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Mediterranean Journal of Social Sciences

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Editorial

The organization of a successful conference and the making of a journal are very challenging tasks. It takes a community of colleagues and scholars to capture new and old wisdom in useful text. This Special Issue of the Mediterranean Journal of Social Sciences published by the Mediterranean Center for Educational and Social Research at Sapienza University of Rome, Italy is a collection of selected papers presented at the International Technology, Education and Environment Conference (TEEC2011) held in Omoku-Nigeria. The Conference was organised by the African Chapters of the International Society for the Scientific Research and the International Association for Teaching and Learning in cooperation with several institutions.

Many individuals and organizations deserve gratitude for their support, partnership and cooperation. Special thanks go to the Provost, Management, Staff and Students of Federal College of Education (Technical), Omoku-Nigeria for provided the venue for the conference that led to the selection of papers that made this publication possible. They have not only worked with great skills and efficiency, but have shown throughout the event their desire to contribute towards making a world that is resonating with academic excellence and scholarship. The conference was made possible by the generous support from many institutions, the invited speakers, editors, reviewers and delegates.

Concerned with the crisis-state of the global south, this special issue of MJSS examined some of crucial issues of contemporary relevance and pertinence from a humano-centric and social point of view. While it is our hope that non educators find this volume helpful, the major purpose remains to examine some of the dynamics and challenges of education and development in the contemporary changing environment. Please read on!

Dr. Jacinta A. Opara

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and
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Teacher Capacity Building and Effective Teaching and Learning: A Seamless Connection

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Abstract This paper explores the trajectories between teacher capacity building and effective teaching and learning with particular reference to the Nigerian context where the education system is facing unprecedented challenges. Paradoxically, the solutions appear to be elusive. This paper argues that as micro-level practitioners, teachers constitute the nexus of any sustainable transformation of the system. To achieve this goal as well as to stem the tide of teacher underperformance, a central argument in the paper is that building teacher capacity is not only critical to successful teaching and learning, it should also be the starting point for reconstituting the education system. Towards this end, the paper identifies three context-responsive areas of strategic intervention vis-à-vis teacher capacity building.

Introduction

Virtually all stakeholders in education agree that as micro-level practitioners teachers represent a centripetal force in most educational systems. There is also a consensus that their performance is inextricably linked to educational outcomes for both learners and the system alike. This paper explores a crucial but, sometimes neglected area of educational discourse—building teacher capacity for successful teaching and learning in the context of the 21st century, with special reference to Nigeria. The paper proceeds from the assumption that educational reforms can, at best, be only marginally successful without addressing the “teacher” question in substantive ways. This is particularly true in the case of Nigeria where massive student academic failure has been attributed in part, to teachers who, as the arguments goes, have not been carrying out their primary mandates of teaching and promoting learning with quantifiable success. Arong and Ogbadu (2010) provide a précis of the debate in the following analysis of the state of education in Nigeria:

The Nigerian school system is increasingly challenged with many complex problems. There is a general outcry that the standards of education are falling and morals flagging. Some blame pupils for this apparent decline in quality of education and moral values. A thoughtful few think that they are due to the nature of changes in all directions. Majority blame the teachers for the woes in our schools. They are not as devoted and dedicated to the cause of education as their predecessors [my emphasis]. Teachers as a group blame parents and the children. They also blame government for unattractive condition of service and poor physical facilities in some parts of the educational system (p. 62).

Beyond the hair splitting, the important question one should be asking is why teachers in Nigeria are underperforming. I would argue that the answers to this question coalesce around two fundamental issues: variables that are linked to teachers themselves and, policy-related variables as evidenced in teacher education policies, resource allocation and, the failure to build teacher capacity in any significant way.

Understanding the Concept of Capacity Building

The concept of capacity building has become a buzz word in education reform discourse internationally both in developed and emerging economies. However, despite its wide usage, it is an often misunderstood social construct. For conceptual clarity then, I begin with a definition of “capacity building”. At its most basic analysis, capacity building has to do with the allocation of, and investment in resources—physical, intellectual or human especially when other intervening variables have failed within a given institutional or social context.

To a certain extent, a systematic focus on capacity building within a given social sector in most...
societies, is an indication of disequilibrium within that particular sector even though capacity building should, ideally and proactively, be an integral part of strengthening social institutions and providing enabling conditions for premium performance by the individuals within the sector. Why should governments and other policy makers focus on capacity building? According to McDonnell and Elmore (1991, as cited in Delaney, 2002) the benefits of capacity building are consequential, “in the short term, [they accrue] to the specific individuals and institutions that are their recipients, but the ultimate beneficiaries are future members of society, whose interests cannot be clearly determined in the present”. Crucially, for capacity building to be effective, it must respond to the growth and development needs of the individual as well as those of the relevant institutions.

For all practical purposes, building teacher capacity is, ultimately, engendering development, growth and excellence within an education system.

**Rationale for Advocating Teacher Capacity Building**

Why advocate capacity building and what is the likely impact on teaching and learning and subsequently, the educational success of students in Nigeria? Without going into details, the problems within the teaching sector in Nigeria are by now quite well known even to cursory observers who have only a passing interest in education. Currently, there is a general perception that a significant number of Nigerian teachers are not equipped to deliver quality education for a number of interconnected reasons chief among them being training-related issues (policy, structural and curricular), infrastructural limitations and low morale.

Many agree that Nigerian education no longer offers to beneficiaries what it used to. The colossal level of student failure in the country is a clear indication of the fact that there are significant problems within the system. Data from W.A.E.C and NECO examination results from the last several years show that less than 30% of the students who sat for these examinations received credit in mathematics and English Language.

This means that students in Nigeria are not receiving the kind of education that will prepare them for life in a competitive 21st Century world that demands innovation, creativity, critical thinking skills, vision, adaptable and transferable skills. Equally worrisome, with few exceptions, a cursory look at the results of some international standardized achievement tests show that Nigerian students are noticeably absent in these examinations. Given Nigeria’s position in Africa, there is no excuse for the absence of Nigerian students in international examinations such as TIMSS (Trends in International Mathematics and Science Study) and PIRLS (Progress in Reading Literacy Study). If the culture of student failure persists, the nation’s goal of becoming one of the world’s noteworthy economies through Vision 2020 would be difficult to achieve.

As economists and educational experts have argued, the output of education is a durable capital asset the possession of which increases the overall quality of life in most societies. Indeed, within the context of the 21st century, it is safe to argue that there is no society without a solid education system. Increasing student achievement depends on teachers whose performance in turn, hinges on building their capacity. With regards to economic development, it should be emphasized that the quality of education as demonstrated by the quality of teaching, facilities and curricula, matters in very important ways (Todaro and Smith, 2012).

Across much of the developed world, there is a renewed emphasis on the quality of teachers and teacher education. Indeed, no can nation build a strong and effective educational system without the continuous appraisal and subsequent improvement of its teacher training programmes since teachers remain the pillars of the system (Niyozov, 2008). A government may promulgate macro-level policies however, until they are interpreted and delivered to students at the micro-level, they remain just that- words and ideas on paper (Egbo, 2009). Disregarding the professional needs of teachers is, in effect, inimical to the progress of Nigeria’s educational system. In developed countries, significant resources are committed to capacity building as a critical aspect of developing the best possible system. For instance, even though education is a provincial affair in Canada, the various provincial governments make concerted efforts to support teachers in their work including enacting policies and legislation that mandate continuous professional learning for
teachers. So important is teacher professional growth that there are designated professional development days in schools' calendars during the course of an academic year in most provinces.

Another powerful rationale. Much has been said about sustainable development in the 21st century. However, none of the programmes will be successful without the availability of qualified teachers at the classroom level. For example, while only one of the Millennium Development Goals (MDGs)- achieving universal primary education, explicitly deals with education, the success of the other seven i.e. eradicating extreme hunger and poverty, promoting and empowering women, reducing child mortality, improving maternal health, combating HIV/AIDS, malaria and other diseases, ensuring environmental sustainability and developing global partnership for development, hinges on robust education systems and, implicitly, on effective teaching and learning.

Three Areas of Strategic Intervention

In building teacher capacity, the focus should be on several but, in particular, the following broad areas: policy, training, and pedagogy, infrastructure development and, teacher welfare and empowerment as depicted in Figure 1. Because it is, quite often, the area that is accorded the most significant attention in capacity building initiatives, I begin with the first intervention.

Policy, Training, and Pedagogy

A targeted focus on teacher education should be the nexus of current education reform endeavours in Nigeria. The government itself is cognizant of the importance of the availability of qualified and effective teachers if the nation is to achieve its national development objectives as well as meet its commitments to such international initiatives as Education for All (EFA) and the Millennium Development Goals (MDGs). For example, as a recognition of the importance of appropriate teacher training in developing a viable education system, the National Policy on Education (2004, revised) stipulates that all teachers in educational institutions should be professionally trained based on clearly specified goals and objectives. Also, one of the stated education sector goals in the federal government's previous socio-economic development framework-the National Economic Empowerment and Development Strategy (NEEDS), was to:

Enhance the efficiency, resourcefulness, and competence of teachers and other educational personnel through training, capacity building [my emphasis], and motivation... Ensure that 80 percent of primary school teachers acquire the minimum teaching qualification (the National Certificate in Education)... Ensure that 90 percent of secondary school teachers obtain professional qualifications (B.Ed., PGDE), (NEEDS Document 2004, p.35).

Unfortunately, despite extensive policy enactment and legislation, teacher education and the teaching profession remain problematic subsectors within the education system (Osuji, 2009; Udofot, 2005). Building teacher capacity in Nigeria should, therefore, include a re-conceptualization of the processes that are involved in teacher certification and licensure. Not only should the scope of the curriculum be broadened to reflect Nigeria's requirements for sustainable development, it should also be reflective of a complex global arena that is gradually trending towards a post-oil era. Perhaps even more important, it is crucial that only the right kind of people are recruited into initial training programmes since one cannot justify allocating resources to building the capacity of those who lack the basic foundation for a positive outcome from such an investment.

With regards to in-service practitioners, some teachers continue to adhere to the traditional pedagogical orientations that informed their training. The popular assertion that teachers generally teach the way they were taught is not entirely unfounded. Indeed, some teachers are reluctant to think outside the box preferring instead to see their role as one of simply transmitting the official knowledge that they were mandated to teach. Sometimes, even those who want to adopt empowering strategies as routine practice are
constrained by a lack of the pedagogical knowledge to do so. In effect, in-service and continuous professional development for teachers programmes should be geared towards the following:

- Using local materials to support teaching,
- Integrating technology across the curriculum;
- Learner-centred approaches to teaching and learning (e.g. experiential and inquiry learning, critical pedagogy)
- Teaching for sustainability
- Effective classroom management
- Teaching for social justice
- Strategies for upholding the standards of the profession.

**Availability of Twenty-First Century Infrastructure**

Building teacher capacity means that the government and policy makers must provide the necessary resources, materials and ‘tools’ that are required to teach effectively. It is impossible to deliver 21st Century education with 19th century tools. Similarly, it is unrealistic to promote teaching excellence in environments that predispose both teachers and learners to failure. While like everyone else teachers vary in their abilities and personal characteristics, the availability of the requisite infrastructure and materials, makes it more likely that a majority will succeed in their teaching and pedagogical practices (Egbo, 2005a).

Both research and anecdotal evidence emphasize the fact that school environments that promote effective teaching and learning are those that are adequately equipped with educational materials and infrastructure. In Nigeria, many teachers teach in large classes that make individualized instruction at all levels of the system virtually impossible. Unfortunately, as research also tells us, large classes are inimical to effective teaching and learning. Theories and studies abound that underscore the fact that individuals vary in their approaches to learning. For instance, some people learn visually, others auditorily, still others learn experientially. In his influential theory of multiple intelligences (MI), psychologist Howard Gardner argues that human beings possess different types of intelligence that enable them to solve problems differentially. In his reformulated MI theory, Gardner (1999) posits that there are at least nine types of human intelligences which undergird how people make meaning of their learning experiences. Underpinning Gardner’s theory is the recognition of individual differences which means that students should not be treated the same as Gardner himself argues in the following:

I regard MI theory as a ringing endorsement of three key prepositions: We are not all the same; we do not all have the same kinds of minds (that is, we are not all distinct points on a single bell curve); and education works most effectively if these differences are taken into account rather than denied or ignored. ... At the practical level, it suggests that any uniform educational approach is likely to serve only a small percentage of children optimally (1999, p. 91).

The point I am making here is that while we know that children should be treated differentially according to their strengths and abilities (or intelligences according to Gardner's theory), yet the typical Nigerian classroom environments make teaching and learning challenging. Many schools lack ICTs, laboratories and collateral equipment. They also lack libraries which are critical to student success especially given the fact that a majority of the student population does not have access to reading materials at home. The school library is, therefore, the only space where they can access reading materials besides the required textbooks.

Obviously, students, who cannot read or write effectively, cannot be successful in examinations or in school more generally just as teachers cannot teach students with low literacy and numeracy levels. Given the prevailing learning conditions, it should not be surprising that graduates at all levels of the education system (from primary to tertiary levels) do not demonstrate commensurate knowledge, competency or proficiency.
Teacher Welfare and Empowerment

The provision of quality education transcends the curriculum and the teaching and learning process. It must also include collateral interventions. While this should not license teachers to professional lethargy and misconduct, research has shown that there is a correlation between teachers’ perception that their basic needs for survival are being met and their tendency to act in professional and committed ways. In every education system, low morale and motivation often leads to poor teacher performance. Unfortunately, low morale among teachers in Nigeria is a common phenomenon as Udofot (2005) points out:

Nigerian teachers are the most traumatised and the most de-motivated in the world from the primary to the tertiary level. They are ...de-motivated right from the time they are recruited into the profession through their training to the period of deployment. Even when they retire from the service they are not paid their retirement entitlement.... this phenomenon does not only affect their job performance of the Nigerian teacher but also his [or her] psyche. ... If it is true that the teacher is the key person in the education system whose training could mar or improve the education results, it could be argued that the much talked about qualitative education in Nigeria now and in future would be an illusion if the circumstances of the Nigerian teacher are not improved (p. 73).

Thus, effective capacity building means that all those who are charged with educating the nation’s children and, subsequently implementing educational policies at the micro-level must be treated in ways that are commensurate with the principles of social justice. Their welfare (monetary and non-monetary) must be accorded the importance it deserves. That being said, it should be emphasized that teachers and other educationalists always have choices. They can either continue to transmit obsolete and inutile knowledge or go beyond what is mandated by the curriculum to ensure the success of all their students despite enduring challenges within the education system.

Figure 1. A contextualized model of teacher capacity building

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**Diagram Description**

- **Training, Policy & Pedagogy**
  - Teacher education policy
  - Pre-service program
  - In-service program
  - Accountability measures

- **Teacher Capacity-Building**

- **Infrastructure Development**
  - Materials & resources (Tools)
  - Facilities development

- **Teacher Welfare and Empowerment**

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[Diagram Image]
Capacity Building and Teaching and Learning Trajectories

The end result of successful capacity building initiatives should be effective and transformative teaching and learning. While transformative learning is most often associated with learners, educationists also benefit from it. Although there are different conceptions of transformative learning, one theme connects its various approaches - the idea of a profound change in consciousness or perspective in the learner (Mezirow et al., 2000; Cranton, 1994). While the nature and extent of perspective transformation varies in individuals, such a change would of necessity, involve a re-alignment of the way the learner sees the world. By awakening the interrogator in learners, transformative learning allows them to challenge entrenched assumptions as well as embrace problem-posing pedagogical approaches rather than models that treat them like information depositories without providing them opportunities to critically engage in knowledge inquiry (Freire, 1970).

A prerequisite to successful teaching and learning is teacher self-knowledge through teacher research (Egbo, 2005b). Just as research contributes to and enhances our ability to develop as society, teacher research helps teachers to better understand the teaching-self as well as adopt better pedagogical practices.

Understanding the teaching self involves a process of autobiographical analysis that should enable teachers, to understand how their personal histories and philosophies may intersect with their teaching practices. Palmer (1998) provides a compelling argument for teacher self-knowledge:

Teaching, like any truly human activity, emerges from one's inwardness, for better or worse. As I teach, I project the condition of my soul onto my students, my subject, and our way of being together. The entanglements I experience in the classroom are often no more or less than the convolutions of my inner life. Viewed from this angle, teaching holds a mirror to the soul. If I am willing to look in that mirror and not run from what I see, I have a chance to gain self-knowledge- and knowing myself is as crucial to good teaching as knowing my students and my subject. In fact, knowing my students and my subject depends heavily on self-knowledge. Good teaching requires self-knowledge: it is a secret hidden in plain sight (pp. 2 and 3).

Unfortunately, while teachers often ask questions regarding what to teach and how to teach it, they hardly ever strive towards self-knowledge. Ultimately, understanding the teaching-self involves becoming aware or developing critical consciousness in the sense advocated by Freire (1970) which should, in turn, result in improvements in teaching and learning for both the teacher and his or her students respectively.

Conclusion

The main thrust of the discussion in this paper is that there is a dire need for building teacher capacity in Nigeria in order to improve teacher performance and, implicitly, improve student learning and overall academic success. While teachers must strive towards excellence, providing them the tools to succeed is an essential component of their growth and development as professionals. The current situation demands immediate, radical and transformative changes to reverse the culture of student failure and systemic decline.

Nigerian policymakers should be spurred into devising important strategies that will respond to the challenges within the education system one of the most important being teacher capacity building. It is, of course, seductive to think that the most expedient approach to solving the problems within the teaching subsector is the wholesale importation of a Western model. That would, undoubtedly, be impractical and myopic. As Niyozov (2008) suggests, policy-makers in developing countries should be cautious about adopting externally developed bureaucratic approaches to addressing perceived deficiencies in teaching practices. Arguably, the current challenges within the teaching subsector in Nigeria calls for systemic eclecticism i.e. drawing on tried and tested elements of a variety of teacher capacity building models to develop a unique and contextualized model.

As a blueprint for moving forward, I have proposed a three-pronged intervention strategy for helping teachers to improve their skills, knowledge-base and competencies. This involves simultaneously providing the appropriate training (or retraining of teachers as the case may be), the provision of the necessary
resources, materials and infrastructure that will foster sustainable teacher commitment to effective teaching and learning as well as ensure the successful implementation of the nation's educational policies at the micro-level of the system.

References


Strategies for Enhancing the Communicative Competence for Students with Learning Disabilities

Ataisi Emyia Gladday

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Abstract the essence of language teaching in Nigerian schools is to improve the communicative competence of students in English Language. The frequent poor performance of students in English Language means that language teachers need to reconsider the appropriateness of the teaching methods. In view of the fact that there are students with learning disabilities in mainstream schools, this paper highlights some motivational strategies that can enhance the communicative competence of students with learning disabilities. The paper explains in details these motivational strategies and the benefits. Finally, the paper concludes by calling on language teachers to adopt an eclectic method in language teaching through the use of the pedagogical strategies examined. It is hoped that these motivational strategies would be adopted for corrective and remedial instruction in language teaching.

Introduction

It is unnecessary to stress the importance of language. The reason for this is not far fetched. Language is the instrument of communication and as a social being, man needs language to communicate with other people in the society.

In Nigeria, English Language is the language of education. For this very reason students study English Language from prenursery to the university. The essence of this is to increase the communicative competence of these learners when they leave school for the larger society.

Unfortunately, students with learning disabilities have the attendant problem of language impairment. This would mean that they may not be able to go through the normal educational and social system (Yul-Ifode, 2000).

It will not be wrong to say that students with language impairment are in a sense handicapped because language permeates all aspects of education and human life (Akpan 2004). Variably, this means that these students may not understand and use language effectively in a communication situation.

In view of the importance of language in education and social life, students with learning disabilities need all possible help to enhance their communicative competence. In this regard, language teachers must come to the rescue. The Nigerian language teacher needs to be empowered with instructional choices if he must still retain the role of an instructor, a facilitator, a motivator, an experimenter, a therapist and an effective communicator (Emenanjo 1995). This is important because it is only when language teachers are empowered that the communicative competence of students with earning disabilities can be enhanced.

Communicative Competence

According to Trask (1997), communicative competence refers to the ability to use language appropriately in social situations; knowing how to begin and end conversations, when and how to be polite, how to address people and so on. He adds that the term also includes the knowledge of. Based on this, it would not be wrong to state that a person’s idiolect is a mark of his communicative competence. Because as Conale and Swain (1980) want us to believe, communicative competence can be defined in terms of grammatical competence and strategic competence.

Still on communicative competence, Lawal (2002) proposes a pragmatic theory which is a model of the hierarchical structure of competence which is semantically presented in the order of linguistic, situational,
psychological, social, cultural and cosmological representations. He notes that communicative competence is the ultimate goal of any useful language teaching programme. In precise terms, language teaching is for communicative competence in real life situation.

Learning Disability

Learning disability encompasses everything that causes learning difficulties. Harris(2006) uses intellectual disability instead of learning disability and defines it as impairments in both cognitive functioning and adaptive skills.

Learning disability is an umbrella term for several disorders in which a person has difficulty in learning in a typical manner. Different typologies are used in the classification of learning disability. Here, we shall use the typology that is related to general processing(Learning Rx 2010).

1. Attention- The ability to stay on a task in a sustained way.
2. Working memory- The ability to retain and process information for short time periods.
3. Processing speed- The rate at which the brain handles information.
4. Long term memory- The ability to both store and recall information for later use.
5. Visual processing- The ability to perceive, analyze and think in visual images.
6. Auditory processing- The ability to perceive and conceptualize what is heard.
7. Logic and Reasoning- The ability to reason, prioritize and plan.

These processes affect a person's competence in language and at such may be function impaired. This could mean any of the following condition.

a. Dyslexia- A reading disability. The student has trouble reading written words.
b. Dysgraphia- A writing disability.
c. Dyscalculia- A math disability.
d. Dyspraxia- A motor coordination disability.
e. Dysphasia- A language disability. The students have difficulty with reading comprehension.
f. Aphasia- A language disorder. The student has difficulty with understanding spoken language.
g. Attention Deficit Hyperactivity Disorder- The student has difficulty in sustaining attention.

These conditions affect the communicative competence of students as exemplified by their experience of language difficulties.

Instructional Strategies in Language Teaching

Language teaching in Nigeria is majorly English Language teaching because English is the language of education. The goal of language teaching is learners’ communicative competence. A learner is linguistic competent only when he can translate theoretical rules of the modalities of language to real life day to day communication.

There are two major themes in language teaching behaviourist/structuralist and mentalist/cognitive themes. These are classified under two major language acquisition theories: behaviorism and mentalism. Subsumed under these two themes are the following language teaching methods; grammar translation or traditional method, direct method, audio lingual method, cognitive code learning method, communicative competence method, eclectic/ integrated method and discreational method(Odo 2007, Ezeude 2007).

Each of these methods has merits and demerits. In order to optimally benefit from each method, it is most appropriate to use a variety of instructional methods. So as to meet the special needs of the diverse learners in the classroom. Allegiance to a particular instructional technique would mean that some students would not benefit from the lessons presented in the class.

Language learning is in no way easy. For students to gain mastery of English Language or a target language, the learners need to be intrinsically motivated(Gardner 1991). The adoption of an eclectic method
would enable the language teacher to nurture learners to be motivated “from the outside” (Maclean 2003). Greathead (2007) proposes the following motivational strategies for the enhancement of communicative competence: feedback, repetition, simple task, memory mapping, story telling skills and diffused patterns. These are explained below.

1. **Feedback**- This would mean teachers’ response to students’ learning activities. It is important that teachers make remarks on the language exercises of students. In the same vein, teachers must ensure that students react to such remarks positively. This is important in all language activities.

2. **Repetition**- Repetition technique is useful in the presentation of vocabulary development and pronunciation exercises. Through repetition technique, the language teacher drills and models the right pronunciation of words.

3. **Simple Task**- Simple task technique demands that a language teacher presents a lesson from known to unknown or from simple to complex task. Where a lesson is presented from simple tasks, it will be possible for the language teacher to guard and track the learners to complex task. This is important because repeated failure in an exercise might create fears in the learners. In order to boost a good self esteem, lessons should be presented as simple tasks. Thereafter, progress can be made to complex task.

4. **Memory Mapping**- Memory mapping would be the application of such cognitive strategy as imagery. Chamot (1995) defines imagery as a strategy that relates new information to visual concepts in memory via familiar retrievable visualizations, phrases, or locations. The adoption of memory mapping might mean the use of mnemonic strategies. Rubin (1987) elaborates on mnemonic strategies this way:
   - finding some sort of association or group,
   - using one word to recall a number of others,
   - using some kind of mechanical means to store information (taking notes, writing out items),
   - selective attention in which students focus on certain details to aid in recall,
   - directed physical response in which students aid retention by associating the items with their own physical movement.

5. **Story Telling Skills**- This strategy aims at improving the coordination of ideas in composition. This strategy will be useful in the presentation of composition or writing essays. By this technique, students would discuss with the class what they intend to write. A language teacher can adopt this technique to help students brainstorm and coordinate their ideas before writing an exercise like essay writing.

6. **Diffused Pattern**- Diffused pattern would mean that a language teacher divides a learning task into bits. For example the language teacher would do the students disservice by talking all through the allotted time. It is important that the lesson is diffused into bits with students actively involved in discussion, writing and if need be, relating what is being presented to real life experiences.

