>
<td><strong>806,811</strong></td>
<td><strong>33.73%</strong></td>
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</table>


Biao (2006:14) remarked that, going by the fact that only few Nigerian youths get places in primary schools, the picture just painted suggests that majority of Nigerian youths are denied education... They eventually grow up into adulthood to swell up the already existing large population of adult illiterates.
A Way Forward in Implementation of UBE in Nigeria Through NFE System

(i) Obviously one major way forward is for the government to ensure that, those who should acquire UBE skills out-of-the formal school system, are given the opportunities to do so through NMEC, SAANES and LAANE structures. In the circumstances, all the structures of State Agencies for Non- Formal Education established by enabling Laws or Edicts, shall have to be made fully functional and accountable. For instances, State Agencies without their Board of Directors, shall have to ensure such Boards are re-introduced for the purpose of performing their legitimate duties assigned by law to them. It should be noted that, such duties could not be effectively carried out by the Directors and their administrative staff.

(ii) Aggressive recruitment of staff to teach learners such as out- of-school children, youths, women and other special interest groups should be carried out, similar to those constantly under taken for the formal school pupils.

(iii) Funding of Non-Formal Education at Federal, State and Local Government levels under UBE Law shall have to be provided in proportion to the estimated number of those who could not gain access to Basic Education programmes through the formal school system, and that proportion is about 66% as earlier said.

(iv) Special Continuing Education and Non-Formal Education Study Centres shall have to be built in Nigeria for the target learners, similar to the formal UBE schools. Example of such study centres and schools have the impact of giving ownership status to Non- Formal education learners, rather than the current situation wherein these category of learners roam about due to lack of appropriate study centres and learning environments. Countries like, Tanzania, Bangladesh and India, etc, which have similar problems of high populations of illiterates and poverty have made appreciable results in their provision of Education for All (EFA) under UBE law, through the establishment of NFE schools/study centres.

(v) Discipline, better planning, data gathering and coordination of NFE Universal Basic Education Programmes would be greatly improved, if the instructors and organizers work on full-time basis.

(vi) There is need for collaboration of efforts under UBE law between the Formal and Non-Formal Education managers in Nigeria at Federal, State and Local Government levels, so as to promote inclusive learning and a literacy culture in Nigeria.

(vii) The Departments of Adult and Non-Formal or Continuing Education of Higher Institutions of learning shall have to be given the special mandate of providing; train-the-trainers, research and appropriate communities services for both NMEC, SAANE and related NGOs on NFE under the UBE Scheme.

(viii) The annual conferences of Heads of Departments of Adult and Non-Formal Education in Federal/State Ministries, Institutions of Higher Learning and NGOs, shall have to be vigorously and regularly organized so as to continue improving the theory and practice of Adult and Non-Formal Education in Nigeria and beyond.

Summary and Conclusion

In this discussion, effort has been made to draw attention to the fact that, under the UBE law in Nigeria, the country could only provide education for all her citizens if NMEC, SAANE and LAANE are made more autonomous, directly accountable and the instructors work on full-time rather than on part-time basis. Secondly, special study centres/schools, should be established and controlled by NFE operators so as to give a sense of ownership, credibility and permanence to the theory and management of Adult and Non-Formal Education in Nigeria.

Finally, collaboration of efforts between UEBE, NMEC, SUBEB, SAANE, Higher Institutions Departments of Adult and Non-Formal Education, Related Government Agencies such as Nomadic Education Commission, Women Commission, National Orientation Agency and International/National NGOs would have to be built into any serious effort aimed at reducing illiteracy and poverty rates in Nigeria.
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Role of Technical Scientific Research Education in Sustainable Development and Conservation in Sudan

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Abstract In this paper, the review is vital for the development of scientific and technological research also highlights the efforts made sporadic in this area. And try to put some solutions and recommendations that help the advancement of scientific research to resolve issues in the Sudanese society as the quantity and quality. Despite the obstacles, the movement of scientific research did not stop completely, because a number of researchers still believe in the inevitability of continued scientific research to benefit the maximum of what is available (and the efforts of individual) to attain the objectives of development, prosperity and keep pace with scientific development. The reality, which must be viewed seriously and considering it is that scientific research has become a pedestal only to build a modern state in today’s world, and became the backbone for all plans developed nations and even developing countries. And enter the world in the era of World Trade Organisation (WTO) and intellectual property Guanyin and the demands of globalisation for the next century that followed, we will find ourselves irrelevant desert plant that the blood on our present situation did not change ourselves. It must employ scientific research to address the backlog of cases over the years such as the issue of poverty and human capacity development and exploitation of natural resources of the country and the fight against desertification and settling of scientific technologies for the stability of the pastoral communities, and others. The ramifications in the fields of science and technological abounded to the point where it became impossible to take in all its aspects and its subsidiaries and became to be the selection of research needed by the various communities and the selection of educational curricula have efficacious in both the vertical (specialised) or horizontal (destruction). These thoughts came together and a hint of shame and sometimes pour sometimes without reference to party or institution. It is about frameworks general extrapolated to infer and devise solutions and treatments. I hope those who care about the subject of research and funding in the current international situation, which stripped the developing nations of the features that I found of Southeast Asia and other developing her country’s tradition of innovations and products to developed countries.

Keywords: Sudan, education, technical scientific research, sustainable development.

Introduction

A booming economy, high population, land-locked locations, vast area, remote separated and poorly accessible rural areas, large reserves of oil, excellent sunshine, large mining sector and cattle farming on a large-scale, are factors which are most influential to the total water scene in Africa. It is expected that the pace of implementation of water infrastructure will increase and the quality of work will improve in addition to building the capacity of the private and district staff in contracting procedures [1]. The financial accountability is also easier and more transparent. ‘Global Change’ consists of the linked and interacting phenomena of rapid, modern and widespread change in land cover and land use; atmospheric composition; climate; biological diversity; economic organisation; population size; distribution and consumption patterns; and trade patterns. Together these factors pose a great challenge to human development. Global change research is a large, interdisciplinary and worldwide effort to find solutions to these challenges, in order that human development may be sustained and equitable. Africa is particularly vulnerable to many of the negative consequences of global change. Every aspect of the water, energy, health, agriculture and biodiversity agenda is impacted in some significant way.

Many hundreds of Africa-based researchers are already engaged full- or part-time on global change research. In addition, there are similar numbers of researchers based outside Africa, focused on global change research relating to Africa. A rich set of overlapping networks links global change researchers in Africa to each other and to the global community. These networks should form the basis of future coordination efforts. There are key constraints to the development of a larger, more productive and better
Global change research community in Africa is the lack of adequate dedicated, accessible and stable funding sources to support this research area. Secondary constraints of insufficient highly skilled human resources, and in-continent access to certain technologies, could be resolved within a decade if funding were available. Specific recommendations include:

- Strengthen the existing networks rather than creating completely new sets, supplementing them where necessary. An overarching structure that caters for human sciences with a more development focus as well as for biophysical sciences with a longer-term focus is suggested.
- Establish centres of excellence in aspects of global change research in south, east, central, west and North Africa, using existing concentrations of researchers in most cases.
- Focus international collaborative research campaigns on large, complex key uncertainty areas in Africa, including (for example, and among others) the processes and model characterisation of tropical and subtropical rainfall; climate land-surface feedbacks; hydrological cycle impacts in the presence of elevated CO₂; impacts and adaptation of biodiversity; responses to changes in vector-borne diseases and the emergence of novel diseases.
- Increase the availability of small to medium sized competitive research grants for African researchers in global change.

Background

Sudan deals with science and technology since a long time, especially in the most important aspects of research and development. It did not identify specific policies or plans for science, technology and scientific research in Sudan in the post-independence period in spite of direct interest and activity, which is done by scientists and experts such as the Sudanese Arquette Conference for the overall development [3]. The first composition of structural and institutional framework for science technology and scientific research establishment of the National Council for Research in 1970 as a government responsible for policy, planning and programming has been included under his five boards specialising in agricultural research and scientific and technological research, medical research, renewable energy research and the economic and social research. And be under the umbrella of some national committees in the environment, population and genetic engineering. It also established some of the centres and units to conduct scientific research in disciplines that are not available to universities and other research centres and the most important dimension of the Remote Sensing Centre and the Centre for Documentation and Information.

The new world order and the globalisation agenda of the twenty-first century are controlled by the revolution and the Sultan of information and amazing and successive developments in science communications, electronics, biotechnology, genetic engineering and computer science. All these challenges require the use of scientific research in order to survive competition and does not have a will of its strength does not have a decision in his or her liberty in all its dimensions. I have the latest scientific advances by the end of the twentieth century new phenomena, including the authority of informatics and the authority of the international media and social change and systems in a sophisticated modern technology, production and management. It is more complicated systems using modern technologies and the accelerated globalisation of information and knowledge become the methods of scientific research of the basics and requirements of sustainable development of any country seeks to true independence. Because the people have the information and improve their use will have an advantage in the selection of appropriate technologies and in reducing the cost of production and raising rates and competition in foreign markets and meet the challenges of globalisation in all fields [4].

All of this, the experience accumulated around us and our needs of actual and our well-defined should be our starting point to develop a strategy applied scientific research to which we aspire, otherwise we will apply to us the rule which says ((those who seek not what we want, and who want not what we need, which we
This paper dealt with the subject of scientific research in the Sudan, also highlights the efforts made sporadic in this area. And try to put some proposals and recommendations that help the advancement of scientific research in order to achieve its objectives and even going in the right direction, which can achieve sustainable development and in line with the requirements of globalisation.

The National Research Council in 1981 the first plan for science and technology and scientific research in the form of a programme known as ((the programme of building a science of modern)) in between 1981 and 1990 included the sub-programmes to exploit science and technology and to encourage scientific research and building science cities. In 1989 established the Ministry of Higher Education and Scientific Research and became a ministry responsible for setting policies of science and technology, scientific research and has developed a new management structure of the National Centre for Research and issued law in 1991 with the aim of the Centre to conduct scientific and applied research. And entrusted the National Centre for Research to conduct scientific and applied research for economic and social development within the framework of state policy and under its auspices, and in coordination and integration with the institutions of scientific research in Sudan menu such as:

(1) Centre for research and industrial consultancy.
(2) Agricultural research corporation (and forests).
(3) The research of livestock.
(4) The geological and mining research.

Entrance

At a time when the pace of the Western world strides in the field of scientific research until they reached the maximum range in recent years, the country has been developing, including Sudan in the early stages, its features are not clear yet. It may be appropriate to begin the article for reasons including:

- One can take a closer look and comprehensive review in this area during the past decades.
- Second defend economic, social and technical, which is moving towards wider horizons the better and the worst.
- Third - tech machines, which jumped from steam to nuclear reactors and equipment to lightning satellites.
- Fourth globalisation and the consequence of openness are difficult to control it. That is why the world's post-year 2000 will be governed, including the decisions taken today, and decisions taken by the views at the top of the state bodies in the development of policies, strategies and plans. Those decisions should be taken along the lines of solid base of knowledge and skill. Knowledge and skill that needed to research and application, research and application need for political and professional experience and knowledge and practice.

Modern scientific research began in Sudan and establishing a laboratory chemical in the second year of this century (Welcome Chemical Laboratory) and cotton research stations, followed by several research centres, all linked to areas of scientific and technological and related ministries and various government departments. After independence, turned institutions and scientific schools and the College of Gordon to form the University of Khartoum and obtained scientific research has attached great importance especially after the increase in graduates from the University of Khartoum and open the opportunity for many of them to engage in scientific research, this was a breakthrough for the development of scientific research in various levels and the response to a number of issues and try to address the problems associated with its evolution [5].

Scientific research in Sudan: The scientific research in the broad meaning is to harness science and technology for the benefit of society. We have met all platforms scientific (meetings, seminars, conferences,
workshops, etc.), whether regional or global, which discussed the major challenges that science and technology has become the way real disposable in today's world to achieve economic and social development and that the difference between the developed and underdeveloped countries is due primarily to the difference between them in the scientific and technical capabilities. No way for these countries to achieve economic and social development only through science and technology and scientific research.

Among the most important factor in increasing production and development is the scientific and technological progress and the ratio of the strong relationship between economic and social development and scientific and technological progress. Known to Sudan to deal with scientific research with the beginning of this century has been established plant (Welcome) in 1902 to take control of Epidemiology and parasites. In 1904 established the first station of the Agricultural Research. And established the Kitchener Medical School 1924 and then the School of Veterinary and Agriculture in 1938 and the interests of geology. The objective of this research in the colonial era to provide simple needs in the fields of agricultural, health and mining, but linked, in particular raw materials and make it suitable for export was also associated with imported goods in order to make it fit with local needs. Expansion of scientific research in the fields of agriculture and veterinary medicine, forestry and fish thanks to these colleges and professors to become a stand-alone there is a College of Graduate Studies at the University of Khartoum. About the history of scientific research in Sudan: Scientific research aims to find solutions to the problems facing the human to follow the scientific methods of the Organisation based on a systematic consideration of sound. This concept began scientific research in the modern sense Sudan with the beginning of this century, and the research efforts, individually and in limited areas of improved goods and raw materials as well as in some of the veterinary services and quality control. The unit veterinary quarantines the first nucleus for scientific research in Sudan, where the user defined the British administration in 1900 in the interest of military veterinary time and paid attention to study some common diseases in the bovine animal plague and prevention.

In 1902 established a laboratory (Welcome), where the active and clear in the fight against diseases and insects harmful to humans and animals and plants, has contributed to the lab to discover some of the endemic diseases, especially schistosomiasis in Sudan. In 1904 established a separate unit for agricultural research included in 1912 to the benefit of knowledge of Sudan and had been cooperating closely with the lab (Welcome) and in 1919 turned into agricultural research to the Department of Agriculture and confined their efforts in the period to monitor the quality of the crops and protect them from pests. In 1934 opened the Kitchener Medical School and later joined to the rest of the sections of Gordon Memorial College to form the (Khartoum University College in 1951). The 1938 milestone in the history of scientific research in Sudan, where was established the School of Veterinary Medicine and School of Agriculture and have evolved later to the colleges of Agricultural Sciences and Veterinary Science and the graduates of those schools are leading the Sudanese first in the field of scientific research in agriculture, veterinary science and was almost a kidney impact in enriching scientific research in Sudan qualified cadres and the development of curricula and research methods [6]. Not only research activity in Sudan on the human and veterinary medicine and agriculture, but efforts have been made in multiple areas of research in science and engineering in different branches in industry, food, construction, geology, mining and areas of economics, sociology and the humanities, etc.

The owner of that official efforts by non-governmental scientific associations in various fields and made some magazines and scientific journals limited distribution and the country began to hear about conferences, seminars and scientific seminars. The independence of Sudan at the beginning of 1956 witnessed the beginning of a new stage in quality and quantity of scientific research and approaches and decisions of the College of Khartoum university marked the birth of the University of Khartoum, which recognised the nuances of scientific world and provide for scientific research potential of the largest and expanded opportunities for government missions and non-governmental organisations to universities and colleges outside the country, which shares in the country to provide scientific expertise in the various branches of modern knowledge. The spread scientific research centres, especially in agriculture and livestock in various parts of the country to
reach areas of production and animal communities and expanded the work of general survey of the potential of the country and its natural resources. A closer cooperation between Sudan and the friendly countries and bodies and international organisations are very important.

**Structure Management and Coordination of Science and Technology and Scientific Research**

The country continued her scientific during the period that followed independence until the 1970 year of transition the great scientific where a National Research Council as an independent sponsor scientific research in the country under the care directly to the president and the president of the National Council for Research in the rank of minister and participate in meetings of the Council of Ministers and led the National Council Research march to scientific research by universities. Sudan announced in early 1982 that the era of the eighties would be the start-up phase in building a modern science. In 1991 the centre was established the National Centre for Research (NCR) as a substitute for independent, multidisciplinary research and development concern in the field of applied developmental and under the auspices of the Ministry of Higher Education and Scientific Research [7].

**Sector of Higher Education and Scientific Research**

This sector is supervised by the terms of the development of policies, strategies and plans, National Council for Higher Education and Scientific Research under the auspices of head of state and is chaired by the Minister of Higher Education and Scientific Research, representing the universities and the National Centre for Research heads of their boards and Directives members in addition to the membership of institutions of higher education colleges and private Ahli. Established the National Council for Higher Education and Scientific Research of the Research Committee as one of its standing committees and entrusted with the task of coordination between universities, higher institutes and the National Centre for Research.

**Research and Development Sector Ministries**

This sector consists of institutions for research and development to follow the federal ministries. The largest of these institutions, the Agricultural Research Organisation, which consists of agricultural research centres and the Food Research and affiliated with the Ministry of Agriculture and Natural Resources, in the same form belongs to the Livestock Research of the Ministry of Livestock, and Medical Laboratory of the Ministry of Health, the Centre for Research and Industrial Consultancy to the Ministry of Industry, Research Institute of Hydraulic to the Ministry of Irrigation, and the Institute of Geological research of the Ministry of Energy and Mining.

**The Supreme Council for Environment and Natural Resources**

Established under the chairmanship of the president of the Republic and the membership of the Minister of Agriculture and Livestock Minister and the Ministers of Higher Education and Scientific Research, health, industry, irrigation and finance. The Board shall leave policies that are interested in the environment, natural resources and the coordination between governmental and private institutions in their respective fields.

 Based on the above are policy development and coordination and evaluation in the field of science and technology at the moment on several levels in different sectors. The National Council for Higher Education and Scientific Research, policy development and coordination between universities and the National Centre for Research on science and technology through the Standing Committee on Research. The policy development and coordination between national research institutions are at the level of the Supreme Council for Environment and Natural Resources and the Federal Cabinet.
Qualified Personnel in the Field of Science and Technology and Scientific Research

Classified as developing nations when compared to the rest of the world it is lagging behind scientifically percentage of scientists is very low, and also spending in science and technology does not affect the rate of 1% of GNP set by UNESCO as a minimum for the development of science and technology. There are many indications and are known to help assess the degree of development of science and technology, including:

- Number of qualified cadres in the field of research and development in every million people.
- Percentage of expenditure on research and development of the gross national product.
- Number of scientific personnel and technical ability in the thousands in every million people, it is the duty of developing countries to develop research and development in the structures of local scientific even expanding the scientific base and are used and increase their effectiveness and strive for the developed countries and benefit from the model of scientific as most of the scientific personnel and technical assistance to these developed countries working in industry in the area of quality control and production development. In the field of research and development, the labour force and high-trained staff are a great wealth for the success of the application of science and technology in moving the wheel of development. According to UNESCO standards require developing countries with a per capita GNP between U.S $500-1000 to 6000 specialised scientific and engineer in every million people that 10% of whom specialise in the field of scientific research and development. Also need this number of qualified personnel to a large number of intermediate cadres of technicians and skilled workers.

Sudan Trends in Science and Technology and Scientific Research

Sudan are evaluating the effectiveness of teachers and researchers in universities and research institutions in the light of the results of their research and their experience in addition to their participation and contribution in the productive sectors, including industrial, agricultural and services sector. Also, as the correlation of universities and research institutions of these sectors is one of the important indicators in determining the level of scientific, technical and can be measured by the number of contracts related to research and development in the public or private sector and also offers advice and other technical services for the benefit of society.

Scope of Procedure

Sudan has taken in recent years a number of positive steps towards supporting science and technology and its applications in the field of formal commitment and policies are the following steps:

- A comprehensive national strategy included an approved plan for development of science and technology and its applications. This is the first formal commitment in the modern history of Sudan.
- To create the National Centre for Research in 1991 as an independent, multidisciplinary research and development concerned and aimed to strengthen the scientific capacity in the field of applied and developmental.
- Formation of the Supreme Council for Environment and Natural Resources in order to support, coordination and balance environmental and sustainable development.
- Horizontal and vertical expansion in the training of scientific personnel and professional establishment of regional universities and specialised institutes and increase the proportion of the number of students of higher education. As the expansion of education above college and branched specialties.
Restructuring of the agricultural research for independence and support staff and financial resources and linking them to the application farm in the major agricultural enterprises. And take advantage of technological packages for the establishment of crops and increasing the vegetable production, and were separated bodies dealing with livestock research and development in livestock enormous.

And encourage scientific publishing and media support scientific publications and programmes at different levels of information in audio-visual media tools and governmental interest in public awareness in science and technology.

Establishment of the council to develop the manufacture of Sudan under the auspices of Centre for Research and Industrial Consultancy, Ministry of Industry.

Outside

Sudan has been a great interest in regional and international cooperation in science and technology and to provide what is available has the potential of scientific and material assistance to the brotherly and friendly countries as Sudan committed themselves to the agreements and protocols, regional and global within this framework:

- Sudan signed in 1992 the Vienna Convention and Montreal Protocol on Substances that Deplete the Ozone Layer.
- Sudan signed in 1992 the Convention on International Centre for Biotechnology and Genetic Engineering and established a national focal point of the National Centre for Research.
- Sudan adopts many of the activities of the Federation of Arab Scientific Research Councils.
- Sudan participated actively in the programmes of regional and international organisations.

There is still a need for greater effort in different sectors to create an enabling environment adapted to the increased production of science and technology and its applications to bring about growth and development through:

- An interest in developing the capacities of institutes and research units in universities and scientific centres to provide the funding and training opportunities within and outside Sudan and supplement laboratory equipment, libraries and documentation centres and information.
- Care for the environment and the provision of scientific supplies necessary for researchers and technicians, professionals and motivate them to stability in Sudan and to increase their production and technological research and to encourage and honour of or excelled in them.
- Involvement of scientists and modern technology (Altqanyen) priorities in the formulation and application of science and technology on scientific grounds.
- Working to upgrade the basic science curriculum in higher education with interest in teaching mathematics and modern science such as genetic engineering and computer science.
- Work on doubling the number of researchers, engineers and technicians with stimulate outstanding students to join the institutes of education and training and in the training of the intermediate.
- To find the appropriate formulas for linking scientific research areas of consulting, production and so on:
A/ insurance needs of the citizens in the basic food, clothing, medicine and energy through productive projects attractive to investors so as to ensure self-sufficiency.

B/ self-production complexes typical for rural development and balanced regional cities and to alleviate the bottlenecks. These complexes will provide opportunities for the transfer of research results to the fields and factories.

C/ vertical development is done through modernisation of management and means of production and services in various sectors and the use of computer data and takes advantage of genetic engineering and the introduction of sprinkler and drip irrigation and other inputs from modern technology.

D/ double centres and computer networks and arrived in the commercial and political centres in Sudan, computer information networks that are created National Council of the computer.

E/ establishment of laboratories and high technology and advanced to the development and consolidation of technological rules to advancing development, such as microelectronics laboratories and laboratories of biotechnology and genetic engineering laboratories and information and solar power, atomic energy and science of the desert and remote sensing and medical science.

F/ and/or attract scientists and professional staff, technical and technological requirements and provide better service and equipment specific to the progressive work and a better working environment.

G/ qualification and training and improving production in order to focus on human development.

It is clear that universities set up distributed to various states of Sudan and the following must be considered:

1. Confirm the identity of the nation and establish it through the curriculum which are approved by the university and applied.

2. Conduct scientific and applied research related to the different needs of society and renewable energy in order to service and upgrade.

3. Interest in desert ecology, medicine, land and industry in the context of interest in the development of Sudan in general.

4. Attention to issues of human development, thought and religious values.

5. Concern for the environment of Sudan in general and the state concerned, especially the environment and the rehabilitation staff is able to upgrade and resolve jurisdictional issues relating to the environment.

6. Technical innovation and employment to serve the Sudanese community, in collaboration with universities and institutions of higher education and scientific research, and the other country.

7. Interaction with the citizen understanding of rural problems and recognition of his knowledge and experience, and work with him to develop according to his needs and values.

8. To prepare students and give them the vacation of science.

From here it is clear that scientific research theory and practice-oriented and is the mainstay of development plans in the country, the first stage of each development project, or a step forward in the world today based mainly on new technologies. However, the concept of scientific research and unfortunately may like a large mixing in Sudan since the prevailing concept of scientific research is the work leading to the new discoveries and inventions of the things that were not known before. And this became the prevailing sense of politicians, planners and executives, as well as ordinary citizens, resulting in the full dimension of scientific research on the movement planning in the country, and do all the development projects both big and small, without that preceded or followed by scientific research. As in the side of development projects across all the previous era, we have witnessed the collapse of a large number of agricultural projects, especially those established by the private-sector, for simple reasons for the disqualification of soil or poverty, or lack of validity of the climate, or after the area of marketing, or certain types of insects in the region concerned and others. In the industry it is even worse and more bitter, and the whole Sudanese society is still bemoans the textile project Kadaw, and a project for manufacturing fertilisers, and the project of producing yeast and others. Even the existing plants, it works because the specifications of low cards do not match temperature in Sudan [8].
The Goals of Scientific Research in Higher Education Institutions

Derived from Sudanese old universities reputation and fame and reputation locally, regionally and globally from academic and research excellence. Prestigious universities have sought to regulate scientific research to devote our specialised departments dealing with the affairs of scientific research under the direct supervision of the Departments of University. It is the most important functions of the Department of Scientific Research is the supervision, coordination, and funding for outstanding scientific research. To hide the that the cross-fertilisation between scientific research centres, which is the main tributaries of research activity in universities has become an absolute necessity in the pursuit of excellence and integrated work for scientific research, basic and applied universities, as both are complementary to one another because of the organic unity that exists between higher education and scientific research, education includes research activities in all its aspects and specialisations, and comes through the provision of scientific research results in basic and applied. But is not limited scientific research on science and technology, but knocking all areas of social sciences and human and economic, etc. Since the homes are prestigious universities has particular expertise harnessed their potential and efficiency of research faculty members to conduct applied research of the character, which contribute to achieving development goals, by linking research and the urgent need for the development of society and help solve problems that impede development [9].

Areas of Scientific Research Institutions of Higher Education

The link between higher education institutions are preoccupied with the country necessitated the commitment engagement in all areas of research available, which greatly helped in securing the rise reflected an integrated development and prosperity and the prosperity and development of comprehensive and the most important areas of research:

1. Medical research and health.
2. Research and industrial engineering.
3. Research livestock and wildlife.
4. Agricultural researches.
5. Research forestry and natural resources.
6. Research geological and earth sciences and mining.
7. Water research.
8. Energy research and renewable energy.
9. Economic research and development.
10. Research for strategic studies.
11. Research sovereign, political and judicial.
12. Research, educational, social and intellectual.

Tasks of scientific research centres specialised in:

(1) There are centres of radiation of modern technologies such as remote sensing, biotechnology and space science, renewable energies and others.
(2) There are centers of training for staff in all institutions in order to settle these technologies in the country.
(3) To be advisers to the state of the scientific studies necessary preceded any development project in order to avoid confusion and loss, and planning random.
(4) To ensure that resettlement technologies in the global agriculture, industry and animal husbandry, and others.
(5) That the necessary studies in order to achieve international standards in all national products and national wealth in order to be competitive globally.
(6) That works to detect the exploitation of natural resources existing in the country, such as plants medical and natural fertilisers and pesticides, plant, solar and others.
(7) To spread the spirit of innovation and invention and disclosure, and encourages and seeks to achieve scientific leadership.
(8) To establish research projects of integrated human development and fighting poverty.

Problems of Evaluating Scientific Research

Scientific research in Sudan is concentrated in three or four ministries which are the Ministry of Higher Education and Scientific Research and led by the National Centre for Research and Universities, Ministry of Agriculture and Natural Resources Development and the Agricultural Research Corporation, and the Ministry of Livestock and the Body Livestock Research, Ministry of Industry and the Centre for Research and Industrial Consultancy. In addition to the small units in some other ministries such as the geological research, and the National Department of Energy, and General Management of Forests [10].

- An escalating costs of research materials necessary laboratory and field and logistical.
- Migration researchers outside the country and sometimes internal, non-research sites to get an income guarantee.
- Lack of funding for general research, a very small proportion of national income.
- Imbalance ratios between scientific research and technical assistant in all disciplines.
- Social and economic conditions that adversely affect the researcher and the lack of appropriate financial incentives and lack of access to opportunities to participate in conferences and meetings of global and regional.
- Quality of research and its incompatibility with the application directly.
- Coordination between producers of research and its users.
- Failure to provide supplies to apply the results of scientific research in terms of management and human resources, and financing frameworks.
- Busy bodies in the productivity boost production, and incentives and lucrative bonuses.
- Weak contribution of 10 research organisations in solving the actual bottlenecks in production lines, including punishment of confidence between the parties.
- 11 non-priority-setting research properly respond to urgent cases and with tangible economic returns.
- Poor management of scientific research.

Difficulties that Hinder the Course of the Development of Research and Development System

The following difficulties are discussed:

Coordination in the Development of Research and Development Programmes

Lack of coordination in the development of research and development policies and development between the national plan and research programmes in universities, research centres and lack of familiarity with the problems and needs of the industrial sector and agriculture and due to the lack of authority, which sponsors scientific research and then entrusted with the accounting research directions.
Coordination Between Universities and Research Centres

Not to encourage researchers in universities on the use of laboratories, research centres and the results of previous research affiliate, no facilities and special benefits for the exchange of information and experience between them but no interaction is limited to each and everyone in his own world.

Coordination Between the Productive Sector and the Service, and Scientific Research

Solve the problems of the factories away from the centres of scientific research, whether in universities or research institutions and often the solution will cut the import of new or foreign assistance. The results of the research not concern the productive sector to lack of confidence and accommodating the extent of its success and realistic cost.

Internal Difficulties in Research Institutions

There are several internal constraints impeding research institutions to interact with the productive and service sectors, such as not qualified for the Latest Altqanyen in sufficient numbers to carry out maintenance and operations research under the supervision of senior staff. These intermediate cadres need to be a comprehensive training and there is a lack of familiarity with the needs of these sectors and how to market services to them. There is no sense of the role of media failure and the absence of a mechanism to activate the association and coordination and integration between research institutions and sectors of the recipient.

Financing of Research and Development

The agreement in the research and development is one of the direct indicators to assess the scientific status of any country; there is a high correlation between investment in research and development and economic growth. Developed countries maintain the progress and prosperity through the availability of credits in the field of research and development, while developing countries in contrast to the belief that the interest in investment in science and technology does not come benefits urgent. In the time that developed countries spend high percentages (between 2 to 3 %) of their gross national product in research and development, we find that the majority of developing countries does not exceed more than 2%-3% and 0.2%-0.5% of their gross national product in research and development [11].

Human Resource

The human element is a powerful tool in bringing about economic and social development through the use of other factors of production, and the human at the same time the target development. Dealing with human development as the development of population characteristics, abilities and organically linked with the overall development of a society where rights and the means or purpose. The population of Sudan, about thirty million people (Statistics 1996) and estimated population growth rate of about 8.2% per year and notes that the increase of population in urban areas of 5.7% per year, while increasing the rural population rate of 5.1% per annum and is due mainly to migration from the countryside to cities. It is also noted that a high proportion of the population under the age of 15 years (it follows that the existence of the proportion of approved high) and the population density is about 10 inhabitants per square kilometer and up in agricultural areas populated to 390 and there is variation in the distribution of population between different states [12].

The number of economically active population by about 48% of the total population and contribute to kidney for males by about 60% and women by about 4.6%, which is very low and worthy of review and processing and the contribution of women in rural areas is higher than in urban areas and areas rich in the
top of the poor. By the urbanisation process and continuous improvement of health services, the youngest age bracket increases for the composition of the population. The estimated labour force (15-64 years) at about 54% of the total economically active population who are estimated to be about 5.8 million of whom 1.2 million urban and 4.6 million rural. One of the problems that must be addressed, increase-mounting losses in the various stages of education, has the unemployment rate in 1993 about 17% while it was 5.10% in 1983.

And to promote population characteristics and development of human resources and development skills of the workforce to raise the efficiency of production to achieve the development goals desired, while maintaining the stability, entitled to the problems of population and workforce awareness and mobilisation and organisation, guidance and information to improve the characteristics of population while maintaining the highest rates of population growth commensurate with the geographical expanse and objectives strategic addition to the employment potential of the population and higher rates of growth while preserving natural resources and ensure the continuation of its bid for ways to raise awareness and promote the means of production and legislation [13]. The workforce may be seeking to address issues of illiteracy and reduction of waste education and technical training and vocational skills development and linked to appropriate technologies and the local environment and the needs of the labour market. Vary the contribution of each of these systems in GDP and in the importance of economic and living conditions depend Sudanese economy heavily on irrigated agriculture and rain-fed agriculture mechanism and the two together contribute about 80% of food production (maize) and estimated its contribution of about 50% of the value of agricultural exports has recently contributions to the growing livestock and gum Arabic in the Outbox [14]. Successive governments have continued to exercise parental role in this sector in terms of providing the requirements of foreign exchange for inputs and operational requirements and the obstacles that have emerged have accompanied the influential sector in its overall performance [15].

**Strategic Objectives Based on Three Axes**

Three procedures required accessing the completeness of the goals of the observed and the strategy includes three main components:

1. Formulation of objectives.
2. Planning work programmes to reach the objectives.
3. Ensure that the capabilities required.

Management strategy must be seen as an ongoing process and it does relate to the goals and plans, and monitor the risks and restraints, and support aids, and the decline of priorities, and believe in possibilities, and the sequence of implementation, and the results. Even a strategy of scientific research does must believe:

1. Maturity of the strategy and the plans.
2. Safety priorities.
3. Integrated management process (technically, administratively and financially).
4. The stability of scientific research institutions structurally and functionally.

Types of research can be summed up as follows:

1. Research strategy.
2. Applied research.
3. Technical research (field technology) research.
4. Research methods (methodology matters).
Stages of Development of the Capacity of Research Institutions

Studies agree that there are three key stages to reach this goal and every stage of which needs to periodic review in order to achieve its goal. And these stages can be summarised as follows:

1. At the consensus of opinion.
2. Building capacities.

Scientific Researches and the Challenge of Civilisation

Believes much of the so-called third world (including Sudan) that the transfer of technology in its final form represents an ideal solution to the problems of poverty and underdevelopment are experiencing, and an indispensable tool in narrowing the differences of civilisation between them and the developed countries, the owner of this technology and then adopt to monitor huge amounts of their income low in order to achieve this goal at a time are neglected these countries. Scientific research, both basic and applied largely ignored and clearly foreshadows his meager allocations upon the absence of a plan and conscious of actual research priorities, methods, and operates intellectual capacity through both scientific researches mentioned it affects each in other in a constant cycle of movement and interaction, leading to community-building and face the problems of scientific solutions which take into account the specificity of the community and the uniqueness of its components. One manifestation of lack of attention to scientific research as well as the weakness of the preparation of national human resources trained and capable of understanding the techniques of the times and working with them for its development or at least bear in mind in order to achieve optimal use of them, reduces mistakes, and vanished with its negative effects on social and cultural life [16-25].

Technicians, technology, information revolution, the Internet are all echoes of the scientific research and development has reached the world for hundreds of years in research and experience. And for the world technology, we find that pre-empt access to knowledge that ensure comfort and superiority to others, especially to maintain national security. We find that some developed countries have given the efforts of the scientific and intellectual interest in each of their children and ridiculed their all kinds of support. And others learned the importance of the human mind to migrate minds and marshalled for the service of science and technology even possessed the world. It has become clear that the intellectual capital, which came by the information revolution, is a source of wealth, a new capital.

Scientific research is the examination and investigation of the fact that the orderly and systematic follow scientific methods. Since we are in the era of globalisation and privatisation has received the importance of scientific research in the definition of globalisation as the entry because of the evolution of the information revolution and technology in the process of the development of civilisation. Development is the activation of natural resources and the human-cantered human mind in its search for how to use and activated. And development stage does not come only by the accumulation of quantitative and qualitative research and ongoing efforts. Relationship is still scientific research institutional development the subject of controversy, this despite that the relationship between them cannot be separated. Developmental planning is putting the priorities and needs of the scientific research programme while feeding the proper research institutions planning information and the correct data, which would work to increase production and reduce costs and make the upcoming changes. It is sad to know that the development of research is an investment in itself, where studies showed that the average rate of return of scientific research than 1000% of expenditure on it. Although this ratio is differ according to different states in Sudan, but just the opposite [26].
Conceptual Framework

First, the cultural fabric of social considerations

Begin to say that the experiences of forty years of development efforts that shows growing modern industry is not subject to the elements of traditional production, which also says the comprehensive national strategy for only a tenuous link does not carry an abundance of raw materials and energy resources or human density flows or foreign aid. Growing modern industry depends on cultural fabric of social, a product of more than a political, social, cultural spiritual and the fruits of social mobilisation. Court, unity and national vision inclusive and effective, is the result of the victory on the crises of national and confusion, and waste and conflict, which is the result of finding programmes that cruel to national priorities and resource allocation and the provisions of the settings and promotion of manpower.

Second, macro-economic policies

The growing modern industry requires the provision of appropriate macro-economic environment, which manufactured and rooted macro-economic policies effects directly and indirectly. That macroeconomic policy is appropriate to require Shell industrial development programmes and obstruction of public and industrial performance, and industrial investment.

Third, national constitutional changes

It is necessary to fit the industrial development policies and regulations of the Department of Industrial Development with the political and constitutional changes and major social changes that are organised home. Hijacking on the meanings and values of autonomy (the terms of reference state and the competence of local government) is exceeded on the principles of democratic governance and the principles of decentralisation and basic services.Needs to be a better means of economic management and capacity-building performance in the climate market economies, and then fit with the dramatic changes in the global economic climate.

Fourth, changes in economic life and the global wave of globalisation

Characterised by a climate of international economic life depletion constraints of official international aid organisations and to link international inferior pressures and constraints. And the national industry will face new challenges in the post-General Agreement on Tariffs and Trade (GATT), not only the challenges of competition in foreign markets but in the challenges against competitors in the market within the national itself. There is no way an expression of that cruel to reach high levels of economic efficiency and quality, support and development. The advantages are of natural systems, the relative economic efficiency and high quality industrial dynamic, and that the keys to the future are a science and technology, information technology and knowledge-based industry. Otherwise the industry will not get from agricultural products and edenic but rates of subsistence and go value-added and employment opportunities and employment and gain skills to employers industries. The industry is oil refining and electricity production and transfer of mineral ores and agricultural products to high-value multi-purpose. At this stage of our economic development, it is necessary to link the agricultural development to industrial development and a tight linkage to the full coordination between the arbitrator agricultural programmes and industrial programmes. The world is at the stage of knowledge-based economy and information technology in the pattern and type of industrial products and a stunning development in the patterns of industrial goods, the traditional and the transition to industrial products, new goods and products to the intellectual capacity (Brain Power Products) this economy is based
on the miracle of conversion brainpower to material products [27].

Economy of the future requires a workforce with high skills and superior capabilities of mind and fullness of the spirit of innovation and initiative. Economy of the future requires a new culture and new modes of behaviour and affiliation unwavering to the values of harmony and unity and team spirit and requires a firm relationship between membership, production and the forces of science and knowledge and powers of the soul and technology. We have to deal with the changes of contemporary systems, the division of labour (Division of Labour) in the international economy and the resettlement of large groups of industries to train industrial industries like truck, automotive, industrial equipment, steel mills, fertiliser and cement and traditional textiles and leather tanning, etc.

Fifth, schools (Mzhabiyat) industrial development

We should beware of liquid industrial development strategy in any Mzhabiyat or schools of thought or any rules M_khash theory (Cook Book Rule) and be careful of the transfer and application of the theoretical basis and ignore the real situation in the country and the actual conditions. And the development of the necessary tools to address the actual situations of national industry and solve problems based or expected in the national industry.

Sixth, congenital natural economic

On the natural moral economic technical homeland outline of a strategy of industrial development in the country, the strategy for the development of real resources of the country and to protect and enrich the education advantages enjoyed by the country's crops and wealth dynamic industrial technology and the highest levels of economic value added and economic efficiency and innovation. And a summary of the matter is that the foundation stone of the industrial strategy is the treatment of industrial processes or manufacturing of materials and primary resources of the country (such as availability of cotton, oil seeds, leather, corn, vegetables and fruit) that requires the full coordination and harmonisation of agricultural and industrial policies. Should adopt a strategy of industrial development to address the real ills and build on the diagnosis and deep analysis, realistic and critical ills following:

(1) Small industrial processes (shallow), and low added value.
(2) Greater reliance on wills inputs.
(3) Imbalance and the weakness of the front and rear linkages with other sectors of the economy.
(4) Imbalance and the weakness of the interdependence of the industrial sector still rolling.
(5) Lack of productive diversification, and low use of industrial by-products.
(6) The inability to integrate in the global market.

International Agreements

(1) United Nations Convention to combat desertification, particularly in Africa, signed in 1995 one hundred and five countries and thus become legally binding. Whale Convention forty articles and four annexes and the aim is to combat desertification and mitigate the effects of drought.
(2) World Federation for the Conservation of Nature and the headquarters of the Union in Gland, Switzerland and the Union's regional and continental offices and national site in 35 in various parts of the world, the number of member states 133 and the number of government institutions and NGOs. Must be accompanied by training local management based on the use of this technology, and this must be a programmer to choose the local people sperm delivery of the project they must participate in the process of technology selection, design, construction and delivery and to participate in a simple run under the supervision of experts.
(3) The need to comply with base balance between the sources of energy, environment and promote cooperation in the field of renewable energy and focus on the applications of biomass energy for rural development and the expansion of interest in them. And dissemination and promotion of solar technologies for the introduction of new technologies is not harmful to the environment.

(4) The rationalisation of consumption of firewood and coal, and thus to preserve the wealth of forest and environmental impacts, and optimum utilisation of agricultural residues and animal heat and raise the value.

(5) Awareness of the importance of native landscaping, and encourage farming planted forests and shelter belts and the introduction of fast-growing tree species and improve care of trees and forest management and the fight against destructive factors unjust random, and the rationalisation of consumption and improved household stoves next to improve manufacturing techniques.

(6) The need for organisational units and lead the process of preserving the environment and achieve the objectives of development of natural resources in the cooperation and coordination.

(7) There is a need for fundamental change in energy systems to bring them into line with sustainable development. And the need to change dictated by social and economic issues, environmental and security situation in the account with the following:

(A) To promote universal access to modern energy.
(B) Building local capacity.
(C) Establishment and maintenance of fair rules of the game (by removing the permanent subsidies and make energy prices reflect the external costs (such as social and environmental costs)).
(D) To single out the roles of stakeholders (environmentalists, consumers, current and potential, etc.) not belonging to the private-sector [28-39].
(E) The entry of the regular formation of the new generation of technologies that are used to cleaner fossil fuels, and renewable sources and efficiency improvements.

Strategic Objectives for the Environment in Sudan

1. Preservation of the environment and development and prevent disasters.
2. Stop environmental degradation and reconstruction.
3. To maintain the balance and stability of environmental components (systems ecology).
4. Development agencies working in the environmental field.
5. To develop relations with other countries and international institutions and organisations in the environmental field.
6. Development of the balance of wildlife and exploitation in accordance with sustainable development.

Policy

1. To follow a sound approach in the rational exploitation of natural resources.
2. Achieve sustainable development in pace with global efforts to protect the environment and natural resources.
3. Status of a comprehensive plan for scientific research in the fields of the environment.
4. Issuance of environmental legislation for each collector and the fundamental principles of public policy for the protection of the environment.
5. Reconstruction of the southern Sudan environment affected by the war and reconstruction of areas affected by drought and environmental degradation in coordination with the relevant authorities.
6. Sudan to fulfill commitments to international conventions and organisations in the area.
7. Attention to cadres and the creation of specialised training at home and abroad.
8. To encourage the voluntary associations and organisations in the environmental field.
10. Include the environment in the curriculum.
11. Rational exploitation of resources, the environment and promotion of environmental awareness to all levels of coordination.
12. To provide potential accommodation and complementary services of transport and communication.

**Higher Education in Agriculture**

1. An expansion of a higher agricultural education system to include all food production from farm to market.
2. Preparation of higher agricultural education programmes on the basis of teaching, research and extension.
3. Re-structure of the curriculum so as to provide knowledge, skills and information technology including the use of computer and sustainable resources.
4. Creating and strengthening links between universities (Colleges of Agriculture and Veterinary, etc.), and national research centres.
5. Provision of training opportunities to raise the capabilities and efficiency of the faculty members through seminars, meetings and programmes.
6. Support cooperation and distribution of information among educational institutions and other devices.
7. Attention to sustainability of institutions of higher education because they suffer from a continued decline in funding and the erosion and degradation of the environment research and the inability to keep the faculty members in their positions.
8. Consideration of the establishment of centres of excellence for postgraduate studies in some Arab countries.

The main objectives of agriculture as set out in comprehensive national strategy on:

(1) Food security.
(2) Sustainable agricultural development.
(3) Of the increase and diversity in crop and animal production.
(4) Raising the efficiency of resource use.
(5) Increasing productivity by using modern technologies to focus on small farmers and investment by the private-sector and the interest in the role of women in development.
(6) Integrated rural development and balanced.

The proportion of researchers working in the field of agricultural engineering:

Agricultural Research 9.26%
University of Khartoum 6.34%
University of Gezira 5.15%
Sudan University 5.11%
Sesame Centres 5.11%

Organisational structures have remained constant with the change of project objectives and farming systems and policy changes are being reviewed in the structures and I think that there is a need for closer monitoring of the implementation of the new agricultural policy which requires re-formulation of structures.

(1) High cost of funding and limitations on the financing requirements of production and post-harvest operations, including marketing.
(2) Rising tax burden on the irrigated sector, particularly on cotton with the ease of what happened remains
an urgent need for further easing the tax burden on agriculture.
(3) The escalation of production costs due to inflation.
(4) The escalation of the cost of administrative expenses.