**Conclusion**

The importance of the use of eclectic method has been proposed in this study. The use of eclectic method is geared towards the application of the pedagogical strategies for the enhancement of the communicative competence of learners with learning disabilities. Ogunkunle (2009) quotes Butter et al who notes that teaching should embrace the following:

- teaching for understanding,
- teaching for assimilation,
- teaching for transfer, and
- teaching for performance.

The adoption of the presented strategies would go a long way to improve the communicative skills of
students with learning disabilities. This is important if these students must use language for communication in real life.

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Relationship Between Motivational Factors and Teachers' Performance on the Job in Ogba/ Egbema/ Ndoni Local Government Area, of Rivers State

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Abstract This study investigated the relationship between motivational factors and teacher's performance on the job. A sample of 150 teachers was randomly drawn from 10 secondary schools in Ogba Egbema Ndoni Local Government Area of Rivers State. The study made use of correlational research design. The findings indicated that there is a significant relationship between motivational factors and teacher's performance and a significant relationship existing between teachers experience and their job performance. Some recommendations such as providing highly motivated, conscientious and efficient classroom teachers, encourage the spirit of enquiry and creativity in teachers, help teachers to fit into the social life of the community and society at large, enhance teachers commitment to the teaching profession etc, were also highlighted that have implications for educational practice.

Introduction

In recent times, interest has been developing toward the adoption of transformational leadership approach which appeals to followers beyond their self interest. Such leadership form occurs when one or more persons engage with others in such a way that leader/managers and followers raise one anther to higher levels of motivation and morality. The world of work within which the worker dwells, and which largely influences his work is dominantly pervaded by the effects of motivational processes. Ahiauzu (1985) argued, that if management as a process has to do with achieving results through people, then one of the most important functions of an effective manager or government must be motivation. This is because, if the abilities of a worker are ascertained and taken as given (for purposes of analysis) then his performance at work, which is of utmost importance to the manager, or government, becomes an exclusive function of the worker’s level of motivation at any point in time.

Pinder (1998) has described work motivation as the set of internal and external forces that initiate work-related behaviour, which the need theories of motivation hypothesize that people have a variety of different needs and that those needs, which are most important and salient to a person at any given time have a critical impact upon the person’s motivation and behaviour, Equity theory holds that motivation of individuals in organizations is influenced by the extent to Which they feel that they are being treated in a fair and equitable manner, Expectance theory hypothesize that motivation is determined by (1) a person’s perceptions or beliefs regarding the relationship between his or her behavior and the outcomes or results of that behaviour, and (2) the personal satisfaction or dissatisfaction which the person expects to experience as a result of obtaining those outcomes. Ahiauzu A I. (1999). In line with this, incentives play a significant role in all human endeavours.In order to increase productivity in different jobs, workers need to be motivated. Some professions attract the attention of people due to the benefit derived from the work. Significantly in the teaching profession, commitment of teachers is a function of the motivational factors they enjoy. Hence some research findings have shown that people can only put in their best when their needs are satisfied and they are motivated (Sanguin, (1999), Bass, (1985), Coad and Barry, (1998). In support to this, Baker and Sandore (1991) argued that motivation is a willful desire to direct ones behaviors towards achieving certain goals. Motivation is concerned with how workers get energized, sustained, directed and the kind of reactions that are present in them.
Motivated employees help organizations to survive and increase productivity. Motivated employees are needed in rapidly changing workplaces, and performance is directly related to motivational factors (Linder, 1998). In the study conducted by Sanguine (1999), using a sample of 123, subject specialist, it was found that their high performance was related to the abilities of employers to communicate with their employees the workers wanted transport and traveling allowances to be paid in order to perform their duties effectively. In another development Linder, (1998), using a descriptive survey, of twenty five (25) employees in research center, rank-ordered the motivational factors affecting performance thus,

- Interesting work
- Good wage
- Appreciation for work done
- Job security
- Good working conditions
- Promotions and growth in the organizations
- Feeling of being in a thing
- Personal loyalty to employees
- Tactful and sympathetic help with personal problems.

Some other studies have also established the relationship between motivational factors and workers' job performance Obimoye, (1987), Olumide, (1983). This study is interested in investigating the relationship between some motivational factors and workers performance to see if earlier findings can be confirmed as it relates to teaching and in this particular location, since motivation seems to increase workers performance in any field of human endeavour and since many factors have been found to have motivational effects on workers, the problem now is incentives like rewards and prompt payment of salaries of teachers on the one hand and their level of performance on the other hand.

Issues affecting teachers' laxity and poor performance on the job have become increasingly prevalent in recent times. It is therefore, pertinent to find out the ways in which motivation increase the level of teachers' performance on the job.

The following hypotheses were formulated to guide the study
1. There is no significant relationship between level of teacher's motivation and their performance on the job.
2. There is no significant relationship between teachers experience and their performance on the job.

This study is a correlational design. This is used in order to establish the relationship between some motivational factors and teacher's job performance on the job, one hundred and fifty (150) public secondary school teachers in 10 secondary schools were selected in Ogba/ Egberma/Ndoni Local Government Area of Rivers State, in order to obtain a representative sample.

The instrument used for data collection in this study was a questionnaire. The researchers designed instrument consisting of three parts, Section A consisted of demographic data, while sections B and C consisted of 23 items measuring the motivational factors and teachers performance on the job used the four point rating scale. The instrument was face validity, validated by four experts in education. The test retest reliability method was used to establish the consistency of the instruments. The reliability indices obtained after a month interval .74 and .9 for motivationional factors and teachers job performance respectively.

The researcher visited the schools used in the study in order to administer the questionnaire. In each of the schools permission was obtained from the school authority before administering the questionnaires to the teachers. The schools include: Government secondary school Omoku, Government secondary school Akabuka, community secondary school Obrikom, Government secondary school Obie, Community secondary school Ebogoro, Government secondary school Osiaakpu, Government secondary school Okwuzi, Government secondary school Kriegani, Government secondary school Ndoni, and Government secondary
school Erema. In some schools the questionnaires were collected back during subsequent visit testing the hypotheses the Pearsons product moment correlation statistical procedure was used.

Results

The results were analyzed according to the hypotheses for the study.

Hypothesis 1: There is no significant relationship between levels of teachers’ motivation and their job performance.

Table 1. Pearson product-moment coefficient between teachers’ level of motivation and their job performance.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Df</th>
<th>Observed r value</th>
<th>Critical r value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Allowances</td>
<td>155</td>
<td>.305</td>
<td>.162</td>
</tr>
<tr>
<td>2. Teachers Promotion</td>
<td></td>
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</tbody>
</table>

*p>.05

Table 1. Shows the correlation between teachers’ level of Allowances and their promotions. The observed r value (.305) is greater than the critical r value (.162). The null hypothesis is rejected. Therefore there is a significant relationship between Teachers Allowances and their Promotion.

Hypothesis 2: There is significant relationship between teachers level of training and prompt payment.

Table 2. Pearson product-moment coefficient between teachers Experience and their job performance.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Df</th>
<th>Observed r value</th>
<th>Critical r value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Level of training</td>
<td>155</td>
<td>173</td>
<td>.162</td>
</tr>
<tr>
<td>2. Teachers Prompt payment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05

Table 2 indicates the Pearson product-moment correlation coefficient between teacher’s level of training and their prompt payment. Observed r Value is .173 and the critical r value is .162 the observed r value is greater than the critical r value and so the null hypothesis is rejected. It means that there is a significant relationship between teacher level of training and prompt payment.
Discussion

The result from the first hypothesis revealed a significant relationship between Allowances and teachers' promotion. A possible explanation for this result is that motivation helps the teachers to perform better on their jobs. Incentives and rewards from school administrators should have contributed to the teachers’ job performance. The finding is in agreement with those of Kelvech (1987) and Linder (1998). In their view, motivational factors such as finding an interesting job, motivates an individual to perform the job better, Sanguin (1999) also found that employees that are motivated by the payment of certain allowances perform better in their duties than others not given the same incentives. Though the study of Obimoye (1987) tends to disagree with this finding as he noted that high job performers were not those who were the most highly motivated.

The result of the second hypothesis showed that there is a significant relationship between teachers' level of training and prompt payment the reason for this finding may be attributed to the fact that job performance increases with the teachers’ level of training. Hence mastery of job situation could act as incentives that will promote job commitment on the part of the teachers. Graham (1992) disagrees with this findings; hence he said that what one does will depend on what one expects to gain out of it.

Recommendations

It is therefore recommended that the government, the educational administrators should strive
- To provide highly motivated, conscientious and efficient classroom teachers,
- Encourage the spirit of enquiry and creativity in teachers.
- Help teachers to fit into the social life of the community and society at large.
- Enhance teachers’ commitment to the teaching profession.
- To encourage the spirit of enquiry and creativity in teachers. And teachers salaries should be paid as and when due.

References

Abstract At the heart of every institution (mostly learning institution) is repertoire of essential skills which every serious individual strives to know. No one is perfect but becomes more proficient as he continues to work and practice. In fact effective individual are never satisfied, they are curiously in search of attitudes to sharpen their results. Time management is essential for achieving positive results in (learning) institutions, however it has not been adequately enhanced by individual. This paper examines how time can be managed, its benefits and need for private time table (PTT).

Keywords – Learning, Management, Attitude, Time Table, Result

Introduction

Results generally appear to be one of the fundamental and essential goals behind every life struggle. The form it takes could be positive or negative in nature, but the most cherished is the positive platform which indeed has consequential effect of improving the worth of the individual in every situation. These positive results are the main objective of every student and is brought about and sustained by the right and positive attitudes.

Despite the immaterial and transient nature of time, scientists have always been interested in measuring time. The cycle of the seasons, the phases of the moon, the succession of day and night, all divide time naturally, but scientists have long strived to measure time in smaller units and with greater accuracy.

Time is what must be carefully used and effectively managed to achieve any predetermined goal in every learning endeavor. When time is not well managed, it induces far into the person and leads to inadequate learning and poor result. The term time has different meanings in different situations to various people as they view it in those situations.

Concept of Time

With reference to various components of institutional activities, events and programmes, the term time seems to be the most ambiguous and most difficult to define. It has attracted different definitions from different people since there are different uses of time. People therefore tend to look at time based on their activities, involvement, jobs, and learning without considering the results achieved or to be actualized. An analysis of the divergent views, points to the fact that time is very unique, precious and vital in man’s activities as it is one of the factors used in determining end result or success in general.

In the bid to achieve positive results, scientists ever since the world began, have tried to manage, use and control time by speeding it-up, slowing it down, saving it, spending it, controlling it, planning it, organizing it and budgeting it. Scientists have also made moves to capture it in series of manners and ways through calendars, hand-watch, stop-watch, quartz clock, etc. this philosophy forms the nucleus of our various definitions of time.

- Time is the continuous period a student, teacher, academic administrator, etc; does work.
- Time is the indication of how fast or slow something (activity, experiment, researches etc) or
somebody (a researcher, student, etc) is moving to achieve a predetermined result.

- Time is the common factor used to measure and or compare amount of learning of events, activities, and programmes from the past through the present into the future.
- Time is an expected and focused point for research and experiment to take place.
- Time is also the quantity used to indicate how long an event lasted.

The definitions of time has continued to vary and will continue to, since the concept of time results from different people, events, activities, programmes, situations etc which constitute the dynamic society.

**Time Management**

Time management is the act of directing time towards the achievement of the best possible results. The meaningful planning, adequate controlling, effective spending, careful usage and efficient allocation of time to actualize a desired objective are nothing but effective time management. Time management is also the ability of individual to master time as to achieve and actualize his goals. The essence of time management it to get the best possible outcome by using all the available resources within the limit of time. All excellent and successful performances are preceded by adequate time management. Proper time management prevents poor performances and promotes productivity in academic institutions.

Time is in short supply and need to be managed for a predetermined academic calendar to be actualized in all endeavours. Success and failures are outcomes of time management. Drucker (1990) in his words opined that among the three essential limiting factors namely “people, money and time” used by man in execution and actualization of any activity, time is the scarcest, elastic, totally perishable, irreplaceable and unstorable. This implies that time is every elusive in nature. For proper time management, “first things must be done first”. Planning, which is future oriented, enhances effective time management. When planning is efficiently joined together with time management, productivity is promoted and success is achieved.

For an individual in an academic institution to effectively manage time as to achieve success in his career, he/she needs to:

- Take time to do something tangible and worthwhile (proficient activities),
- Spend his/her precious time judiciously on unwasteful activities,
- Engage himself in positive and rewarding events,
- Relate peacefully with all,
- Work very hard for excellence,
- Audit his/her time management and checkmate it’s wastage and usefulness,
- Examine his/her past, analyze his/her present and set goals for future,
- Have definite plan for every works and pursue such plans with resolute determination and perseverance, and
- Attempt difficult tasks as well as accept challenges in his/her pursuits.

Effective time management which also involves the skillful use of time to achieve meaningful activities is enhanced by checking the past, recognizing the present and focusing on the future. The following are indisputable prerequisites for doing the aforementioned:

- Accounting for every time spent in one’s life whether meaningful or unproductive,
- Having the deep knowledge of economic value of time towards one’s engagements,
- Reaching the optimum and effective utilization of time,
- Making effective private time table,
- Being able to effectively utilize the private time table,
- Knowing the difference between “official and non-official” time as well as “right and wrong” functions of time;
- Being able to analyze systematically and scientifically every time spent in actualizing one thing in a
specific period;
- Trying to use the methods and the time limit which yielded success in the past.

Learn to respect time always, it is the outstanding trademarks of successful people in the education sector. Life management begins with time management. Time is proportional to one’s work because what an individual is and what he/she will be tomorrow is richly determined by how he/she manages his time today. The need for effective time management can not be overemphasized because time lost in foolishness cannot be gained in wisdom.

**Why Time Management**

- Time management helps the individual to avoid wastages of both human resources and time by providing the quality of time needed for an activity.
- It helps the individual to prioritize his/her activities involvement.
- It makes work progressive and satisfactory as the expected results are achieved within the specific time.
- It helps the person to be pro-active in planning and in activities.

**How to Manage Time**

Time is priceless, important and perhaps precious and can be profitably used or permanently lost through wastage. The need for time usage is to control the activities replaced time with. Successful people look out for ways to use the constant and steady time to reach out to their desires, goals and objectives. Time wasting events and activities should be avoided for proper time to be enhanced. To manage time profitably

a. Assess your time carefully find where all your time actually goes, has it been productive or wasteful? Think of the past events (failures and success) forget the failures, remember the success recorded and use the methods, principles, concepts, steps and processes that worked. Plan your activities according to your time, use methods which yielded success in the past and as well prepare to avoid the mistakes of the past. While avoiding the mistakes of the past that brought failures, do not forget the mistakes because they;
- are of good contribution, and essential experiences in the art of mastering knowledge.
- aid the in acquiring new skills and experiences.
- help in making choices in areas of endeavour by not allowing the individual repeat previous mistakes made by others, and
- failures are feedbacks for better performances because every defeat brings with it an equivalent seed of benefit.

b. Plan your time. Planning is the first and perhaps the most important in the scheme of events. Planning is the making of decisions for actions that will take place in the future, therefore planning is future oriented. Time planning is the process or act of determining the sequence in the timing of events, and the determination of required resources for such events to be actualized within a stipulated time frame. Time planning is also the allocation of activities according to the available time, considering the resources to be implored in achieving the predetermined objective.

Time planning is effective when important tasks are identified and translated into workable time table. Concentration is essential to getting the tasks done with respect to the time allocated to them. Evaluate the important things achieved daily, drop the useless activities, overcome bad passions, desires, appetite, pursuits and habit. The causes of failure to time planning include, procrastination, lack of self discipline and control, negative personality, over-caution, lack of concentration, etc. The essence of planning time is to effectively achieve a learning desire within the limited time frame. In this wise a private time table is essential.
Private Time Table (PTT)

A private time table (PTT) is defined as a plan chart drawn, on which an individual distributes his activities according to his time limit over a period in a day/days of a week. Robert-Okah (2003) opined that it is a chart that regulates the student’s activities and learning time. PTT shows when an individual has each activity to carry out outside the academic work hours, when he has resting time and the totality of a day’s activities he embarks on. The PTT is normally drawn based on the institutions time table to avoid clashes of activities with time. A good PTT covers the;

- total work hours,
- activities to be carried out in each hour of the day;
- number of activities the individual has to work in a day;
- resting/sleeping hours of the individual in a day/days of the week;
- work hours chosen based on the vitality of the activities in a day.

PTT helps to give a sense of direction to the individual and makes him to be persistent, motivated, diligent, and resourceful and to spread his activities. PTT;

- gives guide and direction to the individual in his work.
- gives priority to all activities according to their importance.
- helps the individual develop new interest and values towards his/her work.
- makes the individual to be critical and evaluative.
- creates and gives the individual time for relaxation to regain his lost energy.
- gives the individual time for reflection.
- motivates and encourages the individual to be more effective in his work.
- instills the spirit of self-reliance in the individual.
- shows as well, the institution official hours for work and
- guides the individual towards other activities outside institutional activities.

The Demerits of Lack of Private Time Table (PTT)

With non-use of private time table,

- The individual becomes a procrastinative since there is no guide.
- When the activities becomes difficult, the individual quits and loses confidence.
- Time is not minimized by the individual in the course of his work.
- Official and non-official hours are not valued and maintained.
- Dis-encouragement can result.

A Private Time Table (PTT) for Daily Activities.

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<tbody>
<tr>
<td>5.30-5.45 Morning prayer</td>
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</tr>
<tr>
<td>5.45-6.30 Rehearsals before leaving for school</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Rehearsals before leaving for church</td>
<td></td>
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<tr>
<td>6.30.7.00 Morning</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Sunday school</td>
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<tr>
<td>Time</td>
<td>Activities/Break fast</td>
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<tr>
<td>7.00-2pm</td>
<td>Official school hours</td>
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<tr>
<td></td>
<td>Washing/Cleaning of the house</td>
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<tr>
<td></td>
<td>Church</td>
<td></td>
<td></td>
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<tr>
<td>2.10-2.30</td>
<td>Lunch</td>
<td></td>
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<tr>
<td>2.40-4.00</td>
<td>Resting time</td>
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<td></td>
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<tr>
<td>4.10-5pm</td>
<td>Resting time</td>
<td></td>
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<tr>
<td></td>
<td>Meditation on the word of God</td>
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</tbody>
</table>

Adopted from Festus (2007) towards effective learning for learners.

In using the PTT for daily activities:-

- Know your purpose, plans, expectations and goals and concentrate on your focus;
- Consider and plan your activities in order of their great importance and necessities;
- Create space, break of free period, or allowance in between your plans as provided by the time table to keep yourself abreast.
- Be dedicated to your planned and timed activities and
- Give priority to all planned activities and don't be procrastinative.

**Time Organization.** Organization is a process of bringing things into a unified whole, which can operate independently, effectively and efficiently. Time organization is the act of allocating time to the required activities for a goal to be actualized. The process and system of organizing time is open to every individual, it does not and cannot promise something for nothing because, something or success is not achieved without giving dedication or work. The process of placing events in order of their necessities and rationing-out of time for the tasks and events to be actualized is the organization. It is the determination of the total tasks and events required to achieve a set of objective.

**Time Control.** This simply involves devising measurable standards, systems, and means at all levels to aid in comparing actual achievements with time spent and planned performances. The secret of controlling time depends on understanding the process of transmutation. Time control is proportional to the result achieved; implying that time control is reached only when an allotted time for an event is used in actualizing the desired result.

**Time Spending.** Spending of time which involves giving out time for events to be actualized is enhanced when there is proper time planning, adequate organization of time and effective time control. Art Williams (1983) pinpoints that time budgeting is the best way to take full control of time, so spend your time by budgeting it through the use of PTT. The totality of time spent in actualizing a specific objective is time spending. Time spent for an event to be achieved is determined by the end result. So it is not how efficient an event is performed or carried-out but how long it takes for the needed or required result to be attained.

**Time Elusiveness.** Every event needs time for its execution, as everybody needs time to actualize his/her activity and objectives. Time needs to be put into use judiciously, since possible means to excel is meticulously employed with conscientious. Time naturally has been equitably distributed without
discrimination or favour of any kind, perhaps time waits for no body because it is not a friend to anyone.

Time is never constant but as it passes by, history is created; positive history, when time is meaningfully used and negative history when time is permanently wasted. Also know that history only has the record of great achievers who never wasted their time and who never allowed their time to be eluded; time makes history.

Time is in a steady Motion as it is used to evaluate activities and results (Institution and individual). It is not displaceable or replaceable. Any time that pass should create experiences, as to guide you on how to use your future time. The experiences of yesterday and today, created by time passed do not determine the future but the endurance in the exploits with does. The experiences of time give the individual guide into the future by keeping concentration in focus.

Time flies, it does not wait for anybody, any event or any season. The clock ticks moment by moment, as time goes by and by. Time is valuable but vanishes like a vapour. It waits for no body in its never-ending clicking process. Time is elusive. Think!

**Time Wasters**

Time wasters are those activities, events and programmes which consume an individual’s time without yielding any positive result or outcome. Life wasting events or activities is also time wasting events, since waste of time is waste of life. Time wasted is irreversible because time is priceless and precious. A time wasted is for sure permanently lost and cannot be recovered, hence this agrees with the statement “some mistakes can be corrected and amended but not the mistake of wasting time. When time is gone, it’s forever gone. All work, activities and engagements which cannot contribute meaningfully to any efficient work which are to yield a positive end result is time waster.

Time wasters are solely welcomed by wishful individuals who build on fantasy and procrastination and not on realistic, reasonable and resolute aims and goals. Time wasting activities negatively affects pursuits. Time waste is the first and in principle the deadliest of all sins, since the span of human life is infinitely short and precious. Waste of time through sociability, idle talks, and luxury are worthy of moral condemnation (Max, 1958).

**Types of Time Wasters**

Time wasters are classified for the interest of this paper according to attitudes, behaviors, and habits exhibited by students, administrators, researcher, and educators.

**Time Wasting Attitudes**

**Indecision:** This has to do with the state of individual being unable to make conclusion on a choice or judgment at a particular time. It is a negative attitude of being incapable of taking decisions on what to do. Indecision is the twin brother of procrastination and they both induce fear and bring about failure in all endeavours.

**Inconsistency:** It is the act of making too many statements that are true about something. The changes in an individual’s behavioural pattern that makes his ideas, views, aims, plans etc unclear for understanding is inconsistency. Genuine wisdom is usually conspicuous through modesty and consistency.

**Indifference:** This has to do with the attitude of one being unconcerned for what he/she is supposed to be concerned for. It is usually reflected in an individual readiness to compromise all occasions rather than to meet opposition and fight it.
Indifference is commonly expressed in one through lack of ambition, willingness to tolerate failure, and acceptance of whatever compensation situation offers without protest. Mental and physical laziness, lack of initiative and imaginative ability, unmentioned enthusiasm and self control are attributes of indifference.

**Indecency:** it is the attitude of exhibiting offensive, dishonest and impolite behaviours which are likely to shock upset and offend others around the individual. Most ideas, experiences and thoughts are still in-born because of indecency. If one illicit indecency and embraces decency, he can get along well with other many attitudes.

**Instability:** Most person are good “starters but poor finishers” of every bit of thing they begin because of instability. So instability is the attitude of being uncertain. The condition of one not being strong, steady or firm in making or taking actions on plans is also instability. Instability is an agent of fear and devastates learning personality.

**Inability:** This is the attitude of being unable to do something meaningful and worthwhile. No unstable, double minded, slovenly and carefree individual can become successful. Procrastination, doubt, over-caution, worry, fear and envy all are the “committee of friends” of inability and they all are destructive to plans, actions and desires.

**Indigence:** The attitude of eating and drinking too much which is not necessarily for satisfaction but for pleasure is indulgence. The value of every decision one makes depends upon the courage required to render them, which indulgence is not a party to. So it is an agent of failure in life.

**Inhumanity:** It is the attitude of being unkind, unrespectful, non-sympathetic and cruel to other.

**Time Wasting Behaviours**

**Insubordination:** the act of one not being submissive and obedient to a higher authority is insubordination. Giving evasive answers to questions asked by superiors, hesitancy in manner and speech, deceit in both deeds and words, are examples of insubordination.

**Impurity:** Lack of firmness in character, attitude and behaviours is caused by impurity. Impurity is the state of been behaviourally dirty. The act of one being rid of evil in soul.

**Inhospitality:** The state of an individual been unfair, unfriendly, unkind, unfaithful, unrespectful, non-polite, unrefined, unwelcoming and ungenerous to others is nothing but inhospitality.

These are practices, methods, techniques, and regular tendencies that wastefully consume an individual’s precious time without yielding any positive and rewardable results. They include:

- Excessive sleep both in the night and day just because of pleasure forgetting work
- Late arrival as a result of unpreparedness and unseriousness;
- Lack of career objective and focus which is begotten from indefinite purpose and plans
- Failure in pro-active planning;
- Lack of focus and purpose resulting from not being cooperative with others;
- Irrelevant chatting, as a product of bad personality and unproductive habits;
- Lack of commitment to work as an offspring of unmotivated behaviour
- Limitless time dressing attitude because of lack of focus
- Lack of concentration and adequate preparation resulting from indefiniteness of purpose and plans;
Too many association involvements because of non career and life focus and
Too many movies and television watching.
The ability to move forward and press on toward the mark, regardless of time events, activities and
programmes distinguishes the winner from the loser “winners are not quitter but losers are good quitters”.