Conclusion and Recommendations

The attention to scientific research has become the duty of the state-public and private-sector and it is difficult to enter the twenty-first century, the century of globalisation and planetary who became illiterate is computer illiterate without proficiency in scientific research and technology development resources and technology. And developing countries face many problems in the transfer of technology or in the tradition of industry after the World Trade Organisation and to ensure intellectual property rights related to Trade Related Issue of Intellectual Property Right (TRIPR) and the Court of tendencies and not but to rely on themselves or the establishment of centres for joint research with the developing to be produced from an original effort, the thought of her children and technology adapted to the level of development. Of the richest on the discretion of the state of the importance of research and serious political commitment towards the creation of a climate and create a mechanism to develop, update and adopt a policy, e.g., a sound and priorities are on a scientific basis and adequate funding. Because the research is the ways to provide scientific information systematically to develop programmes and activities effects on sectors where it is applied research results and therefore on society and the state. After it is vital that we come to be vital for the development of technological and scientific research can be its recommendation as follows:

1. Development of strategic planning for the scientific research according to the desired available and can be leading, and setting priorities. Favourites including development issues and serve the community, and detailed analysis of the research carried out and the periodic review.
2. Coordination between the centres of scientific research in the education sector and government and private agencies in the country.
3. Research unit and the private-sector through the Sudanese Employers Union and coordination with the relevant authorities.
4. Coordination and integration, communication, and cooperation between scientific research bodies, universities, consulting, production locally, regionally and globally.
5. Financing of scientific research (laboratories, and field logistic), input of scientific research, scientific instruments, certain, references, magazines, specialised libraries, scientific publishing, and attending conferences.
6. To identify a percentage of national income for scientific research and the involvement of the private sector and the Federation of employers in financing scientific research, and the imposition of fees on all productive sectors for the benefit of scientific research.
7. Support the translation and localisation to keep abreast of developments in scientific research.
8. Benefit from the results of scientific research in the development and promotion of production and services, industry and trade, according to development plans.
9. Focus on scientific research on rural development and regional balanced and sustainable.
10. Commitment of government and private agencies to provide information and data to researchers and establish a database in all science disciplines and double centres and computer networks.
11. Public awareness of the importance of scientific research in the dissemination of knowledge and the evolution of reality through the media of audio-visual and print media.
12. Improve the situation and living conditions of researchers and stop the migration of research centres, universities and others.
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The Nigerian Learner: Past, Present and Future

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Abstract Education has been variously defined as the process of acquiring knowledge and skill. Basically teaching and learning constitute education which has existed in one form or another since man existed. For learning to be successful, the learner should be interested and committed to the subject matter, and the teacher experienced and effective, and learning environment appropriate. Our British colonial masters alongside the early Christian Missionaries bequeathed Nigeria with a formal education system in mid 19th century that was so rich and solid as opposed to the present day mockery. Gratefully the colonial legacy of formal education came along with strict enforcement of moral discipline that ushered in a new dawn of self-consciousness and good conduct. Those learners were solidly baked in good character and in learning. But with the departure of the British in 1960 making way for Nigerian independence, education plummeted from that peak to this awful depth owing to several sinister factors ranging from endemic corruption, greed, hypocrisy and nonchalance, etc. Today’s reluctant learners, parents, education managers and relevant government agencies are equally guilty of crippling education. The paper therefore sets out to do a comparative review of the past and present educational achievements and prospects for future revival.

Introduction

Education may be defined as a sustained process of developing the human mind, potentials and behaviour through continuous teaching and learning processes presumably in appropriate environments. Likewise Fafunwa (1970) believes that education holds the key to human development. While learning is the process of acquiring education or skill, it is the teacher that makes both available to the willing and dedicated learner. According to Adeniran (1991) the teacher’s professional ability is crucial in the educational development of the student.

The Past

There is no solid evidence or authentic records yet to confirm the existence of any formal education system in what was pre-colonial Nigeria i.e. before the advent of early Europeans. But it is a living truth that our British colonial masters introduced their former colonies including Nigeria to formal education that was so sound, rich in content and ever dynamic, embracing every aspect of human life. Western education as it is called in time-tested for high quality with recorded breath-taking achievements in the fields of science and technology, etc. as proofs of this fact. With the establishment of colonial government in Nigeria in late 19th century came in its trail the introduction of Western Education pioneered by the missionaries who built mission schools and colleges alongside their churches. These white missionaries that ran these pioneer schools were so dedicated, disciplined and committed to their duty, with little or no pay, but yet handed down to their Nigerian learners such incredibly high standard education and moral discipline. The products of those schools and colleges were truly solid in learning in every aspect, and in character. They became the society’s role models, and expectedly the nucleus of Nigerian pre-and post-independent administrations. These colonial educators with indigenous support team inculcated in their students and staff so much discipline, good behaviour and deep sense of commitment to which in turn impacted high moral values on the Nigerian society of those good old days when crime was an abomination, and crookedness a taboo. The colonial era was surely the golden age of education in Nigeria; the beneficiaries of that incredibly high quality education will continue to hold their heads high forever. The colonial educators instilled in their learners the spirit of competitive learning and dogged reading habit and the mandatory discipline that actually activated the latent potentials in their
scholars. The colonial standard six school learning certificate for instance can compare favourably with present-day Batchelors Degree, while the revered Senior Cambridge University School Certificate has no parity with today’s levels. Learners then were forced to study and absorb, digest and assimilate their lessons.

Fortunately parents in colonial times played a booster role in the huge success of education in Nigeria as they, though generally illiterate, encouraged the teachers by approving those strict and punitive measures applied on the learners as part of the learning process. Surprisingly too the illiterate parents and guardians appreciated the illuminating role education play in the development of their children/wards and society backed up by strict parental discipline imposed on their children. Onyejiaka (1992) stressed the role of the family as being primary both in shaping the child’s personality and conduct, providing his basic socialization traits, skills and ideas.

The Present

No sooner the British authorities handed over the reins of power to Nigerians in 1960 than education started fading away like the rainbow into oblivion. Oluyede and Daramola (1993) observed that the fears of not gaining employment or admission into the University immediately after the Nigerian civil war in 1970 engendered large scale indiscipline in schools. In fact the real plunge of education actually commenced in 1970 as the Nigerian civil war ended, resulting from a catalogue of failures on the part of Nigerian political leadership and society at large as listed below:

1. Greed and selfishness distracted the focus and set goals of the corrupt Nigerian pioneer political leaders. As a result these leader resorted to falsehood and deceit while sector budgets could hardly be implemented.

2. The obnoxious wind of corruption being a legacy of Nigerian pioneer leaders that rapidly swept across the land, soaking up all and sundry also dealt a devastating blow to education among other sectors of the economy. Ayi (2011) maintained that corruption is inimical to any development, and that it has become pandemic in Nigeria. Learning environment are not yet made conducive for both the teacher and the learner as funds allocated to educational institutions for infrastructural development, etc are regularly misappropriated, and related records falsified. Most heads of tertiary institutions rather resort to providing sub-standard infrastructure that cannot meet the growing need of improving educational facilities. The deadly fume of corruption is also seriously choking the Nigerian learner with a variety of extortions within the campuses, including primary and secondary schools. Cumbersome financial demands including frequent increases in all manner of fees and unapproved arbitrary levies have increasingly frustrated the learner and dampened his spirit. It has become customary to pay thousands of naira worth of bribe to gain admission into elementary and secondary schools, and universities as well.

3. The latent tribal and ethnic fervour that is so genetic in Nigerians is also taking its disgusting toll on the willing learner through ill-motivated admission hurdles and constraints designed to accord undue preferences and favour to fellow kinsmen to the detriment of the more credible candidates. Today’s learners are so scared of learning, believing only in pleasure hoping that manner must come from hook or crook, and not from committed studies. Manical (1984) pointed that student’s interest is an important factor that makes the student perform well since interest is a stimulant.

4. Moral decadence as the collapse of discipline steadily engulfed this nation as soon as the colonial masters left the shores of Nigeria as confirmed by Ayi (2001). The strict traditional discipline that was in vogue in pre-colonial era rapidly waned to today’s abysmal level. This ill wind seriously impacted negatively on the teacher, but much more on the learner. Our young learners are totally devoid of that competitive and enquiring spirit of learning, repulsive to good advice, impervious to discipline, and scornful of hard work. This present generation of Nigerian learners are indolent and loathful of reading as they strongly believe in achieving some result through various available methods of examination malpractices as was also observed by Oluyede and Daramola (1993). In order to enforce this hideous alternative to hard work of reading, this
indolent learners get involved in cultism and other violent practices to have their way. Odunze (1986) rightly pointed out that our education is steadily decaying because our young people prefer getting their certificates and degrees through clandestine means.

(5) Societal worship of materialism in Nigeria is chiefly responsible for the total erosion of discipline, moral and educational standards, collapse of social justice, prevalence of corruption and a catalogue of other social vices as confirmed by Ayi (2011), all of which contributed to the demise of education.

(6) Parents are also culpable in more ways than one in the demolition of education as stressed by Onyejiaka (1992):

(i) Affluent parents being usually arrogant and ostentatious over-pamper their kids thus compromising home discipline.

(ii) They bully on the kids’ teachers thus demoralizing committed teachers as they feel the loss of respect from the kids of the little lords.

(iii) With their unlimited wealth they finance all manner of exam malpractices for their children thus, encouraging and introducing their young ones to the tradition of corrupt practices from the cradle. It is only the private elementary and secondary schools that hold out hope for the revival of education in Nigeria as several of them strive to achieve commendable standard which has made them so attractive to middle and high class parents who could afford their astronomically high fees. Public schools are now shadows of their former selves.

The Future

There will be light at the end of the dark tunnel of Nigeria education if only certain imperatives for the resurrection of education are conscientiously applied. These include parental obligation to enforce strict home discipline in their children/wards as of old, and seriously discourage every act of crookedness.

Education administrators will have to endeavour to expose the realities of this phenomenon rather than paying lip service to such dysfunction for obvious interests. The federal and state governments will be compelled by the deteriorating state of education to take a critical and frank review of the entire education system maybe along the lines of the Japanese, South Korean, etc whose socio-economic advancement is powered by high quality education. Unless education is restored to the colonial standard, education will continue to diminish to the ridiculous point where Nigerians would not want to be identified with “empty” certificates. The propensity to proliferate Universities in Nigeria is not the solution to the present education paralysis, but will further aggregate its dilution. If this piteous trend is not reversed public school system will crash while private schools will explode in number and patronage to the detriment of majority low class parents/family. This has the tendency of polarizing the present and future generations of learners.

Conclusion

Putting the crisis in the education sector in perspective, it is only honest effort and dedication on the part of Nigerian governments, education managers and administrators, politicians and parents alike that can restore the quality and dignity of education. Nigerians must not ignore the solid fact that present day degrees and certificates do not necessarily reflect expertise, experience or knowledge hence the need for emphasis on experience and expertise in the placement of teachers. Now is the time to reset the desired education standard, and the learner be compelled to meet it.

Recommendation

In the light of the perceived demise of education in Nigeria orchestrated by the various factors already highlighted, the following recommendations are proposed as panacea for its resurrection:
(i) Parental home discipline of children must be re-emphasized, and parents should not meddle in the school disciplinary procedure/measures, or intimidate teachers, but rather co-operate.

(ii) School authorities must live up to the occasion and exterminate ethnic and nepotic influences in the appointment and promotion of teachers, and should be able to rout the indiscipline, indolence, inefficiency and corrupt practices associated with most teachers. Teachers must be proved to be professional in their respective reflect subject areas.

(iii) Educational establishments are long overdue for thorough sanitization by governments to rid these institutions of the despicable practices that have crippled education in Nigeria, and made nonsense of the credible government investments in education in recent years.

(iv) Given the malaise of endemic corruption governments may have to employ credible private sector agency to monitor and audit the activities of educational establishments inorder to enforce operational ethics, financial propriety and strict staff discipline.

(v) New and realistic standard has to be set for the learner now, and he/she will be forced to embrace it as soon as compromise for failure becomes non-existent just as it was in colonial times.

(vi) Government must also bring private schools of all levels under close scrutiny to ensure high standard, modifying their exorbitant charges, and deregister the sub-standard ones.

References


Administrative Competency Needs of Principals for Effective UBE Administration at JSS Level in North West Geo – Political Zone of Nigeria

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Abstract The repeated failure of laudable educational programmes introduced in Nigeria could be attributed to poor administrative skills of school administrators. This study investigated the administrative competency needs of principals for effective UBE administration at J.S.S level. This was carried out in North West Geo - Political Zone of Nigeria. Administrative Skills Survey Questionnaire (ASSQ), a thirty (30) item questionnaire on instructional skills, personnel management skills and financial skills needed by principals for effective UBE administration was used to obtain information through 100 secondary schools principals which were selected by stratified random sampling. Three research questions and two Hypotheses were formulated to guide the study. Mean scores of principals’ opinion were used to answer the research questions while the t-test statistics were used to test the hypotheses at 0.05 level of significance.

Keywords: Administrative, Competency, Principal, Universal Basic Education and Nigeria.

Introduction

Education in all countries of the world has been considered very important for personal and societal development. It is in view of the indispensable role of education in development of man and modern society that various declarations on education have been made at the global level and in keeping with the requirements of the section 18 of the 1999 constitution of the federal republic of Nigeria; the president, chief Olusegun Obasanjo on 30th September, 1999 at Sokoto launched the University Basic Education (UBE) programme. Basic Education is the foundation for sustainable life-long, learning which provides basic skills of reading, writing and mummery. It comprises a wide variety of formal educational activities and programmes designed to enable the learner acquire functional literacy. Educators including Mgbodile (2000), Ukeje (2000) Ibukun (2003) reported that the problem of Nigeria does not tie with the knowledge and adequate policies but effective planning and sustained implementation. However these experts attributed the failure of such educational programmes in Nigeria to several factors. Among these factors are teacher factor (shortage of teachers, inadequate training and poor motivation of teachers). They also include lack of basic infrastructure, lack of leadership and administrative will, lack of adequate and accurate statistics. Also include are inadequate funding, embezzlement, bureaucratic bottle-neck of civil service and Nigerians’ poor attitude to work.

Decision-making, as an integral of planning is a very crucial and indispensable aspect of management and very essential for the success of instructional management. It is therefore imperative that school principals be knowledgeable in decision making for effective school administrative. Olele as cited in peretomode (1998) agreed that principals as the chief executive in secondary schools should possess’ skills for making right decisions that will benefit to the school need and the staff generally. Citing Gregg, peretomode (2001) considered decision-making as a mental exercise and display of intellectual or conceptual ability of the educational plans made for national development had failed because of lack of adequate information on matters involved which resulted due wrong decisions.

Chukwu (2003) posited that for a result oriented UBE; the primary school teachers need to be motivated
using democratic leadership skills by the head teacher, full involvement of the teachers in programme
development, provision of adequate quailed teachers and adequate teaching materials. Ngoka (2000) and
Adegbemile (2004) opined that workers will be more productive if they have the opportunity of meeting their
needs why working in an organizations such as improved condition of work, payment of salaries as when due
and provision of in service training among others. In addition, Ozigi (1977) Ngoka (2000) Ibukun (2003) and
Famade (2003) agreed that communication skills, leadership skills and decision making skills are essential
for effective personnel management. Managing funds is the one of the major tasks of principals. The success
of any school programme depends very much on the way of the financial inputs are managed. Ogbonnaya
(2000) state that central purpose of the financial management is the raising of fund and ensuring that the
funds so mobilized are utilized in the most effective and efficient manner. He further outlines the following
means through which schools cloud raise fund school fees, government grant, proceeds from school
activities, community efforts, donation from individual, charity organizations, endowment funds.

Research Questions

The following research questions have been asked to guide the study:-

1. What are the instructional leadership skills needed by principals for effective UBE administration in
   North West Geo-Political Zone of Nigeria ?
2. What are the personnel management skills needed by principals for effective UBE administration in
   North West Geo-Political Zone of Nigeria ?
3. What are the financial management skills needed by principal for effective UBE administration in
   North West Geo-Political Zone of Nigeria ?

Research Hypotheses

The following null hypotheses were formulated to guide the study:-

Ho1: There will be no significant difference between the mean opinions scores of male and female principal
on the instructional leadership skills needed by principals for effective UBE administration.
Ho2: There will be no significant difference between the mean rating of urban and rural school principals on
the financial management skills needed by principals for effective UBE administration.

Statement of the Problem

Secondary education in Nigeria where youths are to be prepared for useful living and higher education has
not been able to realize its objectives. It appears that the administrators charged with the task of utilizing the
available scarce resources to attain the secondary school objectives are not competent. Hence, there is need
to investigate the administrative needs of secondary schools principals.

Purpose of the Study

The main purpose of this is to

- Identify the instructional leadership skills needed by principals for effective administration.
- Ascertain the personnel management skills needed by the principals for effective UBE administration.
- Find out the financial management skills needed by the principals for effective UBE administration.
Significance of the Study

This study becomes necessary as the outcome of this study would provide principals and other school heads useful information on the skills needed for the instructional leadership. It will help principal to update their personnel management skills and improve their personnel management competence which could reduce incidence of low morale job dissatisfaction and poor job performance among teachers in the secondary schools. The findings of the study will create awareness for the government on the need to appoint school principals strictly on the basis of their administrative competency.

Research Design

The study adopted a survey design.

Sample and Sampling Procedure

100 secondary schools were selected by stratified random sampling from all the Junior Secondary Schools located in the four states (Kaduna, Kano, Kastina and Zamfara) in North West Geo- Political Zone of Nigeria. The principals in the 100 schools were the sample used for this study.

Instrument for Data Collection

The researcher developed a questionnaire called Administrative Skills Survey Questionnaire (ASSQ) which served as the main instrument for data collection. The ASSQ consisted of two sections. Section A seeks information on the personal data while section B is a thirty (30) item questionnaire developed by the researchers with a four point rating scale. The questionnaire items were arranged in three clusters to elicit information regarding the administrative leadership skills needed by principals.

Validity of Instrument

The instruments were given to two specialists in Educational Management for validation with regard to terminology that was used to measure the intent of the study. Their corrections were used in the reconstruction of the instrument.

Reliability of the Instrument

To ensure the reliability of the instrument, a test-re-test technique was employed. A pilot study was carried out by administering the (ASSQ) instrument at intervals of two weeks on 20 non participating Junior Secondary School Principals from Kaduna State. The reliability test was calculated using the person product moment correlation. A correlation co-efficient of 0.85 was obtained.

Data Collection

The researchers administered and collected the instrument from the respondents during the principals’ meetings. This technique helped the researchers to reduce the chances of the questionnaire being misplaced or not returned by the respondents. However, out of the hundred copies of the questionnaire distributed, ninety eight were collected. This amount to 98% return rate.
Data Analysis

Descriptive statistics involving the use of Mean and Standard Deviation was used to answer the research questions while the t-test were used to test the null hypotheses formulated to guide the study.

Results

Research question I
What are the instructional leadership skills needed by principals for effective UBE administration?

Table 1: Mean scores on instruction leadership skills needed by principals for effective UBE administration

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Principal in co-operation with his teachers define objective for the school and each department and unit</td>
<td>3.25</td>
<td>1.08</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>Principal jointly with teachers select learning experience method and procedures to employ in achieving the objective</td>
<td>3.04</td>
<td>0.99</td>
<td>Agreed</td>
</tr>
<tr>
<td>3</td>
<td>Principal assign subject and class to teachers according to qualification and competence.</td>
<td>3.62</td>
<td>0.70</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>4</td>
<td>Principal allocates time to subjects</td>
<td>3.31</td>
<td>0.80</td>
<td>Agreed</td>
</tr>
<tr>
<td>5</td>
<td>Principals makes available facilities accessible to all teachers</td>
<td>3.58</td>
<td>0.61</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>6</td>
<td>Principal makes ensures that the staff in different units and work position work co-operatively and not antagonistically for the common goal of the school</td>
<td>3.81</td>
<td>0.39</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>7</td>
<td>Principal supervises the teachers' lesson plan</td>
<td>3.29</td>
<td>0.83</td>
<td>Agreed</td>
</tr>
<tr>
<td>8</td>
<td>Principal supervises teaching and learning activities, in the class room</td>
<td>3.52</td>
<td>0.55</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>9</td>
<td>Principal evaluates the planning and implementation of curriculum programmes.</td>
<td>3.10</td>
<td>1.06</td>
<td>Agreed</td>
</tr>
<tr>
<td>10</td>
<td>Principal assist teachers to try new research findings.</td>
<td>3.21</td>
<td>1.01</td>
<td>Agreed.</td>
</tr>
</tbody>
</table>

Table 1 above shows that the principals perceived all the items as instructional leadership skills needed for effective UBE administration as all the items had mean scores above the 2.50 cutoff point on a four-point likert scale. Items had the highest mean scores of 3.81. This implies that the principal considering it a very instructional leadership skill for effective UBE administration.
Research question 2: What are the personnel management skills needed by principals for effective UBE administration?

Table 2: Mean scores on personnel management skills needed by principals for effective UBE administration.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Principal model behaviours he expects from others</td>
<td>3.71</td>
<td>0.50</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>2</td>
<td>Principal identifies what motivates his staff.</td>
<td>3.51</td>
<td>0.51</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>3</td>
<td>Principal communicates effectively with his staff.</td>
<td>3.71</td>
<td>0.46</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>4</td>
<td>Principal recognizes the effort of his staff.</td>
<td>3.67</td>
<td>0.47</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>5</td>
<td>Principal delegates duties and authority to capable staff.</td>
<td>3.73</td>
<td>0.45</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>6</td>
<td>Principal involves staff in decision-making and matters concerning them.</td>
<td>3.63</td>
<td>0.49</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>7</td>
<td>Principal praise in public, criticizes only in private</td>
<td>2.86</td>
<td>0.89</td>
<td>Agreed</td>
</tr>
<tr>
<td>8</td>
<td>Principal motivates, encourage and cajoles his staff.</td>
<td>3.41</td>
<td>0.55</td>
<td>Agreed</td>
</tr>
<tr>
<td>9</td>
<td>Principal encourages and enable appropriate professional development of staff.</td>
<td>3.49</td>
<td>0.51</td>
<td>Agreed</td>
</tr>
<tr>
<td>10</td>
<td>Principal defuses tense situations and negotiates a solution.</td>
<td>3.63</td>
<td>0.49</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>11</td>
<td>Principal does not take side in conflict resolution.</td>
<td>3.73</td>
<td>0.45</td>
<td>Strongly agreed</td>
</tr>
</tbody>
</table>

Table 2 showed that all the personnel management skills in the table are needed by principals for effective UBE administration. Each of the skills had a mean score above the 2.50 cut-off point on a four-point likert scale. Items 5 and 11 had equal and highest mean score of 3.73 each showing that the principals perceiving the skills as very essential personnel management skills needed by principals for effective UBE administration.

On the other hand, items 7, had the lowest mean score of 2.86 indicating that the principals considering the skill less important personnel management skill needed by principal for effective UBE administration.