References

Role of Non-Verbal Communication In Education

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Abstract Educators rely on verbal communication as a central tool for providing students with valuable information for academic development. Our daily nonverbal behaviors reveal who we are and impact how we relate to other people. Nonverbal communication has implication for the teacher as well as the learner. It is often said that one can always recognize a language teacher by their use of gesture in normal conversation. Feldman (1990) asserts that research regarding the use of non-verbal cues in education demonstrates that educators often send messages regarding their expectations via non-verbal cues such as facial expressions and overall body language. These nonverbal cues, according to Feldman, can have a notable impact on outcomes for student response and behavior. With the realization that non-verbal communication can play such an important role in the process of education, there is a direct impetus to further examine this issue. Using this as a foundation for investigation, the current research considers the issue of non-verbal communication between students and teachers in the context of mitigating and managing conflict. By understanding these cues, educators can work to improve outcomes when conflict arises with a student in the classroom.

Introduction

Although research on nonverbal did not originate in education, most nonverbal research is still conducted on behavioral sciences. One of the major topics of nonverbal research in education is microteaching which followed the technological advances in video recording. Microteaching research was developed by Dwight Allen at the Stanford University of teachers training. It is basically a data-based feedback intervention for teachers’ self inquiry and skill training. Typically a class session is videotaped and the recording serves as the empirical data for further analysis. The videotaped material captures an unbiased evidence of teacher behavior and teaching situation. Upon completion, the material is usually viewed together by the teacher in training, supervisor and sometimes by the teacher’s peers.

Microteaching according to researchers was conceived as a tool for instructional evaluation instead of focus on nonverbal aspects of behavior. But, due to its salience visual aspects, the nonverbal component has gained overwhelming prominence in nonverbal research. It’s worth mentioning that, with microteaching sessions, teachers can receive feedback on how to improve their conduct in their teaching and in their interactions with students. The analyses focus on teacher’s position towards the entire classroom, appearance, dress, poise, use of voice, body and hands, movement in the classroom, teacher’s enthusiasm, eye contact etc. Microteaching is a categorized research method in education due to its qualitative and reflective actions.

Another area of nonverbal research in education focuses on the effects of educator’s expressive style namely: teacher immediacy and teacher enthusiasm. The research in teacher’s enthusiasm originates from the conventional SRT measurement in higher education Murray 1983; Schonwetter et al.1994; Wood 1998). Teacher immediacy research stem in part from the researchers (Andersen & Andersen 1982; Titsworth 2001) interest in high school students teaching and learning processes. However, the emphasis of both researches is focus on the role of teacher’s expressive style and nonverbal behavior in affecting their students. According to researchers, highly immediate teachers are characterized by eye contact, movement, learning forward, vocal variety, gestures, humor and smiling. The opposite or what is known as non-immediate teachers are described as reading from notes, standing behind a podium, and using monotone delivery and abstract examples. Based on the result of various studies, there is overwhelming evidence that teacher immediacy and teacher enthusiasm are indeed related to positive outcomes of learning process.
Thin slices research is another nonverbal research that measures decoding sensitivity via judgments of brief instances of nonverbal behavior. It is often conducted using the profile of nonverbal sensitivity (PONS) test. The process of conducting thin slices research involves exposing brief sample of nonverbal sensitivity to judges and asking them to rate their impressions of these target figures. These ratings are then correlated with different diagnostic or predictive criteria of the target people. Although thin slices research is quite complicated and expensive to run, studies in both secondary and post-secondary school setting indicates that, student’s evaluations of their teachers can be predicted. Nonverbal behavior in educational environment can be measured in three distinct ways such as: asking participants (student and teacher) about their impression; conducting behavioral observation in the classroom and videotaping ongoing nonverbal behavior in the classroom. Asking students about their teacher’s behavior seems to be the most economical and maybe practical method of researching nonverbal behavior within educational setting.

Review of Related Literature

In order to begin this investigation, it is first helpful to provide a review of non-verbal communication in education and what has been reported about the development and impact of this process on teacher and student interaction. Comadena, Hung and Simonds (2007) provide a review of the impact of teacher non-verbal behavior on the development of students in the classroom. As reported by these authors, research regarding non-verbal behaviors has consistently demonstrated that the specific non-verbal language used by the educator will have a direct impact on both the psychological attachment of the student to the teacher and the ability of the teacher to connect with the student. Comadena and coworkers assert that non-verbal communication in the context of education serves as the foundation for creating intimacy and allowing the student to feel connected to the child. This connection can have marked implications for the development of student in terms of overall academic performance.

Mackay (2006) further examines the development and use of non-verbal cues in the classroom. As reported by this author, students often respond first to the non-verbal body language used by the educator. Specifically, this author makes the following observations:

The mood and tenor for the day or lesson is established in the first few minutes. At the outset of every class, students and teacher both instinctively assess how they should act and respond to each other. A teacher’s facial expression, eyes, voice, movement and gesture all convey confidence and control, or lack of these. As students become familiar with the teacher’s ways their responses don’t change unless the teacher gives due cause (p. 54).

In this context, Mackay asserts that the nonverbal communication used by the educator can have a powerful influence over the class. Changes in nonverbal communication patterns can garner the attention of students, especially if this change occurs after consistent patterns of nonverbal communication which has been established over time.

Researchers examining the impact of non-verbal communication on the development of the classroom have also reported that the impacts of non-verbal communication have different impacts depending on the situational needs which arise in the classroom. Sime (2006) notes that there are three areas for classroom development which are impacted by the teacher’s use of non-verbal communication. Reviewing data regarding teacher non-verbal communication Sime argues that teacher’s non-verbal responses reinforce classroom processes in three specific areas. First, non-verbal communication can be used to reinforce cognitive learning. Second, non-verbal communication reinforces emotional connections between the student and the teacher. Finally, non-verbal communication sets an organizational tone for the classroom—i.e. with respect to the management of the classroom. The use of non-verbal communication in the management of the classroom has implications for how conflict will be managed.

Liu (2001) also notes the importance of non-verbal communication in the classroom. As reported by this author, non-verbal communication in the classroom serves as number of specific purposes including:
“expressing emotions, conveying interpersonal attitudes, presenting personality, and amplifying verbal communication” (p. 30). Further, the author reports that research regarding the development of non-verbal communication in the classroom has demonstrated that there are five component parts to this process. These include: paralanguage, facial expression, eye contact and visual behavior, gesture and body movement, and space” (p. 30). Liu asserts that each of these dimensions functions differently in the classroom depending on the context of the classroom environment and the specific subject that is being reviewed.

Additionally, Houser and Frymier (2009) note the role of non-verbal communication in the development of student empowerment and achievement. According to these authors, the manner in which an educator responds to a student during an interaction will be reflected through both verbal and non-verbal communication. Educators whose verbal and non-verbal communication patterns are congruent and reinforcing will be able to provide students with a clear sense of confidence in their actions. When a lack of congruity in verbal and non-verbal cues results however, challenges arise creating a high degree of uncertainty for the student. This can impact the student’s confidence level and reduce the overall sense of accomplishment established through verbal communication tactics. As such, the research provided by Houser and Frymier not only demonstrates the importance of non-verbal communication in student development, but also reinforces the need for congruity between verbal and non-verbal cues provided by the educator.

Conflict and Non-Verbal Communication in the Classroom

With a basic review of non-verbal communication and its impact on the classroom and students, it is now possible to consider what has been reported regarding the issue of conflict and non-verbal communication in the classroom. Looking first at the manner in which non-verbal communication impacts the development and management of conflict, Lincoln (2002) provides a succinct review of this process. In her assessment, Lincoln notes that during conflict there is often a discrepancy between what the individual is verbally communicating and the non-verbal language which is presented. This incongruity in verbal and non-verbal cues can have a direct impact on perception of the parties engaged in conflict. If this incongruity is not rectified, this can serve as the foundation for the escalation of conflict. “One party may develop a sense of distrust, negativity or inappropriate feelings if they question whether the other party means what is said” (p. 45). Lincoln goes on to note that while non-verbal communication is often unwilled, it can be controlled to improve outcomes when conflict arises.

Given the overall impact of non-verbal communication on the development and exacerbation of conflict, it is not surprising to find that scholars have examined this issue in the context of the classroom environment and the interactions which occur between students and teachers. For instance, Rupert and Neill (1991) in their review of non-verbal communication and conflict in the classroom note that the manner in which educators approach conflict will have a direct impact on outcomes. In order to demonstrate this point, these authors note the case of an educator that approaches a conflict with aggressive body language—namely hands on hips. This body language communicates a desire for confrontation and can fuel the development of a conflict. Rupert and Neill go on to note however that the teacher that approaches a conflict with hands down and an open posture presents a calmer demeanor; one which will serve to diffuse hostility from the student.

The observations made by Rupert and Neill (1991) elucidate the overall steps that educators can take in dealing with the development of any type of conflict in the classroom. Educators need to develop the skills needed to effectively recognize conflict and employ responses which are non-confrontational and non-aggressive. Rupert and Neill assert that assuming this position will help diffuse conflict and allow both the student and the teacher to engage in dialogue which will facilitate conflict resolution. Rupert and Neill do note that conflicting messages sent through verbal and non-verbal behavior which is not complementary may
further increase tension, preventing conflict resolution. Thus, educators must be aware of how to match verbal and non-verbal communication patterns during times of conflict for the purposes of mitigation.

Cross-Cultural Communication

While current data regarding the issue of non-verbal communication in resolving conflict in the classroom demonstrates the importance of non-verbal interactions for improving communication outcomes, current research on this subject has extensively focused on the issue of non-verbal cues in a cross-cultural context. As reported by Helmer and Eddy (2003) non-verbal communication in a culturally diverse classroom can be an issue of concern. This is because students from different cultures may misinterpret non-verbal cues, escalating conflict or creating a barrier for effective communication to prevent the development of conflict. Helmer and Eddy assert that non-verbal communication is often culturally biased and unconscious. As such, educators may unwittingly employ non-verbal communication which serves as the foundation for creating conflict with culturally diverse students in the classroom.

The issue of cultural competence in non-verbal communication has also been noted by Le Roux (2002). In reviewing non-verbal communication and its impact on the culturally diverse classroom, Le Roux makes the following observations: “Communication may be a useful source of intercultural knowledge and mutual enrichment between culturally diverse students if managed proactively by the teacher. Otherwise, it could be a source of frustration, misapprehensions, intercultural conflict and ultimately school failure” (p. 37). In order to develop cultural competence in non-verbal communication, Le Roux asserts that educators need to investigate non-verbal communication patterns in culturally diverse groups. This process will help educators to better understand the specific needs of culturally diverse students and facilitate the implementation of culturally sensitive communication strategies which will help reduce the threat of conflict and aid in conflict resolution when problems arise.

Finally, Ting-Toomey (1999) provides a review of classroom conflict which can arise as a result of cultural differences in communication. As reported by this author, non-verbal communication between teachers and students accounts for a significant percentage of the outcome which is achieved during conflict. Because non-verbal communication primarily shapes individual perception, if non-verbal communication is viewed by either party as hostile, the end result will be an inability for both parties to resolve the conflict. Problems arise in this process as students from different cultures have been socialized to respond to conflict and adults in different ways. For educators, the challenge is recognizing these different modes of response, perceiving them correctly and responding in a manner which does not further escalate the conflict. This process, according to Ting-Toomey is one which can be notably challenging and complex for the educator.

Synthesizing the research provided here, it becomes evident that non-verbal communication can be used as a means to both prevent the development of conflict in the classroom and to mitigate conflict that may arise in the classroom. Even though non-verbal communication may be effective in facilitating classroom management, the issue of culturally diverse student populations may require educators to examine non-verbal behavior and tailor non-verbal behavior to meet the unique needs of diverse student groups. Given the overall impact the non-verbal communication can have on the classroom environment, educators owe it to themselves to understand this form of communication and to employ it strategically to improve classroom management and learning outcomes for all students.

Intercultural Communication

In intercultural settings nonverbal communication becomes especially important as successful interaction requires the partners from differing cultures to navigate both the verbal and nonverbal messages such that complete and shared meaning is created. It should also be noted that in contrast to verbal communication, nonverbal messages are less systematized but are more ambiguous and almost entirely culturally construed.
Additionally, cultural influences on nonverbal behavior are taken into account through the analysis of African nonverbal behaviors both in their differences from other cultures and in their universally shared aspects. Additionally, one of the greatest intercultural differences among people of African descent is found in emblems. Gestures and movement differ dramatically in meaning, extensiveness, and intensity. For example, Northern Europeans and Northeastern Asians have restrained non-verbal displays compared to Africans.

To fully appreciate how cultures can influence nonverbal behavior, one must first have a working conception of culture. Culture is generally understood by Samovar, Porter, and McDaniel (1999) to be “the rules for living and functioning in society” (p. 10). These shared rules are absorbed through social conditioning through the communicative and interactive experiences that children have as they develop. In this sense, culture is learned and is transmitted from generation to generation (Samovar, Porter, and McDaniel, 1999, p. 11). The function of culture is to provide a common framework that provides a source of social cohesion to a group of humans who can then participate collectively as well as individually in their daily activities. Culture enables people to coordinate their survival activities such as the securing of basic needs through work and even the reproductive needs of human beings. Because human beings are primarily social animals, their culture provides them with a basis for their identity as well as their social functioning. The human sense of self is thus interdependent and intertwined with the human sense of social belonging and culture (Samovar, Porter, and McDaniel, 1999, p. 11). Many of the ways that culture is transmitted are symbolic, making culture highly symbolic as well. For instance, language, cultural icons, images, and nonverbal communicative modalities such as gestures and facial expressions are all symbolic ways that human beings communicate culture to one another and even define their culture, i.e. their rules of living.

Finally, culture is also dynamic and ethnocentric in the sense that culture is continuously changing through the new individual influences that are introduced into it and through the interactions of individuals with those from other cultures by which cultural exchange occurs. It is ethnocentric because it provides the people with a strong sense of group identity which enables them to not only identify themselves with one another but also to distinguish themselves from other cultural groups. Culture is therefore a source of boundaries between peoples, making it centered on its own ethnic origins (Samovar, Porter, and McDaniel, 1999, p. 12).

This definition of culture leads to perceive nonverbal communication from two distinct perspectives – that of the modes of nonverbal communication that are universal to all human cultural groups and those that are culture specific. First of all, the universal types of nonverbal communication include emotional expressions through universal facial expressions which are in turn noted in both humans and other primates. Cross-cultural studies show that people from a variety of different cultures have similar physiological reactions to universal facial expressions, indicating that there is a basis for this universality (Manusov and Patterson, 2008, p. 224). For instance, smiling is universally recognized as an expression of happiness while furrowing the brows and tensing and hardening the facial muscles is recognized as anger. Within the African male group there is noticeable way they punctuate laughter. For example, when something funny is said by an African American, the audience will raise a cupped hand to the mouth and laugh. This hand is not actually placed over the mouth rather it is held about 5 to 6 inches away from the mouth. This action “the cupped hands in front of the mouth” is common among West African. It conveys a non-verbal message of the wittiness of the speaker. Sadness is also universally understood to be communicated by wider eyes and elongating of the face. It is argued by Manusov and Patterson (2008) that the cross-cultural agreement in interpretation of facial expressions might well be the result of overlapping semantics between human cultural groups (p. 227). Semantics, or the study of how signs relate to things, is relevant in this case because the facial expression itself is a “thing” that must be interpreted by the communicative partner as a sign of an emotional reaction. The translation of facial expression to emotional feeling in one’s communicative partner is not a direct cause and effect situation but is rather the result of the interpretation of the expressions (OregonState.edu, 2010). To understand this fully, one can recall that autistic people have a difficult time
understanding the relationship between facial expressions and human feelings which in turn leads to a sense of social disconnection from others that cannot be immediately remedied because the autistic person does not have the ability to understand the abstract symbolism of the facial expressions.

Although the interpretation of emotion in facial expressions is largely considered to be universal, there are important cultural differences in the nuances of that interpretation. One of those differences is that all cultures do not recognize universal facial expressions at the same rate. To understand why this might be the case, studies have analyzed the relation between cultural values and norms and recognition of universal facial expressions. It has been found that individualistic cultures like that of Americans were positively correlated with emotional recognition in facial expressions. It is surmised that individualistic cultures have this heightened sensitivity over collectivist cultures like that of Arab countries because individualistic cultures encourage and promote the open expression of emotions and thus are more motivated to interpret those individual expressions as well (Manusov and Patterson, 2008, p. 227).

References


Time Frame and Syllabus Completion of Senior Secondary Mathematics in Omoku, Nigeria

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Abstract The study considered time allocated against syllabus completion before external examinations. The focal points were mathematics as a subject and an analysis of the 2009/2010 Academic Session. The analysis revealed that out of 364 days in a session, only 146 days, represented 40% of the entire session did schools engaged in various school activities. The remaining 218 days, representing 60% of the session was observed as different holidays, making time frame to be inadequate and insufficient for mathematics syllabus completion. Three theories: Total Quality Management (TQM), Quality Assurance (QA) and Theory Z were posited as frameworks. Recommendations such as more periods should be allocated for completion of mathematics syllabus before exposing students to external examinations and others were postulated.

Keywords: Time Frame, Syllabus completion, Mathematics, Time table and Examination.

Introduction

Time is a universal phenomenon without a single, generally accepted universal definition. It is so important that everybody, both whites and blacks, literates and illiterates, rich and poor, are all affected by it. It is fair to all, as it has no fear nor favour for any individual or corporate bodies. If considered as an umpire, it is unbiased and impartial.

Ebong in Agabi (2010:99) defined “time as a continuum in which events succeed one another from the past through the present to the future”. By this definition, time is defined based on series of similar, indispensable events taking place one after another both in the past, the present and even in the future. However, the British Broadcasting Corporation (BBC) English Dictionary defined time as what we measure in hours, days and years. It further defined it as the period that something happens. Here, the definition of time is based on duration or period, which are in hours, days and years.

From the foregoing, time can be defined as the duration or period similar or different events do occur, either in succession or not. It could be in hours, days, years, decades, centuries, etc.

In education, time is an indispensable asset. It is an educational resource. According to Agabi (2010:99), “time is an educational resource that is highly limited in supply and critical but often taken for granted by the providers of education. It is so important and useful that each school activity is regulated by it”.

Maduagwu and Nwogu (2006:64) posited that different tasks need to be allotted time and emphasized the need for proper time management. Lunenburg and Ornstein (2008:216) gave six basic ways to structure time as withdrawal, rituals, past times, activities, games and authenticity.

In Hoy and Miskel (2008:9), Taylor and his followers discovered through time and motion studies that by systematically undergoing a given task over a period of time, that the most efficient way in lesser time can be developed. To Agabi in Agabi, Okorosaye – Orubite, Ezekiel-Hart and Egbezor (2005:105), school activities are carried out within a specific time which gives credence to the existence of such registers as academic calendar, time table, lesson period, mid-term break, time book, etc. The above simply point to the
fact that time is an indispensable tool to an individual or a corporate body. Time should be allocated to different activities of the day, week, month, year and so on. Proper time allocation to different activities gives rise to time management. The length of time allotted for or used for something is simply referred to as time frame (Oxford Advanced Learner’s Dictionary, 2001). School activities like morning devotion, lesson periods, breaks, preps, dinning, labour, others, are regimented by time frame (Maduagwu and Nwogu, 2006). According to Agabi (2010:99), “all school system activities are carried out within a time frame which may be limited to minutes, hours, days, months or even years”.

It is important to emphasize that time-frame for each activity of any day, week, year, etc should be structured in the form of time-table. According to Nnabuo in Nnabuo, Okorie, Agabi and Igwe (2005:260), time-table is a document that illustrates time, place (room), subject and periods of each school subject in a week and term. It provides orderly direction and avoid clashes as teachers attend lesson at the allocated time and place. In a nutshell, a time-table is a schedule of period and place of various school activities. Emphasize need to be made here that time-frame should match the type of activity for it, otherwise, it will result to wastage of time or incompletion of required activity.

Insufficient time-frame for subject syllabus result to inability of the subject teacher to complete the syllabus and prepare students for external examination. It is relevant we get a working definitions of subject syllabus and scheme of work. Nnabuo in Nnabuo, et al (2005) opined that any document which shows how each subject should be taught and the details through which it should be treated is a subject syllabus. Aiyepeku (2006:142) outlined the basic content of a teaching syllabus as:

(a) Topics to be taught at various levels in the school,
(b) Specific behavioural objectives which should indicate knowledge to be acquired after the teaching of any given topic,
(c) The content of all the topics selected for inclusion in the syllabus and
(d) Materials and suggested activities for teaching listed topics.

He advised that where a national examination syllabus is available, the school teaching syllabus should be based on it. He defined scheme of work as a breakdown of the syllabus for work planned to be covered weekly. Nnabuo in Nnabuo, et al (2005:261) describes scheme of work as breaking down into topics of a subject to be covered on a weekly basis of each school term.

Students should be encouraged to get good subject textbooks, which among other things, should adequately cover the syllabus.

**Research Methodology**

This study employed a combination of the analytical study of the 2009/2010 Academic Session as a resource document and other materials used were textbooks, articles and reports. These materials were selected in a fashion that looks like randomized sampling procedure and were assessed in terms of validity and value. Scott’s four overlapping validity criteria which are authenticity, credibility, representativeness and meaning served as a frame work (Agabi, 2010:96).

**Theoretical Framework**

Time allocated for teaching and learning of mathematics in Secondary Schools in Omoku Town, Rivers State is inadequate and insufficient. This is traceable to the short time available to school activities. Regular public holidays, strikes which leads to closure of schools and other forms of holidays reduces the period of time for complete school activities. In effect, there is reduction in available time for teaching and learning and other
school functions. Teachers are not able to complete their subject syllabus and adequately prepare students for external examinations. Subsequently, the result of such incomplete syllabus is mass failure in schools external examination, loss of self-confidence by students leading to all forms of examination malpractices, occult practices, militancy, joining of gangs, armed robbery, prostitution and other forms of social vices. In the light of the above, efforts need to be made by all stakeholders in the education discipline: teachers, students, administrators (principals), parents, host communities, government and examination bodies to alleviate this ugly trend in our schools. The frameworks for this research study is based on three theories, which are Total Quality Management (TQM), Quality Assurance (QA) and Theory Z.

Total Quality Management (TQM) by W. Edwards Deming in 1982 stipulates *inter alia* that:

(i) Excellent performance of students in external examinations should be the primary focus of the school,

(ii) The school must be dedicated to continual improvement, personally and collectively.

(iii) School management must create the enabling environment for excellent performance of students.

Lunenburg and Ornstein (2008:52); Okorie and Uche in Nnabuo, Okorie, Agabi and Igwe (2005:45-56) and Emenalo in Babalola and Ayeni (2009:751-753) all agree to the above.

It is obvious that allocation of more periods for the teaching and learning of mathematics or recruitment of more mathematics teachers for the short available periods will help in adequately preparing students for external examinations. Ayepeku (2006:146) advocated a generous allocation of teaching periods per week for mathematics.

Quality Assurance (QA) by the chief proponent of fault free product, Crosby, ensures that proactive and precautionary measures are taken before and during production to ensure that no wastage and no defect is recorded. (Okorie and Uche in Nnabuo, et al, 2005:57 and Awe in Babalola and Ayeni, 2009:72). Applying this to our discussion, it is the administrator's duty to make sure that the quality and quantity of teachers are adequate for the time frame for the teaching and learning of mathematics. The teachers on their part should make the best use of the allocated time. Ayepeku (2006:147) emphasized that proper preparation before each lesson, effective use of teaching aids, giving of regular exercises during lesson, assisting each student during lessons to correct errors encountered while solving problems are measures teachers should adopt in teaching and learning of mathematics.

Theory Z by William G. Ouchi around 1981 emphasizes concern for people and participative and consultative decision-making. Hoy and Miskel (2008:179-181), Lunenburg and Ornstein (2008:77-79) and Peretomode (2008:33-38) all agree that the basic premise of theory Z is “that involved workers are the key to increased performance in an organization”.

From the above theories, we can deduce that student's poor performance in external examinations are attributable to a lot of variables which inadequate preparation and incomplete syllabus before embarking on such examinations is one of them. A collective effort of all stakeholders is needed to alleviate the situation.

**Analytical Study of the 2010 Academic Session**

**Span of 2009/2010 Academic Session:**

Began 13th Sept., 2009 = Total of 52 weeks = (52 x 7) days

Ended 11th Sept., 2010 = 364 days (Note: 1 week = 7 days)

Saturdays and Sundays = 52 x 2 days = 104 days

Remaining days = 364 days – 104 days = 260 days.
Issues of 1st Term, 2009/2010 Academic Session

Span: 13th Sept., 2009 to 9th Jan., 2010
- Mid-term break (30th Oct., 2009 to 2nd Nov., 2009) - 2 days
- Public holidays:
  ❖ El-die Fitri holiday (21st & 22nd Sept., 2009) - 2 days
  ❖ Independence Day (1st Oct., 2009) - - 1 day
  ❖ Salah Days (26th & 27th Nov., 2009) - - 2 days
- 1st term, holidays (19th Dec., 2009 to 9th Jan, 2010) (3 weeks) - 21 days
  Total for 1st Term - - 28 days

Issues of 2nd Term, 2009/2010 Academic Session

Span: 10th – Jan, 2010 to 24th April, 2010
- Mid-term break (19th Feb., 2010 to 22nd Feb., 2010)- 2 days
- Public holiday:
  - Moslem Idi-Malud (26th Feb., 2010) - - 1 day
- 2nd term holidays (3rd April, 2010 to 24th April, 2010) (3 weeks) - 21 days
  Total 2nd term - - 24 days

Issues of 3rd Term, 2009/2010 Academic Session

Span: 25th April, 2010 to 11th Sept., 2010.
- Mid-term break (6th June, 2010 to 9th June, 2010)- 2 days
- Public holidays:
  ❖ Workers’ Day (3rd May, 2010) - - 2 days
  ❖ Death/Burial of President Yar’Adua (6th May, 2010) - 1 day
  ❖ Children’s Day (27th May, 2010) - - 1 day
  ❖ Democracy Day (29th May, 2010) - - 1 day
- 3rd term holiday (24th July, 2010 to 11th Sept., 2010) (8 weeks) - 56 days
  Total for 3rd term - - - 62 days

Grand total of holidays = total for 1st term + total for 2nd term + total for 3rd term = 28 days + 24 days + 62 days = 114 days.

Days secondary schools were opened for classes in the 2009/2010 academic session = (260 - 114) days = 146 days

Days secondary schools were on holidays for 2009/2010 academic session = (364 – 146) days = 218 days

% of days secondary schools opened for 2009/2010 academic session

\[
\text{percentage} = \frac{146 \text{ days} \times 100\%}{364 \text{ days}} = 40\%
\]

% of days secondary schools were on holidays in 2009/2010 academic session

\[
\text{percentage} = \frac{218 \text{ days} \times 100\%}{364 \text{ days}} = 60\%
\]
From the above analysis, secondary schools spent 60% for holidays while only 40% of the entire 2009/2010 academic session was used for school activities.

**Note:** Some schools have less than 40% in 2009/2010 session for school activities due to other internal holidays not captured in this analysis. Also, other academic session(s) may have less than 40% for school activities. A typical example is the current 2010/2011 academic session.

**WAEC Syllabus for Mathematics in the 2009/2010 Academic Session**

The West African Examinations Council (WAEC) has seven main topics broken down to thirty-seven sub-topics for prospective candidates of the West African Senior School Certificate Examination (WASSCE) General Mathematics/Mathematics (Core) Syllabus for the 2009/2010 Academic Session (WAEC, 2009:343-355).

**Secondary Schools in Omoku Town and Time Frame for Teaching and Learning of Mathematics in the 2009/2010 Academic Session.**

There are about eight recognized secondary schools in Omoku Town, Rivers State. Five of them are private while only three are public secondary schools. An analysis of the time allocated for teaching and learning from their respective time-tables range from two (2) periods of forty minutes each weekly to just one period of forty minutes weekly.

Also, the number of mathematics teachers were two at most and only one in some schools.

**Comparison of Time Frame and Syllabus Completion of these Secondary Schools in Lieu of Teaching and Learning of Mathematics.**

As earlier posited, the number of mathematics teachers in both private and public secondary schools in Omoku town, Rivers State is grossly inadequate. The implication of this is over utilization of manpower which will result to low production. On the other hand, the time frame for the teaching and learning of mathematics is insufficient. Aiyepoku (2006:146) advocated nothing less than five periods of forty minutes weekly for SS One and Two and a little less than that for SS Three if the students are to be thoroughly prepared for external examinations.

Rosenshine and Furst in Lunenburg and Ornstein (2008:454-455) identified student opportunity to learn, that is, the teacher’s coverage of the material or content in class on which students are later tested as one of five teacher processes that show the strongest correlation to positive outcomes. To Alutu and Ochuba in Okafor, Ekpo, Igwe, Eya and Okoye (2008:54), “inadequate teaching and preparation of students before examination is one of the reasons students involve in examination malpractices”.

This is true as no student wants to fail. Ukoh and Ajanaku in Oyatoye, Olafimihan, Adeoye, Sabi, Alao, Fashiku and Abdusalam (2010) also support this view.

To lend support to the issue at stake, Aiyepoku (2006:148) opined that adequate coverage of the examination syllabus is one of the recognized requirement for students writing public examinations in mathematics subject. Nnabuo in Nnabuo, et al (2005:261) emphasized that effort should be made by school executives to ensure compliance by teachers and a revisional feedback built in to allow adequate preparation of students for examination.

Emenalo in Babalola and Ayeni (2009:757) posited that attention has to be focused, among other things, on what goes on in the classroom between the staff and students in terms of the content of course coverage, quality of teaching and actual contact hours utilized. This is true as poor inputs will definitely yield faulty output.
Agabi in Agabi, et al (2005:105) identified poor academic results arising from inability to complete school syllabus as a wastage which occurs when the importance of time is ignored in the execution of school activities.

**Implications of Insufficient Time Frame and Inconclusive Subject Syllabus**

Since insufficient time frame cannot enable teachers to complete mathematics syllabus and prepare students for external examination eternal examinations, the following implications are possible:

1. **Mass Failure in Public or External Examinations**

   2009/2010 WAEC result has it that only 24.94% of the total candidates obtained credits in English Language, Mathematics and at least, three (3) other subjects; 2009/2010 NECO result reveals that only 22.99% of candidates in Rivers State obtained five credit passes including Mathematics and English Language.

2. **Incessant Examination Malpractices in Public or External Examinations.**

   It is no more a news to hear of examination malpractices in external examinations, rather, what may be news is that a public or external examination was carried out without any examination malpractices.

3. **Dislike for the Subject and Development of Phobia:**

   People generally consider mathematics to be difficult. Insufficient preparation of students for external examination will result to dislike for the subject and justify the strong, unreasonable fear and hatred some already have for it.

4. **Loss of Aims of Teaching the Subject:**

   Aiyepeku (2006:141) identified the following aims/objectives of teaching mathematics, *inter alia*:
   
   (a) To develop computational skill,
   (b) To develop precise, logical and abstract thinking,
   (c) To stimulate and encourage creativity,
   (d) To acquire the ability to teach mathematics.

   These aims and objectives may be completely lost as a result of this.

5. **Creation of Lacuna**

   One of the disadvantage or implication of this is that it will create a gap between what the student knows and what he/she is supposed to know.

6. **Deepening of the falling standard in education:**

   If the issue at stake is not addressed, it will deepen further the issue of the falling standard in Nigerian educational system.

**Conclusion**

It was revealed from the study that the time frame for syllabus completion of senior secondary mathematics is
insufficient. This makes it impossible to complete subject syllabus and hence, students’ preparation for external examinations are inadequately. The result of this is failure in school external examinations.

Recommendations

In order to curb persistent student failure in external examinations like WAEC and NECO, the following recommendations are necessary:

1. Government should recruit qualitative and quantitative mathematics teachers and deploy them to schools where mathematics teachers are in short supply. In addition, there is need to reduce incessant and unnecessary public holidays.

2. Principals should allocate more periods for mathematics classes and supervise accordingly.

3. Teachers should prepare well before lesson, use teaching aids, avoid story telling and distractions while aiming at achieving set goals. They should also attend seminars, conferences, from time to time for improvement.

4. Students should pay attention in class, ask questions and do further/additional studies at home.

5. Parents should provide relevant textbooks, materials and conducive atmosphere for during and after school studies for their children.

6. Examining bodies like WAEC and NECO should use these teachers for marking of answer scripts, expose them on topics for more concentration are needed and possibly set questions on topics covered.

References


Evaluation of Forest Resources Conservation Laws In Nigeria

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Introduction

This paper sets out to explore the effectiveness of forest conservation laws in Nigeria. The forest has served as a source of livelihood to people in Nigeria for many generations (Ezenwaka & Abere 2009). It is a source of income, employment, food, medicine, recreation and vital raw materials for many purposes including construction. However, many factors are threatening the sustainability of this source of people’s survival (Ezenwaka 2008). Scientific approaches of conservation and or preservation has been proposed (e.g. government setting aside reservation areas through laws) but these are not yielding the anticipated results (of conserving the bio-diversity) as illegal and unsustainable hunting and harvesting of the forest resources are still observed (LENF 1998).

Methodology

This paper is based on a review of various government laws aimed at conserving the Nigerian forest and wildlife resources. Apart from review of literatures, visits were made to the Department of Forestry in Bayelsa State and six Local government Areas in the State to conduct semi-structured interview aimed at appraising the effectiveness of the various laws in the State. Interviews were also conducted with community members in ten randomly selected communities that are located around forest reservation areas as well as traders on forest products.

Bayelsa State was chosen because of its abundance in forest and wildlife resources and its location in the central Niger Delta (the Niger Delta still boasts of some pristine forest areas due to the difficult swampy terrain which is hindering loggers from freely accessing the forest resources). Bayelsa State is also known to have some endemic wildlife resources (Powell 1995).

Results and Discussion

1. Efforts aimed at conserving natural resources in Bayelsa State

In order to conserve bio-resources, the government has made efforts at designating certain areas as protected forests. There are six (6) gazetted forest reserves in Bayelsa State. These include:

i. Taylor Creek Forest reserve (218.91km²)
ii. Edumanon Forest reserve (86.76km²)
iii. Nun River Forest reserve (97.15km²)
iv. Apoi Creek Forest reserve (64.77km²)
v. Igbedi Creek Forest reserve (66.32km²)
vi. Ikibiri Creek Forest reserve (191.71km²)
According to Amoru (2000), these various government efforts are threatened by illegal human activities in the reservation areas. In many cases, the decision to create these reservation areas has been influenced by the need to preserve / conserve certain habitats or resources. Field observations and interviews reveal that not much success is achieved especially because illegal harvesting of the resources is still rampant. This happens because the local people are not involved in the decision making process that brought about the establishment of such reservation areas (LENF 1998).

An outcome of a participatory natural resources appraisal conducted in many communities of the Niger Delta by LENF (1998) revealed that natives are aware of the declining rate of their natural resource base but (at the same time) ‘will not want government to take away’ their forest (their source of livelihood) from them. The result of the field visit and interviews confirms the position of LENF. The people confirmed the continued scarcity of hitherto abundant forest and wildlife resources.

2. Existing Laws and Legislations on Natural Resources Conservation

(a) Federal Laws
Some of the federal laws that are relevant to natural resources conservation include;

i. The Natural Resources Conservation Act 1989: The Natural Resources Conservation Act is the most direct existing piece of legislation on natural resources conservation. The Act establishes the Natural Resources Conservation Council, which is empowered to address soil, water, forestry, fisheries and wildlife conservation by formulating and implementing policies, programmes and projects on conservation of the country’s natural resources.

ii. Federal Environmental Protection Agency Act (Chapter 131, Laws of the Federation, 1990): The Federal Environmental Protection Act was promulgated to protect the country’s environment from degradation. It establishes the Federal Environmental Protection Agency (FEPA) which promotes natural resources conservation in the country through stringent environmental policy guidelines on effluent limitation, water quality and uses, management of soil and hazardous waters, as well as prevention of pollution of the air, land and the waters of Nigeria. It should, however be noted that the functions of FEPA have been subsumed by the newly established Federal Ministry of Environment.

iii. The Environmental Impact Assessment Act (no 86 of 1992): This Act requires that environmental impact assessment must first be carried out before any project likely to impact the natural environment could be undertaken. Its purpose is to protect all lands in the country from environmental effects of industrial and developmental activities.

iv. Endangered Species (Control of International Trade and Traffic) Act 11 of 1985: This Act makes provision for conservation and management of the country’s wildlife and protection of some of the country’s rare and endangered species. The Act expressly prohibits the hunting, capture of, or trading in any of the 91 animal species classified as endangered wildlife and listed in schedules 1 and 2 of the Act.

v. The National Parks Decree (Decree No 36 of 1991): The Act was promulgated to provide a protective sanctuary for wildlife species as well as to promote and preserve the beauty and conservation of the country’s natural vegetation. Six national parks were accordingly established under the Act. It restricts hunting, fishing and destruction of trees, setting of fires in and around established parks. This has been subsumed in the National Parks Act of 1999 which created two additional national parks.

(b) Laws and Legislations in the States
The States also have some laws, which complement the federal laws on the conservation of natural resources in the respective States.
Traditional / Customary Conservation Practices

The local people have very strong ties with their lands (Ezenwaka & Abere 2010). They have extensive knowledge of their lands and natural resources and have developed ancient habits, practices, and rules, which were used to directly or indirectly regulate exploitation, and thus, ensure conservation of natural resources by both indigenes and strangers. The dedication of certain resources to deities insulated them from human exploitation. Other ancient conservation practices included the restriction of exploitation of forest resources to specific days of the week or seasons of the year; the adoption of agricultural practices like shifting cultivation; the adoption and strict enforcement of customary rules concerning land rights and exploitation of natural resources; and the adoption of licensing regime (payment of a stipulated amount) for stranger elements who wished to engage in the exploitation of natural resources in communities other than theirs (ND-HERO 2006).

Effectiveness of the Government Policies

The study reveals that government policies on natural resources conservation has failed to produce the desired result. Amoru (2000) suggested that this could be because most of these policies had vestiges of colonial interests and did not address the conservation requirements of the local people. Further, these policies were designed and imposed from the top without any regard to the importance in sustaining the livelihoods of people and the danger of coercively preventing them from having access to their own resources located within their neighbourhood (Ezenwaka & Abere 2010). Poaching and illegal timber harvesting is still rampant within and around forest reserves. Traders still have their supplies of timber and wildlife resources from the communities. The community people believe that the much that they are able to harvest will translate to more money for them. The danger which this belief is posing is that the sustainability of the resource base is being threatened on a daily basis because the harvesting rate is greater than the rate of natural reproduction of the resource base.

Effectiveness of Traditional Conservation Methods

While the idea of conservation areas has been kicked against in the rural communities, these same communities have been able to sustain the conservation of forest resources in traditionally preserved areas i.e. sanctuaries. These sanctuaries are referred to as ‘evil forest’ or ‘sacred forests’ in many Nigerian communities (Amoru 2000, LENF 1998). The native laws have been successful in preserving these ‘evil forests’ (LENF 1998). The study reveals that people respect the traditional laws and obeys any traditional rule which governs the harvesting of any forest and wildlife resources.

Conservationists all over the world have recognized the effectiveness and efficacy of such ancient conservation rules and practices (ND-HERO 2006). The Convention on Biodiversity to which Nigeria is a party underscores the need for nations to respect, preserve, maintain and promote the wider use of the knowledge, innovations and practices of local communities and as far as possible encourage traditional and cultural practices that are compatible with conservation and sustainable use of resources.

People Participation in Managing the Natural Resources

It is evident that conservation of natural resources will be achieved when all stakeholders participate in joint management of site. The participation of stakeholders can be achieved by the following steps:

i. Identification of who the stakeholders are in the management of the natural resources

ii. Identification of roles for stakeholders

iii. Development of a framework which shows how stakeholders should participate in ensuring sustainable management of natural resources.

The three steps above can be achieved simply by conducting a stakeholder analysis / mapping.
Role of Local Government Councils on Natural Resources Management

The relevance of Local Government Councils lies mostly in their closeness to the local people. Local Government Councils are conveniently positioned to play significant role in the management of natural resources. Constitutionally, Local Government Councils are required to participate with the State Governments in the development of agriculture and natural resources, with the exception of minerals (Axel Strempplat, Ezenwaka Jasper, et al 2004). Though the aforesaid constitutional provision gives the Local Government Councils some authority to make appropriate policy decisions and byelaws regarding the exploitation and sustainable use of natural resources located within their domain, it is obvious that they cannot make any meaningful contributions because of the several limitations placed on their finances, status, powers and scope.

Land Tenure and Natural Resources Ownership

i. Indigenous land tenure system: Before the promulgation of the Land Use Decree in 1978, the land tenure system in Nigeria was communal (ND-HERO 2006). Under the communal system, land and its resources were communally owned and therefore, held in exclusive community or family holdings. Where a community owns the land, title to such land belongs to the entire members of the community. Individual members of the community do not have separate or exclusive personal rights in community land. Every member of the community has equal right of access to the community’s land for his purpose. The administration of community land is vested in the traditional rulers of the community as trustees and they are required to manage such community land beneficially on behalf of the entire community. As trustees, they cannot make or enter into any transactions with any portion of community land and resources without the consent of other paramount chiefs and or elders representing the constituent families of the community (ND-HERO 2006). The requirement of consent (approval to exploit) is to protect and safeguard the interest of the community against any dealings in community land that may be against the economic, social and spiritual well being of the entire community and her resources.

Under the indigenous tenure system, land, could also be owned by the family (Ezenwaka & Abere 2010). Where a family owns land, the absolute title to the land is vested in the family as a corporate entity and not in any single individual member of the family no matter his position or status in the family. However every member of the family has a right to be allotted a portion of family land for building and other lawful purposes. The control and management of family land is vested in the family head. The family head is required to manage such family land in consultation with other principal members of family.

Basically, under the indigenous land tenure system, the local people had well defined ownership rights to land and natural resources and the administration of such lands and resources was institutionally well streamlined and structured. Legal and administrative duties and obligations relating to the protection and sustainable use of resources were integrated into the cultural and traditional lifestyles of the people (Axel Strempplat, Ezenwaka Jasper, et al 2004). The administrative process was collective and consultative. Every member of a land owning community or family believed in the fundamental relevance of the land and its resources to their individual and collective livelihood and accordingly took appropriate measures at all times to prevent or protect family land and resources from unlawful interference, encroachment, exploitation and degradation.

ii. The Land Use Decree, 1978 (reviewed in 1998): The Land Use Decree, promulgated in 1978, radically changed and undermined the indigenous land tenure system (ND-HERO 2006). It not only vested authority over all lands within the territory of each state on the Governor of the State, but also gave the State Governor and Local Government Councils ultimate power of control and
management of all lands located in urban and non-urban areas respectively. It further tied the peoples’ land ownership rights to a mere right of occupancy, which they can alienate or transfer, only with the consent of the Governor. Though at the federal government level, the Land Use Decree is seen as capable of enhancing land resources conservation by controlling and preventing the wasteful and destructive use of land and land-based resources, it has failed to receive willing acceptance from the indigenous people who regard it as an obnoxious piece of legislation that has unjustly deprived them of their traditional and legitimate ownership, control and unhindered access rights to their natural heritage (lands) and its associated renewable natural resources (ND-HERO 2006). A review of the Land Use Decree to address the issue of ownership, control and access to natural resources is necessary if conservation efforts are to yield desired fruits.

Conclusion

Importance of conservation and sustainable use of resources need not be overemphasized, particularly, given the fact that the oil and gas era would certainly come to an end and people would have no choice but to fall back on these natural resources for sustenance. This paper has shown that existing policies and legal regime relating to management of renewable natural resources are certainly inadequate and ineffective; a more proactive approach will yield better result.

It is the opinion of this paper that a participatory approach whereby local people are involved in the decision making process (as relates to the sustainable management of natural resources in their environment) will achieve conservation of natural resources.

This paper also buttresses the point that forest conservation laws can be effective if the people are involved from the conceptual stages and are carried along through the stages of implementation and management. Sustainability in natural resources conservation cannot be achieved except the primary custodians are involved in the process (Ezenwaka & Abere 2010).

There are more proposed forest reserves in Bayelsa State which are yet to be gazetted (Amoru 2000); it will be beneficial to adopt a bottom-up approach (Ezenwaka & Abere 2010) in order to achieve the desired results. It is against this background that a departure from the “top-down” approach to a more holistic “bottom-up” or participatory approach (Ezenwaka 2008) that integrates all the traditional conservation practices with modern policies would be necessary for conservation efforts in Nigeria to achieve the desired result.

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Vocational Technical Education and Training for Self-Reliance: Towards National Development

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Abstract This paper criticized an educational system which was faulty from the onset and stressed that vocational technical education and training is that form of Education that leads to acquisition of practical skills, which will enable an individual to be gainfully employed in a chosen occupation to become self-reliant, in order to contribute to overall national development. However, a detailed analysis of the concept of vocational technical education and national development were greatly examined. Challenges facing vocational technical education and training for self-reliance and national development were pointed out. Some of which are: the lack of skilled manpower, inadequate training facilities and equipment, lack of follow-up and continuity in government policies, poor remuneration of vocational and technical teachers, lack of entrepreneurship education in vocational technical education and training and poor emphasis on the practical aspect of vocational technical education and training. Finally, one of the major recommendations is that, both the government and the non government organizations (NGOs) should pay serious attention to entrepreneurship development in technical vocational education and training by putting its priorities right and releasing funds adequately for proper development of individuals to become self-reliant and contribute to national development.

Introduction

In the past education in Nigeria was based on the need of the missionaries for teachers and preachers, as well as the need of the government for clerical workers in government offices, which is the main reasons for early establishment of both elementary and Secondary Schools by the missionaries themselves [Fafunwa, 1974]. The early Secondary Schools were grammar Schools founded after the English System. No technical or vocational schools were originally established. As a result of this, education gradually became a means of avoiding manual work hence, the educational system was greatly criticized and not only for neglect of vocational technical education and training that would have made people to be self-reliant for national development but, being not relevant to peculiar needs of the Nigerian pupils.

Education which is the process of emancipation, civilization and development as asserted by Jibrin, Danjuma and Zayum (2007), is also equated to a key that unlocks the development of personal (self-reliant) and national potentials (national development)..., which is the reason why the government of Nigeria regarded education as an instrument per excellence for effective national development (Jidere, 2002). The development ideas, scientific advancement, vocational and technological breakthrough, economic development ...are made possible by the educational theories and practices (FME, 2003).

Educational system varies from one country to another, depending on the needs, goals, aspiration and philosophy of education of the country in question (Amaefule, 2004). Since education has been seen as an instrument for scientific and technological development, amongst others, the Federal Government of Nigeria on the National policy on Education, (2004) listed five main national goals of her education system among which are:

- a united, strong and self-reliant nation and;
- a great dynamic economy

From the ongoing vocational technical education and training is that form of education that leads to the acquisition of practical skills, which will enable an individual to be gainfully employed in a chosen occupation or become self-reliant.
Vocational technical education, according to Raymond (2007) is about work and training for work. One of the goals of the technical and vocational education as stated in the National Policy on Education (2004) is to give training and impart the necessary skills to individuals who shall be self reliant. If this goal is adequately achieved, it would lead to a sustainable technological development (Raymond, 2007), which in my opinion will make vocational technical education and training a veritable tool for a united strong and self-reliant nation whose total achievement is for national development.

Concept of Vocational Technical Education and Training

Vocational technical education is undoubtedly a very important aspect of the Nigerian educational system under the 6-3-3-4 programme. It develops occupational competence and teaches those skills which enable an individual earn a living as cited by Kayoma (2009) in Okorie (2001). The National Policy on Education (2004) defined vocational technical education as that aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge.

Nwogu (2009) quoting Okonkwo (1993), declared technical vocational education as viable industries and a prerequisite to new world technological order and therefore requires adequate support of human and material resources. Immanculate (2005) in his opinion said “that technical and vocational education are leaving experience meant to be impacted to an individual systematically in order to get him/her adequately equipped for a good employment in a recognized occupation. The programme includes numerous occupational areas such as agriculture, various trades, health services and technical training (Brickmen 2006). Vocational, technical education and training therefore, can be defined as an educational training, which has been designed technically and systematically to accommodate both the trainer and the trainee in order to enable most importantly the trainee acquire the basic knowledge, skills abilities, understanding and attitudes needed for ones efficient performance in his/her chosen occupational carrier for self-reliance and national development.

The Meaning of Self-Reliance

Self-reliance simply means reliance on ones own efforts and abilities (Merrian,2006).According to Igweh (2008) when somebody acquires skills in any occupation, such person can establish his or her own business and even employ others, such person according to him is self-reliant. Self-reliance Igweh (2008) emphasized, “leads to national development”.

Bassey (2009), in his opinion declared, self-reliance as that which pre-supposes the attainment and autonomy without unnecessarily resorting to begging or browning. He emphasized that, “a self-reliant individual is one that achieves steady supply of his needs, one that diversifies his resources to reduce dependency on others for assistance” Thus, self-reliance emphasizes growth and development in the life of a citizen, politically, socially and economically. Therefore, a man who is potently self-reliant will ensure an effective control of his resources over national life for proper national development for example Dangote and Adenuga etc.

Concept of National Development

A country’s well being depends on its economic development (Nwogu, 2009). An economist by name Walter Rodwey in Igweh(2004),asserted that development in human society is many sided phenomenon which is complex and means different things in different societies in different situations and to different thinkers. Musa (1985), in his view sees the concept of development as an Euro-American term through culturally based, used to characterize the relative standard of living of the people between the highly industrialized nations of the North and the consumer import dependent nations of the South.
Igweh (2008), stressed that the most suitable definition of development may be that which is based on the experiences of the developing countries which is cited by Seers in Igweh (2001). He defined development in terms of reduction in the levels of poverty, illiteracy, unemployment and income inequality. However, Falodum, Omogiafor and Ezeaku (1999) in Nwogu (2009) emphasized that “national development encompasses social and political development as well as economic development which is defined as the attainment of a number of ideas of modernization such as a rise in productivity social and economic equity, improved institutions and values”. Economic development is thus an important part of general development in any society.

The main objective of economic development is to raise the standard of living and the general well being of the people in an economy where almost everybody can be self-reliant. It involves changes in the structure of an economy that includes:

- emphasis on developing manufacturing industries as opposed to agriculture;
- movement of labour from rural to urban industrial areas and;
- less reliance on imported goods in preference to home produced goods (eg made in Nigeria products).

Vocational Technical Education and Training for Self-Reliance

There are five types of technical and vocational training institutions, National policy on Education recognized outside the university system. Yabam in Igweh (1997) indicated that three broad classifications are recognized by the National Board for Technical Education (NBTE). They are vocational schools, technical colleges, colleges of education (technical) or polytechnics, all the above listed are training institutions meant for the production of graduates who shall be self-reliant and contribute their quota for national development through instrument of vocational technical education and training.