Research question 3: What are the financial management skills needed by principals for effective UBE administration?
Table 3: mean scores on financial management skills needed by principals for effective UBE administration.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Principal jointly with the management staff and heads of departments and units, prepares budget for the school</td>
<td>2.78</td>
<td>1.03</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>Principal priorities financial allocation according to needs</td>
<td>3.29</td>
<td>0.71</td>
<td>Agreed</td>
</tr>
<tr>
<td>3</td>
<td>Principal plans and sources for funds for school improvement.</td>
<td>3.27</td>
<td>0.81</td>
<td>Agreed</td>
</tr>
<tr>
<td>4</td>
<td>Principal ensures that budget reflect agreed goals and objectives</td>
<td>3.49</td>
<td>0.54</td>
<td>Agreed</td>
</tr>
<tr>
<td>5</td>
<td>Principal delegates the mechanism of financial matters to capable staff</td>
<td>3.14</td>
<td>0.76</td>
<td>Agreed</td>
</tr>
<tr>
<td>6</td>
<td>Principal keeps close check on financial matters delegated to staff</td>
<td>3.43</td>
<td>0.58</td>
<td>Agreed</td>
</tr>
<tr>
<td>7</td>
<td>Principal works within the constraints of the school budget</td>
<td>3.53</td>
<td>0.58</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>8</td>
<td>Principal keeps accurate financial information about the school</td>
<td>3.65</td>
<td>0.52</td>
<td>Strongly agreed</td>
</tr>
<tr>
<td>9</td>
<td>Principal give true and fair view of the financial position of the school</td>
<td>3.67</td>
<td>0.52</td>
<td>Strongly agreed</td>
</tr>
</tbody>
</table>

Table 3 showed that all the financial management skills in the table are needed by the principal for effective UBE administration. Each of the items had a mean score above the 2.50 cut-off points on a four point likert scale. Items 9, had the highest mean score of 3. 67, showing that this financial management skill is highly needed by the principals for effective UBE administration. However, the table also shows that the principals did not consider items 1, a very essential management skill needed by the principals for effective UBE administration as the items had lowest mean score of 2.78.

Hypothesis I

There is no significant difference between the opinion scores of male and female principals for effective UBE administration.

Table 4a: summary of t-test analysis the mean opinion scores of male and female principals on the instructional leadership skills needed by principals for effective UBE administration.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>t-cal.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Principal in co-operation with his teachers define objectives for the school and each department and unit</td>
<td>3.18</td>
<td>1.07</td>
</tr>
<tr>
<td>2</td>
<td>Principal jointly with teachers select learning experiences, methods and procedures to employ in achieving the objectives</td>
<td>3.15</td>
<td>1.07</td>
</tr>
<tr>
<td>3</td>
<td>Principal assigns subject and class to teachers according to qualification and competence.</td>
<td>0.61</td>
<td>0.72</td>
</tr>
</tbody>
</table>
The result of the item analysis in Table 4a showed that there is no significant difference between the mean opinion scores of male and female principals for effective UBE administration. The t scores for each of the skills in the table were found to be less than the t-critical. The null hypothesis is therefore upheld.

Table 4b: (Group analysis of hypothesis I)

<table>
<thead>
<tr>
<th>Group</th>
<th>µ</th>
<th>σ</th>
<th>t-cal</th>
<th>t -critical</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3.41</td>
<td>0.02</td>
<td>1.33</td>
<td>1.96</td>
<td>Accepted</td>
</tr>
<tr>
<td>Female</td>
<td>3.29</td>
<td>0.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above group of hypothesis I (Table 4b) indicated that at 98 degrees of freedom and 0.05 level of probability, the calculated t value of 1.33 was less than the critical t value of 1.96. The null hypothesis is therefore accepted. There is no significant difference between the mean scores of male and female principals on the need for instruction leadership skills of principals’ effective UBE administration.

**Hypothesis 2**

There is no significant difference between the opinions’ scores of school principals on the financial management skills needed by principal for effective UBE administration.
Table 5a: Summary of t-test analysis between the means rating of urban and rural school principals on the financial management skills needed by principals for effective UBE administration.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>t-cal.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Principal jointly with the management staff and heads of departments and units, prepares budget for the school.</td>
<td>2.70</td>
<td>0.99</td>
</tr>
<tr>
<td>2.</td>
<td>Principal prioritises financial allocation according to needs</td>
<td>3.26</td>
<td>0.66</td>
</tr>
<tr>
<td>3.</td>
<td>Principal plans and sources for funds for school improvement</td>
<td>3.33</td>
<td>0.78</td>
</tr>
<tr>
<td>4.</td>
<td>Principal ensures that budget reflects agreed goals and objectives</td>
<td>3.42</td>
<td>0.50</td>
</tr>
<tr>
<td>5.</td>
<td>Principal delegates the mechanism of financial matters to capable staff</td>
<td>3.11</td>
<td>0.80</td>
</tr>
<tr>
<td>6.</td>
<td>Principal keeps close check on financial matters delegated to staff</td>
<td>3.37</td>
<td>0.74</td>
</tr>
<tr>
<td>7.</td>
<td>Principal works within the constraints of the school budget</td>
<td>3.48</td>
<td>0.51</td>
</tr>
<tr>
<td>8.</td>
<td>Principal keeps accurate financial information about his school</td>
<td>3.70</td>
<td>0.47</td>
</tr>
<tr>
<td>9.</td>
<td>Principal gives true and fair view of the financial position of the school</td>
<td>3.67</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Table 5a: Showed that there is no significant difference between the mean rating of urban and rural school principals on the financial management skills needed by principal for effective UBE administration since the t-test analysis revealed that the t-calculated is less that the t-critical in all the financial management skills in Table 5a, the null hypothesis is therefore upheld. This implies that the urban and rural school principals share the same view on the financial management skills needed by principals for effective UBE administration.
Table 5b: (Group analysis of hypothesis 2)

<table>
<thead>
<tr>
<th>Group</th>
<th>$\mu$</th>
<th>$\sigma$</th>
<th>t-cal</th>
<th>t-crit.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>3.34</td>
<td>0.30</td>
<td>1.625</td>
<td>1.96</td>
<td>Accepted</td>
</tr>
<tr>
<td>Rural</td>
<td>3.39</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
</tr>
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The above group analysis of hypothesis (2), Table 5b indicated that at 98 degree of freedom and 0.05 level of probability, the calculated t value of 0.625 was less than the critical t value of 1.96. The null hypothesis is therefore accepted. There is no significant difference between the mean rating of urban and rural school principals on the financial management skills needed by principals for effective UBE administration.

Discussion

The analysis of research question one (Table 2) indicated that the instructional leadership skills needed by principals for effective UBE administration include: principal co-operation with teachers in defining objectives for the school, selecting learning experiences, methods and procedures to achieve the objectives; assigning subjects and classes according to qualification and competence, allocating time to subjects; making facilities accessible to all teachers according to need. The skills also included are: principal ensuring that all staff work co-operatively for the common goal of the schools, supervising lesson plan, teaching and learning activities, evaluating the plan and implementation of curriculum programmes and assisting teachers to try new findings.

These findings are not surprising because the success of any human endeavour depends on the competencies and skills possessed by the personnel who perform the tasks necessary for the achievement of purpose or objectives. Mgbodile (2003) has argued that for effective UBE administration, school administrators must possess and employ planning and decision-making skills, leadership competencies, supervisory skills and skills for school climate management.

It is therefore, obvious that lack of these core instructional leadership skills would make principals ineffective in achieving the laudable goals of UBE at JSS level. It is in recognition of this, that Okwor, (2001) says that without adequate commitment to the performance of school head’s instruction roles categorized as supervision and curriculum development and innovation the goals of UBE may not be realized. On research question two, (Table 3) showed the personnel management skills needed by principals for effective UBE administration to include: principal identifying what motivates his staff, recognizing the efforts of his staff, motivating the staff, involving staff in decision-making on matters concerning them, communicating effectively with the staff, delegating duties and authorities to capable staff, encouraging appropriate staff professional development.

These findings equally are not unexpected as indeed successful administrators are those who known how to motivate their staff to make them co-operative and loyal. These findings agreed with Ibukun (2003) who affirmed that there is no amount of capital injection into Educational System without a change of altitude, better skill acquisition and overt commitment on the part of the teaching force that can produce the much-desired change in school performance. The findings also agreed with FME (1993) that delegation of duties to subordinates give sense of recognition and belonging to subordinates and thus, make them more committed to their jobs. These findings agreed with Adegbemile (2004) who reported that encouraging staff professional development help teachers to improve on their weaknesses.

Other personnel management skills needed by principals for effective UBE administration, as revealed in
the results of the study are: principal modeling behaviours expected from others, principal defusing tense situation and negotiating solutions, not taking side in conflict resolution. These findings agreed with Ngoka (2000) who reported those behaviours that demonstrate leadership competency and conflict management skills which include among others: sets expectations, models behaviours expected from others, does not take side, negotiates to achieve resolutions While timely resolution of conflicts brings harmony, co-operation, unity, job satisfaction and good job performance.

It was the opinions of the principals (Table 4) that the financial management skills needed by principals for effective UBE are: prioritizing financial allocation according to needs, ensuring that budgets reflects agreed goals and objectives, delegating the mechanism of financial matters to capable staff, keeping close check on financial matters delegated to staff, working within the constraints of the school budget, planning and sourcing for funds for school development, keeping accurate financial information about the school and giving true and fair view of financial position of the school. These findings ought to be so, because such financial management skills are needed by the school principals to make them effective in planning, sourcing and utilization of school funds.

**Conclusion and Recommendations**

The major objective of this study was to investigate the administrative competency needs of principals for effective UBE administration at JSS level in North West Geo – Political Zone of Nigeria. The study revealed that the instructional leadership skills needed by principals for effective UBE administration include among others: principal co-operating with teachers to define objectives, principal providing facilities, supervising lesson plans, teaching and learning activities, evaluating curriculum plan and implementation. It was also shown from the results of the study that the major personnel management skills needed by principals for effective UBE administration are: principal motivating staff, encouraging staff professional development, communicating affectively with staff, resolving conflicts.

It was equally revealed from the findings of the study that the financial management skills principals needed for effective UBE administration among others include: principal preparing budget jointly with the management staff, sourcing for funds, keeping accurate financial information, giving true and fair financial position of the school.

It is recommended that principal’s competency in defining objective with teachers will make teachers to be committed in their job to ensure that the objectives are achieved as they participated in deciding the objectives.

Obviously, the principal’s competency in keeping accurate financial information of the school and giving true and financial position of the school as this would serve as “curtain raiser” for the non-governmental organizations, PTA, individuals and government to give out funds for school development.

**References**


The Ideal Teacher and the Motivated Student in a Changing Environment

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Abstract The ideal teacher is described in this paper as one who effects eternity in the sense that one can never tell when his influence stops. To back this up, five categories of attributes were outlined and expected that every teacher must exhibit them to qualify as models for their students. The attributes are professional, personality, social, leadership and classroom interactions. Also, the motivated student is described as one who desires to learn on will and acts it to achieve specified goals. The need for motivation and factors that affect it were discussed, and suggestions were made on how to increase and maintain motivation in class.

Introduction

The focus of this paper is to re-orient teachers and students on issues boarded on the ideal teacher and the motivated students. Indeed the cultivation of these important attributes in our educational system should form the hallmark of any education programme.

In this paper, the authors will attempt to examine the important characteristics of an ideal teacher as well as suggest strategies by which teachers can cultivate these attributes. Also, he will examine how best we can motivate our students to learn in our modern days educational system. We shall therefore begin by explaining the two concept in this paper – the ideal teacher and the motivated student.

The Ideal Teacher

Ideal refers to a standard of perfection, beauty or excellence. It is the highest and best conceivable, regarded as exemplifying, a mode for imitation of the highest conception. It includes doing things right or producing the desired goals to the admiration of others.

The teacher is viewed as someone who has acquired some knowledge, skills, attitudes, ideas or appreciation in other to create or influence desirable changes in behaviours of his students. He is the key man in the entire education programme and the quality of his training makes or mars the end result of his job as a teacher. These views agree with most authors ideas, such as Clark (1995) who is of the opinion that a teacher is one who creates an interaction between him and his students in order to bring about the expected change in the students behaviour. Also Gbamanja (1997) is of the view that a teacher is an educationist who underwent pedagogical training, including a good knowledge of the principles and practise of education, in addition to his teaching subjects or discipline. Others include Kosemani (1994) sees the teacher as the person whom the society delegates the education of children to, in a formal setting. This individual is specifically selected, trained and educated for the job of dispensing knowledge to others according to their needs and capabilities. Obanya (1994) gave a brief description of a teacher, as somebody who is:

1. Educated, in the sense of a broad-based form of disciplined knowledge,
2. Specialized, in the sense of in-depth knowledge in a given subject area,
3. Professionally trained, in the sense of internalisation of knowledge, skills, attitude and values needed.
for promoting learning,
4. Professionally competent, in the sense of applying one’s skills to really promote learning, and
5. A lover of learning, in such a way that one’s own personality inspires learner.
From all these, one can accept that the teacher is one who systematically attempt at helping someone to
to change his knowledge, skills and attitudes in a desired direction. This means that no education can rise
above the quality if its teachers and these qualities are reviewed below.

Attributes of an Ideal Teacher

A number of attempts have made to categorize the characteristics and skills of an effective teacher, a good
teacher, an excellent teacher etc. (Clark and Peterson, 1986; Clark, 1995; Awotua-Efebo, 2001; Akpe, 2003;
Green and Osah-Ogulu, 2003). We will look at these different characteristics, which are in five interrelating
categories. These are;
1. Professional Attributes
2. Personality Attributes
3. Social Attributes
4. Leadership Attributes
5. Classroom Interaction Attributes

1. Professional Attributes

This involves the organized body of specialised knowledge, skills and attitudes that has been acquired
through long and intensive preparation, maintained by force of organisation or concerted opinion, high
standards of achievement and conduct, and committing one to continued study and to a kind of work for
rendering of public service. The professional attributes are;
   a) Professionally trained in a broad-based form of knowledge, skills, attitudes and specialized in in-
depth knowledge of a given subject area.
   b) Mastery of the subject matter, involves having a good working knowledge of the subject and the
   ability to impart it to the students.
   c) Updating the subject matter through attending seminars, workshops, conferences and in-service
   trainings to follow up in current trend of events in ones field of study.
   d) Being a life long student, that is being a practical scholar, a student of academic discipline, as put by
   Awotua-Efebo (2001), must be ready to learn at all times through one’s colleagues, students and the
   environment.
   e) Professional devotion in achieving desired changes in individuals.
   f) Admit ignorance and acknowledge mistakes when necessary.

2. Personality Attributes

This is concerned with the variables of individual differences. It refers to one’s outstanding characteristics, his
abilities, emotions and social traits, his interests and attitudes. Other terms used frequently in conection with
personality according to Lovel (1981) are temperament and character. The first involves innate bases such as
natural tendencies, organic drives and glandular balance on the emotions, while character is evaluated
gainst current standards of a cultural pattern, such as truthfulness, reliability, honest or their opposites. The
teacher must be;
   a) Loving, warm and understanding
   b) Responsible
   c) Helpful and encouraging. That is he must be there always to assist students and encourage them in
their academic work.
d) Patient and compassionate
e) Cheerful and optimistic
f) Honest, truthful and a person of integrity
g) Sincere in act and words
h) Open-minded and approachable
i) Tactful and alert
j) Empathetic, by understanding the feelings of one’s students
k) Self-controlled and not easily upset
l) Comport himself with decorum as this will enhance the public image of the profession.

3. Social Attributes

These are behaviours that a teacher exhibits that influence others and in turn is influence by others too. This is very much related to personality attributes. These are;
a) Punctuality, the teacher must always get to his class on time. Report to duty regularly and on time.
b) Always insist on students regularity and punctuality to classes
c) Be dedicated to work
d) Possess a good knowledge of learners and their characteristics
e) Accept all students and do not discriminate
f) Always be neat and clean in appearance so as to present a model of neatness to your students.
g) Must be happy, attractive, pleasant, good-natured, with a good sense of humour and make students feel at ease.
h) Insists on high standards of work and behaviour.

4. Leadership Attributes

A teacher who enters a class to teach automatically becomes the leader of that class. Leadership attributes include,
a) The ability to exercise authority judiciously and control the class. Although a democratic is usually encouraged, but the need to exhibit one’s authority over the class must go with the power to influence or command the thoughts, opinions or behaviours of the students.
b) Creation of conductive atmosphere for learning by showing the tendency to promote and assist learning to take place
c) Exhibit competency in the class by possessing the suitable requisite qualities
d) Organization- This deals with the ability to arrange the class in a coherent unity or functioning whole
e) Must be a disciplinarian by enforcing order. Also, corrects moulds or perfects the mental faculties and moral characters of the students. It also involves the enforcement of obedience in the students
f) Must have the ability to inspire learning through influencing, moving or guiding the students to greater heights.
g) Show respect for one’s students and make wise decisions
h) Must upholds all that dignifies, by doing things right or producing the desired goals. In other words the teacher must be effective.

5. Classroom Interaction Attributes

This refers to the techniques/strategies the teacher uses when interacting with the students. These are;
a) Skillfulness- Skill is the ability to perform some tasks well, especially as a result of a long practical
experience. It can also be referred to as a fact or a particular technique where it is the entire body of procedures or methods. Green (1994) defined skills as developed proficiencies or dexterity in the scientific art, which may require training or as a natural gift for competence and deftness in its practice, execution or performance.

b) Creative teaching- this is a self-developing teaching and technique which encourages independence of the learner, self-discovery of the learner both in and out of the school system. Thus a creative teacher is one that is innovative, fluent, unique, flexible, original and resourceful. He utilizes every situation/condition to promote learning and readily able to reverse a difficult situation to a simple manageable one. Also in the absence of standard equipment, the teacher must be able to improvise if possible, as well as generate new ideas.

c) Involve students in active participation in the class, so that they can depend more on their own ability to think than on the teacher. The students therefore develop a sense of confidence through participation, as more attention is given to the individual or small group work. Learners are encouraged under guidance to seek solutions to problems.

d) Hold discussion classes to allow student compare their experiences, exchange ideas in particular topics and learn from one another. It has democratic properties which includes students involved in free guided and purposeful expression of views and ideas on given issues, problem or situation. So it is usually between two or more persons interacting verbally with each other. This assumes that every individual can make meaningful contributions to topics during discussions.

e) Always give take home assignments clearly mapping out the problems or topics assigned. Highlight the important points emphasized in class. Also introduce study techniques, so that they can use some basic physical movements during activities or work through the application of the mental faculties to the acquisition of knowledge or to accomplish a desired goal.

The five main attributes have been reviewed and one might ask, what makes an idea teacher? That question will be answered when we are through with the second concept, the motivated student.

The Motivated Student

A motive is what causes a person to act in a way. It implies an emotion or desire operating on the will and causing it to act. Therefore, motivation is the choice of activity one makes, plus the persistence and intensity with which the activity is pursued. It involves the desire to learn and the level of involvement that students exhibit in their learning experiences. It is the energy students put into their academic work to achieve specified goals. It is also a state of need in a person that drives behaviour towards some goals. Motivation brings up a need within the student, and the behaviour that is aroused is steered up by this need, with the aroused behaviour being directed towards the goal the student wants to achieve.

Need for Motivation

Researches of Green (In press) and Awotua-Efebo (2001) revealed that students who are well motivated in the learning process tend to do well in their academic work, even when the learning environment is not ideal. This implies that they are not likely to misbehave in the classroom. Conversely, some normal students who are bored and uninvolved will not learn even in the most desirable environment, because they are not motivated.

Factors that Affect Motivation

Students are motivated to learn in general;

a) When their teacher is facilitative – that is, he makes learning easier through being honest, genuine
and real, accepts the students as persons of worth, with dignity and deserving respect.
b) When their teacher is enthusiastic – that is lively and energetic, face and hands to express enthusiasm.
c) When their teacher is creative and uses variety in his teaching.
d) When their teacher have the support of their parents who encourage them to work for the benefit of these children.
e) When they have had successful learning experiences through having tasks they can succeed in doing, in order to reinforce their desire to learn. As when they fail in their tasks, they loose their drive, self-confidence, esteem and sociability.
f) When they have a strong need for approval and recognition that can be achieved through praise and rewards occasionally.
g) When they are given freedom to explore, think, create, work, according to their interest, and ask questions.
h) When their teacher use thought provoking questions, which are open-ended to encourage divergent thinking.

How to Increase and Maintain Motivation

Sincere motivation is very important for effective learning to take place, it is our duty as teachers to know what conditions increases or decreases it. It should be noted that one means couldn't motivate all the students in a class; as such variety of methods should be utilized when dealing with your students. Let us examine the different methods we could use to increase and maintain motivation.

1. Exhibit a face and voice that shows interest in the students and the topic.
2. Start with dramatizing in some topics. For example, bring out some students to represent a man, wife and children when introducing a lesson on the family.
3. Display objects or charts for students to examine/observe and allow them to express their reactions or ask questions about it.
4. Hold up a real object and begin to talk and ask questions about it.
5. Ask questions that require the students describe their past experiences or present daily life, and the topics should relate to students past experiences and daily life.
6. Use a story that relates directly to the topic.
7. Make the topic seem important for them to learn at that particular time and emphasize how the topic is useful in their everyday lives.
8. Give them enjoyable, imaginative and challenging tasks, which will make them, use what they are learning or have learnt in variety of ways.
9. Usually a wide variety of learning materials and activities, especially those the students can manipulate and use.
10. Allows them ask imaginative questions which stimulate the students to think creatively or critically, rather than factual questions that rely on memory.
11. Allows them to suggest possible assignments.

How to Detect a Motivated Student

A motivated student can be detected by the level of involvement the student exhibits in the learning situation. Thus, a motivated student is,

a) Industrious, interested in learning and attains her goals.
b) More co-operative and more desciplined in general.
c) Exhibits curiosity over things his enviroment.
d) Learns faster and easily too.
e) Retains what is learnt.
f) Demonstrate matured reasoning ability.
g) Prefers to work the company of older children and adults.

Conclusion

In this paper the authors examined two important concepts the IDEAL teacher and the MOTIVATED student. To become an ideal teacher is the hallmark of the teacher profession, as the most striking point about education before the civil war in this country was the high status of the teacher in the society. Irrespective of the school size, or his salary, the teacher was respected, cherished, reversed and feared. He was disciplined, responsible, very effective and represented the symbol of what is good in the society (Manilla, 1989; Obioha, 1990; Green, 2002) why can’t we all as teachers still exhibit the qualities that rewarded our colleagues of yester years?

The needed is re-echoe the words of Gbamanja (1997), that

A non-teacher cheats
A poor teacher tells
An average or mediocre teacher informs
A good teacher teaches
An excellent teacher inspires, and this is where my ideal comes in. this is because an ideal teacher affects eternity, as one can never tell where his influence stops. We should all aspire to become models for your students by exhibiting all the attitudes narrated above. Thus an ideal teacher is one regarding as exemplifying, a model for imitation for his students who gets motivated for greater heights.

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Exploring Emerging Myths and Realities in Citizenship Education in Nigeria:
Towards Overcoming the Dilemmas of Nation-Building

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Abstract Citizenship education conjures-up a vital curriculum instrument for raising citizens and individuals who would constitute the basis for effective nation-building in a democratic Nigeria. The assets, qualities and capabilities of the citizen, therefore, imply that he possesses immense creative abilities, potentialities and powers. As it is almost impossible to diverse the assets of the citizen in the task of nation-building in a given democracy, there is an implication that the total spectrum of citizenship education is, therefore, submerged in immense integrative and interdisciplinary commitments and perspectives. This frame of thought evokes a number of myths and realities which impinge seriously on the curriculum imperatives of civics education; these issues and problems suggest that citizenship education has to be explored and employed to cope and embrace the pedagogical demands and dimensions entailed in the framework of Nigerian schools. The teacher has an uphill task to encounter and overcome if he is to register a high level of success in the task of confronting the myths involved and embracing the realities which emerge. This success must necessarily derive not so much from his subject matter knowledge and background but rather from his rational application of methodologies, or principles and styles of classroom pedagogy which can contribute significantly in bringing about innovations which are intrinsic in curriculum inter-disciplining and curriculum integration. This line of thought represents a kind of panacea which could be employed by the teachers for the purpose of exploring and capitalizing on the assets of citizenship education in the arduous task of grooming and building effective citizens who would constitute the basis for nation-building and sustainable national development in a democratic Nigeria.