However, vocational technical education and training in Nigeria according to Nwogu (2009) “should emphasized entrepreneurship awareness for it to be relevant in achieving the national educational aim of inculcating the right type of values and attitudes for survival of an individual and Nigeria society”. Enahoro (2008), in his view said vocational training is utilitarianism and it is a concept of reorganizing the importance of labour. Therefore, to train someone in his appropriate field and for him to substantially contribute his quota to the overall good of the nation, he has to pass through vocational technical education and training. It is a fact that needs no further investigation to say that when and if it is good with a nation, it is also good with its inhabitants and vice versa. For this reason, any nation or country that gives proper training in one sided area of importance to her citizenry or gives improper training to people in all areas of importance has nothing to gain. People are differently gifted and therefore, should be given equal vocational technical education and training for self-reliance in the different occupational areas. Nigeria should be such that people are trained for the different opportunities or openings that abounds in the country, in compliance with the tedious task of giving suitable and proper training to individuals for optimum productivity amongst others.

Vocational Technical Education and Training and National Development

Vocational technical education and job training has been an integral part of national development strategies in many societies because of the impact on human resources development, productivity and economic growth (Dike, 2007). Nigerians according to Ibenneme (2007) does not seem to accord vocational technical education the attention it deserves despite its proven contributions in other nations. It is important to note that UNESCO and ILO (2002) understood technical and vocational education to be:

- a means of preparing for occupational fields and for effective participation in the world of work.
- An aspect of lifelong learning and a preparation for responsible citizenship.
An instrument for promoting environmental sound sustainable development amongst others. As a matter of fact every nation, especially developing countries are making efforts to develop industrially, economically, technologically and socially. It is important to note also, that any type of developmental effort or initiatives requires human capital amongst others. The development of human capital requires necessarily skilled human capital that has appropriate skills, right attitude and good knowledge of how to retrieve, process and utilize natural resources for the benefit of humanity. Development of human capital that has appropriate skills, right attitude and good knowledge of how to retrieve, process and utilize national resources come within the preview of vocational, technical education and training for national development.

Igweh (2008) in his opinion declared that the artisans, craftsmen, technicians and technologists are adequately trained, they will fit well in small scale enterprises, industries, colleges and universities. There will be less dependence on foreign technical personnel in our cottage and main industries. Indigenous technology will be encouraged. There will be adequate manpower to handle our road maintenance, building, plumbing work, electrification, mechanical works, agriculture, computer and so on. By so doing our production capacity will be increased while our import duties will be decreased, all the benefit he said will lead to national development.

Challenges Facing Vocational Technical Education and Training for Self-Reliance and National Development

There are numerous challenges facing vocational technical education and training for self-reliance which has affected negatively our national life and national development. Among the numerous challenges are:

- Lack of skilled manpower,
- Acute shortage of vocational technical teachers
- Lack of adequate training facilities and equipment
- Inadequate vocational, technical education policies
- Lack of follow-up and continuity in government policies
- Poor funding of vocational technical education
- Poor remuneration of vocational technical teachers;
- Lack of entrepreneurship education in vocational technical education and training
- Lack of adequate security/security needs and
- Poor emphasis on the practical aspect of vocational technical education as most tertiary institutions charged with the responsibility to teach vocational technical education subjects in Nigeria today are poorly equipped with machines and relevant tools/equipment.

Conclusion

The non-acceptance of vocational technical education and training as a means of intervention in the normal course of development by Nigerians has brought a setback in our national development, which must be addressed. However, an attempt was made in this paper to critically examine all the major concept and emphasized the role of vocational technical education and training for self-reliance and national development. Despite, all these things, there were challenges pointed out which if not checked properly will not allow the timid population of the Nigeria people grow and become self-reliant as to bring about national development.

Recommendation

For Nigerians to be self-reliant and contribute their quota to the national development, there has to be skill acquisition through vocational technical education and training to people of all ages especially the youths.
The followings are recommended:

- That both government and non-government organizations (NGOs) should pay serious attention to entrepreneurship development in technical vocational education and training by putting its priorities right and releasing funds for proper development of individuals to become self-reliant and contribute to national development;
- There should be a consistent policy frame work, backed by legislation that makes it mandatory for various levels of government to set aside some percent of the annual budget for the various levels of vocational technical education training institution;
- Qualified vocational and technical teachers proficient in theory and practical should be employed to improve the quality of teaching and learning in the area;
- Ensuring that the vocational technical education and training for self-reliance is a tool for national development, teacher preparation programmes should be supported and serving teachers adequately remunerated.

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Perceived Impact of Primary Education on the Attainment of Nigeria Vision 20:2020

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Abstract This study sought the perceived impact of primary education on the attainment of Nigeria Vision 20:2020. Survey design was adopted for the study. Six hundred primary school teachers were randomly sampled from Oyo Local Government Areas of Oyo State. A self-designed 20 items questionnaire validated and trial-tested with reliability of 0.83 was used to collect the data. Three hypotheses were tested at 0.05 level of significance using t-test statistical tool. The findings revealed that the primary education standard have impact on the nation attainment of NV 20:2020 (cal-t = 10.73; Crit-t= 1.96, df = 598) and that the standard of primary education is hampered by the low level of funding and facilities availability at school (Cal-t = 11.06, Crit-t = 1.96, df = 598). Also it was found that the level of teachers qualification at the primary school significantly influence the standard of primary education in the country (Cal-t = 4.66, Crit-t = 1.96, df = 598). It was therefore recommended that along proper funding and facilities provision for primary level of education, liberalization should be encouraged for better qualified teachers to handle foundational classes in order for the nation to achieve her Vision 20:2020.

Keywords: Primary Education, Funding, Teachers Qualification, Nigeria Vision 20:2020.

Introduction

Education clearly denotes intrinsic worthwhile activities. It is a process of being initiated into knowledge and understanding which in turn regulate the recipients' attitudes, emotions, wants and actions. Jaiyeoba (2007) perceived education as a priority sector in every well-meaning society, she referred to it as a major force in economic, intellectual, social and cultural empowerment. The value of education in bringing about character and attitudinal change ranks as important as its ability to change and reshape human potentials for desired development.

Education, globally as well as in Nigeria is majorly divided into three levels- the primary, secondary and the tertiary education.

The primary education serves as the foundational level of all other education by providing the children with a good preparatory ground for further education. According to Quadri (2001) the Section 4, page 12 of the National Policy on Education (2004) described primary education as the “education given in an institution for children aged normally between 6 years to 11 years plus.” The primary education level is the key to the success or failure of the whole educational edifice because the rest of the educational system is built upon it. Primary education according to the National Policy on Education (NPE, 2004) is likened to the key which opens to success or failure of the whole educational system. Akande (2010) reiterated Njoku (2000) regarded primary education as very vital and fundamental to all types of education any person can receive in life.

Purpose of Primary Education

According to Quadri (2001) Primary Education in Nigeria has among others the following intents:

(i) To help the child to develop intellectually, physically, morally, socially and emotionally,
(ii) To produce well-qualified citizens that are capable of going to secondary and tertiary institutions to be trained as professionals in various services that are essential for the development of the country.
(iii) To assist primary school learners who cannot further their education to become useful citizens to themselves and community at large.

The Federal government of Nigeria stated and clarified the objectives of primary education in section4 page
12 of the National Policy on Education (2004) for the benefit of all citizens in terms of kind of society desired in relation to the environment and the environment and the realities of the modern world.

Generally, objectives of primary education are:
(a) The inculcation of permanent literacy and numeracy and the ability to communicate effectively;
(b) The laying of a sound basis for scientific and reflective thinking;
(c) Citizenship education as a basis for effective participation in and contribution to the life of the society;
(d) Character and moral training and the development of sound attitudes;
(e) Developing in the child the ability to adapt to his changing environment;
(f) Giving the child the opportunities for developing, manipulative skills that will enable him function effectively in the society within the limit of his capacity;
(g) providing basic tools for further educational advancement including preparation for trades and crafts of the locality.

A critical scrutiny of the above purposes and objectives of the primary education in Nigeria revealed a package for individual transformation into a whole being, positive and resilient to environmental development.

Justifying the importance of good primary education, the World Development Report (2000/2001) indicates that the biggest problem of poverty, besides the lack of food, is the lack of power directly related to a lack of knowledge worldwide. Almost 1 billion people lack a basic skill to acquire knowledge: they are illiterate. They are illiterate because they have had no primary education or because the quality of their primary education was too low (Peter, 2005).

Really, any investment in primary education pays off. The basic knowledge and access to information made possible through functional primary education enables people to chose good government (or to oust bad ones). The effectiveness of investments in health and sanitation depends on good basic knowledge among villagers. The effectiveness of extension services for poor farmers depends on their capacity to understand what is being explained to them.

It is generally acknowledge that the introduction of compulsory primary education in Western Europe in the 19th century has been a crucial factor for economic and social development in the area. Also, few countries in Africa, that years ago significantly invested in primary education is now deriving economic growth from their investment (Ayogu, 2007).

The absence or the poor quality of primary education not only becomes visible in illiteracy but also shows its effects among people who do not finalise or cheated secondary schools and universities. Ministries, factories, hospitals and farms in developing countries often were inefficient, not because the people working there are not capable but because they lack the right knowledge, attitudes and skills of efficiency when they passed through primary education, probably they got teachers without an adequate level of knowledge, who were poorly prepared or who were not motivated (Peter, 2005).

The evidence indicates that primary education affects not only wages but also broader workforce outcome such as participation in the formal labour market, work in more modern sectors and (particularly for women) the ability to earn regular income from work and contribute to national development (Jaiyeoba, 2007).

**Nigeria Vision 20:2020**

The Nigeria Vision 20:2020 reflects the intent of the Federal Republic of Nigeria to become one of the top twenty economics in the world by the year 2020, with an overarching growth target of NV 20:2020 are indicative of Nigeria’s desire to achieve two broad objectives over the medium to long term:

1. Optimize her human and natural resources potential to achieve rapid and sustained economic growth; and
2. Translate economic growth into equitable social development that guarantees a dignified and
meaningful existence for all her citizens. By 2020, Nigeria envisioned to have a large, strong, diversified, sustainable and competitive economy that effectively harnesses the talents and energies of its people and responsibly exploits its natural endowments to guarantee a high standard of living and quality of life to its citizens (NV 20:2020).

The NV 20:2020 economic transformation blueprint is a long term plan for stimulating Nigeria’s economic growth and launching the country onto a path of sustained and rapid socio-economic development. The blueprint articulates Nigeria’s economic growth and development strategies for the eleven year period between 2009 and 2020, and will be implemented using a series of medium term national development plans.

NV 20:2020 is a rallying call for all Nigerians, regardless of ethnicity, economic status, or religion to unite and stand behind a common cause of placing the country firmly on a path of sustainable growth, and taking it to its rightful place in the comity of nations. The vision is underpinned by the need to effectively and efficiently mobilize the nation’s resources to serve and improve the lives of its citizens and to respond appropriately to the growing challenges of an increasingly smaller, mutually dependent and inter-connected world (NV 20:2020, 2009).

The NV 20:2020 encapsulates the key principles and thrusts of the National Economic Empowerment and Development Strategy (NEEDS) and the seven points Agenda of the current democratic administration (2007 – 2011), situating both within a single, long term strategic planning perspective.

The NV 20:2020 economic transformation plan was developed for and by the Nigerian people. It realized the role Nigerian citizens play in achieving the targets set forth by NV 20:2020, and rightly places on citizens and their welfare at the forefront of the agenda. The vision prioritizes and offers strategies to drive the full realization of Nigeria’s potential and her emergence as one of the leading global economies in the world within the next decade.

Nigeria’s targets for 2020 are based on a dynamic comparative analysis of the country’s potential growth rate and economic structure vis-à-vis those of other Top 40 economies of the world. This implies that the Nigerian economy must grow at an average of 13.8 percent during the term horizon, driven by the agricultural and industrial sectors over the medium term while a transition to a service-based economy is envisaged from 2018.

Fundamental to the NV 20:2020 are two broad objectives – optimizing human and natural resources to achieve rapid economic growth, and translating the growth into equitable social development for all citizens. The aspiration for NVision 20:2020 are defined across four dimensions:

→ **Social Dimension**: A peaceful, equitable, harmonious and just society where every citizen has a strong sense of national identity and citizens are supported by an educational and health care system that caters for all, and sustains a life expectancy of not less than 70 years.

→ **Economic Dimension**: A globally competitive economy that is resilient and diversified with a globally competitive manufacturing sector, that is tightly integrated and contributes no less than 25% to Gross Domestic Product.

→ **Institutional Dimension**: A stable and functional democracy where the rights of the citizens to determine their leaders are guaranteed, and adequate infrastructure exists to support a market-friendly and globally competitive business environment.

→ **Environmental Dimension**: A level of environmental consciousness that enables and supports sustainable management of the nation’s God-given natural endowments to ensure their preservation for the benefits of present and future generations.

The NV 20:2020 purposes the formulation and implementation of a sound framework that would enable the relevant implementing authorities to expand access, increase equity and enhance the quality of educational provision, while promoting international-standards in teaching resources, contacts and methodologies, across all levels. The capacity building for NVision 20:2020 was based upon clear and dynamic strategies geared
towards policy measures that:
● Strengthen education as the foundation for life long learning;
● Foster the development of research and development;
● Promote worker education and training;
● Foster innovation and entrepreneurship;
● Facilitate the diffusion of information and Communication Technology as well as
● Seek equal access and opportunity for women and other vulnerable groups.

NV 20:2020 lays stringent emphasis on educational reform as fundamental to human capacity building, one of such aspects of educational reforms that can enhance NV 20:2020 attainment is primary education.

Akinkugbe (2007) in his Lecture titled paucity of resource-poverty of ideas (the reluctant duo in science) affirmed the importance of education to human development in the areas of human genome, information and communication technology – ICT (the fax, the electronic mail, mobile phones etc), the computer world, human reproduction, gene therapy, genetic engineering and stem – cell research all has significantly high-rated developed world over the developing countries. Corroborating the above, Olatunbosun (2004) opined that the influence of education is readily seen around us in the area of medicine, agriculture, pharmacy, engineering, geology, petroleum etc.

Justaposing the primary education objectives above with the NV 20:2020 objectives, there seem a positive correlation between the two. Thus attainment of the primary educational objectives is tantamount to the actualization of the NV 20:2020.

Researchers have highlighted a number of ways of improving primary education, some of which are: Provision of qualitative and quantitative human and material resources, stable policy, positive attitudes and honesty in funding (Okebukola, 2007; Akinkugbe, 2007; Ayogu, 2007; Adeniyi, 2010; Alao, 2010; Olagunju, 2010).

One basic objective of NV 20:2020 is the optimizing of human and natural resources to achieve rapid and sustained economy growth, Osofisan (2009) highlighted the requirements for a revived economy, viz: National security social stability, National growth, improved efficiency and quality of life, creation of a new culture and society. In addition to these requirements are agricultural production of food, improvement in health sector as well as poverty alleviation all of which primary education can assist to attain. It is against this background that this study surveyed the opinions of the primary school teachers on the relevance of primary education on the attainment of NV 20:2020

Statement of the Problem

There is urgent need for Nigeria to minimize illiteracy, ignorance unemployment and poverty as well as stimulate and accelerate the pace of national development, political consciousness and national integration for efficient and effective attainment of Nigeria vision 20:2020. Do the primary education have any impact on the NV 20:2020 attainment. The study therefore investigated ‘the perceived impact of primary education on the attainment of Nigeria Vision 20:2020.

Purpose of the Study

The main purpose of the study was to investigate the perceived impacts of primary education on the attainment of Nigeria Vision 20:2020. Specifically, the objectives of the study include the following:
(1) To verify the standard of primary education in the country;
(2) To inquire whether the qualification of teachers are suitable for primary education in Nigeria;
(3) To find out if adequate funding and facilities are made available;
(4) To verify if the primary education has contributed to national development so far
Research Questions

The following research questions were answered by the study:

1. Does primary education have an impact on the attainment of Nigeria Vision 20:2020?
2. What is the standard of primary education in Nigeria today?
3. Is the level of teachers' qualification adequate for primary education?
4. Is the funding arrangement put in place for primary education adequate?
5. Has primary education contributed to the social, economic and political development of the country?

Research Hypotheses

Ho1: There will be no significant impact of primary education on the attainment of Nigeria Vision 20:2020;
Ho2: There will be no significant influence of teacher qualification on the standard of primary education in Nigeria.
Ho3: There will be no significant influence of funding and facilities availability on the standard of primary education in Nigeria.

Methodology

Design of the Study

This study adopted a survey type of descriptive research.

Sample and Sampling Technique

The sample for this study consisted of four hundred primary school teachers and two hundred head teachers in Oyo -Afihip, Atiba, East and West Local Government Areas of Oyo State, Nigeria. The selection was gender conscious as it involves two hundred male and female primary school teachers as well as one hundred male and female head teachers in the study. The stratified random sampling technique was employed in the selection of the sample.

Research Instrument

The questionnaire titled “Perceived Impact of Primary Education on the Attainment of Nigeria Vision 20:2020. Questionnaire (PIPEANV 20:2020Q)” was the main instrument used for data collection. It was constructed by the researcher for the study. It contains twenty items structured in two sections, A and B. Section A consisted of the respondents socio-demographic variables while the section B consisted of twenty positively and negatively worded items with a four Likert Scale format of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The items focused on the impact of primary education on the attainment of Nigeria Vision 20:2020. Each of the research questions has two positively worded items and two negatively worded questions in a chronological arrangement in the questionnaire.

Validation and Reliability of the Instrument

The instrument was both content and face validated through the assistance of experts in the field of educational evaluation, test and measurement and management. The trial-testing of the instrument was done at Akinyele Local Government Area of Oyo State on sixty (60) primary school teachers using K-R 21 formula, a reliability value of 0.83 (83%) was gotten. The research instrument was highly reliable.
Method of Data Collection

The researcher along with his assistants took the questionnaire to the selected schools for administration. The completed questionnaires were collected from the respondents on the spot ensuring its hundred percent retrieval.

Method of Data Analysis

The data collected were analysed using a descriptive statistics such as frequency count and simple percentage to answer the research questions while t-test was used to analyse the set hypotheses at 0.05 level of significance.

Results and Discussion


<table>
<thead>
<tr>
<th>ITEMS</th>
<th>S.A (%)</th>
<th>A (%)</th>
<th>D(%)</th>
<th>S.D(%)</th>
<th>TOTAL (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+1</td>
<td>352 (58.67)</td>
<td>138 (23.00)</td>
<td>25 (4.17)</td>
<td>85 (14.16)</td>
<td>600 (100)</td>
</tr>
<tr>
<td>+2</td>
<td>369 (61.50)</td>
<td>124 (20.67)</td>
<td>61 (10.16)</td>
<td>46 (7.67)</td>
<td>600 (100)</td>
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<tr>
<td>+3</td>
<td>103 (17.00)</td>
<td>23 (3.83)</td>
<td>341 (56.83)</td>
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<td>600 (100)</td>
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<td>193 (32.17)</td>
<td>600 (100)</td>
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<td>125 (20.83)</td>
<td>153 (25.50)</td>
<td>215 (35.84)</td>
<td>600 (100)</td>
</tr>
<tr>
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<td>600 (100)</td>
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<td>216 (36.00)</td>
<td>181 (30.17)</td>
<td>600 (100)</td>
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<td>168 (28.00)</td>
<td>149 (24.83)</td>
<td>77 (12.84)</td>
<td>600 (100)</td>
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<td>-11</td>
<td>52 (8.67)</td>
<td>29 (4.83)</td>
<td>283 (47.17)</td>
<td>236 (39.33)</td>
<td>600 (100)</td>
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<tr>
<td>-12</td>
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<td>131 (21.83)</td>
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<td>-13</td>
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<td>24 (4.00)</td>
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<td>600 (100)</td>
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<td>58 (9.67)</td>
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<td>-15</td>
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<td>164 (27.33)</td>
<td>72 (12.00)</td>
<td>37 (6.17)</td>
<td>600 (100)</td>
</tr>
<tr>
<td>-16</td>
<td>254 (42.34)</td>
<td>206 (34.33)</td>
<td>53 (8.83)</td>
<td>87 (14.5)</td>
<td>600 (100)</td>
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<td>-17</td>
<td>286 (45.3)</td>
<td>183 (30.50)</td>
<td>37 (6.17)</td>
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<td>600 (100)</td>
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<td>242 (40.33)</td>
<td>96 (16.00)</td>
<td>54 (9.00)</td>
<td>600 (100)</td>
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<tr>
<td>-19</td>
<td>103 (17.17)</td>
<td>32 (5.33)</td>
<td>271 (45.17)</td>
<td>194 (32.33)</td>
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</tr>
<tr>
<td>-20</td>
<td>92 (15.33)</td>
<td>137 (22.83)</td>
<td>163 (27.17)</td>
<td>208 (34.67)</td>
<td>600 (100)</td>
</tr>
<tr>
<td>Total</td>
<td>3917 (32.64)</td>
<td>2402 (20.02)</td>
<td>2919 (24.33)</td>
<td>2762 (23.01)</td>
<td>12000 (100)</td>
</tr>
</tbody>
</table>

From table 1, items 1 to 10 are positive while items 11 to 20 are negative.

From Items I, 2, 11 and 12, we deduced that the greater respondents agreed that primary education has impact on the attainment of Nigeria Vision 20:2020.

From Items 3, 4, 13 and 14, it was revealed that greater percentage of the respondents disagreed that primary educations standard in Nigeria of today is adequate. The greater percentage of the respondents agreed that the standard of Nigeria primary level of education has drastically fallen.

From Items 5, 6, 15 and 16, greater percentage of the respondents disagreed that the present qualification of primary school teachers in the country is adequate.
From Items 7, 8, 17 and 18, greater percentage of the respondents disagreed that the present funding arrangement for primary education in the country is adequate.

From Items 9, 10, 19 and 20, it was revealed that greater percentage of the respondents agreed on the fact that primary education has contributed to the social, economic and political development of the country.

The overall responses showed that greater percentages of the respondents are of the opinion that primary education has impact on the attainment of Nigeria Vision 20:2020.

**Hypotheses Testing**

**Ho1:** “There will be no significant impact of primary education on the attainment of Nigeria Vision 20:2020”.

**Table 2 : t-test Analysis of Impact of Primary Education on NV 20:2020**

<table>
<thead>
<tr>
<th>Primary Education</th>
<th>N</th>
<th>X</th>
<th>S.D</th>
<th>Crit-t</th>
<th>Cal-t</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has impact</td>
<td>490</td>
<td>3.69</td>
<td>1.72</td>
<td>1.96</td>
<td>10.73</td>
<td>S*</td>
</tr>
<tr>
<td>No Impact</td>
<td>110</td>
<td>1.21</td>
<td>3.58</td>
<td>3.58</td>
<td>4.66</td>
<td>S*</td>
</tr>
</tbody>
</table>

Table 2 showed the perceived impact of primary education on the attainment of NV 20:2020. The calculated-t of 10.73 was greater than the critical-t of 1.96 showing that there is significant impact of primary education on the attainment of Nigeria Vision 20:2020. The null-hypothesis is therefore rejected.

**Ho2:** “There will be no significant influence of teachers’ qualification on the standard of primary education in Nigeria”

**Table 3: t-test Analysis on the Influence of Teachers Qualification on Primary Education Standard in Nigeria**

<table>
<thead>
<tr>
<th>Teachers Qualification</th>
<th>N</th>
<th>X</th>
<th>S.D</th>
<th>Crit-t</th>
<th>Cal-t</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has Influence</td>
<td>232</td>
<td>3.42</td>
<td>2.21</td>
<td>1.96</td>
<td>4.66</td>
<td>S*</td>
</tr>
<tr>
<td>No Influence</td>
<td>368</td>
<td>1.69</td>
<td>5.36</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 showed the influence of teachers qualification on the standard of primary education in Nigeria. The calculated value of 4.66 was greater than the critical value of 1.96 showing that there is significant influence of teachers qualification on the standard of primary education in Nigeria. Therefore, the null-hypothesis was not upheld.

**Ho3:** “There will be no significant influence of funding and facilities availability on standard of primary education in Nigeria.”

**Table 4: t-test Analysis on the Influence of Funding and Facilities Availability on Primary Education Standard in Nigeria**

<table>
<thead>
<tr>
<th>Funding and Facilities Availability</th>
<th>N</th>
<th>X</th>
<th>S.D</th>
<th>Crit-t</th>
<th>Cal-t</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has Influence</td>
<td>374</td>
<td>3.96</td>
<td>2.14</td>
<td>1.96</td>
<td>11.06</td>
<td>S*</td>
</tr>
<tr>
<td>No Influence</td>
<td>226</td>
<td>1.38</td>
<td>3.57</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 showed the influence of funding and facilities availability on Primary Education standard in Nigeria. The calculated value of 11.06 was greater than the critical value of 1.96 at 0.05 level of significance showing...
that there is significant influence of funding and facilities availability on the standard of primary education in Nigeria. Therefore, the null hypothesis was not held.

Discussion of Findings

From research questions 1 and 5, it was found that primary education has significant impact on the Nigeria social, economic and political development of the country. Thus, the standard of Nigeria Primary Education can influence the attainment of the country NV 2020:2020. Likewise, from the tested hypothesis one, primary education was perceived as having significant impact on the attainment of NV 20:2020 ($t_{cal} = 10.73$, $t_{crit} = 1.96$, df = 598). This finding is similar to the result of Peter (2005), Jaiyeoba (2007) that the Basic Education has great impact on Nigeria socio-economic and political development.

The research questions 2, 3 and 4 showed that the standard of primary education in Nigeria has fallen and that teachers qualification, funding and facilities availability affected the standard of primary education in Nigeria. Also, the hypotheses 2 and 3 showed significant influence of teachers qualification ($cal-t = 4.66$, $crit-t = 1.96$, df = 598) and facilities and funding availability ($cal-t = 11.06$, $crit-t = 1.96$, df = 598) on primary education standard in Nigeria. These results were supported by the report of World Development 2000/2001 that the poor funding and inadequate facilities availability impairs the proper launching of Basic Education in developing countries. The research findings are also corroborated by the results of Jaiyeoba (2007), Adeniyi (2010) which acknowledged poor teachers qualification, low level of funding and facilities availability as militating factors against proper implementation of Basic Education programme in Nigeria.

Recommendations

The potency of primary education for the attainment of Nigeria Vision 20:2020 objectives of improved national productivity and socio-economic transformation of the country cannot be over-emphasized. The researchers therefore recommend the following:

(i) Government should re-address the issue or stereotype of teachers qualification meant for primary education in the country. The primary education teaching staff should be liberalized to accommodate better qualified teachers (degree holders) for efficiency of teaching and learning in foundational education;

(ii) Government at National, state and local levels should provide a conducive and child friendly environment for effective teaching and learning in primary schools;

(iii) Government with public – private partnership (P.P.P) should provide adequate and appropriate fundings of schools for the provision and upgrading of necessary teaching aids, library, computer, laboratory materials and other tools for efficient and effective implementation of primary education towards the attainment of NV 20:2020.

(iv) Government should implement the National Minimum wage along robust allowances for primary school teachers such that their salary becomes competitive with other international or multinational workers. This may boost their morale and ego, making them more conscientious at work.

(v) Seminars, workshops, lectures and conference should be adequately sponsored by the local, state and federal government of Nigeria to eliminate obsolescence of primary school teachers skills and competencies.

Conclusion

This study examined the state of present primary education in Nigeria vis-à-vis the implementation of the country Vision 20:2020. It was realized that the lingering problems of under-performance in secondary and tertiary institutions in the country is traceable to the poor and shaky foundation laid at the primary school level. It was also noted that the epileptic funding and low facilities availability along low level of teachers’
qualification at the primary school serve as deterrent to efficient and optimum performance of the level of education and that should be addressed if the popularized Nigeria Vision 20:2020 will be attainable.

References


Preparing Today's Youth for the Changing World of Technology: The Role of Technical Education Teachers

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Abstract
In time of distress, people desire to be in tune with on-going expected technological changes, technical education has always come to help. This work highlights few of those moments in the developmental history of the United States of America and Nigeria. It also discusses expectations today’s world projection into what tomorrow’s world may look like and what roles technical education teachers should play for the youth to be able to face the new developments that are fast taking over or present ways of doing things. A few recommendations were put forward among which is making teacher education a life long experience and the call for the engagement of serving and retired industrial workers to help in developing the technological know how of youths of tomorrow.

Introduction
In times of national distress, when government seems to be losing touch of the emerging problems of her youths. In times when technological concepts seen to be evolving at a faster than except rate. Technical Education has always come to the rescue. That was the case on the 20th February 1961, when president John Kennedy, as a way to revitalize the sagging morale of the American people. (after the successful orbiting of the earth by U.S.S.R’s sputniks in October 1957) reminded the people that the National Technical Education Acts, first enacted by the congress in 1917 and subsequently amended had provided a program of training for industrial agricultural, and other occupational areas. He noted that America’s purpose of her technical education effort was sound and sufficiently broad to provide a basis for meeting future needs. He was of the opinion that the technological change, which had occurred in all occupations in the United State of America call for a review and re-evaluation of these Acts, with a view towards their modernization. He therefore requested the secretary of Health education and Welfare to convene and advisory body drawn from the Educational area. Profession Labour, industry and Agriculture, as well as the public to be charged with the responsibility of reviewing and evaluating the then National Technical Education Acts, and making recommendations for improving and redirecting the program. Among the recommendations the panel came up with were that changing world of work, Technical Education must:

- Offer training opportunities to the 21 million non-college graduates who enter the labour market in the 1960's
- Provide training or retraining for the millions of workers whose jobs will disappear due to automatic or economic change.
- Meet the critical need for highly skilled craftsmen and technicians through education and training beyond the high school.
- Expand vocational and technical training programs, consistent with employment possibilities and national economic needs.
- Make education and training opportunities equally available to all regardless of race, sex or place of residence.

In Nigeria Fafunwa (1995) noted that before the civil war many Nigerian educators and parents were concerned about the lacks of relevance of the Nigeria education system in meeting the pressing economic,
social and cultural needs of the nation. It was claimed that even after five years of Nigeria’s independence, the educational system of the country was not only colonial, but more British themselves. That is to say that the Nigerian schools children were being educated to meet the needs of the foreign culture and were therefore better fit for export than for life in their own country. As a remedy, a national Curriculum Conference was convened in September 1969 to discuss the ways forward. The conference as reported of Aderarlegbe (1972) came out with some heart-warming recommendations among education for living must make children and adult ready to be leaders and followers in the task of nations building. Although it is not especially job-oriented, the school should always aim at giving children basic concepts understanding values, attitude, ability and skills that they will require to enter into world and establish themselves in it, such education must therefore release the spring of personality development, be concerned with the individual child’s needs emotions, wants, fears, intellectual spiritual and physical growth into a mature adult capable of self-direction through self-discipline. It must be geared towards national unity, national reconstruction, and social as well as economic progress.

Teacher Education Curriculum.

The Nigerian Teacher Education Curriculum has been conceptualized as those concepts materials, activities and methods used by Nigeria education system in achieving the objectives of the teacher education programme as clearly stated in National Policy Education (2004). The curriculum as a structured series of intended learning experiences and interacting forces within the learning environment has failed to translate the hopes and aspirations of the large society into concrete reality and manifestation in the products of various level of learning. Attah (2004) observed that a greater percentage of the products of our various institutions have not acquired desirable learning that can positively change the nation in a sustainable direction, this can be attributed to the failure of curriculum and broad educational policies from where curriculum is evolved.

The content of the training programme obviously determine the success of the teacher education, it is on this note that Udofot (2005) asserts that Nigeria teacher education curriculum aimed at producing qualitative teachers provides for knowledge and skills which the student teacher are expected to acquire through the various subjects offered. The question is are the students in the teachers’ institution given the opportunities during the practical teaching sessions for self-evaluation, self-analysis and self-assessment?

The teacher education via curriculum is expected to equip the teacher trainees with the following knowledge and skills—general knowledge from which they acquire through general education specific knowledge. In terms is skills acquisition in the pedagogical area, student teachers are expected to acquire:

1. Interpretative – skills to be able to diagnose learning situations.
2. Performance skills to be able to act on the situation they have diagnosed.

If the student teachers have no opportunities to develop those skills while training, they can not pass on to their students in school what they did not acquire. It is also observed that generally in teachers colleges, there is gap between the training the teachers need and receive that is, there is no balance between the academic and the professional coursers. The students teachers study, Hawes cited in Udofot (2005), opined that curriculum of primary school teachers colleges in African concluding Nigeria are overloaded often with academic content, some which may not be useful to the teacher in his classroom.

Another curriculum issue in teacher education is that of relevance. During their training the trainees are mainly guided to relate the academic content of their programmes to answering the needs of the institutional examinations. They generally do not see their training to be preparing them for their teaching assignments and for adjustment to the developmental need of their lives and the society. The innovative methods, the educators in teachers’ institutions preach are often not practiced by them. Udofot (1987) observed education institutions are lecture and notes dictation. These are the kinds of methods which tend to hinder teacher trainee from acquiring skill of effective teaching; it must be noted that if the academic content of teacher
education and the way they are presented to the student teacher do not enable them see the relationship of
the subject to the problems of the society the curriculum would continue to remain irrelevant to the students
teachers.

Attitude of Student and Teachers

The attitude of some teachers their subject areas leaves some work to be desired. Some believe that the
unwholesome attitude exhibited by some teachers were borne out of utter neglect and shoddy treatment
meted to them by their employers. Others share the view that the quest for materialism is an endemic factor.
The quest for materialism is apparently function of the former non-payment of teachers’ salary and other
benefits used to be a house hold topic during the civilian administration. One wonders how someone can
perform effectively with his basic rights, are denied him we, the illusive impression created by students and
society that technical and vocational course are inferior to literary arts and classic still looms with us.

Fafunwa (1974), in his recognition says it is small wonder than that training for unqualification other
their degree especially in technology is not popular contribution further, he noted some of the missions in the
last century introduced farming brick laying carpentry as these skills were not seriously regarded by pupils
and parents as an integral parts of western education and the practices of virtually died out before the turn of
the century.

Recent Technological Developments and Excepted Roles of Technical Education Teachers

Since the various observations and recommendations were made. Knowledge and technological
developments have grown beyond all expectations. Fafunwa (1992) noted that discoveries of fundamental
importance are occurring in all science at an incredible rate. The development, he created a new body of
knowledge that has affected all mankind. The computer he highlighted, with its enormous power and speed
has acted as a great catalyst to scientific discovery. It has become an amplifier of human thinking the role of
complex problem-solving and the repositions for huge quantities of the world’s data, information and
knowledge. He also observed that we are in an age in which that amount of knowledge accumulated doubles
itself every ten years. The textbooks and the teachers, he said are rapidly be coming antiquated purveyors of
information. Goro (2003) opined that an assessment of the state of the computer and technological literacy
should be a cause for concern to teacher educators in Nigeria and the African Continents. This according to
him, is because to function in a world dominated by technological innovations. Our teachers need to be
knowledge in technical developments for effective instructional delivery. Goro (2003) noted that most
teachers today’s schools have not had any training or background in the film projectors the overhead or the
opaque projectors which are common, not to talk about the computer a new training device. He observed that
the rust to embrace the micro-technology by every sector of government and non-governmental
organizations has lost a number of questions unanswered with regard to education. Some of the questions
he said are:

i) How should the present student teachers to trained for the purpose of using these new training
technologies effectively.

ii) How will the average practicing classroom teacher today be trained use modern teaching aids in public
school curriculum? It was therefore not surprising when Akinsende (1990) harped on the fact that the need
for professional growth of teaches is as a result of the challenges and concerns caused by knowledge
explosion and professional obsolescence in almost all fields of human endeavour. He also cited break-
through in equipment material and methods as reasons why teachers will want to be abreast with recent
happening in the filed of technology. The aforementioned were reiterated in Erema (1999) where he attested
to the fact that for a teacher to be able to teach a skill, he is expected to be vast in what he intends to teach.
Technical education, he noted is a field of study where new ways of doing things are always evolving for the
must to ready to keep abreast with recent trends in the field of technology. Olawepo (1992) listed computers, lasers, robots and numerical controls as a few examples of technical education’s changing content base. Technical educator’s he advised must cope with the rapid changes and introduce the new technologies into the classroom.

**Conclusion**

No teacher can successfully teach what he does not know, for the teachers to be abreast with the technological changes that are currently being experience they must be in tune with recent trends of developments in the field of technology. There may be no better ways of achieving this than the teachers to identify what they need to be productive and go in for training or retraining.

**Recommendations**

1) Education for technical education teachers should be a life-long exercise. As a result every school or ministry of education must devise a functional in service training programme for all teachers that belong to that aforementioned filed study.
2) The industrial work scheme for technical teachers as suggested in the Nigeria national policy on education should seize to be just a theoretical concept but an idea that is practicable.
3) There may be a need to engage serving or retired industrial workers to help out in the imparting of current technological knowledge to the young ones.
4) New ways of doing things should be taught in schools. For this to be a reality, school workshops or science laboratories must be equipped with modern and up to date machines and equipment.

**References**

Improving National Security Using GPS Tracking System Technology

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Abstract The spate of insecurity in Nigeria has received global attention lately and thus a need for an improved Global Positioning System (GPS) based tracking system is required to meet quickly evolving security issues in Nigeria. GPS tracking technology is one of the most rapidly growing technologies around the world. This paper is an attempt to explore the security benefits embedded in the GPS tracking system in respect to the National Security dilemma and its deployment into Nigeria Security System. The paper delves into the architecture of a GPS tracking system, the mechanism of GPS system and the importance of geofencing and its application in the security of National emoluments (e.g. refineries, mast et c.), human lives, Cars, Government facilities e.t.c. This paper is a clarion call to the Nigeria Government to implement an holistic approach towards the realisation of the optimum utilization of the NIGCOMSAT satellite especially in the area of security of lives and properties. This paper call the attention of the federal govt to the need for the full implementation of NIGCOMSAT Nigeria to avert some of the cases of bombing that has characterised the political landscape. Hence, a full implementation of Satellite Tracking Technology is capable of averting some of the security problem in the Nation.

Keywords: Global positioning system, Insecurity, GPS tracking system, NIGCOMSAT.

Introduction

Today, the whole world feels insecure; the environment know no peace and the people can't sleep with even one of their eyes closed. These are apparently evidenced in incessant wars between nations that have resulted in genocide and carnage while extent of damages, "Crimes Against Humanity" being perpetrated by man against fellow man has wrecked on lives and properties cannot be quantified. The sounds of guns, Weapons of Mass Destruction (WMD) and Bomb blast have enveloped the entire world (Comandclem, 2007). The situation in Nigeria is not an exemption. The uproar in the Niger-Delta and the frequent Bomb blast occurrence in the major states in Nigeria are clear evidences of the Level of insecurity in the Nation. Lack of security for life and property has assumed a crisis dimension in Nigeria.

The insecurity in Nigeria has led to the destruction of Lives and properties and has discouraged foreign investors from investing in the Nation economy.

In addressing the challenge to the survival of democracy in Nigeria, it is pertinent to consider security issues and problems that have affected or capable of affecting the attitude, confidence and cooperation of all groups and segments that make up the Nigerian federation. It is also necessary to explore the gaps and gray areas in the national constitution that are responsible for various problems and crises and how these gaps can be addressed. Some of the major security problems currently confronting the nation have been identified to include: political and electioneering conflicts, socio-economic agitations, ethno-religious crises, ethnic militias, boundary disputes, cultism, criminality and organised crimes (Abdulsalami, 2004).

The methodology of tackling insecurity has remained the same: vote more money to purchase vehicles and equipment, recruit more policemen and give orders for arbitrary arrest, urge all arms of security and intelligence to collaborate in ways that permit those dealing with intelligence and counter-intelligence to dabble in security matters and vice versa, as is the case between the Nigerian police and the State Security Services (SSS).

Abdulsalami (2004) retreated that recent international debates have also raised the need to see security in the broader sense as the struggle to secure the most basic necessities of life: food, fuel, medicine and shelter. This broader human security is important for the attainment of physical and national security and overall peace and development as social unrests arising from the absence of such basic human security can
indeed lead to security problems and conflicts.

Globally, Information Technology has been adopted in the developed World to combat the problem of insecurity and uproar. One of the approaches of addressing the problem of insecurity is the use of Cyberspace or Cybersecurity. Cybersecurity has been adopted in the developed world to combat the problem of insecurity and other related Crimes. Cybersecurity is the body of technologies, processes and practices designed to protect networks, computers, programs and data from attack, damage or unauthorized access. (whatis.techtarget.com/definition/cybersecurity.html).

GPS tracking System is one of the most rapidly growing technologies around the world. Most developed countries have focused on the GPS technologies in resolving some of their inherent security problems. According to Michael K., McNamee A and Micheal M.G. (2006), the Global Positioning System (GPS) is increasingly being adopted by private and public enterprise to track and monitor humans for location based services (LBS). A location-based service (LBS) is an information or entertainment service, accessible with mobile devices through the mobile network and utilizing the ability to make use of the geographical position of the mobile device. LBS can be used in a variety of contexts, such as health, indoor object search, entertainment, work, personal life, etc. LBS include services to identify a location of a person or object, such as discovering the nearest banking cash machine or the whereabouts of a friend or employee. LBS include parcel tracking and vehicle tracking services. LBS can include mobile commerce when taking the form of coupons or advertising directed at customers based on their current location. They include personalized weather services and even location-based games. They are an example of telecommunication convergence(Wikipedia). Some of these applications include personal locators for children, the elderly or those suffering from Alzheimer's or memory loss, and the monitoring of parolees for law enforcement, security or personal protection purposes.

GPS has the ability to calculate the position, time, and velocity of any GPS receiver. It does so using a process of triangulation, which works on the premise that you can find any position if the distance from three other locations is also known.

Eric M. Conway (2008) noted that the U.S Department of Defense first launched a Global Positioning Systems (GPS) satellite in 1978 and achieved a full constellation of 24 satellites in 1994, which the U.S. government has named Navstar. Today, GPS is used for both civil and military purposes and is controlled by a joint civilian/military executive board of the U.S. Government. The system is maintained by the U.S. Air Force on behalf of all users. GPS relies on three components: a constellation of satellites (currently 27) orbiting about 20,000km (11,500 miles) above the earth’s surface which transmit ranging signals on two frequencies in the microwave part of the radio spectrum, a control segment which maintains GPS through a system of ground monitor stations and satellite upload facilities, and user receivers (civil and military).

Originally conceived by the U.S. Air Force for military purposes in the 1960s, it was commercially released in 1995. In 2000, selective availability was turned off, providing consumers the same level of accuracy as the U.S. military. Since that time, mobile business applications based on GPS and cellular network technologies have proliferated. The rate of innovation has been high, and the level of adoption has been steadily increasing, showing a great deal of promise for the small start-up companies which are targeting GPS solutions at families, enterprises, and security-related government initiatives. Pasi Kamppi (2009) affirmed that satellite tracking is one of the most rapidly growing business areas in the world. Tracking devices have become quite cheap, and they are available to nearly everybody. Even Smartphone can be used as tracking devices.

Sturdevant Rick W. (2009) affirmed that the the Navtar Global positioning System (GPS) is the first satellite navigation system that enabled users to determine precisely their location in three dimensions and time within billions of a second and grew from a concept into a fully operational system in slightly more than two decades. The widely-used GPS system are the US-based GPS (Global Positioning System) and Russian-based GLOSNASS (Global'naya Navigatsionnaya Sputnikowaya Sistema, Global Navigation Satellite System) satellite positioning systems.
By 1972, the U.S. Air Force (USAF) and the U.S. Navy had been studying for several years the possibility of improved satellite-based radio navigation. The main reasons for GPS development were the need to deliver weapons precisely on target and to reverse the proliferation of navigation systems in the U.S. military.

Gak Gyu (2007) in his paper Locating and Tracking Assets using RFID, states that "Accurate locating or tracking is required in many fields from navigating for rescuing wounded people in emergency situation to decision-making for striking the target during the military operations. Therefore, the fields of the academic circles and the industries have been interested in locating and tracking objects or people over the years. The study is getting broad for inside as well as outside. Being able to rapidly locate equipment is critical in-building, including hospitals, manufacturing floors and warehouses. To utilize the limited budget and resources more efficiently, it is important to make optimal strategic decision."

The use of GPS in conjunction with GIS, cartographic mapping, and other technologies proved beneficial in disaster relief and recovery efforts. After hurricane Andrew devastated Florida in 1992, the Federal emergency management Agency (FEMA) contracted with survey crews to experimentally carry out the inventory on the damage using GPS/GIS technology instead of the traditional, manual assessment that involved house-by-house interviews. Based on encouraging results from that experiment, FEMA, the U.S. Army corps of engineers, and a private contractor with GPS/GIS expertise formed a team in July 1993 to produce maps for disaster response, recovery efforts, and risk mitigation in the wake of severe Mississippi river floods that inundated more than 13 million acres, destroyed billions of dollars in crops, and left hundreds of people homeless. Following a GPS-equipped helicopter survey, a pair of two-person ground observer teams with GPS/GIS handheld receivers inspected and inventoried structures in approximately 75 communities south of Quincy, Illinois, more than 1,500 maps/data sheets were produced within a week of the teams’ initial transfer of data to the corps of engineers’ rock island, Illinois, base station. Prior to GPS/GIS, it would have taken a team of 50 people years to complete the same task. With the maps quickly delivered to FEMA decision makers, they began meeting with local officials and citizens to discuss assistance and requirements to rebuild above the 100-year flood elevation.

The most rapidly expanding area of GPS use for civil, commercial, and personal purposes was probably location-based services (LBS)—positioning and navigation. Similarly, land-based users include automobile drivers, railroads, fleet managers of trucks, delivery vehicles, and public transportation; emergency responders such as fire, ambulance, and police; and recreational activities such as hiking, hunting, skiing, biking, and golfing. According to Alan A. varghese from ABI research in oyster Bay, New York, shipments of recreational GPS devices alone rose from 3.2 million in 2002 to 5 million in 2003, with a predicted annual growth of 31 percent until 2009. Sea-based applications ranged from recreational sailing, fishing, and managing shipping fleets, to assisted steering, risk assessment, and hazard warning. Pilots of all varieties—airplane, helicopter, hot-air balloon—relied increasingly on GPS for monitoring their flight path, for collision avoidance, and for landing. Search-and rescue personnel on land, at sea, and in the air has considered GPS as indispensable. Ultimately, Scientists and Engineers experimented with using GPS for launch and on-orbit operation of Spacecraft. The use of GPS-aided technology for management of vehicle fleets has saved governments and businesses hundreds of millions of dollars by enabling more efficient planning of routes, monitoring misuse by employees, or locating stolen vehicles. Emergency responders found GPS capabilities invaluable. In 1992, a GPS-aided response system was tested in a large crossfield natural gas field north of Calgary, Alberta and it was concluded that it offered noteworthy cost and safety improvements over earlier systems by "providing nearly immediate identification of an alarm site and the nearest field personnel, as well as detailed maps that show the best route to the scene of an alarm. Recovery of stolen vehicles became much more likely with GPS.

The aim of this paper is to explore the current services being offered by GPS system especially in the area of security of lives and properties and to call the attention of the Government of the day to some of the untapped potential of GPS tracking system.
What is GPS

The Global Positioning System (GPS) is actually a constellation of 27 Earth-orbiting satellites (24 in operation and three extras in case one fails). The U.S. military developed and implemented this satellite network as a military navigation system, but soon opened it up to everybody else.

Each of these 3,000- to 4,000-pound solar-powered satellites circles the globe at about 12,000 miles (19,300 km), making two complete rotations every day. The orbits are arranged so that at anytime, anywhere on Earth, there are at least four satellites "visible" in the sky. A GPS receiver's job is to locate four or more of these satellites, figure out the distance to each, and use this information to deduce its own location. This operation is based on a simple mathematical principle called Trilateration.

Figure 1.

Photo courtesy U.S. Department of Defense

In order to make the simple calculation of the location, then, the GPS receiver has to know two things:

1) The location of at least three satellites above you
2) The distance between you and each of those satellites

Overview of GPS Tracking System

A GPS tracking unit is a device that uses the Global Positioning System to determine the precise location of a vehicle, person, or other asset to which it is attached and to record the position of the asset at regular intervals. The recorded location data can be stored within the tracking unit, or it may be transmitted to a central location database, or internet-connected computer, using a cellular (GPRS), radio, or satellite modem embedded in the unit (see Figure 1). This allows the asset's location to be displayed against a map backdrop either in real-time or when analysing the track later, using customized software.

A GPS tracking system uses the GNSS (Global Navigation Satellite System) network. This network incorporates a range of satellites that use microwave signals which are transmitted to GPS devices to give information on location, vehicle speed, time and direction. So, a GPS tracking system can potentially give
both real-time and historic navigation data on any kind of journey. A GPS tracking system can work in various ways. From a commercial perspective, GPS devices are generally used to record the position of Objects e.g. vehicles as they make their journeys. Some systems will store the data within the GPS tracking system itself (known as passive tracking) and some send the information to a centralized database or system via a modem within the GPS system unit on a regular basis (known as active tracking).

Types of GPS Tracking System

A Passive GPS Tracking System: Passive System monitors location and stores its data on journeys based on certain types of events. So, for example, this kind of GPS system may log data such as turning the ignition on or off or opening and closing doors. The data stored on this kind of GPS tracking system is usually stored in internal memory or on a memory card which can then be downloaded to a computer at a later date for analysis. In some cases the data can be sent automatically for wireless download at predetermined points/times or can be requested at specific points during the journey.

An Active GPS Tracking System: Active System is also known as a real-time system as this method automatically sends the information on the GPS system to a central computer or system in real-time as it happens. This kind of system is usually a better option for commercial purposes such as fleet tracking and individual vehicle tracking as it allows the company to know exactly where their vehicles are, whether they are on time and whether they are where they are supposed to be during a journey. This is also a useful way of monitoring the behaviour of employees as they carry out their work and of streamlining internal processes and procedures for delivery fleets.

Figure 2. The architecture of a GPS tracking system
GPS Tracking System Units

Three Types of GPS Tracking Units are there. There are currently three categories of GPS tracking units. The categories are split into how GPS data is logged and retrieved.

Data Loggers
Data loggers are usually the most basic type of GPS tracking: a GPS data logger simply logs the position of the object at regular intervals and retains it in an internal memory. Usually, GPS loggers have flash memory on board to record data that is logged. The flash memory can then be transferred and accessed using USB or accessed on the device itself. Usually data loggers are devices used for sports and hobby activities. They might include devices that help log location for hikers, bikers and joggers.