Introduction

Banks and Cleggs (1977) hold that the ideals of citizenship education emerged about a century ago as a kind of panacea to solving problems confronting human-kind. It was upheld that an adoption or adaptation of the ideals intrinsic in this kind of education could go a long way towards ameliorating or solving the problems arising from man’s inhumanity to man. Thus Russel(1977) regretted that our world has become a mad place; he observed that ever since the First World War, the world ceased to be constructive because men will not apply their intelligence in creating international co-operation but persist in retaining the divisions of mankind into hostile groups.. He disclosed the prevalence of a general collective failure in many parts of the world, on the part of men, to use the intelligence they possess for the purpose of self preservation. He lamented that many factors which have been allowed to operate vulgarly in many societal frameworks are all dragging or rather tending society towards a situation of social disorder. Russel (1977, pp.21-22) recounted some of these problems thus:

(a) forces of religion, sex, education, nationalism, class feeling and competition which have been allowed to operate irrationally in many parts of the world to the extent of producing in the young insanity, stupidity, readiness for homicide, economic injustice and ruthlessness;
(b) forces of intolerance, hatred, pain and misfortune which have engulfed and consumed many minds such that they have lost the power of balanced judgment which is needed for an emergence from the slough in which mankind is staggering;
(c) a characterization of many societies by displays of disharmonies in their political and social frameworks;
(d) a menace from problems of uncertainties which not only wedge many developing countries from each other but which also militate against socio-economic advancement; and
(e) problems of imbalance, inequality and the like which handicap many developing countries their

113
emancipation from their colonial and apartheid history into a life which is based on equal footing with others in the world of mankind;

In effect, citizenship education sprang up as an outcome of the deliberations of many worried minds about the foregoing predicaments. Thus Corbin (1983) describes citizenship education as a curriculum instrument which is largely tailored at bringing about the breaking of barriers amongst our youth through meaningful exposures to education, mediated through the language of the curriculum during teaching-learning situations. Shaftel (1968) reiterates that this endorsement is very vital particularly if youths are to be groomed into prospective and effective citizens. He reflects this endorsement thus:

If formal education is man-made, we can dare take the responsibility for directing our social evolution through the curriculum offerings of our schools, which help to guide the development of young people into individuals of integrity, who can face and tolerate the demands of continually changing society, who can cope with emerging problems creatively and emphatically, who can commit themselves to responsible group behavior necessary for socio-civic living in their community.

In almost the same pattern, as portrayed in the foregoing reflections, Mezieobi (1996:8) concedes that schools generally assume and accept the responsibility for training and socializing learners both for character building and civics development on the one hand and for an achievement of academic powers on the other hand. He discloses that the curricular imperatives which these developments demand through classroom operations represent uphill tasks for teachers. Mezieobi’s (1996:8) recognition in this feat is reflected thus: Through an application of the behaviours and or dispositions of learners and their productive application of the values, knowledge, attitudes, skills and competencies acquired in schools’ situations into real life settings, can the effectiveness of schools in terms of achieving socio-civic goals and objectives be measured?

The Ideals Intrinsic in Citizenship Education Examined as Instruments for Nation-Building and National Development.

Osuagwu and Ogbonnaya (1997) visualize citizenship education largely as knowledge, skills and values given to a child or groups of learners with a view to making them functional and responsible individuals capable of contributing to the socio-economic, political and religious development of the state. They also emerged with the view that:

Citizenship education is the process of imparting knowledge, virtues, norms, values, attitudes and acceptable manner of conduct and behavior into the citizens of a community or nation aimed at building a strong community or nation.

Gross, Messick, Chapin and Southerland (1978) portray citizenship education as one of a number of curriculum designs for looking at human life and of organizing our knowledge and experiences about the world in which we live; they endorse that it has largely grown out of our attempts to understand and perhaps, control man’s social environment and or the world at large.

Russell (1977) recognizes that a good deal of demands are made from a citizen by members of his society as a result of the positive and humane characteristics, attributes and values which he is deemed to possess. He was prompted to make a distinction between the good citizen and the good individual. He contended that although "the good individual is he who ministers to the goods of the totality of individuals in a given society, his attitudes could degenerate into an exhibition of nonchalance in sensitive issues involving human kind". On the other hand, Russell (1977) maintains that the "attitude of the citizen is such that he is always aware that his will is not the only one in the world and he is concerned in one way or another to bring harmony to the conflicting wills that exist in the community." Thus, while the attitude of the individual, as such, is subsistent, according to Russell (1977), that of the citizen is essentially circumscribed by his neighbours.

Thus, the citizen is first and foremost aware of his potentialities as an individual and this awareness governs much of the concessions, compromises and the ability to acquiesce what he initiates and adopts in the light of attempting to solve and resolve problems and/or issues which confront him on the one hand and
the larger society on the other hand. The fundamental characteristics of the citizen, according to Russell (1977), is that he cooperates in intention if not in fact. He endorses that it is on this very characteristic of the citizen that his creative abilities and potentialities for addressing and solving societal problems are rooted.

Thus, Banks (2005) endorses that an important criterion that can be used for designating effective citizens is their outstanding performance in situations which require them to exhibit potentialities and abilities in the art of cooperating and conforming to a variety of societal needs and demands. He advances that it is largely this need to conform and cooperate that has contributed to the superiority of good citizens when compared to the ordinary members of their groups in such respects as: (a) dependability in executing responsibilities; (b) active and social participation; and (c) active in the sphere of socio-economic commitments for improvement. These characteristic attributes have largely prompted the endorsement of Banks (2005:210) regarding the values and behavioural features which the citizen is expected to exhibit thus: An appreciation of the nature and laws of social life; a display of intelligent and genuine loyalty to high national ideals; a possession of a sense of responsibility as a member of social groups; a display of loyalty and a sense of obligation to his city, state, nation and to the human race; and a possession of the intelligence and the will to participate effectively in the promotion of social well-being.

Thus, Banks (2005:211) expatiates further that it has, therefore, become a norm to visualize the good citizen as possessing and displaying certain desirable attributes and values including the following: Looking at things with a democratic slant; belief in decency and fair-play, forbearance and respect for others; commitment to an acquisition of the customs, traditions and nationalistic ideals of his country; belief in the idea of progressive improvement of society; a desire to promote the general welfare and be pledged to raise and safeguard living standards for all; and a belief in universal education.

The Nigerian National Policy on Education (2004) stresses that the philosophy of education in this country should be geared towards equipping the learner to cultivate values of effective citizenship and civil responsibility. The Policy endorses that the philosophy behind all forms of instructions in schools is to be measured in terms of their roles in producing citizens with skills, competencies, moral values and reasoned judgments to effectively live, interact, interrelate and contribute positively to economic, social, political and cultural development of the Nigerian society (Okobia, 1985). The Policy has also provided details about a variety of value-concepts which form the centre-piece of citizenship education in Nigeria. These include; ‘shared responsibility for the common good of the society’, ‘moral and spiritual values in interpersonal relations’, ‘a cultivation of a sense of compassion for the less fortunate’, ‘cultivation of social attitudes and values such as cooperation, participation, interdependence, honesty, open-mindedness, integrity, diligence, trustworthiness and obedience’, ‘acquisition of attitudes favourable to social, physical, cultural and economic development’. Other values which derive from these frameworks include: ‘rationality’, ‘needs and interests’, ‘interaction’, ‘adaptation’, ‘loyalty’, ‘patriotism’, ‘critical thinking’, ‘progress and democracy’. The various forms of thought-processes which are represented and enshrined in these values and their various learning dimensions very often constitute differentiated focal points in terms of which the language and most of the subject matter of citizenship education are formulated.

Thus Boateng (1997) endorses that the essence of Citizenship education in Nigeria is premised on the following value-dimensions and orientations, namely: (a) the need for instituting democracy and democratic values in the country; (b) the need for creating an awareness amongst individuals regarding the provisions of the Nigerian constitution.;(c) the issue of creating adequate and functional political literacy amongst individual learners; (d) the vitality in sensitizing learners to the functions and obligations of government; (e) a commitment of learners to an awareness of their rights and duties and to respect the rights of others; (f) an endorsement of the production of responsible, well informed and self reliant citizens; and (g) a need for inculcation of right values and attitudes for the development of individuals and the Nigerian society.

Kazi (2004) recounts that it is a commitment to such value-dimensions of citizenship education as "power or love", "cooperation", "confidence", "trustworthiness", "integrity", "consideration", "hard work", "interdependence" and "loyalty" that has contributed in the building and establishment of the great nations
and democracies of the world. In other words, these citizenship values, according to Kazi (2004), essentially constitute the ideals that have been embedded intrinsically within the socio-political and socioeconomic frameworks of the thriving and great democracies of the world such as England, France, and the United State of America, Canada, Germany and Japan. He expatiates further that these great nations were built by citizens who are positively committed at exploring and employing the value dimensions of citizenship education in bringing about a development and enhancement of the social, economic, cultural, political and religious out-reaches of their societies to enviable heights. Kazi (2004) endorses that the foregoing values and ideals of citizenship education constitute the pillars of strength of any democratic society.

Myths and Realities which Negate the Enthronement of the Ideals of Citizenship Education in Nigeria

Okam (2002) discloses that one of the problematic myths confronting Nigeria as a young democracy relates to the issue of achieving a greater measure of national unity and integration amongst the various national groups that constitute her society. As a political entity, Nigeria has brought together divergently and ethnically different nations. These nationalities- whether major or minor, in their varying degrees of success or failure, have constituted a kind of centrifugal force within this single polity. This political unhealthiness represents a major divisive force of great magnitude in terms of the corporate existence of Nigeria as a country. Corbin (1983:3) succinctly presents the problem thus:

There are barriers between groups and classes within the Nigerian society as a result of birth, occupation, language, race and religion; there are barriers between the schooled and the unschooled. Consequently, Nigeria is faced with the task of breaking down these barriers and increasing the opportunities for individuals and groups to be enabled to benefit from social opportunities which may be available to them.

Corbin (1983) lamented that many "negative citizenship" factors and myths which have been allowed to operate vulgarly in many societal frameworks in Nigeria are all dragging or rather tending the society towards a situation of social disorder. Corbin (1983) recounted some of these predicaments thus:

- economic injustice and ruthlessness,
- problem of imbalance and inequality, insanity and stupidity in the young, forces of intolerance, hatred, pain and misfortune and the loss of the power of reasoned judgement.

He reflects that these problems of "negative citizenship values and myths" have gravely militated against Nigeria's march towards effective and sustained socioeconomic and political development since her independence which she obtained about fifty years ago. The retrogression and dilemmas into which the country is engulfed seriously demand the need for value re-orientation, if the barriers recounted above are to be removed so that opportunities could be created for individuals and society to attain meaningful and enhanced development.

Klineberg and Zavalloni (1968: 239) found that there prevails a low level of national identity amongst Nigerians generally. In their comparative study of political orientations amongst students in ten African countries including Nigeria, Klineberg and Zavalloni (1968:239) found ethnic identity, rather than national, to be highest among Nigerian students than amongst others. They reflected their findings thus:

Nigerian students showed the highest frequency of tribal and regional membership as identity attributes; the highest frequency of ease with others of the same tribe; the lowest frequency of nation as an identity attribute; a very large proportion agreeing that traditional authority and tribal structure may be useful to progress; and almost a unanimous perception of inter-group tensions within Nigeria as constituting a serious problem.

The reflections in the foregoing considerations are demonstrations of "negative citizenship". It is very unlikely that this perspective will be conducive for producing effective Nigerian citizens and for foregoing a cohesive society that will support the notion of meaningful nation-building. There is need, therefore, for value re-orientation in Nigeria in order to generate a conducive basis for sustainable socio-economic and political development in the Nigerian Society. Thus, Banks (2005:214) entertained a concern that the critical times in
which we live demand not only a change but a new orientation regarding our overall handling of issues which are centered on citizenship education during teaching-learning situations. He opined that the profound changes taking place in the political, social and economic spheres in many parts of the world are already spelling a dire need for coping with the challenges and opportunities posed in the whole idea of value reorientation in the context of citizenship education. Thus, Banks (2005:214) succinctly summarized the problem thus:

To perpetuate democratic ideals and a just society, we need citizens who are not only acutely aware of the characteristics of a democracy and committed to its ideals but who are also aware of the inconsistencies associated with human ideals and their actual behaviours. Only then will they be able to help close the gap between the ideal and the real. Clearly, citizens who are uncritical and unreflective will not be able to improve the human condition in any given nation.

Ikem (2007) has also recounted a number of unwholesome behaviours exhibited by Nigerians which negate national growth and development. He discloses that corruption has permeated into our social fabric to the extent that nothing works in the society except if a bribe is offered to one who legitimately ought to do the job for which he/she is paid. This was amplified by Mezieobi (1996), when he stated that corruption, embezzlement, squandering of the national economy, political naiveté, and executive indiscipline are among the behaviours of Nigerians that negate national development. Embezzlement and squandering of the national economy have contributed greatly to the pauperization of the masses. Executive indiscipline is demonstrated when those in authority flagrantly disobey the law, e.g. driving on one way traffic lanes, thus endangering the lives of others. Other behaviours that negate “citizenship values” and national development include cultism and ritual killings. On our own university campuses, in particular, cultists unleash terror on innocent members of the community and on rival groups when they clash. “Ritualists” kill or maim innocent citizens with a view to making “blood money”; other manifestations of poor citizenship behaviours include examination malpractice, falsification of results, disregard to public laws and order, tax evasion, underpayment for public goods, derelictions of duty, “ghost workers” syndrome, inflation of contract terms, illegal trade in drugs, smuggling of contraband materials among others.

Isitoah (1996) discloses that ethnic crises and religious intolerance have led to loss of lives and property and equally creates refugee status amongst citizens in this country; he considers that political violence and political thuggery are twin factors that help to enthroned bad leadership. He noted that the peoples’ reaction to this endemic problem was a kind of political apathy in which they do not make themselves available for political registration exercise and voting in an election with a view to enthroning good leadership.

**Exploring Citizenship Education Perspectives in Addressing Predicaments and Myths which Militate Against Nation-Building and National Development in Nigeria.**

The foregoing challenges imply that our commitment to the tasks involved in citizenship education for visionary Nigeria demands, among others, an improvement in all aspects of the quality of education in this country. These challenges entail that the processes of education in Nigeria will have to operate at a more satisfactory level than what obtains at the moment. The attainment of a reinvigorated education for visionary Nigeria, according Obanya (2004), calls for “ensuring excellence of all, so that recognized and measurable learning outcomes are achieved by all, especially in literacy and essential life-skills” Obanya (2004:15) reflects more on this challenge in ensuring the achievement of this excellence in quality in a commitment in the task of re-invigorating education for visionary Nigeria thus:

This is a tall order demand, since we are yet to begin the cultivation of culture of excellence in this country; it is also a developmental challenge. The world is asking for nothing short of excellence, and if Nigeria is to really belong to the global community, excellence is one of the membership cards.

Thus, if we are to explore and employ education, particularly its reinvigorated versions, in order to maximize the dividends derivable from citizenship as a socio-political construct in this country, the foregoing
reflections of Obanya (2004) call for very concerted efforts for Nigeria to overcome the educational and developmental deficits it has carried into this 21st century. We are reminded that this century is that of the Africa Union (AU) and the New Partnership for Africa’s Development (NEPAD), in both of which Nigeria is a major player. Unfortunately, according to Obanya (2004), Nigeria is trailing behind a good number of African countries (most of whom are operating on a poorer resource bases) in terms of the key indices of human development.

Nigeria has to work hard to change its global fortunes in a positive direction by re-educating all its citizens. This reinvigorated education process, among other things, calls for a paradigm shift from narrow specializations to broad based knowledge and from specifics to generic skills. (Obanya, 2004). This is the very essence of citizenship education. Citizenship education endorses a greater tendency to evolving uniform ways of conducting human affairs. This trend in education is tending towards moving humankind to just one single standard and that standard is international. This cadre of education endorses premium on the development of knowledge economy in which knowledge is highly valued, and propelled by learning institutions, learning societies and learning individuals. Citizenship education lays emphasis on a lot more than success in tests and examinations. It is no longer a case of going for professional studies so that one could easily find a job after graduation. The function of this education is rooted in character and personality building. This thought pattern bears on the quality and comportment of the mind in which an individual is consummated. The goals of citizenship education are expressed in a variety of forms such as (a) preparation for lifetime learning; (b) preparation for the world of work; (c) preparation for gaining expertise in a set of generic skills intended to help an individual respond to the demands of a globalized world and of a knowledge economy. Citizenship education is designed to reveal itself as a necessity of life to individual because ultimately it emancipates humans (Bloom,, 2004; Suarez-Oroozoo, 2004). It displays education as a tool for pooling societies out of poverty, providing requisite information to all cadres of leadership and for promoting health and social growth, particularly for women. Dewey (1915) about a century ago supported and encouraged the ideals in citizenship education because it liberates humans to find freedom and their calling in life. Suarez- Oroozoo (2004) reveals that a global education initiates us into a beauty that is found in the curriculum and which we, too often, neglect and set aside as frivolous. He expatiates that the arts and humanities, whatever their forms, connect the human spirit on a globally-understood, deeply emotional, human level; these knowledge bodies, according to him, encourage respect because they share the universal values and emotions- love, dignity, compassion, caring and also hate, suffering, jealousy, pain- the good and the bad. He advances that these feelings help educators and students to escape the common sense that limits human potential to see anew and aid them in moving forward without that movement being totally dependent on what has been; these knowledge structures also, according to Suarez-Oroozoo (2004), provide a path to political humanism that offers an understanding of what all cultures and people are –humans. He considers that one aspect of this humanness is the ability to imagine.

The progressive movement of the 20th century, with the emphasis of problem solving and reasoning bears a good deal of semblance on citizenship education movement. Dewey’s (1916) notion of “reflective thinking” and Bruner’s(1959) idea of “subject-matter structure” seemed to embody this movement. Gitlin and Ornstein (2007) endorse that these ideals were conceived as the “be-all-and-end-all” concepts for teaching, learning and developing curriculum. Thus Bruner (1959) differentiated himself from the domination of facts within the curriculum by arguing that learning bits of information is limited; only by understanding relationships is the learner able to continually and independently relate additional information to a field of study or across subjects, and ultimately cross-reference and inter-relate, based on Piaget’s ideas of assimilation (whereby a teacher incorporates new experiences into existing experiences) and accommodation (whereby a learner’s experiences are edified and adapted in response to his or her experiences) (Suarez-Oroozoo and QinHilliard, 2004).
Educational Exigencies of Citizenship Education Examined in The Context of Societal Issues Intrinsic in Nation-Building and Development

The curriculum content that would respond to the needs of citizenship education should seek to inculcate the traits required of social forces designed to bring positive changes to the lives of the world’s peoples. The educational exigencies involved are summarized thus:

Firstly, if the masses of the peoples across the globe should be uplifted, access to education at all levels (and in all forms) should be broadened (Obanya, 2007). This implies improved and expanded facilities for both in-school and out-of-school learning; most importantly it means the institutioning of learning everywhere and across the globe.

Secondly, citizenship education necessarily subscribes to empowering the masses as agents of positive change for the emergence of societies where democracy and human rights reign supreme; this line of thought implies a people-oriented approach to decision and policy making in education.

Thirdly, citizenship education is designed to subscribe to capacity enhancement of individuals in the world at various levels - personal, social and institutional. This frame of thought would mean raising the quality of all the structures that engender the process of education - all the agencies of education, management capacities of the ministries of education, educational institutions, education sector personnel and teaching-learning facilities. Obanya (2007) considers that this is a critical area in citizenship educational development agenda, as broadened access would not yield the desired results if we neglect quality, relevance and efficiency issues.

Fourthly, citizenship education would require the raising of the level of awareness and self-esteem among the peoples of the world. Obanya (2007) reflects that this development, for us in Nigeria, would require an educational system that puts acculturation before enculturation. This development, according to Obanya (2007), means that education in Nigeria must return to its basic tenets of “know thyself first and thoroughly” and use this knowledge as a lead way to learning about others in the world around; it also implies Nigerians appreciating other peoples of the world through the right type of “Nigerian exposure” in the citizenship educational context.

Fifthly, citizenship education would involve “knowing about the rest of the world”, among other things. This task would entail what Obanya (2007) reflects as “revitalizing”; this network would imply borrowing wisely from external influences and capturing the best of thoughts, actions, inventions and knowledge for improved humanistic learning.

Sixthly, the enthronement of citizenship education in this country implies, among others, that we must necessarily take account of the demands of the knowledge society of the present century (21st Century), where the emphasis is no longer on how knowledgeable but how “knowable” (Obanya, 2007), and where the emphasis has shifted from having the productive citizen to being “blesses” with the creative citizen.

Exploring Citizenship Education Perspectives for Coping with the Challenges of Nation-Building and National Development in Nigeria

Evidence increasingly indicates that citizenship education makes learning more relevant and effective for great numbers of persons (McCary, 2002; Park, Goodwin and Lee, 2001). It creates avenues for greater congruency between students and learners success performances on the one hand and their cultural backgrounds and such education experiences as tasks, interests, effort, academic achievement and feelings of personal efficiency or social accountability on the other hand. Gay (2007) reflects that as the challenge for diversified education increases in response to meeting the multidimensional needs of students and learners, the quest for citizenship education grows exponentially. He submits that citizenship education may be the solution to problems that currently appear unsolvable: closing the achievement gap genuinely not leaving any students behind academically; revitalizing faith and trust in the promises of democracy, equality and justice;
building education systems that reflect the diverse cultural, ethnic, racial and social contributions that forge society; and providing better opportunities for all cadres of students and learners. Citizenship education is, therefore, very crucial; it must necessarily be tailored at providing students from all cadres and groups with the education they deserve.

On the basis of the foregoing theoretical framework, Obanya (2007) submits that citizenship education is characterized by a variety of goals expressed in a number of peps or forms—all geared to the production of the creative citizen in a given democratic framework. Some of these forms of peps bear on the following: preparation for lifetime learning; preparation for the world of work; preparation for making continuous on-the-job learning possible and easier and preparation for a formal tertiary education. Thus Obanya (2007) endorses that the educated citizen of today require a set of generic skills intended to enable him respond to the demands of a globalised world and of a knowledge economy. He endorses that these generic skills can be inculcated through virtually any subject discipline; the generic skills, according to him, constitute what are considered as “new constructs and new concepts” in global education; and they include: “analytical power”, “team spirit” “problem-solving skills”, “information technology assets”, “communication power” and versatility. It is considered that candid and meaningful exploration of the assets and merits of these generic skills could constitute the basis for creating and enthroning creative citizens through re-invigorated education for visionary Nigeria in the 21st Century. The implications of exploring citizenship education in the task of enabling individuals or students cope and respond effectively to citizenship demands and challenges though commitment to these generic skills in a given democracy, such as Nigeria are briefly examined.

Thus, “analytical power” calls for advanced capacity for logical reasoning on the part of an individual. This skill is centered on an individual’s ability to establish meaningful relationships between a variety of “knowledge forms and structures”, “societal issues and concerns”, “life situations”, “social aspirations”, and “problem-situations, etc” Analytical power demands that an individual should not only be preoccupied with a knowledge of these structures, he has to be aware of the processes by the subject-matter and content of these structures are interconnected and interrelated.

“Team spirit” demands that from an individual a practical display of a number of social skills such as (a) the ability to cooperate harmoniously with others on small and large group projects;(b) the ability to contribute meaningfully to group activities in a wide variety of forms;(e) the ability to supply leadership when, and if, necessary and appropriately; (d) the ability to relate to others and to get out of one’s shell while remaining oneself “Team spirit” also permits members of the team or/group to know and understand one another better because they constantly share ideas and information. It further allows a pooling of ideas, encourages professional criticism amongst members, permits team members to specialize in tasks they know best, provides new members the opportunity to observe experienced members and profit from their advice and counsel.

“Problem solving skills” are designed to engage an individual in “reflective thinking”; is conceptualized as an instrument for visualizing and perceiving the idea of “unification” as a valid reflection of the nature and the totality of knowledge. Dewey (1952) expatiates further that “reflective thinking” implies “problem solving” and this constitutes the key to intelligent action, as opposed to impulsive or routine action. Tanner and Tanner (1980) submit that “reflective thinking” is, in essence, the “scientific method” applied in all human problems, ranging from the simple problems of daily living to complex problems and abstract, intellectual issues and problems. Dewey (1952) strongly entertained the view that any educational project requires reflective thinking or an execution of “problem solving skill”. He endorsed that the outputs from the process of reflective thinking or problem solving are to serve as guides for future experience, indeed Dewey submitted that the relevance of the art of “reflective thinking” in curriculum synthesis, as a form of thought, enables an individual to conceptualize “knowledge acquisition” in the light of democratic goals in a given geo-political region.

“Creativity” demands from an individual a display of the ability to go beyond the well-trodden path in thinking as well as in action. It calls for a display of the capacity in using the spirit in inquiry and problem solving, including the zeal to learn on a continuous basis to evolve novel ideas for novel solutions to
problems. Lambert (2003) reflects that the creative abilities and potentialities of an individual must bear some relevance or relationship to the characteristics, activities and goals of the group or society in which he functions as a productive person. Thus Banks and Clegg (1977) emerged with the view that only creative individuals who are armed with such behaviour abilities and potentialities as “insight”, “initiative”, “cooperation”, “originality”, “persistence” “emotional stability”, “perseverance”, “judgment”, “communication skills”, and “reflective thinking” will be able to improve the human conditions in a given democratic social framework. They disclosed that the “creative-bent” in such individuals could assist them in becoming acutely aware of the characteristics of a democracy and become committed to its ideals; also by virtue of their behaviour characteristics, these individuals could endeavour to become aware of the inconsistencies associated with human ideals and their actual behaviour and they could equally strive to close the gap between the ideal and the real in this circumstance.

“Life long learning skills” call for an internalization of a variety of skills on the part of an individual. These include (a) skills required in enabling him to be so oriented as to capitalize on other education forces which exist in the society for his own progress; (b) skills required in enabling him come into contact with a wide variety of realistic learning experiences and maximize the dividends that are accruable; (c) skills required in helping him control his own learning; (d) skills required in helping him break down the dichotomy between work and play; (f) skills required in enabling him realize and release the potentials he possesses. The acquisition of the foregoing life long learning skills are usually enhanced through a possession of solid foundation in literacy, numeric and life-skills.

“Information Technology asset”(IT) constitutes a discipline in its own right; its skills could be required as a tool in order to lend support to other disciplines and life activities.

“Communication power” demands the acquisition by an individual, of the necessary skills required in using appropriate language forms and non-verbal forms of language in specific situations in order to achieve specific objectives. In addition, communication power could be rendered in the form of symbolic displays of people, persons and whole societies; these displays often disclose immense value-dimensions and underpinnings. Bridges, (1975) reflects that it is through “this symbolic display, especially in the form of non-discursive use of signs and symbols that people indicate the way they see things, the view they have of what they are doing and the patterns of conventions and rules under which they are acting” . In a variety of facets, communication power plays a major role in the service of facilitating inter-personal exchange of ideas and information and in the pursuit of the habit of team playing. In this circumstance, team–playing demands that individual should explore and employ |Communication power” instruments and devices to improve their capacity to work with other persons and to contribute meaningfully to the attainment of group goals.

“Versatility” demands that individuals should broaden their horizons in terms of domains of knowledge and experience. Individuals should endeavour to be meaningfully exposed to different fields of learning; some of these subject disciplines and fields include the arts, humanities, the natural and social science, language, technical and commercial subjects. A number of subjects which derive from these domains of learning are constituted into the various disciplines. Peters (1966) reflects that the ultimate goal of these disciplines is to discipline the mind by developing in learners the capacity for observation, for logical thinking, for functioning in groups, for self–expression and for loving the act of learning. Obanya(2004) opines that, for those who have learnt correctly, the discipline embodied in school subjects will always remain as an internal part of their being.

Challenges of Citizenship Education: The Teacher’s tasks in 21st Century Nigeria.

In the task of translating the foregoing theoretical perspectives and constructions into practice, teachers must systematically weave interethnic and multicultural versions of education into the central core of the citizenship curriculum including instructions, school leadership, policy-making counseling, classroom climate and performance assessment (Mc Caryl, 2002; Park, Goodwin and Lee, 2001; and Gay, 2007); these
teachers have to employ multicultural and interethnic curriculum content, perspectives and experiences to teach a variety of subject areas including the sciences, social sciences, social studies, mathematics and languages. The curriculum design issues entailed in the above pedagogical perspectives in the task of instituting citizenship education in the 21st century Nigerian context, by the teacher, are examined in terms of the following: (a) underlying philosophy; (b) curriculum content; (c) methods; and (d) resource materials. These four pedagogical components of citizenship education are considered briefly in terms of the demands each respectively makes on the teacher.

In the context of underlying philosophy, the teacher has to embrace the need for a radical shift from the orthodox view of curriculum as something occurring under the aegis of a school, to emphasizing the role of cultural values and contemporary social dynamics, not simply as determiners of curriculum but most importantly, as organizers and implementing agencies for curriculum. The teacher has to take due account of the greater bulk of education that occurs out of school. In this perspective the teacher will be talking about the “citizenship education curriculum” instead of simply “the school curriculum.” Obanya (2007) considers that teachers who are committed to citizenship education must necessarily endorse greater emphasis on EQ (Emotional Quotient) development while not neglecting the development of IQ (Intelligence Quotient). This is because it places greater emphasis on character formulation and development, in which displays of values, altitudes, broad-mindedness and adaptability become important rather than a demonstration of mere knowledge.

The teacher needs to entertain a sound level of understanding that the predominance and pre-eminence of Nigeria as the area of educational exposure implies using her populace as the cornerstone of the curriculum. This line of thought would involve the following among others: (a) a recognition of the place and contributions of Nigeria to variegated developments in their ramifications; (b) a display of cultural values in their peculiar perspectives; (c) the peoples of Nigeria and their aspirations. The curriculum has to be used to portray Nigeria in the best of perspectives. The teacher has to explore ways and means of how the external world compliments what Nigeria has to offer and not simply portraying Nigeria in a derogated or bad shape; the teacher has to seize every opportunity to domesticate knowledge and techniques that emanate from the outside world in the interest of Nigeria as a thriving democracy.

Government education establishments need to be made aware of the vitality for more intensive devolution of authority for curriculum development and implementation authorities to local communities and individual schools not only to allow for “responsive flexibility” with decisions on actual activities based on the needs of our societies, but in the context of overall national curriculum goals. This framework implies a systematic employment of teachers and local education agencies (including parents) for full involvement (and not simply token participation) in curriculum development and implementation. The teacher has a variety of tasks-needs to execute in the context of curriculum content. He has to seek ways and means of eliminating the problem of the prevailing practice of curriculum overload in our various schools’ settings- the habit of perpetually adding-on new content on the prevailing content. He has to embark on instituting more radical approaches to curriculum integration. The curriculum content in these approaches will have to be guided by the “core skills”, “assets”, “powers”, “attitudes”, and “spirits” required to enable our “creative” citizens work towards the emergence of Nigeria as a nation-state.

In the curricular circumstances, as displayed above, where the education process focuses on teaching eclectic bodies of knowledge and skills, Gay (2007) advises that teachers need to use citizenship education including multietnic versions of it to promote such highly valued outcomes as human development, “education equality”, “academic excellence” and “democratic citizenship” (Banks and Banks, 2001; Nieto, 2000). These suggestions indicate that teachers need to employ systematic decision-making approaches to accomplish multicultural curriculum integration. In practice, this means developing intentional and orderly processes for including multicthnic and multicultural content. Gay (2007) considers that the decision process entailed might involve teachers in the following steps: (i) creating learning goals and objectives that incorporate multietnic and multicultural aspects, such as “developing students’ ability to write persuasively
on social issues and social concerns”; (ii) using a frequency matrix to ensure that the teacher includes a wide variety of ethnic groups in highly diversified ways in curriculum materials and instructional activities; (iii) introducing different ethnic groups and their contributions to development programmes on a rotating basis; (iv) including several examples from different ethnic experiences to explain subject matter, concepts and conceptual frameworks, facts, attitudes and skills; (v) showing how multicultural subject matter content, objectives, goals and activities interact with subject-specific curricular standards. Virtually, all aspects of multicultural education are interdisciplinary. As such, they cannot be adequately understood through a single discipline. For example, teaching students about the causes, expressions, and consequences of “ethnicity” requires the application of information and techniques from such disciplines as history, economics, sociology, psychology, mathematics, literature, sciences, art, politics, music and health-care. Theoretical scholarship already affirms this interdisciplinary needed; thus, teachers need to model good and requisite curricular and instructional practice in citizenship education. Putting the principle into practice will elevate citizenship and multicultural education from impulse, disciplinary isolation and simplistic and haphazard guess-work to a level of significance, complexity and connectedness across disciplines (Arvine and Armento, 2001; Gay 2007.)

Teachers have to heed to the clarion call to do away with narrow and early specialization, as citizenship education emphasizes the need for broad-based knowledge. Teachers have to endorse the need for students to gain fluency and mastery in Information Technology (IT). IT-fluency is usually considered as a transversal activity, and not necessarily as a specialized subject (Obanya, 2007). As IT itself is a gateway to the global pool of knowledge, Nigeria, as a thriving democracy, must necessarily constitute a viable contributor.

Teachers have to recognize and treasure the significance of “Indigenous Knowledge” (IK) as a curriculum content area at all levels. Obanya (2007) observes that it is ironical that the “developed” countries and the “development partners” are now the ones clamouring for the harnessing of “indigenous knowledge” for addressing African-specific problems and a variety of other global problems.

In the sphere of methods, the teacher has to consider a re-thinking of the classroom in its present form. He has to capitalize on a number of assets and ways of turning classroom into “learning spaces”; these avenues include: more out-of-class activities; more exposure to the world of work; innovative setting arrangements; flexible timetabling. Obanya (2007) endorses that teachers who must be involved in propagating citizenship education have to become more of “those who can” as opposed to “those who can’t”.

It is only a knowledgeable teacher and the creative professional who can implement a revolutionary curriculum such as is involved in citizenship education. In the process of implementing the curriculum design issues involved, these teachers need to win the respect of the wider society and serve as a source of inspiration to learners.

A commitment to effective classroom delivery in citizenship education, among others, requires that competent teachers should employ teaching methods that stress not simply subject matter mastery but more importantly, the core generic skills of self knowledge, communication, teamwork, reasoning, inquisitiveness, idea generation and articulation, problem solving and creativity. Teaching must necessarily establish linkages between multiethnic and multicultural education and the disciplines including subject matter content that are taught in schools. They need to display reality and representation designs in their curriculum development tasks and devices; they also need to employ “relevant strategies” in all their pedagogical strategies. In his curriculum designing, the teacher has to embrace more inclusive devices in order to cater for interests of the wide range of ethnic and cultural diversity that exists within society. These inclusive devices have to be rooted in social problems and the realities of ethnic and radical identities including tribal relations. In order words, reality should not be distorted and representation should be complete (Loewen,1995).Thus, schooling should be made exciting and inviting to many ethnically diverse students; these students should be made to feel “welcomed, significant and unalienated”; what is rendered to students has to be of immediate value to them; it has to reflect who they are. Teachers need to understand the distinguishing characteristics of different learning styles and use the structural techniques for classes of students instead of for individual students (Gay,2007). In any given lesson, the teacher might offer three or four ways for students to learn,
helping to equalize learning advantages and disadvantages amongst different ethnic groups in the classroom.

Bloom (1995) endorses that citizenship education should not be oriented in such a way as to give room to a “deification” of examination. The teacher should seek to make teaching accessible by letting the learner determine the pace and tempo of teaching, and by taking steps to ensure that all learners eventually love learning and make concerted efforts to achieve the goals of the curriculum. Obanya (2007) reflects that examinations in their present forms tend to dwell on knowledge that is forgotten as soon as the “grueling” is over. It is endorsed here that since the curriculum in citizenship education stresses the internationalization of values, behaviours and skills, the tasks involved in assessing the extent to which learning has taken place should take a different form. Thus Obanya(2007) advises that assessment in citizenship education should be embedded in the very process of teaching and learning; the proceeds in global education have to become ingrained in the learner as a result of his learning both in and out of the school.

The teacher should continually be involved in embedding a variety of structures which engender a student’s commitment and involvement in school and classroom governance as well as in teaching-learning methods; some of these include: participating democracy, self discipline, responsible citizenship and respect for human rights. The teacher should also be committed to bringing the world outside to the school and the classroom in a more systematic and intensive manner as a way of demonstrating that every society generates socially useful knowledge and that knowledge should be applied for the benefit of society.

Conclusion

Our education must, of necessity, be re-explored and reinvigorated in order to provide a highly enhanced meaning to the generality of the Nigeria populace. This directive and position is to be accepted if democracy must be sustained in Nigeria for the socio-political and socio-economic development of individuals and groups who are domiciled in her. A revitalized and reinvigorated education must be capitalized upon as a necessary curriculum instrument for developing and building effective citizens who would constitute the basis for establishing a sustainable democracy for visionary Nigeria. However, in the circumstance of Nigeria’s development in the 21st century, we need to re-explore and expand further avenues and covet new approaches and horizon in enlarged and re-invigorated educational designs through the exploration and employment of citizenship education perspectives in order to cope with the challenges intrinsic in a modern democratic society. There is a need for committing education to the liberation of the capacities of every individual for a purpose of advancing the course of individual autonomy. We need to advance the course of a reinvigorated education through citizenship education perspective and tailor it to the service of the democratic ideal. We also need to aspire for productivity, quality and –excellence. There is, therefore, a necessity for us to infuse a variety of generic skills and structures in a reinvigorated educational set-up and systems at all levels, if we must release and open up the dividends and assets of democracy for the Nigerian society to become “bona fide” beneficiaries. A major implication of this directive seriously impinges on the design that our education must be reinvigorated as a vital necessity in the task of producing effective citizens if the assets and dividends established in Nigeria’s vision, as a democracy, are to be achieved.

References


E-Health in Biomedical for Sustainable Development-Its Role and Challenges in Bayelsa State, Nigeria

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Abstract This report is taken a broader look at electronic health (E-health) in biomedical, its importance and challenges of adopting this system in biomedical profession in Bayelsa State. Great strides are being made to improve healthcare services through the use of ICT (Information and Communication Technology). One of the most promising ICT development project is the e-health which involves the store and forward system; the tele-medicine system video conferenceing and the real time tele-medicine system (Rodrique 2011). ICT has transformed the ways modern healthcare system acquire, store, access and communicate medical information. These developments offer significant benefits to patients and healthcare providers, though it gives rise to ethical and legal challenges in the protection of patient privacy and confidentiality (Chin 2003) ICT tools can lead to higher quality of healthcare delivery, increased patient safety and better risk management in health services and health care in Bayelsa State. The traditional and humanistic concept of doctor-patient relationship is under threat as this system is used to pass the need for personal consultations, for patients may not have the opportunity to explain to the doctors or the healthcare providers (Rodrique 2011). An effective approach in the use of (electronic health) ICT for advancement in biomedical world is the proper training of medical specialists to set up and manage the system, also setting public standards for accessibility and expression of patient autonomy. This ensures its effectiveness and safety for sustainable development.

Keywords: Biomedical, Patient safety, ICT, health care providers.

Introduction

Electronic health is based on Information and Communication Technology. These two terms e-health and ICT (Information and Communication Technology) are synonyms. ICT is a tool of expression, the competence of healthcare workers such as medical doctors, nurses medical Laboratory scientist, radiologist in modern healthcare. ICT has become well assimilated into healthcare delivery system that few doctors can imagine a day without using the computer or the network: prevention of disease and injury, promotion and maintenance of health, relief of pain and suffering, care and cure of those with malady, avoidance of premature death, and pursuit of a peaceful death (Hasting Center Report 1996).

Another benefit of ICT in medicine is in aspect of intra-organizational communication as mostly interpersonal. Synchronous interruptive communication is recognized as a primary source of inefficiency and error in healthcare, but there is much potential for information. Another important benefit of ICT in biomedical profession is that information about patient can be easily read by healthcare providers through the computer, the information is always available, cannot be lost or left sitting on a desk. The information is available to users in different locations, such as doctor in clinic, nurse in ward or radiologist in x-ray department. For record keeping, this can be explained in terms of patient laboratory or any clinical test results in the hospital can be added to patient’s record as soon as the test result is complete and ready, and this will be available immediately to the doctor, or any healthcare provider.

Another vital benefit is ICT can be used to perform life saving operation via robots (Jack 2011); For example if someone had a bad heart condition and needed a vital operation and the health professional was
unable to perform it then a robot could perform the operation by the commands of another surgeon elsewhere. ICT enables hospitals to experiment with smart cards which the patient keeps with them and contains all of their medical records, these cards will have to be taken every time they visit a doctor, dentist, pharmacists or hospital. The smart card can store a complete medical history and can be updated at the end of each visit.

Information and communication technology (ICT) in biomedical profession is a system that provides timely information that can save lives, improve the quality and efficient of the health delivery system and contain the cost. ICT systems help in the acquisition and storage of electronic medical records, and the accessibility and rapid transmission of healthcare information over the internet. ICT system in biomedical helps diagnosis and treatment of patient faster, for example e-health system such as the store and forward system works like this if a patient is diagnosis and necessary tests are conducted on him or her in one hospital, the results of these test can be sent via this store and forwarded system to the referral doctor in another hospital and this doctor can then examine the test results and proposes the treatment via the same root (Rodrigue 2011). Through ICT the issue of the Journal showcases two essays by authors is made possible (Beredjiklian 2001).

E-health in biomedical field can involve the use of real-time system that monitor patients in hospital (outside intensive care in order to provide early warning of health deterioration and the use of mobile phone based telehealth can be used to improve the management long-term conditions of patient of diabetes, asthma, and hypertension. Another benefit of e-health in biomedical signal processing is that it helps vital signs of patient to be monitored using multi-parameter patient monitor system. Within the hospital acutely ill patients routinely have their vital signs continuously recorded by multi-parameter patient monitor. Statistical techniques are used to learn a description of normality in multi-parameter space and abnormalities are subsequently identified by testing for novelty against this description. This can then trigger the intervention of a medical emergency or critical outreach team when the patient begins to deteriorate.

The real-time system of analysis of patient data is enabling personalized healthcare for people with long term conditions such as asthma and diabetes and will change the way acute patients are managed in hospital. Mobile technology and new methods of communicating information are playing an important role in self-management of long-term conditions. E-health in biomedical field helps bring together the views of leading researchers and biomedical professionals, practitioners from around the globe from a series of high level discussions and workshops.

Role of E-Health in Promoting Biomedical Profession

E-health system in biomedical are very vital in this profession in promoting effective healthcare delivery for example the store and forward system can be used to diagnosis a patient, necessary tests are conducted and the results can be sent via the system to the referral doctor in another hospital within or outside of that country for treatment. It improves biomedical research and proper treatment in the world of medicine, these include providing access to scientific resources, improving quality of healthcare services with respect to current information in microbial infection, antibiotics and chemotherapy, academic improvement of potential scientist in biomedical field, including hospital workers. ICT also helps medical healthcare providers have broad knowledge in biomedical research, and the ability to change from an old traditional methods of treatment to an automated and interesting one which eventually leads to effective treatment of any microbial infection or medical complication. ICT is capable of transmitting large amounts of data in very short time intervals, and of by - passing the conventional physical barriers and safeguards, certainly heights public anxiety (JCAHO 2000).The use of ICT in biomedical field brings about rapid communication and efficient data analysis.
Limitation or Challenges of E - Health in Biomedical Field

Majority of medical healthcare providers are wallowing in their traditional method of diagnosis and treatment including research on how to know the new emergence disease globally, they are not ICT compliant, and this becomes a herculean task to access this information. Medical or biomedical professionals such as pharmacist, science courses lecturers, medical doctor, nurse, medical laboratory scientist: if these categories fail to acquire the skill, it will be difficult to be current and access information for the betterment of the patient, also difficult to inculcate the knowledge into potential scientists (students). If staff of medical healthcare are not trained, including the part time staff. Even some staff may be resistant or fearful of using ICT in hospitals, hence cannot access vital information.

Another challenge is most of the electronic health devices are computer based, there is a big danger that patients over rely on computer control equipment. This happened in America when radiation therapy machines accidentally gave patients overdoses of radiation, leading to 3 patients death (Denise 2011). If the computer network goes down, information is unavailable. This could be inconvenient or may even be life threatening. Unavailability or inadequate of ICTs infrastructure present another onerous challenge to the effective utilization of ICT in biomedical field, these include installing, maintaining and repairing including internet; this should be effective to ensure equality with the developed countries. This was stressed by Gyang (2008) that “Information and Communication Technology facilities particularly the internet is important in the access of valuable information. However, inequality of access of these facilities to Nigerians is a serious problem as computers telephone lines; satellite dishes etc necessary for internet connectivity are still not available in most parts of Nigeria districts.

Another limitation could be linked to lack of provision of computer in most tertiary institutions and installation of internet for browsing to have current understanding in biomedical field. Many healthcare workers do not have computers individually, even projectors and other digital electronics, and most of these electronic health machines such as CAT, MRI, are expensive to set up, even most hospitals cannot afford to install them in Nigeria. The hospital, laboratory scan centre especially teaching hospital are underfunded including the manpower, which affect procurement of automated scientific machines to carry out research, diagnosis, and treatment of patients respectively.

Another vital limitation to this system is through communication synchronously. This was stated by Marchetti et al., (2001) and Lavie et al., (2004) that synchronous communication in healthcare especially face to face interactions; interruption is unavoidable, this can have a negative impact on the working memory and performance of healthcare providers, interruption can lead to distraction and forgetfulness and leads to overload and errors. A maternity ward staff in an interruption - driven environment failed to enter patient data into an electronic medical record at appropriate times (Cooper et al., 2005). The failure to register patient data has a detrimental effect on the work of others who rely on documented date in their work process (Bates et al.,2003). Therefore, decreasing synchronous interactions and increasing asynchronous ones contribute a more efficient performance that can help improve organizational memory on the part of healthcare professionals thereby provides effective quality of healthcare.