Data Pushers
Data Pushers are GPS tracking units that are mainly used for security purposes. A data pusher GPS tracking unit sends data from the device to a central database at regular intervals, updating location, direction, speed and distance. Data pushers are common in fleet control to manage trucks and other vehicles. For instance, delivery vehicles can be located instantly and their progress can be tracked. Other uses include the ability to track valuable assets. If valuable goods are being transported or even if they reside in a specific location, they can constantly be monitored to avoid theft. Data pushers are also common for espionage type tasks. It is extremely easy to watch the movements of an individual or valuable asset. This particular use of GPS tracking has become an important issue in the field of GPS tracking, because of its potential for abuse.

Data Pullers
The last category of GPS tracking units is the data pusher units. These types of units push data or send data when the unit reach a specific location or at specific intervals. These GPS units are usually always on and constantly monitoring their location. Most, if not all data puller unit also allow data pushing (the ability to query a location and other data from a GPS tracking unit).

Features of the GPS Tracking System

Generally all of the GPS Tracking System has some of the common features that are listed below:

GSM/GPRS Module - It is used to send the location to the user online. In some case, if the user wants the location through the internet then this module is very useful. By the help of the GSM/GPRS module, we can send data real time. It can be seen on the internet enabled any device as a PC, mobile phone, PDA etc.

Track Playback - Animates your driver's daily driven route so that you can follow every move. The track animation line is colour coded to indicate the speed your driver was travelling during his route.

Idle Time Report - Gives you an accurate report detailing when your driver was stopped and has left the engine running on the vehicle. This report was designed with input from our existing customers who were concerned about high fuel bills.

Track Detail - Provides you with a split screen view when reviewing your driver's route. Stop and transit times, as well as speed information, are displayed in the bottom pane. You can easily toggle between stops by clicking the stop number on the track detail pane.

Group Reporting - Allows you to set vehicles up into groups for faster and easier reporting.

Geo Fencing – It allows us to limit some region of area and if your vehicle goes beyond the boundary of that region then urgent message will be sent by the system to the manager to control the driver. So that the time and money can be saved by this system.

Ignition ON/OFF detection – The system can save the information about the engine that it is in working condition or stop by ignition ON/OFF detection so that the manager can know for how many times the driver stopped the fleet and for how many time. So much time can be saved.

SMS / GPRS Communication - The location about the fleet or the person can be send by SMS or email by this facility.
On-Line and Off-Line tracking – Every user has different requirement and as per the requirement the data can be viewed real time or it can be saved in the unit and when the vehicle reach to its manager, manager can download data and see the route of the vehicle and every other detail that can be seen by the real time.

Buzzer for alerting the driver – Some system uses the buzzer system to alert the driver that he is going out of the boundary or the speed is very high, or anything that is restricted. So that the driver is able to know that he is going wrong.

Monitoring digital events – If you need to know when a piece of machinery was turned On/Off or when a door was Open/Shut, this system will provide you with best options.

Reports – start stop report, standard report, stop sensor report, aggressive driving report, excessive idling report, vehicle mileage report etc reports can be generated by the system to help understand the driver’s behaviour and to improve it.

Discussion

How GPS Tracking System Works

The flowchart below depicts the true pictures on how a GPS tracking system works.

Figure 3
Security Benefit of a GPS Tracking System

Employee Monitoring

Employees that are tracked using GPS usually travel in vehicles over long distances. Tracked workers include couriers, and bus and truck drivers. The motivation for tracking employees is linked to improving company productivity. Automated Waste Disposal Incorporated uses GPS to ensure their truck drivers do not speed and are on track to meet their delivery schedule. The company imposed GPS tracking on its employees to reduce overtime and labor costs. After implementing the GPS tracking system the number of overtime hours dropped from 300 to 70 hours on average per week.

Parolee and Sex Offender

Today many parolees are fitted with a small tamperproof GPS tracker worn as a bracelet or anklet. The ankle device is in the shape of a rigid plastic ring, accompanied by a small tracking box that can fit in a pocket. Companies such as iSECUREtrac, design GPS monitoring systems to track parolees and sex offenders ensuring they do not commit any crimes, alert authorities if they enter certain locations, (e.g. schools,parks), and prevent them from leaving their homes, if that is prohibited. Some GPS units can also offer the added capability of knowing how much alcohol a person has consumed by measuring perspiration levels every hour. Parolee and paedophiles tracking is widespread in the United States with an estimated 120,000 tracked parolees in 28 states. However, there are over 50,000 convicted sex offenders in the US that are not tracked at all.

Due to the current over-crowding problem in British prisons, certain types of criminal are being tagged and released. The use of active tags with a large range capability can allow the police and probation services to monitor the whereabouts of tagged criminals and take appropriate action when necessary(Craddock R.J,2004).

Tracking Suspected Terrorist

GPS tracking is used in developed countries to monitor the activities of a suspected terrorist or group. A number of national laws stipulate the use of a tracking device affixed to any person suspected of “activities prejudicial to security” (e.g. ASIO Act1979). Previously, the maximum period of time a suspected terrorist could be tracked was 6 months, however, during the Council of Australian Government (COAG) meeting on counter-terrorism it was planned to increase this period to 12 months.

Demential Wondering

Dementia is a symptom of a number of diseases.However; the most common forms are Alzheimer’s disease, vascular dementia and dementia with Lewy bodies. It currently affects five per cent of people aged over 65 years and twenty per cent of people aged over 80 years. Dementia becomes a serious problem when a patient begins to wander. Due to his/her mental state a dementia sufferer may get lost easily and may even be injured or killed. Since it is difficult to keep constant watch over a dementia sufferer, a caregiver can employ a variety of assistive technologies which notify family members automatically by phone or email if problems arise. Proponents of this application emphasize that the technology grants dementia sufferers more independence and freedom to give them a better quality of life(Craddock R.J,2004)..
Parent Tracking Children

Today, parent use GPS tracking device to monitor the activities of their children. Some of the tracking devices are in form of a Wristwatch. However, some parent desired a platform that would allow them to call their wards, therefore a need for a mobile platform. Users can find the location of their child by logging onto the GPS provider website and viewing data on a map. Locations are updated every two minutes in some tracking solution so parents can keep a constant eye on their child’s activities.

Car Tracking

Wikipedia described a car tracking system as the one that combined the installation of an electronic device in a vehicle, or fleet of vehicles, with purpose-designed computer software at least at one operational base to enable the owner or a third party to track the vehicle's location, collecting data in the process from the field and deliver it to the base of operation. It stated further that modern vehicle tracking systems commonly use GPS or GLONASS technology for locating the vehicle, but other types of automatic vehicle location technology can also be used. Vehicle information can be viewed on electronic maps via the Internet or specialized software.

Owners of expensive cars can put a tracker in it, and "activate" them in case of theft. "Activate" means that a command is issued to the tracker, via SMS or otherwise, and it will start acting as a fleet control device, allowing the user to know where the thieves are.

Animal control

When put on a wildlife animal (e.g. in a collar), it allows scientists to study its activities and migration patterns. Vaginal implant transmitters are used to mark the location where pregnant females give birth. Animal tracking collars may also be put on domestic animals, to locate them in case they get lost.

Espionage / Surveillance

When put on a person, or on his personal vehicle, it allows the person monitoring the tracking to know his/her habits. This application is used by private investigators, and also by some parents to track their children.

R. J. Craddock (2004) identifies other major areas applications of GPS tracking system to include the following:

- Position reporting for marine navigation systems
- Positioning and tracking of transport containers
- Development of high accuracy positioning systems using differential GPS
- Tagging of ships, providing remote information access
- Personnel tracking and mapping using Wireless LANs
- GNSS location based systems
- Tracking of emergency services personnel entering hazardous sites, using GPS and RF tags

Niger-Delta Uproar: GPS System to the Rescue

The adoption of gps tracking system by the Federal Government can help to forstall possible attack on government facilities by the Militants and other aggrieved groups in the creeks. Geofencing will go a long way in curbing the activities of these militant group, the facilities are tracked or tagged and the presence of any
invader (untracked person or object is quickly recognised and a signal sent to the appropriate Law enforcement agents via SMS for quick action to be taken. Similarly, a real time tracking of the expatriate and their families will go a long way in reducing the case of kidnapping in the Niger-Delta.

The use of tagged security passes can assist in controlling who can and cannot enter certain areas of a site or venue. Entry into some prohibited areas e.g. in ports, can be difficult to control. A network of tag readers can be used to alert security personnel when unauthorised tags have or are about to enter a prohibited area (using predictive tracking). In addition, the combination of a tag reader network with a network of smart cameras can provide alerts of un-tagged people within particular areas (Craddock, 2004)

Proposed Framework

**Fig 2. GPS-Driven intelligent information collaboration security system**

We proposed a model (fig 2) – an intelligent collaboration security system which is gps-driven. This model advocate for an integrated information system among the security outfits with GPS as the driven force in Nigeria. Furthermore, once an early warning system powered by a GPS system has been triggered, at any part of the Nation with the help of the Satellite, the information can be shared among the security agencies and joint response or action is initiated to forestall any threat or form insecurity.

**Conclusion**

With this paper, we have been able to x-ray the inherent security benefit embedded in the satellite tracking
with a bias in GPS tracking system. This paper is without any doubt a blueprint for the Nigeria government to tap into the seemingly latent potential in the GPS tracking system in tackling security problem in the Nation. The financial benefits of installing GPS tracking are more than enough to justify the costs. When coupled with increased security, the return on investment (ROI) of GPS tracking is nearly immediate. We end this paper with the statement from the Managing Director and Chief Executive of NigComsat; Engr Timasaniyu Ahmed Rufai, “The complete installation of satellite particular the one to be replaced after its crash in the orbit was capable of averting recent bomb blast in Jos and Abuja that Killed Scores of innocent Nigerians.

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The Myths and Realities of Teaching Vocational Subjects in Tertiary Institutions in Nigeria

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Abstract
Myths are narratives formative or reflective of social order or values within a culture. These narratives are believed to be true from within the associated faith system within any given culture there may be sacred and secular myths coexisting. The focus of this paper is the myths and realities of teaching vocational subjects in tertiary institutions in Nigeria. The paper gives the concept of myths and realities (learning technology: the myths and facts). It also discusses the E-learning as obtained in modern world. The paper also proffers invaluable suggestions on how the youths can be empowered for sustainable development.

Introduction

According to the Greek mythos, myth means story or word. Mythology is the study of myth. As stories (or narratives), myths articulate how characters undergo or enact an ordered sequence of events. The term myth has come to refer to a certain genre (or category) of stories that share characteristics that make this genre distinctly different from other genres of oral narratives, such as legends and folktales.

Many definitions of myth repeat similar general aspects of the genre and may be summarized thus: myths are symbolic tales of the distant past (often primordial times) that concern cosmogony and cosmology (the origin and nature of the universe), may be connected to belief systems or rituals, and may serve to direct social action and values. “The forms of folklore: Prose Narratives “where myths are defined as tales believed as true, usually sacred, set in the distant past or other worlds or parts of the world, and with extra-human, inhuman, or heroic characters William Bascom (1978:20). Such myths often described as “cosmogonic” or based on “cosmic” from the Greek Kosmos meaning order. Leeming (1990:13). Cosmology’s concern with the order of the universe finds narrative, symbolic expression in myths, which thus often help establish important values or aspects of a culture’s worldview. For many people, myth remains value-laden discourse that explains much about human nature.

There are number of general conceptual frameworks involved in definitions of myth, which include:

a. Myths are Cosmogonic Narratives, connected with the Foundation or Origin of the Universe (and Key beings within that universe), though often specifically in terms of a particular culture or region. Given the connection to origins, the setting is typically primordial (the beginning of time) and characters are proto-human or deific. Myths also often have cosmogonic overtones even when not fully cosmogonic, for instance dealing with origins of important elements of the culture (food, medicine, ceremonies etc).

b. Myths are narratives of a sacred nature, often connected with some Ritual. Myths are often foundational or key narratives associated with religious. These narratives are believed to be true from within the associated faith system (though sometimes that truth is understood to be metaphorical rather than literal) within any given culture there may be sacred and secular myths coexisting.

c. Myths are narratives formative or reflective of social order or values within a culture (eg functionalism).

d. Myths are narratives representative of a particular Epistemology or way of understanding Nature and organizing Thought. For example, structuralism recognizes paired bundles of opposites (or dualities –like light and dark) as central to myths.

e. Mythnic Narratives often involve Heroic characters (possibly proto-humans, super humans, or gods)
who mediate inherent, troubling dualities, reconcile us to our realities, or establish the patterns for life as we know it.

f. Myths are narratives that are “counter-factual in featuring actors and actions that confound the conventions of routine experience” Mc Dowell, (1980:20).

**Background on Mythology (The Study of Myth)**

There have been many other functions and implications attributed to myth. They are often highly valued or disputed stories that still intrigue us even though many of us do not recognize them as a living genre in our culture.

According to Mc Dowell (1980:41), Myths are narratives that are “counter-factual in featuring actors and actions that confound the convention of routine experience. Mc Dowell indicates, myths often involve extraordinary characters or episodes that seem impossible in our world, but “the extraordinary feats and traits of mythic protagonists are possible only because they attach to a primary and formative period in the growth and development of civilization” thus their various aspects or dimensions are best considered as “organically intertwined. Infact the contemporary connotation of myth as a falsehood”, often understood as being in opposition to science because they are not testable, which is the case (at least for origin myths) because of their primordial setting – if events described are from a different, earlier world, then of course they would not be repeatable or logical in our world.

Both myths and science offer explanations of cosmos. A key difference is that information about the universe presented in myths is not testable, whereas science is designed to be tested repeatedly. Science also depends on cumulative, frequently updated knowledge, whereas myth is based on passed down stories and beliefs. Myths may change overtime, particularly after contact with other cultures, but they do not change and adapt to new periods and technological developments in the same way science does. Myths may be enacted through rituals and believed in absolutely, but they usually do not have physical effects in the real world, as in leading to new technology for building cars or providing medical treatment Bauman, Richard (1991:20). People may believe they are cured through faith, and they may find important value-laden sentiments in myths, but these “real world results” are neither empirical nor usually repeatable (two standard criteria for science).

Although science differs from myth in offering actual testable, control over the environment and producing, real repeatable results in the world, science is Not completely divorced from myth. Many scientific theories are presented or understood in narrative form, which often end up sounding remarkably mythic Schremp, Gregory (1992:90).

Myth is a story handed down from olden times which could be imaginary or fictitious, the story that goes when there is rain in conjunction with sunshine; it is believed that a lion is giving birth under a very big iroko tree Otuaga, Mayes (1997:1).

Myths were considered by Victorian scholars as survivals of previous times (perhaps decayed or reflective of “primitive” ancestors who took them literally). Some saw them as evidence for social evolutionary theories of the 19th century. These Victorians scholars (like E. B. Tylor) believed that humans in all cultures progress through stages of evolution from “savagery” to “barbarism” and finally to civilization. This final most advanced stage was of course best represented by the men (Victorians) writing the theories. Such theories no longer seem reasonable. We have not for instance, progressed beyond brutality, murder, war and grave injustices just because we have more advanced technology (infact we use our technology partly to more efficiently, kills other humans), we also recognize the complexity, thoughtfulness and beauty of many other cultures we may once have considered inferior to our own. Based on over a century of ethnology (anthropological field work) and research in psychology, genetics and other disciplines, scholars now accept that humans from all eras and parts of the world have equal intellectual our ancestors understood metaphor.
as we do. This does not mean our ancestors lived exactly as we do or that we conceive of the world in identical ways. But myths serve us better as means of understanding our ancestors if we accept their capacity for complex intellectual and artistic expression. Theories allow us to do our work as scholars, though our best efforts come with self-awareness of the theories and methods we employ as scholars. We now understand and discuss traditional myths and other such texts as emergent and intricately connected to performance situations or context. The more we can understand of the context of a myth, the culture it came from, the individual who told it, when and for what purpose, the audience who received it, etc, the better chance we have of offering an accurate interpretation. Of course, the further back in time one goes, the harder it becomes to study context. Nonetheless, the greater the attempt to understand context one makes, the better one’s potential to interpret myths becomes. And even if we can’t fully understand another culture’s myths, that does not mean those myths are insignificant, useless or “primitive” (a very offensive term these days in cultural studies).

Myths, as explanations of the cosmos and how to live, are parallel to science, in many ways. Yet because of their differences from science, they often appear insignificant, whimsical, useless or primitive to contemporary people. Many people lament the decline of myths, because they promise moral guidance and comfort that helps enrich life. For these reasons, many people remain interested in myths and seek to revive or revere them.

Additionally, myths continue to intrigue us because of their rich symbolic, metaphorical, and narrative appeal. Some people believe classical music, movies, and even novels have filled the places myths used to occupy culturally. In our post-modern world many people believe myths exist in new, combined or revived forms. One of the functions of all art is to reconcile us to paradox. Another is to suggest fundamental patterns of life and the universe. Even if they are no longer associated with religious rituals, belief systems or primordial moment of creation, “myths” of heroic characters who mediate the troubling paradoxes of life will always compel us and can, I believe, still be found in our culture Malinowski, Bronislaw (1992:4).

**Definition of Myths and Realities**

Myth is a symbolic narrative, usually of unknown origin and at least partly traditional, that ostensibly relates actual events and that is especially associated with religious belief. A myth is, of course, not a fairly story. It is the presentation of facts belonging to one category in the idioms appropriate to another. To explode a myth is accordingly not to deny the facts but to re-allocate them Gilbert Ryle (1972:20). It is distinguished from symbolic behaviour (cult, ritual) and symbolic places or objects (temples, icons). Myths are specific accounts of gods or superhuman beings involved in extraordinary events or circumstances in a time that is unspecified but which is understood as existing apart from ordinary human experience. The term mythology denotes both the study of myth and the body of myths belonging to a particular religious tradition. As with all religious symbolism, there is no attempt to justify mythic narratives or even to render them plausible. Every myth presents itself an authoritative, factual account, no matter how much the narrated events are at variance with natural law or ordinary experience. By extension from this primary religious meaning, the word myth may also be used more loosely to refer to an ideological belief when that belief is the object of a quasi-religious faith; an example would be the maxist eschatological myth of the withering away of the state. “Divinities from the core of all mythology”. Myths are distinguished from other commonly collected narratives such as folktales and legends. Myths were defined as stories of ancients times believed to be true Grimm, Jakob and Welhelm Grimm (1987:203).

While the outline of myths from a past period or from a society other than one’s own can usually be seen quite clearly, to recognize the myths that are dominant in one’s own time and society is always difficult. This is hardly surprising, because a myth has its authority not by proving itself but by presenting itself. In this sense the authority of a myth indeed “goes without saying”, and the myth can be outlined in detail only when its authority is no longer unquestioned but has been rejected or overcome in some manner by another, more
comprehensive myth. According to (Hansen, William F. 2002:125) the sacred element of myths is a recent attachment to definitions, that in his studies of ancient Greek myths, Hansen notes that not all myths had a sacred element. They were not necessarily connected to religious beliefs, but were often secular stories.

While myths does not need to have a sacred elements, they do appear to share a world-forming, or worldview-forming function.

The word myth derives from the Greek mythos, which has a range of meanings from “word”, through “saying” and “story”, to “fiction”; the unquestioned of mythos can be contrasted with logos, the word whose validity or truth can be argued and demonstrated. Because myths narrate fantastic events with no attempt at proof, it is sometimes assumed that they are simply stories with no factual basis, and the word has become a synonym for falsehood or, at best, misconception. In the study of religion, however, it is important to distinguish between myths and stories that are merely untrue.

Myths of Heroes

Nearly all cultures have produced myths about heroes. Some heroes, such as the Greek Achilles, have one mortal and one divine parent. Others are fully human but are blessed with godlike strength or beauty. Many myths about heroes concern significant phases of the hero’s career, such as the circumstances of the hero’s birth, a journey or quest, and the return home. The birth and infancy of a mythological hero is often exceptional or even miraculous, in the ancient Near Eastern and Mediterranean world, the birth of many heroes followed similar patterns. For example, the Hebrew prophet Moses, the Greek hero Oedipus, and the Roman heroes Romulus and Remus were all exposed to the elements at birth and left to die, but miraculously survived. Other heroes were immediately able to care for themselves. In early infancy, the Greek hero Hercules strangled a pair of enormous serpents sent to kill him. The Irish Cu’ Chulainn, who later became a great warrior, also performed astonishing feats of strength as a child.

Most heroes set off on a quest or a journey of some kind. One of the earliest tales of the heroes journey is the Babylonian story known as the Gilgamesh epic, written in cuneiform on 12 clay tablets in about 2000 BC. The hero, Gilgamesh, embark on a quest for immortality. A goddess named siduri guides him, and in the course of his adventures he must do combat with monsters and visit the world of the dead. At the end of the quest, Gilgamesh must accept mortality, which the gods allotted to human beings when they created them. In Greek and Roman mythology the stories of Jason (who sailed in quest of the Golden Fleece) and of Aeneas (who traveled from Troy to Italy to found Rome) likewise describe journeys or quests. Other narratives that may be interpreted as heroic journeys include the biblical story of the Hebrew prophet Moses, who led his people on a 40-years journey through the Wilderness, and the Celtic tale of King Arthur and the quest for the Holy Grail.

The most famous tale of a hero’s return home probably the ancient Greek story of Odysseus, recounted in the Odyssey the poet Homer. When the story opens, Odysseus has been away for nearly 20 years, fighting in the Trojan war and then kept captive by the sea nymph calypso. Back in his kingdom of Ithaca, suitors who want to marry his wife Penelope were devouring and wasting his property and plotting against his son. Zeus persuades calypso to let Odysseus leave and return home, but the god Poseidon was angry with Odysseus and was determined to kill him. In the course of his journey, Odysseus was shipwrecked, held captive by calypso, and nearly devoured by monsters; all his companions were killed, when he finally returns to Ithaca, penniless and without allies, he must plot the destruction of the suitors and persuade Penelope that he really is who he claims to be. Of course he succeeds brilliantly.

(Learning Technology: The Myths and Facts)

The often used term E-learning implies the concept of learning which is delivered electronically. To see the
computer is just one possible medium through which learning may be presented with the help of the internet services. Radio, cinema, television, video etc were all exciting new media, once. They all remain widely used. But they have not replaced media which pre-existed them. The oldest mass medium i.e. the printed word, continues to flourish.

Just as older means of communication continue to thrive alongside the latest computer technology in the information age, so too do more traditional forms of learning medium such as the printed word and audio and video cassette. The latest forms of learning technology should supplement rather than replace these earlier media in a blended approach to learning.

A successful learning experience relies on each of the available modes of delivery being employed to its strengths Schater, John (1999:30). There are numerous examples of learning technology that do little more than transfer the contents of the printed page to the computer screen in the belief that presenting the information this way will magically promote learning.

Reusability

The concept of reusable learning objects is a simple one. Learning material is packaged into discrete chunks for the purposes of being used in a variety of contexts.

Definitions of what constitutes a learning object vary. The IEEE learning technology standard committee (2002) defines a learning object as “any entity, digital or non digital, which can be used, re-used or referenced during technology supported learning, other, more precise definitions exist, e.g learning content management system vendor knowledge planet states “a learning object has four components: an objective, content, a means of assessment and metadata.

Myths and Realities of Effective Learning Technology

Technology has potential to facilitate communication across physical boundaries. It also has the potential to involve the learner, particularly the distance learner, to a high degree as well as being able to present a highly personalized learning experience Downes, Stephen (2000:20).

We might expect an effective technologically mediated learning experience to offer the opportunity for communication and collaboration with similarly minded individuals from around the world. These individuals would comprise both peers and mentors and would ideally for communities in which different members could take the lead at different stages of the learning process. The communication facility could take any form from the simple e-mail list and/or discussion board through to intelligent avatars inhabiting three-dimensional virtual worlds.

The experience would employ different media to achieve different ends. In many cases, depending on the nature of the course, there would be a significant reading component. This reading need not be delivered as bundles of papers. Instead it could be distributed as PDF files for the learner to print locally. It is likely these files will be fully indexed and searchable to enable the learner to quickly retrieve relevant content. There may also be some form of computerized organizer, note taker and annotation tool, which some learners might find beneficial.

Where the computer is used to present learning there is likely to be high degree of learner involvement. Rich simulations and models will allow the learner to experiment in a variety of novel situations, learning from the experience of active participation and the resulting feedback. There will be a pre-determined pathway through the computer-presented component. Instead it will adapt itself to the characteristics, needs and earlier performance of the individual learner.

Audio and video elements will also be offered where these media are most appropriate for presenting the learning material. Where a course of study is comprised of different media (print, computer, audio, and video) each component will be of sufficient size to provide a study session of satisfying length and substance,
ie. learners will not be required to switch from screen to paper and back every minutes. Multi-media courses may also provide a printed “summary” of key concepts for revision purposes. The summary could be in skeletal form to be expanded upon by the learner as they progress.

Learning technology is currently attracting intense interest due to the rapid increases in technological capability and in the size of the audience able to access it, and also due to the increasing demands upon the education system as the need for lifelong learning becomes reality Fletcher, J. D (2003:30).

Technology can provide quality learning to mass audience, and by offering greater learner involvement and a more personalized learning experience can deliver the kind of learning most suited to the information age. But if technology's potential is to be fully realized its strengths and weaknesses need to be understood by learning providers. The computer is just one of the range of media that should be used to present learning in a blended approach.