On the internet you can find a wide variety of medical information which includes symptom diagnosis: this is for people who wish to identify their problem without consulting General Practitioners, Information about available treatments, support groups for people suffering from particular ailments, access to medical research and journals, information about side effects and expert systems to aid diagnosis. The challenge with these diagnostic web-sites at times is that they are not trustworthy, and this can lead to incorrect diagnosis and cause false complacency or anxiety (Timmermans et al., 2003).

High cost of using the electronic health in biomedical field on the side of the patients, transferring parts of the research and development cost back to patients may not be so unethical, but the cost can be distributed fairly among providers and users (patients): this is justifiable in terms of benefits to patients. If the usage of e-health in healthcare is not guided by medical goals and ethnics, for the public to be informed and be allowed
a say in its design, and cost to patients become prohibitively high; these eventually cause patients to decline in medical care.

Another major ethical conundrum in using e-health in biomedical is the inevitable increasing in the vulnerability of patients' privacy and confidentiality (Chin 2003). These have been deliberated upon by many researchers Yeo (2003) and Ng (2003) and in various other papers and position statements. All have expressed concerns at unprotected accessibility and potential abuse of confidential medical information via IT (JCAHO 2000); The Brudnick Centre (2003). In her paper, Yeo (2003) rightly pointed out that IT medicine, specifically telemedicine and cybermedicine, can result in ambiguous doctor–patient relationships. Healthcare professionals, especially doctors and nurses, are not trained nor tested in delivery healthcare, both diagnostics and therapeutics, over an electronic domain, medical judgement encompasses a complex interaction of facts, therefore it is difficult to expect even the most sophisticated of computing system to discharge these duties and provide a safe and reliable answer. Another vital challenge is the communication between physician and patients via e-mails lacks human touch, legally ambiguous and equally costly in terms of time and resources, and is fragile in terms of privacy and confidentiality (Beredjiklian et al., 2001). Even system with audio-visual and real time capabilities such as teleconferencing also precludes sensory modalities such as sense of smell and touch, which can be vital in the assessment of patients. Most importantly, it erodes the humanistic nature of the doctor-patient interaction and deprives patients of the physician’s healing touch, which can only be delivered through a person-to-person encounter. Also an unlimited access to one’s own medical records (patients) without the proper professional guidance can be harmful to the patients themselves.

Conclusion

In this work, we critically analyzed the benefits and limitations of adopting electronic health in biomedical profession, getting literature from different scientific disciplines related to improving healthcare delivery through the Information and Communication Technology ICT(e-health), empirical studies show that the approach of fully adopting e-health in biomedical profession should be patient-centered as “service buyers” and be conscious of fundamental precepts of medical ethics in order to overcome the challenges posed by new inventions in order to preserve the ideals and aspirations of the profession and society. At the end of the analysis, the study reached the conclusion that for effectiveness in electronic health in biomedical profession, healthcare providers should assert and impose their ethical standards and philosophy on the research and development (R & D) as well as design of IT system to be used in practice, so that the end product is consistent and relevant to the goals and philosophy of the medical profession. For example, the medical profession must insist and persuade medical IT companies to focus their R & D efforts beyond mere capacity, power and speed, but also on systems that are safe and more controllable from patient’s perspectives. Recommendation should be adopted and applied improving. Following from this model of e-health in biomedical field, Nigeria will experience medical sustainability and integration, thereby brings about peaceful co-existence and co-habitation among healthcare providers and receivers (patients) in Nigeria and the world in general. This automatically leads to the maintenance of good health as a tool for physical, mental, social, cultural and spiritual growth of individuals and their communities.

Recommendation

The government should ensure they provide ICT infrastructure and train all medical staff in the use of the software, this should include the part time staff in order to access vital information. The government should invest massively in ICT infrastructure in hospitals, healthcare centers tertiary institutions (Universities, Polytechnics, and Colleges of Education for effective skill). Medical healthcare providers, scientists, including science students should show more interest, remove
Another effective approach is to manage the utilization of ICT in medicine through the use of legislative and regulatory measures looking into legal reforms to enhance the privacy of health information. For example, empowering patients with rights to consent to disclosure, laws to limit disclosure when consent is absent, incorporating industry wide security protections and establishing a national data protection authority (Hodges et al., 1999).

References


Role of Culture Between Influencing Factors and Student Electronic Learning Satisfaction

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Abstract The main goal of this paper is to show the role of culture in the Electronic Learning Environment. The diverse effect of influencing factors on student satisfaction in different cultures in Electronic Learning environment is proposed. A theoretical model has been proposed showing the moderating role of culture between the relationship of influencing factors and student e-learning satisfaction. Cultural differences change the perspectives of individuals’, keeping in view; the Hofstede’s cultural dimensions; power-distance, uncertainty avoidance, and individualism theoretical linkages are justified with the influencing factors namely Human Factor, Course Factor and Technological Factor using literature. Administration should consider the factors that have been pointed out in this study, for successful implementation of EL education system in different cultures. The proposed model can be justified by applying empirical research on the variables in different cultures. Individuals in different cultures have different perspective. The satisfaction level or criteria vary in different cultures in electronic learning environment. The cultural impact is not been measured yet considering the influencing factors.

Keywords: E-Learning, Student Satisfaction, Culture.

Introduction

A new community model of communication is born due to the internet. The online learning environment builds social interaction and also the interaction among human and computer (Headlam-Wells, Gosland and Craig, 2006).

The use of internet and its implementation in organization has emerged so many challenges for the management. This is the requirement of internet that it must provide quality data and information variety for the individuals in their relevant context. Apart from the challenges, the new technology implementation in an effective way produce a required benefits for the organization (Teo, & Too, 2000). The new technology has transformed the learning and instructing method in universities (Poehlein, 1996). The incredible development of Internet as a prospective course deliverance dais, along with the escalating attention in quality learning and financial limitations, has formed a noteworthy inducement for universities to build up online educational programs (Volery & Lord, 2000).

In educational scenario EL is for improving learning and instructing experiences and used as a tool to instruct learners without any instructor using any form of new digital medium or via taking advantage of any ICT source (Laurillard, 2005).

Technology is gripping the new era and influencing the interaction between societies and individuals (Youngberg, Olsen, Hauser, 2009). The importance of information technology is acknowledge by many researchers, thus it is moving towards strategic side from support side (Teo, & Too, 2000). The resources available on internet or on learning communities provide the facility of easy access to useful information (Eun, Lamontagne, Perez, Melikhova, Bartlett, 2009).

The concept of Electronic Learning (EL) has changed the student’s learning and teacher’s instructing methods but there are a few social and cultural implications that remain unknown, especially in different workplace contexts and consequently influence appropriate usage (Khan, 2001). The direct implications suggest that learning takes on different forms and performs different functions in the different regions of the world (Olaniran & Agnello, 2008). In e-learning the technological power is being exercised in ways that are not “culture neutral” because they are based on the particular “epistemologies,” learning philosophies, and orientations of the designers (McLoughlin & Oliver, 2000). There is distinction between the public and private
sector organizations which effects the use of information technology in different sectors. The cultural effects on technology evaluation can never be denied (Teo, & Koh, 2010). The education in online mode is facilitating the students in different parts of the world, like in Pakistan, Allama Iqbal Open University is offering e-learning approach using the “OLIVE Portal”; in India the Portal named “Lakshya” is offered for online students (Goel, Sharma, Rastogi, 2010).

This study is to explore the Student satisfaction towards e-learning with the role of three influencing factors namely, Human Factor, Course Factor and Technological Factor. To measure the cultural differences among students in e-learning environment, Hofstede’s three cultural dimensions; power-distance, uncertainty avoidance and individualism is used as a moderator.

Literature Review

Influencing Factors

In literature the three main factors are discussed as the influencing factors for students’ satisfaction towards E-Learning namely; Human Factor, Technological Factor and Course Factor.

Human factor. The first factor is related to the individuals who use this new technological paradigm in different cultures. Satisfaction of student from EL is based on the teacher’s/student’s attitude towards information and communication technologies (Arbaugh, 2002; Arbaugh & Duray, 2002). The individual’s motivation or thirst for learning plays major role in absorbing knowledge from different resources (Lim, Lee, Nam, 2007). The experience or proficiency in computer act as a important aspect (Piccoli et al., 2001). The confidence of student to handle the technical problems in E-Learning environment and also the efficacy of computers (Lim et al, 2007), group communication (Liaw, Huang, & Chen, 2007). Teacher’s instructing style and dealing behavior with students is very much related with student’s satisfaction (Collis, 1995; Willis, 1994; Webster & Hackley, 1997; Volery & Lord, 2000). The knowledge transfer involves the behavior and facilitating level of instructor (Hsu, 2006).

Influence of computer anxiety on student’s satisfaction can’t be denied (Kanfer & Heggestad, 1997; Barbeite & Weiss, 2004). Liaw, Huang, and Chen (2007) explains that when teachers are more interested in the use of new EL technology then it is obvious that they have more constructive behavioral intent to use that. If the individuals have positive attitude towards using new technology then the implementation and success of new technology is not a big issue. The attitude and qualification of instructor has major influence on the success of E-Learning Environment. Instructor must know all the required directions of using and teaching in E-Learning environment (Lim et al, 2007).

Course factors. Commuting was the main problem for students in traditional classes. EL came with new virtual (anywhere, anytime, anyplace) class concept (Arbaugh, 2000). The online learning portals provide the facility of discussion forums, where students can share and explore new ideas during brainstorming with other students in different places of the world (Hsu, 2006).

The flexible nature of ELE increases learner’s satisfaction (Arbaugh & Duray, 2002; Arbaugh, 2002). When considering implementation of any new environment, the level of quality comes first. Quality of course content is the most important attribute that leads towards student’s satisfaction and successful implementation of EL. The quality of well-made EL course contents is the most important and essential factor that influence on satisfaction level of students (Piccoli et al., 2001). The content of the course meant that in actual what the student has learned from the course (Lim et al, 2007).

Technological factor. Students’ adoption of EL system is influenced by PU and PEOU. Predicting the technology usage perspective from student aspect is very important. We can ask question
about the usefulness of online learning portals and their components (Youngberg et al, 2009). The user friendly interface of the online course will affect student’s satisfaction. Apart from all other factors in EL environment, interface quality or design of the online portal is very decisive factor (Volery & Lord, 2000). Design and interface of the learning portal should be according to the needs of students. The use of web content management system is recommended for the web publishing needs (Eun et al, 2009). The worth of the system settle excellence of information and system, these concepts are essential for the victory of information system in this global world (DeLone & McLean, 1992). The important technical aspects that need to be considered for successful EL environment are the quality, media richness and reliability of technology. The training aspect also leads to the perceived ease of use (Youngberg et al, 2009). This is the general observation that more will be the compatibility of new technology with the learning environment; more the individuals adopt the new technology (Teo, Tan, & Wong, 1998).

Proper availability of technical resource and administrative support positively influence student’s satisfaction towards ELE (Liaw, Huang, & Chen, 2007). The designers of the learning portal must consider the demanded technology by the users, this will help in the acceptance of new learning methodology (Richard, 1995).

Culture and Student Satisfaction

Researchers agree on the point that, there is a visible cultural gap among the students of online education (Chase, Macfadyen, Reeder, & Roche, 2002). The rate of participation among students in different cultures varies (Macfadyen, Chase, Reeder, & Roche, 2003; John, & Brian, 2007; McLoughlin, 2001a, 2001b, 1999). They obtained results showing continuous learning culture has significant impact on training and application rate. The previous literature shows that the learning cultures significantly influence the learning and training aspect (Lim et al, 2007). For creating a learning organization in technology, culture, processes and people are considered as important factors (Goel, Sharma, Rastogi, 2010).

Scollon, Diener, Oishi, and Biswas-Diener (2004) said in a study that the cultural environment of an individual where he lives, impact on the person’s thinking, feeling and working style. It is noticed that the people of America and Hispanic are cool minded and experience positive emotions frequently instead of negative. While the Asian are opposite, due to cultural and environmental strains they experience and show more negative feelings. Cultural variability influence students’ expectations, satisfaction and learning (Blanchard, & Frasson, 2005).

The distinction among students and teachers from different culture vary (Hannon, & D'Netto, 2007). Use of information technology works well for bridging the gap between the needs of users and the online learning portal designer (Richard, 1995). The issue of motivation varies between different values of national culture. (Hsu, 2006). According to the Hofstede cultural dimensions, individual from different cultures have distinct thinking and perceptions. Culture is “the collective programming of the mind which distinguishes the members of one group or category of people from another” Hofstede, (1997). Students from different cultural environment perceive the learning technologies according to their efficacy and cultural influence. The same learning and technological methodologies cannot be implemented in different cultural environments. The interface with complex menus and procedures will not work in the society where students are less computer literate. The high capacity multimedia components embedded in online learning portal will be suitable for areas where high bandwidth is available but not for the others. The cultural and pedagogical neutrality in the online education system will not be fruitful and institutions will not be able to achieve quality in learning in diverse cultures (Hannon, & D'Netto, 2007).

Culture has a strong impact on the learning and satisfaction of the students. The perceptions, way of interaction, perceived use and usefulness of technology, communication with teachers, considering the course content and level of computer efficacy depends on the environment (Scollon et al, 2004). Understanding cultural differences is not useful for the students of online education, but it matters a lot when
Proposition 1. Student satisfaction varies according to the diverse cultural values.

Culture and Influencing Factor

Several cultural differences are experienced by students when they start using online education portal. Daniels, Berglund, & Petre (1999) had shown a clear difference among the behaviors of US, Korean and Finish online students. Hofsteds three cultural dimensions; Low Power Distance vs. High Power Distance (LPD vs HPD), Individualism vs. Collectivism, High Uncertainty Avoidance vs. Low Uncertainty Avoidance (HUA vs LUA) are explained in accordance with the influencing factors of student satisfaction in online education.

LPD vs. HPD. When institutions start implementing online education then consideration of power distance is very important. This would help in understanding the learning, expecting behavior of students in different cultures. The students in LPD societies are less initiatives as compare to HPD. They prefer the teacher to initiate and speak up in the class. While the students of HPD take more participation in class and has spontaneous responses. They can critique and question teachers freely while this aspect comes in the area of disrespect in HPD cultures. Communication among teacher-student and student-student leads to the effective learning in LPD, while excellence of teacher is only important on other side (Vatrapu, & Suthers, 2007).

The students from LPD societies are more satisfied from the technological facilities provided in online educational mode. They use online forums communication portals frequently as compare to HPD students. The students of LPD go to forums and consult online learning resources to enhance their skills. In contrast, HPD students show mild affection with the online educational. LPD consider quality instead of quantity especially in the case of online learning course materials, which is not the case in HPD. The reason for high variance in satisfaction and perception among students of LPD and HPD is the less teacher and administrative support. In HPD students always complain about ineffective feedback from teacher and administrative side on course and technological issues. These issues are not noticed in LPD that enhance the satisfaction of online students (Koh, & Lim, 2007).

Proposition 2. The influencing factors influence differently in LPD and HPD societies on student satisfaction.

Individualism vs. collectivism. This dimension explains the importance of student reliance on group level and self study in different cultures. According to the hofstede the Asian are more collectivist and in these societies individuals have strong association with their roots Hofstede, (1997). The idea of online education is very innovative for them and they rarely accept innovations. Traditional educational method is rooted in both teacher and student mind, accepting new way of learning and teaching is difficult for them. On the other hand individualistic students and teachers prefer new innovations. Learning is more preferable for them instead of method. Collectivist students take education for making good social position in environment; therefore consider it as very important. They spent more money and time on the institution name instead of education quality. Replacement of traditional course content with the web-based media is not acceptable. Collectivist students prefer to work with their same cast group students Bauer, Chin, & Chang, 2000).

In collectivist culture student prefer “How to do” instead of “How to learn”. In collectivist culture student speak on teacher invitation not voluntarily. Class is divided in small ethnic groups and they prefer to do communication with particular parsons only. Collectivist students are very face conscious; they want face to
face communication with teacher instead of virtual teacher. In contrast, the individualistic societies are very spontaneous and prefer to learn by any way (Vatrapu, & Suthers, 2007).

**Proposition 3**: In individualistic and collectivist cultural environment influencing factors impact on student satisfaction differently.

**High Uncertainty Avoidance vs. Low Uncertainty Avoidance**. This dimension is more related to the concept of risk averse and risk taker or the level of ambiguity acceptance by individuals. The societies with HUA prefer formal learning methods, they are very risk averse. They prefer to study in tradition way, with specific objectives, traditional assignments on specific time. In HUA teachers must have to answer all the questions of students (Vatrapu, & Suthers, 2007; Hofstede, 1986).

In a study by Marcus (2006) has shown that the students of HUA societies take strong influence of change in interface of online education system. Using new media or interface for learning is difficult for them due to their risk averse nature. The perceived usefulness of enhanced graphical interface is not acceptable in HUA societies as compare to the LUA (Sears, Jacko, & Dubach, 2000). The strong relationship between ease of use and uncertainty avoidance can be seen (Youngberg et al, 2009).

**Proposition 4**: The influencing factors influence differently in LUA and HUA environments on student satisfaction.

**Theoretical model**

![Diagram of the theoretical model](image)

**Fig. 1. Moderating role of culture between influencing factors and student e-learning satisfaction**

**Conclusion and Further Research Directions**

The implementation of web-based learning environment is very useful for students and teachers. Both, the time and money, can be saved by implementing new technologies. The role of Hofstede three cultural dimensions in case of three factors influencing student satisfaction in e-learning environment namely; Human Factor, Course Factor, Technological Factor. The justification proposed variables in this paper will be useful for the educational institutions before implementing EL environment in diverse cultures. Administration should consider the factors that have been pointed out in this study, for successful implementation. The role of personality and trust is suggested for future research.
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Difficult Sounds in Ibibio 2 ½ To 4 ½ Years Old Monolingual Children: Pedagogical and Clinical Implications

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**Abstract** Our study aimed at finding out the difficult sounds that the Ibibio 2 ½ to 4 ½ years old monolingual children find difficult to acquire (50 subjects: 25 male and 25 female). We used imitation method of data collection and descriptive statistics for analysis. They were tested in the following sounds: 10 phonetic vowels [i ɨ e ə ə o ɔ u] with [ɔ o] as the sub-variations; 17 phonetic consonants [p b t d kp m n ɲ ɾ f s R ɰ j w] with [b 1 t1 d1 d2] as the sub-variations, bringing the symbols to 21. The following vowel sounds [æ] and [oː] and mid vowels were found to be difficult sounds for Ibibio children. Among the consonants, [r], [d1], [u], [t], [d2], [ɾ], [b1]; tap, trill and back are the difficult sounds and sound classes. Our study has both pedagogical and clinical implications.

**Keywords:** Difficult Sounds, Ibibio, Monolingual Children, Pedagogical, Clinical

**Introduction**

So far, quite a few works exist on the development of the language of the Ibibio child, making it normal and appropriate that we start from the basics. This work focuses on the development of consonants and vowels in lexical items. When the norm for the phonology of the Ibibio child is established, a foundation would have been provided for further studies in child language development and disorders in Ibibio.

**Statement of the Problem**

Our problem in Nigeria is that there is no norm set like in developed communities for planning language teaching programmes and for screening children for language disorders. Thus, there is the need to establish a linguistic norm from which deviations can be studied and addressed.

**Research Questions**

In order to precisely investigate the research problem stated above, we attempted to answer the following questions:

i. What are the difficult sounds in Ibibio normally developing monolingual children of the ages of 2 ½ to 4 ½ years?

ii. What are the pedagogical and clinical implications of a study of the phonology of the Ibibio child?

**Subjects**

Twenty-five (25) male and twenty-five (25) female, normal monolingual children, had no formal education, all came from Western Itam community in Itu Local Government Area of Akwa Ibom State of Nigeria.
Target Sounds

Our target sounds in this study are 27 phonetic sounds of Ibibio with 6 sub-variations bringing the number to 33 sounds: 10 phonetic vowels \([i \ ɨ \ e \ a \ ə \ ɔ \ ʌ \ ɔ \ o \ u]\) with \([ɔ \ 1 \ ɔ \ 1]\) as the sub-variations; 17 phonetic consonants \([p \ b \ t \ d \ k \ kp \ m \ n \ ŋ \ r \ f \ s \ R \ ɰ \ j \ w]\) with \([b \ 1 \ t \ 1 \ d \ 1 \ d \ 2]\) as the sub-variations, bringing the symbols to 21. The sounds with the subscripts which are so labelled for the purposes of calculations are those pairs of sounds used in free variation with each other, as presented:

\([ɔ \ 1]\) and \([ɔ \ 1]\) are vowels used in free variation word medially before the velar nasal \([ŋ]\); \([p]\) and \([b \ 1]\) are used in free variation word finally; \([t \ 1]\) and \([d \ 1]\) used in free variation word finally; \([d \ 2]\) and \([r]\) used in free variation word medially or intervocically.

Test Material

Our test material was made up of one hundred and sixty two (162) single words which were mainly nouns, with a few verbs.

Method of Data Collection

We used imitation method of child language collection to elicit data from our subjects.

Method of Data Analyses

Percentage analysis, mean, variance, and standard deviation, tables and graphs were used for our analyses.

Data Presentation, Analysis and Interpretation

General Articulatory Performance

Performance scores in both consonants and vowels. A higher performance in the articulation of each of the sounds means the emergence of that sound in the phonetic inventory of the subjects.

Vowels

Our subjects were tested on ten (10) phonetic vowels of Ibibio. These vowel sounds are: \([i \ ɨ \ e \ a \ ə \ ɔ \ ɔ \ 1 \ ɔ \ o \ 1 \ ʉ \ ə \ ʌ \ e \ ə \ ð]\) with \([ɔ \ 1 \ ɔ \ 1]\) as sub-variations, bringing the number to twelve (12). The sub-variations are vowels used in free variation word medially, before the velar nasal \([ŋ]\).

Figure 1: General Performance in Vowels
All the vowels [e ɔ i u a ə ɔ ɪ i ə] have been established in the speech of our subjects, except [ɪ] and [ɔɪ] which is the [ɔ] that occurs in free variation with [o] in the language. The order of the emergence of back vowels are as follows: [ɔ u ɔɪ ɔɪ1].

Front Vowels

Our sound production test covered three (3) front vowels of Ibibio [i e a].

![Figure 2: General Performance in Front Vowels](image)

None of the front vowels constitutes an area of difficulty, agreeing with what is reported in the literature (Stork and Widdowson 1974: 143).

Back Vowels

Our subjects were tested on five (5) back vowels: [ɔ ɔɪ ɔɪ1 o o1 u], as presented below:

![Figure 3: General Performance in Back Vowels](image)

[ɔɪ] is the difficult back vowel sound and it is used in free variation with [ɪ] before the velar nasal.
Central Vowels

Our subjects were tested on the production of four (4) central vowels of Ibibio: [ɨ ʉ ə ʌ].

The sounds emerge in the following order: [ə ɨ ʉ ʌ]. [ʉ] is the difficult central vowel sound. It is observed that our subjects performed better in the sounds that have higher frequencies of occurrence like [ɨ] and [ʌ] than in those that have lower frequencies of occurrence like [ə] and [ʉ], confirming Nicholas (1991) where Welsh children were found to acquire sounds which were more distributed in the language than those with more restricted distribution.

Performance in Different Classes of Vowels

![Figure 4: Performance in Central Vowels](image)

![Figure 5: Performance in Front, Central, Back Vowels](image)
Our result shows that the order of emergence of different classes of vowels is as follows: front – back – central and open – close – mid. It is also reported that open and mid vowels appear before the close vowels, although the general performance of our subjects shows that the mid vowels appear last in their inventory.

The subjects find it more difficult to produce the central vowels indicating that [+ central] vowels are the most difficult vowel sounds for Ibibio children. This is also assumed to be so because these central vowel sounds are less distributed in the target language.

In summary, all the vowel sounds in our study have emerged. These are [i u e a o ɔ ʌ o1]̆, except [ʉ] which is also a central vowel, observed to be the most difficult among the different vowel classes, for our subjects to produce. The result implies that the production of most of the vowels do not constitute a problem area to our subjects, confirming Anthony et al 1971; Akpan 2008.

Consonants

Our subjects were tested on seventeen (17) phonetic consonants [p b t t̊ d d̊ k kp m n ɲ ŋ f s ɾ j w] with some sub-variations [b1 t1 d1 d2] bringing the number of symbols to twenty-one(21).
The order of correct articulation from highest to lowest is as follows:
\[ n - w - \eta - t - f - p - m - \eta - kp - s - k - d - b - j - r - d_1 - w - t_1 - d_2 - r - b_1. \]
Comparatively, \([R], [d_1], [w], [t_1], [d_2], [r], [b_1]\) appear more problematic than other consonant sounds as shown above. This indicates that the subjects prefer the use of certain sounds that occur in free variation (Akpan 2003; Yul-Ifode and Akpan 2004). This does not constitute a difficulty, but a matter of preference for certain sounds in free variation. The approximant \([w]\), the tap and the trill constitute areas of difficulty.

**Trill**

There is only one trill \([r]\) in Ibibio, a uvular trill. This result shows that even though the sound has emerged in their inventory, most of the subjects are unable to produce this sound which agrees with what is in the literature that the trill is one of the last sounds to be acquired by children.

**Tap**

There is only one tap \([r]\) in Ibibio, an alveolar tap. This sound has not yet been mastered by all our subjects. This tap sound is the one used in free variation with \([d_2]\), as earlier found in the literature.

**Approximants**

These are \([w, j, w]\).

![Figure 8: General Performance in Approximants](image-url)

The approximants have emerged in their inventory. The labial-velar approximant \([w]\) has fully emerged, while the palatal approximant \([j]\) is in the process of being mastered by a lot of the subjects, considering the high degree of standard deviation of subjects from the mean which is 24.05. However, \([w]\) is seen to emerge before \([j]\) and \([w]\). We therefore state the hypothesis that the higher the frequency of occurrence, the higher the performance. \([w]\) is more distributed in the standard than \([j]\) and \([w]\).
General Performance In Different Manners of Articulation

The manners of articulation are plosives, nasals, trill, tap, fricatives and approximants.

![Figure 9: Performance in Different Manners of Articulation](image)

The order of emergence of sounds according to manner of articulation is: nasals - fricatives - approximants - plosives - trill - tap. This order is contrary to what is in the literature that plosives emerge before fricatives. The situation is accounted for by the fact that a number of plosives occur in free variation with each other, resulting in divided attention of the subjects.

Standard deviation shows the order as: nasals - plosives - approximants – fricatives - tap – trill.

Subjects' scores are more consistent in nasals and plosives, than in the approximants, fricatives, tap and the trill, where some subjects score very high and others score very low.

The consonants which although they have merely emerged are still in the process of being fully established are [ɾ d₁ w t₁ d₂ r b₁], in a descending order.

Performance in different places of articulation

The different places of articulation are bilabial, alveolar, labio-dental, palatal, velar, labial-velar and uvular.
The order of emergence of sound classes is as follows: labio-dental - labial-velar - palatal - velar - bilabial – alveolar - uvular. Standard deviation of scores gives a different picture and corresponds to earlier reported cases in the following order: bilabials - labial - velar - alveolar - velar - labio-dental - palatal - uvular. A lot of bilabial and alveolar sounds occur in free variation in the Ibibio language. This accounts for divided attention among the subjects in the acquisition of sounds.

**Pedagogical and Clinical Implications**

The results of this work have some implications for language teaching especially in the areas of planning, training and teaching of English as a second language (L2), and French as a foreign language (FL). Teachers will predict what the problem sounds of the Ibibio child could be in L2 and FL situations. The problematic sounds include the central, the high vowels, the tap, the trill and the velar and the palatal approximants of English or French as would be applicable.

The clinical implications could be in the areas of screening, identification, diagnosis, assessment or therapy. When the language disordered children are identified, the necessary therapy would be planned and administered, if needed.

**Conclusion and Recommendations**

In conclusion, therefore, it could be predicted that areas of language difficulty in Ibibio are likely to constitute areas of difficulty in L2 or FL learning situations in Nigerian educational system or elsewhere. This in turn will guide the language teacher to plan and execute his teaching experience successfully. For the language pathologist/therapist, our study will guide him to establish whether the child’s language difficulties are as a result of negative transfer of learning or a language disorder which should be taken care of. We do hope that this study is a good attempt which should be encouraged, as it will aid in designing language teaching materials to screen two to six years olds for phonological disorders. This is the period when children start pre-nursery, nursery and primary schools. The picture here implies that we need more of such studies on different languages of the world, to come up with a theory of language/phonological development in children.

It is by this recommendation that the training programme for language teachers should incorporate both the normal and abnormal stages of language development, the basic knowledge of the processes of identification and therapy for the language disordered children.

**References**


Leadership Style and Business Educators' Job Performance in Senior Secondary Schools in a Changing Environment

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Abstract
This paper investigated leadership styles and Business Educators’ job performance in senior secondary schools in Rivers State, Nigeria. The Study population comprised all the 288 secondary schools in the State. Out of this population, a sample of 240 senior secondary schools that offers Business subjects was taken and selected through the stratified random sampling techniques. Out of 3,466 teachers of business subjects (including principals) in the schools, a sample of 2040 teachers was selected through the stratified random sampling techniques. This sample was made of 240 principals who are considered to be the leaders and 1800 teachers. Two instruments were used to collect data for the study. There were the leadership style questionnaire and the teachers’ job performance questionnaire. The data collected were analyzed using frequency counts, percentages, correlation matrix and t-test. It was found that the democratic leadership style was the most commonly used leadership style among leaders of senior secondary schools in the State. Teachers’ job performance was also found to be at moderate level in the schools. Teachers’ job performance was found to be better in schools having leaders using autocratic style than in schools having leaders using laissez-faire styles. It is then recommended that leaders generally should imbibe a mixture of autocratic and democratic styles of leadership in their school administration in order to enhance better job performance among teachers. The use of the laissez-faire leadership style should be discouraged among school leaders as it could not bring a better job performance.

Keywords: leadership styles and job performance

Introduction

Education in Nigeria is an instrument for effecting national development. The country’s educational goals have been set out in the National policy on education in terms of their relevance to the needs of the individual and the society. Towards this end, the National policy on education set up certain aims and objectives which were to facilitate educational development in the country. In fostering these aims and objectives, the school principal has important roles to play. Among this roles include providing effective leadership in secondary schools, thereby enhancing better job performance among teacher. How effective the principal is in performing these roles has been a matter of concern to many educationists. It needs to be mentioned that senior secondary education in Nigerian schools is for period of 3 years and it is for students who had successfully completed the junior secondary educational programme.

It is therefore not surprising that there is pressure mounted on effective leadership among principals of secondary schools in Rivers state, Nigeria. It seems however that many principals have not considered their styles of leadership as determinants of teachers’ job performance in their schools. Hence, some of them seem to find it difficult to effectively administer their schools. As such, leadership style occupies an important position in school management in Rivers State, Nigeria. The school principal is in a unique position as the manager or administrator who controls school resources for the purpose of attaining organizational goals.

Literature Review

Leadership is the process of influencing the activities of a group of people by a leader in efforts towards goal achievement. It involves a force that initiates actions in people and leader. It could be described as the ability
to get things done with the assistance and co-operation of other people within the school system.

Certain theories of leadership have been identified by researchers. These include the Trait Theory, Situational Theory, Contingency Theory, Behavioural Theory and path Goal Theory. The traits theory trends to emphasize the personality traits of the leader such as appearance, height, initiative, aggressiveness, enthusiasm, self-confidence, drive, persistence, interpersonal skills and administrative ability. The situational theory stipulates that leaders are the product of given situations. Thus, leadership in strongly affected by the situation from which the leader to exercise influence depends upon the group task situation and the degree to which the leader’s personality fit the group.

The behavioural theory could either be job-centered or employee-centered. The job-centered leader’s practices close supervision while employees-centered leaders practiced general supervision. The path goal theory is based on the theory of motivation. In this theory the behaviour of the leader is acceptable to the subordinate only if they continue to see the leader as source of satisfaction.

In view of the foregoing, leadership style could be described in various ways. It refers to the underlying needs of the leader that motivate his behaviour. It is the manifestation of the dominant pattern of behavioural of a leader. It is also process through which persons or group influence others in the attainment of group goals.

As such, Ibukun (1997) argued that the main task of the principals is to create a conducive atmosphere for the teachers to be able to achieve desired changes in students’ learning. Supporting this argument Ijaiya (2000) remarked that teachers in Nigeria express a desire for more participation in decision-making. The way the principal relates with his or her staff could contribute immensely to their effectiveness or otherwise. Researchers have identified certain leadership behaviour used in organization. These are the nomothetic, idiographic and transactional leader behaviour. The Nomothetic leadership behaviour is the characteristics of a leader to the latter. Everything is by bureaucratic rules and procedure to all subordinates. The leadership behaviour is commonly used by autocratic leaders.

The idiographic leadership behaviour focuses on individual needs rather than organization needs. The leader accepts subordinates to work things out for themselves. Hence, organization demands are minimized. Authority is delegated while the relationship to others is in line with individual’s personal needs.

The transactional leadership behaviour is a hybrid between the nomothetic and idiographic leadership behaviours. It is situation-oriented. However, unlike the idiographic leadership behaviour which emphasizes individual’s needs, the transactional leadership behaviour recognizes the importance of institutional roles and expectation. The leader assumes that pursuing institutional goals could result in the fulfillment of individual personality drives. Transactional leadership allows for the practices of good human relationship.

Three other styles of leadership have also been identified by researchers. These include the autocratic, democratic, and laissez-faire leadership styles. The autocratic leadership style is also known as the authoritarian style of leadership. Power and decision making resides in the autocratic leader.

The autocratic leader directs group members on the way things should be done. The leader does not maintain clear channel of communication between him/her and subordinates. He or she does not delegate authority nor permit subordinates to participate in policy making the democratic style of leadership emphasizes group and leader participation in the making of policies. Decisions about organizational matters are arrived at after consultant and communication with various people in the organization. The leader attempts as much as possible to make each individual feel that he is an important member of the organization. Communication is multidirectional while ideas are exchanged between employees and the leader. In this style of leadership, a high degree of staff morale is always enhanced.

Laissez-faire leadership style allows complete freedom to group decision without the leader’s participation. Thus, subordinates are free to do what they like. The role of the leader is just to supply
materials. The leader does not interfere with or participate in the course of events determine by the group.

Performance could be described in various ways. It could be an act of accomplishing executive given task. It could also be described as the ability to combine skillfully the right behaviour towards the achievement of organizational goals and objectives.

Teachers’ job performance could be described as the duties performed by a teacher or teachers at a particular period in the school stem in achieving organizational goals. It could also be described as the ability to teachers to combine relevant inputs for the enhancement of teaching and learning processes. However, Peretemode (1996) argued that job performance is determined by the workers’ level of participation in the day to day running of the organization. It is noted that employees behave differently under different situations.

Leaders here can therefore encourage effective performance of their teachers by identifying their needs and trying to satisfying or meeting them. Supporting this argument, Owoeye (1999) asserted that variable of job performance such as effective teaching, lesson note preparation, effective use of scheme of work, effective supervision, monitoring of students work and disciplinary ability are virtues which teachers should uphold effectively in the school system. In this regard, the teachers performance could be measured through annual report of his/her activities in terms of performance in teaching, lesson preparation, mastery of subject matter, competence, teachers’ commitment to job and extra-curricula activities. Other areas of assessment include effective leadership, effective supervision, effective monitoring of students’ work, motivation, class control and disciplinary ability of the teachers.

It is based on this background that this study was set out to examine critically the relationship between leadership styles and teachers’ job performance in senior secondary schools in Rivers State, Nigeria. The concern of the study was to determine the best style of leadership out of the autocratic, democratic and laissez-faire leadership style that would enhance better job performance among teachers in senior secondary schools in the State.

Statement of the Problem

The relationship between principal’s leadership style and teachers’ job performance has been a subject of controversy by researchers. The controversy was centered on whether or not the style of leadership of principals influences the level of job performance among teachers. Common observation in the school system shows that the style of leadership of principal could perhaps have serious impact on teachers’ performance. the problem of this study therefore was to determine what relationship exists between school leaders’ leadership styles and teachers’ job performance in senior secondary schools in Rivers State, Nigeria. In addressing this problem, the following research questions were raised:

- Which leadership style is most commonly used by school principals in senior secondary schools in Rivers State?
- What is the level of job performance among teachers in senior secondary schools in the State?
- Is there any significant relationship between leadership styles and teachers’ job performance in senior secondary schools in Rivers State, Nigeria?
- Is there any significant difference in teachers’ job performance in schools having leader using autocratic leadership style and schools having leader using laissez-faire leadership style in the State?
- Is there any significant difference in teachers’ job performance in schools having leader using democratic leadership style and schools having leader using laissez-faire leadership style in the State?
- Is there any significant difference in teachers’ job performance in schools having leader using democratic leadership style and schools having leader using laissez-faire leadership style in the State?
Method

This work adopted the descriptive research design. The population comprised all the 288 senior secondary schools in Rivers State, Nigeria. Out of this population, a sample of 240 schools was taken and selected through the stratified random sampling techniques. Out of the 3466 teachers was taken and selected through the stratified random sampling techniques. This sample was made up of 240 principals who are the leaders of the schools and 1820 teachers. These principals and teachers were the respondents in the study.

Two instruments were used in collecting the data. These were the Leadership Style Questionnaire (LSQ) and the Teachers’ job performance questionnaire. The ‘LSQ’ was in two parts A and B. Part A was demographic. It sorted information on personal information about each establishment, number of teachers and number of students. Part B consisted of two sections. Section 2, sorted information on how effective was a school principal in utilizing the leadership style in his or her school.

Teachers Job Performance Questionnaire (TJPQ) was also in two parts A and B elicited demographic information about each school such as the name of the school and its location, the rank of the teachers and years of teaching experience. Part B consisted of 5 section. Section 1 required information on the qualification of the teacher. Section 2 required information on the competence of the teacher in terms of mastery of subject matter. Section 3 elicited information on the teacher’s job performance in terms of lessons note relationship. Preparation, effective teaching, class control, use of teacher’s materials, method of teaching, class participation and evaluation of teaching. Section 4 required information on teacher’s personality in terms of loyalty, integrity and human relationship. Section 5 requested on the teachers’ extra curricula activities such as participation in school sports and other activities.

The content validity of the instrument was determined by experts in test and measurement who marched the items of the instruments with the research questions in order to determine whether or not the instruments measured what they were supposed to measure. The reliability was determined through the test-retest reliability technique. In doing this, the instruments were determined to 30 respondents in 5 senior secondary schools outside the study area. After a period of two weeks, the instruments were re-administered. The data collected on the two tests were analyzed using the Pearson Product Moment Correlation. A correlation coefficient of 0.81 was obtained indicating that the instruments were reliable for the study.

The instruments were administered by the research through the help of research assistants. Returns were received from 1782 respondents out of which 42 were badly completed and hence discarded. Returns from the remaining 1720 respondents were duly completed and used for the study. The data collected were analyzed using frequency counts, percentages, t-tests and Pearson Product Moment Correlation while the hypotheses were tested at 0.05 alpha levels.

Results

Question 1

Which leadership style is most commonly used by school principals in senior secondary schools in Rivers State, Nigeria?

In answering this question, data on the leadership styles used by school principals in senior secondary schools in Rivers State, Nigeria were collected from teachers’ responses to the principal’s leadership style questionnaire. The data collected were analyzed using frequency counts and percentages. The findings are presented in table 1.

As indicated in table 1, the democratic style of leadership style among principals of senior secondary schools, in Rivers State, Nigeria. 1720 respondents (68.4%) gave this response. This was followed by the Laissez-faire leadership style. Only 380 respondents (22.1%) claimed that the Lassies-faire leadership style...
is another common style of leadership used by principals of senior secondary schools in the state. Although some principals used the autocratic leadership style, the number of principals using the style was negligible.

**Question 2**

*What is the level of job performance among teachers in senior secondary schools in the state?*

In answering this question, data on teacher’s job performance in senior secondary schools in the state were collected from the principal’s responses to the teacher’s job performance questionnaire. Responses were measured in terms of teachers’ competence, lesson note preparation, lesson presentation, use of teaching materials, and method of teaching, effective supervision, monitoring pupils work, class control, class participation, evaluation of teaching loyalty, integrity, human relationship, motivation, participation in school activities and disciplinary ability. In table 2, the analysis shows that the level of teaching job performance in senior secondary schools in the state was moderate. The findings revealed some disparities on the responses of the principals to items on teacher’s job performance in the schools. While a large number of the respondents that is 130 (54.2%) claimed that the teachers’ competence was at a moderate level, 68 of the respondents (28.3%) reported that teachers competence in the school was at a low level. However, a large of the respondents that is 104 (43.3%) reported that lesson preparation by the teacher was at a low level. This shows that many of the teachers was perhaps might not been preparing adequately for their lesson. Although a large number of the respondents 115 (47.9%) reported that many teachers were in the habits of evaluating their teaching, 110 (45.8%) of the respondent claimed that monitoring pupils work by teachers was at a moderate level. However, a large number of the respondent that is 104 (43.3%) reported that the disciplinary ability of many teachers was at a low level. on the average, out of the 240 respondents, 92 respondents (38.3%) reported that teachers job performance was at a moderate level. 87 respondents (36.3) claimed that the level of teachers job performance was low. These findings suggest that teacher’s job performance in the schools was not at its best.

**Question 3**

*Is there any significant relationship between principals leadership styles and teachers job performance in senior secondary schools in Rivers State, Nigeria?*

In addressing this problem, the question was transformed to the following hypothesis.

**Ho:** *there is no significant relationship between principals leadership styles and teachers job performance in senior secondary schools in Rivers State, Nigeria.*

In testing this hypothesis, data on leadership styles questionnaire were collected from the responses and. Data on teachers performance were collected from the responses to the teachers job performance questionnaire. The data collected were collated and analyzed using frequency chi-square test. The hypothesis was tested with the use of correlation matrix (table 3). In the table 3, the correlation matrix shows a large correlation.
Table Showing Percentage Analysis of Leaders/Teachers Performance

<table>
<thead>
<tr>
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<th>No</th>
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<th>%-AGE</th>
<th>MODE RATE</th>
<th>%-AGE</th>
<th>LOW</th>
<th>%-AGE</th>
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<tr>
<td>Teachers competent</td>
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<td>17.5</td>
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<td>54.2</td>
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<td>14.2</td>
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<td>25.4</td>
<td>92</td>
<td>38.3</td>
<td>87</td>
<td>36.3</td>
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</table>

Discussion

The foregoing shows the analysis of data collected for this study. In the analysis, it was found that the democratic leadership style was the commonest style of leadership used by principals of senior secondary schools in the states. These findings were considered with the findings of earlier researchers (Ajibade, 1990; Obilage, 1999). The findings indicating a moderate level of teachers job performance in the senior secondary schools in the states. A situation whereby the level of teachers job performance in the schools was just 38.3% on the average does not augur well for effective teaching and learning in the schools. The reason for this could not be unconnected with the low level of motivation of teachers found in this study. The finding was in consonance with the findings made in previous studies (Adepoju, 1996; Bolarinwa, 2002).

The findings of this study indicating significant relationship between autocratic leadership style and teachers’ job performance shows that in certain situations, the more authoritarian a leader is, the more effective the subordinates. This implies that many teachers need to be coerced by the principals before they could improve on their job performance. This findings was contrary to the findings was contrary to the findings made by Akererele (2007) who found no significant relationship between principals’ autocratic leadership style and teachers’ job performance in secondary schools in Lagos state, Nigeria. The findings also neglected the findings made in some earlier studies (Siskin, 1994; Gronn, 2000). The findings of this study indicating significant relationship between democratic and teachers’ job performance implies that principals using democratic leadership style could also enhance job performance among teachers. The findings agreed with the findings made by previous researchers (Evans, 1998; Ijaiya, 2000). The findings indicating no significant relationship between laissez-faire leadership roles would normally expect a low level job performance among their teachers. This finding was consistent with the findings made by previous researchers (Meindi, 1995; Oluwatoyin, 2003).

The findings indicating better job performance among teachers in schools having principals using autocratic leadership style implies that in certain situations people need to be forced in order to enhance better productivity. The finding was related to the findings made in some previous studies (Nias, 1994; Okeniyi,
The finding was however contrary to the findings made by Akinyemi (1993) and Akerele (2007) who found that teachers perform better in schools having principals using autocratic style of leaderships. The findings indicating better job performance among teachers in schools having principals using autocratic leadership style shows that in schools using laissez-faire leadership style, is not good style that could enhance better job performance among teachers. The findings were consistent with the findings made in previous studies (Nworgu, 1991; Obilade, 1998).

Conclusion

Based on the findings of this study, it was concluded that principals leadership style is a critical variable in teachers’ job performance in senior secondary schools in Rivers State, Nigeria. This is evident in the findings of this study which isolated the style of leadership used by a principal as a function of teachers’ job performance is valued added. In some situations, people need to be forced before they could improve productivity. The findings of this study have therefore led the researcher to conclude that the autocratic leadership style is the best style of leadership that could enhance better job performance among teachers in senior secondary school the State.

Recommendations

Considering the findings of this study, it was recommended that school principals should imbibe a mixture of autocratic and democratic styles of leadership in their schools administration in order to enhance better job performance among teachers. As such, principals could use the democratic style of leadership in some occasions. They should apply autocratic leadership style in certain situation in order to increase productivity among teachers. The use of laissez-faire leadership style should be discouraged by school principals as it could not bring a better job performance among teachers. The State Ministry of Education should organize regular inspection to schools to monitor the style of leadership used by principals that could enhance better job performance among teachers. Also the Ministry in collaboration with relevant institutions should organize workshop and seminar for principals at regular interval to strengthen and enhance principals utilizations of styles of leadership that would ensure effective teachers’ job performance. This is very necessary in order to achieve the objectives of secondary education as entrenched in the National Policy on Education.

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