The Myth and Realities of Software Package (Paint Brush)

Paint brush is a software package that can be install into the computer, this package has many tools icon such as: eraser, scissors, knife, colours and brush. These tools can enable the artist to draw and produce all manner of design through manipulation. In this package the artist can mix and achieve numerous colour of his choice. At the end of every design or drawings it will be printed out as a printed matter. Technologically and mythically so much has been achieved both mythically and in reality without the physical presence of the tools used such as paint, colours, brush and knives, but the end produce is real and authentic.

The Myth and Realities of IVF (In Vitro Fertilization)

The term in vitro, from the Latin root meaning in glass, is used, because early biological experiments involving cultivation of tissues outside the living organism from which they came, were carried out in glass containers such as beakers, test tubes or petri-dishes. Today, the term vitro is used to refer to any biological procedure that is performed outside the organism it would normally be occurring in, to distinguish it from an in vivo procedure, where the tissue remains inside the living organism within which it is normally found. A colloquial term for babies conceived as the result of IVF “test tube babies”, refers to the tube-shaped containers of glass or plastic resin, called test tubes that are commonly used in chemistry labs and Biology labs. However, in vitro fertilization is usually performed in the shallower containers called Petri dishes. One IVF method, Autologous Endometrial Coculture is actually performed on organic material, but is still considered in vitro (Moreton Cole 2007).

Method

Theoretically, in vitro fertilization could be performed by collecting contents from a woman's fallopian tubes or uterus after natural ovulation, mix it with semen from a man and reinsert into the uterus. However, without additional techniques, the chances of pregnancy would be extremely small. Such additional techniques that are routinely used in IVF include ovarian hyper stimulation to retrieve multiple eggs, ultrasound-guided transvaginal oocyte retrieved directly from the ovaries, egg and sperm preparation, as well as culture and selection of resultant embryos before embryo-transfer, back into the uterus.

Egg and Sperm Preparation

In the laboratory, the identified eggs are stripped of surrounding cells and prepared for fertilization. An oocyte selection may be performed prior to fertilization to select eggs with optimal chances of successful pregnancy. In the meantime, semen is prepared for fertilization by removing inactive cells and seminal fluid in a process
called sperm washing. If semen is being provided by a sperm donor, it will usually have been prepared for treatment before being frozen and quarantined, and it will be thawed ready for use.

**Fertilization**

The sperm and the egg are incubated together at a ratio of about 75,000:1 in the culture media for about 18 hours. In most cases, the egg will be fertilized by that time and the fertilized egg will show two pronuclei. In certain situations, such as low sperm count or motility, a single sperm may be injected directly into the egg using intercytoplasmic sperm injection (ICSI) the fertilized egg is passed to a special growth medium and left for about 48 hours until the egg consists of six to eight cells.

**Vocational Subjects as Tools for Sustainable Development in Nigeria**

Sustainable development and advancement is an issue in a global world. Vocational Education or training is focused on individual skills and capability for occupation, therefore, all the courses involved such as Fine and Applied Arts, Home Economics, Agricultural Science, Automobile Engineering and Computer Studies, just to mention but a few are packaged to provide knowledge and develop the skills of the future generations. Technological development and advancement revolve around a sound vocational/technical education programme Bulus (1991:25).

Contemporary education globally, whether general or vocational, is expensive therefore any rightful mind will not envisage of wastage in education. The measure guarantee of eliminating wastage in education and also eliminating the unemployment syndrome is to provide adequate and functional education especially when such education is vocational (preparation for helpful skill occupation). It is mandatory for the government to preserve and propagate pure and undiluted vocational courses/skills even if its nation economy is so depressed.

**The Prospects and Problems of Teaching Vocational Subjects in Tertiary Institutions in Nigeria**

These are instructions intended to equip person’s for industrial or commercial occupations. It may be obtained formally in trade schools, technical secondary schools or in on-the job training programmes or more informally by picking up the necessary skills on the job. Technical development and advancement revolve around a sound vocational/technical education programme Bulus (1991:41). Vocational skills in schools is a relatively modern development. Akaniwor (1988:20), observes that “the bedrock of any technical breakthrough in the existence of appropriate skill, abilities and competence both mental and physical as equipment for the individual to live in the society is a dynamic instrument of change”. According to Bulus (1991:30) vocational technical education involves the acquisition of skills and competences that can help individuals to function productively in industries and commercial occupation.

Until the 19th century such education, except for the professions, was provided only by apprenticeship. This situation was partly due to the low social status associated with such instructions as opposed to a classical curriculum “which was considered “necessary for a youth” with growth of industrialization during the 19th century, however, several European countries notably Germany, began introducing vocational education in elementary and secondary schools. In Great Britain, however, opposition to vocational education persisted into the 20th century, although a few trade and junior technical schools were established by local authorities before the World War II. By the 19th century, public (common) schools vocational education in the United States consisted of manual training and practical arts. These programmes were generally expanded until 1917 when federal aid was provided to public schools for trade and industry.

**Suggestions**
Sufficient attention should be given to educational sectors especially vocational skills. In this regard the noticeable lapses in policy implementation of vocational education/skills for sustainable development for our future generations can be revisited by gearing them into vocational skills, apprenticeship, and a compulsory industrial attachment.

Moreso, to provide adequate equipment to revive all the ill-equipped laboratories for effective training.

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Farmers' Perception of Leopard (*Panthera Pardus*) Conservation in a Human Dominated Landscape in Northern Ethiopian Highlands

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Abstract

Attitudes toward large carnivores were surveyed in two sub districts May Anbesa (relatively high leopard density are) and Egriwonber (area with no leopard) in the northern Ethiopian highlands. This district is a completely human dominated landscape, where conflict has manifested in terms of livestock depredation. Spotted hyena (*Crocuta crocuta*), leopard (*Panthera pardus*) and common jackal (*Canis aureus aureus*) are common in this landscape but all other large carnivores are virtually absent. A structured survey instruction was prepared in the form of an interview-based questionnaire containing 23 items arranged in three sections: attitudes and perceptions; management issues; and economic impact. We interviewed 519 randomly selected households (core area, n=317 and control area, n=202). Majority of the respondents (64.6%) had positive feelings and only 10.2% had negative feelings in the core area, whereas majority of the respondents (52.3%) had neutral feelings and only 9.1% negative feelings towards leopard in the control area. The mean attitude score in both areas was 3.53: neutral to positive. The majority of respondents (72.3%), including 88.6% in the core area and 46.5% in the control area, thought that compensation should be paid to farmers whose livestock had been killed by leopards. Only 34.7% of all participants, including 25.9% in the core area and 48.5% in the control area, agreed that killing of leopards should be strictly regulated. Farmers of the core area reported losses of 85 domestic animals due to leopard depredation causing an estimated financial loss of about US$ 51,673 over the last five years, or an annual mean of 0.4% of stock worth US$ 10,334. Of all the respondents in core area only 12% of the people had suffered from leopard depredation. Goats were the most depredated livestock species (49.4%). The findings indicate that tolerance for depredation is high for that further efforts could improve support for carnivore conservation.

Keywords: leopard, conservation, financial impacts, Ethiopian highlands

Introduction

The common leopard (*Panthera pardus*) is the most widespread large carnivore (Myers, 1986), occurring throughout sub-Saharan Africa, India and southern Asia (Nowell and Jackson, 1996) due to its highly adaptable hunting and feeding behavior (Bertram, 1999). It can live wherever there is sufficient cover and adequately sized prey animals (Bertram, 1999). Leopards are known to inhabit croplands in human dominated landscapes (Athreya et al., 2004). This close proximity to humans often results in conflict and can be particularly controversial when the resources concerned have economic value such as livestock depredation and the predators involved have a high conservation profile (Graham et al., 2005). In general carnivores have disappeared from areas of high human density (Woodroffe, 2001), and the species most exposed to conflicts with people are the most prone to extinction. They have been perceived as a threat to human survival because of danger to human life and to livestock. People retaliate to livestock depredation by poisoning carnivores, habitat destruction and direct killing which have led to extinction of many species and significant reductions in carnivore populations. Local people often hold negative attitudes, when carnivores prey upon livestock as reported for snow leopards (*Panthera uncia*) by Oli et al. (1994) and wolves (*Canis lupus*) by Lenihan (1996). In most landscapes large carnivores will need to coexist with humans. This coexistence requires knowledge about people and their attitudes towards large carnivore conservation. Hence, study of public opinion and knowledge becomes an important element of large carnivore conservation. Leopard is one of the vulnerable species owing to predation large number of domesticated
animals in Ethiopia; however least concern in terms of its conservation is given in the country. In the country, the public is poorly informed about issues of wildlife conservation. No research on public attitudes to carnivores has been published yet. Attitudes of farmers towards the predation problem are poorly understood in Tigray, regional stats of Ethiopia. Hence, the present study aimed to understand farmers’ perceptions and attitudes towards leopard occurring in the area.

**Study area**

The study was conducted in Endrta district (northern Ethiopian highlands) that lies between 12°13’ and 14°54’ North and 56°27’ and 40°18’ East with an area of approximately 10,000 km² at an altitude of 2,300 m.a.s.l. The rainfall of the area is bimodal with a short rainy season occurring between January and April, and a long rainy season from June to August. Average annual rainfall is about 550 mm. The mean maximum temperature ranges between 12° C (November and December) and 27° C (January and March). The rural population is extremely poor and chronically dependent on food aid. The total rural human and livestock population is about 115,000 and 56,000, respectively (Bureau of agricultural and natural resources development (BOANR) 2009). Two sub districts were selected with the assistance of local administrators. The first is May Anbesa (Core area) with a total human and livestock population of about 6,387 and 7,579, respectively with annual rainfall of 400-600mm. It is about 12km from Mekelle located at 1500-2300m.a.s.l and hosts hyena (*Crocuta crocuta*), leopard (*Panthera pardus*), common jackal (*Canis aureus aureus*) and low density of small prey species, example Red-fronted gazelle (*Eudorcas rufifrons*). Secondly, Egri Wonber (Control area), is situated at about 2,303 m.a.s.l at 8km from Mekele, with total human and livestock population of about 7,994 and 1,424, respectively. This area hosts hyenas, common jackal etc but no leopard.

**Methods**

Interviews are a widely used technique for surveying mammals, especially carnivores, and for understanding people’s perceptions (Dietrich, 1995; Rabinowitz, 1997; Brooks et al., 1999; Conforti and de Azevedo, 2003; Marino, 2003). A structured survey instruction was prepared in the form of an interview-based questionnaire containing 23 items arranged in three sections: attitudes and perceptions; management issues; and economic impact. Most questions were measured on a 5-point scale ranging from “strongly disagree” to “strongly agree”. Two sub districts May Anbesa (core area with relatively high leopard density) and Egriwonber (control area, with no leopard) were selected with the help of local administrators of the district. According to Storck et al., (1991), the size of the sample depends on the available fund, time and other reasons and not necessarily on the total population. Accordingly, we interviewed 519 randomly selected households from two sub-districts (core area, n=317 and control area, n=202). Respondents (the head of the household or their spouse) were also asked questions relating to number of livestock owned, livestock management, number of livestock lost to predation from 2006-2010 and human attack by leopard. To quantify the economic cost of livestock depredation in core area, the species, age, number and sex of livestock losses were recorded. Estimates of current average market values of different classes of livestock species by age and sex were obtained from traders. Values were translated to US$ at the exchange rate of the time of the study.

**Statistical evaluation**

For the statistical analyses, data were entered into JMP 5 Software. Analyses were conducted using Pearson’s chi-square test. A chi-square test of association was used to test the null hypothesis that row and column variables were independent. A high $\chi^2$ value and $P <0.05$ indicated significant differences.
Results

Socio-Demographic Characteristics

Overall, slightly more males (57.8%) than females (42.2%) participated in this household survey. Approximately 46.6% of the respondents were between the ages of 21 and 35 years, 26.4% were 36-50 year-olds, 16.2% were 51-60 years old and 10.8% were above 60 years old (Table 1). The proportion of farmers over 50 years old was 27%. More than half of the respondents (61.5%) were illiterate and only 5% were college graduates.

Our expectation that attitudes would be most negative in core areas was not confirmed. A majority of the respondents (64.6%) had positive feelings and only 10.2% had negative feelings in the core area, whereas majority of the respondents (52.3%) had neutral feelings and only 9.1% negative feelings towards leopard in the control area (Table 3). Overall six times more respondents had positive feelings (54.5%) than had negative feelings (9.8%). The mean attitude score in both areas was 3.53: neutral to positive. The majority of respondents (72.3%), including 88.6% in the core area and 46.5% in the control area, thought that compensation should be paid to farmers whose livestock had been killed by leopards. A lack of education was identified as the most important current issue that should be considered in large carnivores conservation work. Only 34.7% of all participants, including 25.9% in the core area and 48.5% in the control area, agreed that killing of leopards should be strictly regulated.

Mean attitude scores were 3.7 and 3.36 in core and control areas, respectively. Similarly, mean management scores were respectively 3.36 and 3.32 in core and control areas. An attitude and opinion about leopard management score was calculated using 7 and 8 items, respectively (Tables 3 and 4). A mean attitude score of 1 indicates strongly negative feelings, a score of 3 neutral and of 5 strongly positive feelings toward leopards. In general none of them had really negative feelings toward leopards. Participants of the survey generally held neutral to positive attitudes toward carnivores (mean score 3.44). Farmers in both areas had neutral to positive attitudes toward leopard management.

Farmers of the core area reported losses of 85 domestic animals due to leopard depredation causing an estimated financial loss of about US$ 51,673 over the last five years, or an annual mean of 0.4% of stock worth US$ 10,334 (Table. 2). We don't have any report of attacks on humans. Only 12% of the respondents in core area indicated the incidence of livestock depredation.

Discussion

Farmers’ attitude is an important consideration in conservation of large carnivores. Overall six times more respondents had positive feelings (54.5%) than had negative feelings (9.8%). Previous studies have found that people in a carnivore-free area tended to be more positive than people in a carnivore area (Szinovatz, 1997). In the present study the presence of carnivores doesn’t seem to affect peoples’ attitude toward them negatively. A more detailed study using anthropological insights and methodologies is required to better understand the feelings of farmers to large carnivores. Participants of the survey generally held neutral to positive attitudes toward leopard (mean score 3.44). Factors such as culture, education, economy, status, exposure to an event have been found to influence attitudes (Røskaft et al., 2003). Human attitudes towards carnivores tend to be shaped by understanding and knowledge of a particular species, as well as by past and present interactions with that species (Kellert et al., 1996). Human acceptance is very important for conservation of large carnivores.

We don't have any report of attacks on humans. Only 12% of the respondents indicated the incidence of livestock depredation. Owing to the relatively low livestock depredation and absence of human attack farmers might have neutral attitudes about leopard in the study area. Variation in people’s attitudes towards large carnivores seems to be based partly on the extent to which different species conflict with human
interests and partly on inherent human prejudices (Kellert, 1985). However, attitudes can change considerably over time (Fritts et al., 2003). Assessing the attitudes of people is a complex issue (Dickman, 2005) owing to cultural, social, ecological and economic factors. The presence of large carnivores in human landscapes can have different consequences such as fear evoked by its very presence (Quammen, 2003) to fatal attacks on humans (Loe, 2004). The most reported consequence of the presence of carnivores in human dominated landscape is livestock depredation (Patterson et al., 2004) which often results in undermining the conservation effort. However, depredation is often preventable by employing efficient livestock management practices (Ogada et al., 2003). In our case, mitigation is for social, not conservation motives.

The majority of respondents (72.3%), including 88.6% in the core area and 46.5% in the control area, thought that compensation should be paid to farmers whose livestock had been killed by leopards. Compensating for livestock depredation has been used as mitigation measures. This might help in reducing the impact of conflict and increasing the tolerance of livestock depredation (Swenson and Andren, 2005). To mitigate the results of conflict between humans and carnivores, reactive and proactive measures need to be taken (Madhusudan and Mishra, 2003). If we want to conserve carnivores in human dominated landscapes we have to look for options that might benefit communities of this area. For the large carnivore like leopards to survive in a human dominated landscape there is a need of efficient management practices to be employed, both on the part of wildlife managers as well as the local people (Linnell et al., 2001). Carnivore conservation in such landscape is as much a policy issue as a scientific and ecological one (Treves and Karanth, 2003) and science can help us in formulating better and efficient management policy that will help in reducing the impact of conflict on people (Primm and Clark, 1996).

Goats appeared to be most vulnerable to leopards’ depredation, assuming the reported depredation rate of 49.4% is valid. A similar pattern was noted by Kiran (2008) from India; dogs, goats and sheep primarily form the prey base of leopards in which depredation by leopards accounted for 80% of deaths in goats. Selection of prey by leopards depends on prey body size, with smaller and medium sized prey being preferred (Hayward, 2006). According to the informants, lax guarding practices, favorable cover and habitat conditions were the primary reasons for the livestock depredation in the area. Some amount of conflict is unavoidable when large carnivores inhabit human dominated landscapes (Namgial et al., 2007). In Tigray the wild prey base is small and often carnivores prey on livestock species (Yirga et al., subm.). In the present study, for example, farmers of the core area reported losses of 85 domestic animals due to leopard depredation causing an estimated financial loss of about US$ 51,673 over the last five years. Areas with good numbers of wild prey could face some degree of livestock depredation but where natural prey has been depleted, livestock depredation is likely to be inevitable (IUCN –CSG 1992). The impact of this predation might be serious as most of the cattle farmers in the region have very small herd size.

The findings indicated that tolerance for depredation is high for that further efforts could improve support for carnivore conservation. Large carnivores’ conservation efforts should address the problem of livestock depredation in order to obtain the wider support of the local communities. Farmers indicated a lack of education as the most important problem in current management of leopard. Around 52.6 % (51.6% in core area and 53.5% in control area) thought that people need to be given more information about large carnivores’ conservation. Hence, awareness creations on the need for carnivores at the grass hoot level would be so important for carnivores’ conservation.

Acknowledgments

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References


Linnell JDC, Swenson JE and Andersen R. (2001). Predators and people: conservation of large carnivores is possible at high human densities if management policy is favorable. Anim conserve. 4: 345-349


1491-1499.

Table 1 Socio-demographic characteristics of sample respondents

<table>
<thead>
<tr>
<th>Socio-demographic</th>
<th>Core area</th>
<th>Control area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-35</td>
<td>150</td>
<td>92</td>
</tr>
<tr>
<td>36-50</td>
<td>90</td>
<td>47</td>
</tr>
<tr>
<td>51-60</td>
<td>47</td>
<td>37</td>
</tr>
<tr>
<td>&gt;60</td>
<td>30</td>
<td>26</td>
</tr>
<tr>
<td>Sex ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>135</td>
<td>84</td>
</tr>
<tr>
<td>Male</td>
<td>182</td>
<td>118</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>196</td>
<td>123</td>
</tr>
<tr>
<td>Primary</td>
<td>40</td>
<td>14</td>
</tr>
<tr>
<td>Junior</td>
<td>44</td>
<td>22</td>
</tr>
<tr>
<td>Secondary</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>College</td>
<td>6</td>
<td>20</td>
</tr>
</tbody>
</table>

Table 2 Stock number, depredation, predated biomass and economic impact of leopard from 2006-2010 in May Anbesa (core area) in Endrta district

<table>
<thead>
<tr>
<th>Species</th>
<th>Stock</th>
<th>Depredation (%)</th>
<th>Predated Biomass(kg)</th>
<th>Economic loss(US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donkeys</td>
<td>327</td>
<td>0(0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sheep</td>
<td>172</td>
<td>9(10.6)</td>
<td>585</td>
<td>466.6</td>
</tr>
<tr>
<td>Goats</td>
<td>742</td>
<td>42(49.4)</td>
<td>2940</td>
<td>14,838.6</td>
</tr>
<tr>
<td>Cows</td>
<td>500</td>
<td>5(5.9)</td>
<td>1250</td>
<td>9,500</td>
</tr>
<tr>
<td>Poultry</td>
<td>868</td>
<td>9(10.6)</td>
<td>12.6</td>
<td>495</td>
</tr>
<tr>
<td>Dogs</td>
<td>313</td>
<td>7(8.2)</td>
<td>245</td>
<td>140</td>
</tr>
<tr>
<td>Bulls</td>
<td>248</td>
<td>5(5.9)</td>
<td>1250</td>
<td>12,500</td>
</tr>
<tr>
<td>Oxen</td>
<td>556</td>
<td>5(5.9)</td>
<td>1750</td>
<td>10,833</td>
</tr>
<tr>
<td>Calves</td>
<td>123</td>
<td>3(3.5)</td>
<td>180</td>
<td>2,899.8</td>
</tr>
<tr>
<td>Mules</td>
<td>9</td>
<td>0(0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Camels</td>
<td>11</td>
<td>0(0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cats</td>
<td>228</td>
<td>0(0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4097</td>
<td>85(100)</td>
<td>8212.6</td>
<td>51,673</td>
</tr>
</tbody>
</table>
Table 3 Results for the items concerning attitude toward leopard by study area

<table>
<thead>
<tr>
<th>Leopard is bad animal</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area n=317</td>
<td>4.7%</td>
<td>11%</td>
<td>31.6%</td>
<td>41.6%</td>
<td>11%</td>
<td>P=0.0001</td>
<td></td>
</tr>
<tr>
<td>Control area n=202</td>
<td>1.5%</td>
<td>32.7%</td>
<td>47%</td>
<td>17.3%</td>
<td>1.5%</td>
<td>X²=114</td>
<td></td>
</tr>
</tbody>
</table>

The presence of leopard is a sign of a healthy environment

<table>
<thead>
<tr>
<th>Leopard kills livestock</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area</td>
<td>0%</td>
<td>1.6%</td>
<td>34.4%</td>
<td>52.7%</td>
<td>11.4%</td>
<td>P=0.0001</td>
<td></td>
</tr>
<tr>
<td>Control area</td>
<td>0%</td>
<td>0%</td>
<td>22.8%</td>
<td>67.8%</td>
<td>9.4%</td>
<td>X²=430</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leopard have been known to attack and injure people</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area</td>
<td>1.3%</td>
<td>12.9%</td>
<td>35.6%</td>
<td>37.9%</td>
<td>12.3%</td>
<td>P=0.0001</td>
<td></td>
</tr>
<tr>
<td>Control area</td>
<td>0.5%</td>
<td>17.8%</td>
<td>77.2%</td>
<td>3.9%</td>
<td>0.5%</td>
<td>X²=362</td>
<td></td>
</tr>
</tbody>
</table>

I would be afraid to go into the forest/filed if there are leopard

<table>
<thead>
<tr>
<th>Leopard is dangerous to humans</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area</td>
<td>0%</td>
<td>0.9%</td>
<td>13.6%</td>
<td>74.1%</td>
<td>11.4%</td>
<td>P=0.0001</td>
<td></td>
</tr>
<tr>
<td>Control area</td>
<td>0%</td>
<td>1%</td>
<td>87.1%</td>
<td>11.4%</td>
<td>0.5%</td>
<td>X²=496</td>
<td></td>
</tr>
</tbody>
</table>

Leopard should be protected

<table>
<thead>
<tr>
<th>Leopard should be protected</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area</td>
<td>6%</td>
<td>26.5%</td>
<td>37.2%</td>
<td>19.9%</td>
<td>10.4%</td>
<td>P=0.0001</td>
<td></td>
</tr>
<tr>
<td>Control area</td>
<td>0%</td>
<td>7.9%</td>
<td>49%</td>
<td>33.2%</td>
<td>9.9%</td>
<td>X²=178</td>
<td></td>
</tr>
</tbody>
</table>

1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree

Table 4 Results for the items concerning opinion about leopard management

<table>
<thead>
<tr>
<th>There should be leopard in Tigray</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area</td>
<td>5.7%</td>
<td>17.7%</td>
<td>19.9%</td>
<td>45.7%</td>
<td>11%</td>
<td>P=0.0001</td>
<td></td>
</tr>
<tr>
<td>Control area</td>
<td>0%</td>
<td>4.9%</td>
<td>14.4%</td>
<td>69.3%</td>
<td>11.4%</td>
<td>X²=42</td>
<td></td>
</tr>
</tbody>
</table>

Leopard should present in my village

<table>
<thead>
<tr>
<th>Leopard should present in my village</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area</td>
<td>23%</td>
<td>24.9%</td>
<td>32.8%</td>
<td>15.1%</td>
<td>4.1%</td>
<td>P=0.0001</td>
<td></td>
</tr>
<tr>
<td>Control area</td>
<td>3.5%</td>
<td>7.9%</td>
<td>49%</td>
<td>39%</td>
<td>0.5%</td>
<td>X²=93</td>
<td></td>
</tr>
</tbody>
</table>

Leopard should only live in restricted places in Tigray

<table>
<thead>
<tr>
<th>Leopard should only live in restricted places in Tigray</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area</td>
<td>3.5%</td>
<td>31.2%</td>
<td>30.6%</td>
<td>31.2%</td>
<td>3.5%</td>
<td>P=0.0001</td>
<td></td>
</tr>
<tr>
<td>Control area</td>
<td>2%</td>
<td>39.6%</td>
<td>52.5%</td>
<td>4.9%</td>
<td>1%</td>
<td>X²=62</td>
<td></td>
</tr>
</tbody>
</table>

Farmers are responsible to protect their livestock from leopard depredation

<table>
<thead>
<tr>
<th>Farmers are responsible to protect their livestock from leopard depredation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area</td>
<td>0.3%</td>
<td>0.6%</td>
<td>10.7%</td>
<td>71.9%</td>
<td>16.4%</td>
<td>P=0.2279</td>
<td></td>
</tr>
<tr>
<td>Control area</td>
<td>0%</td>
<td>0.5%</td>
<td>14.9%</td>
<td>74.3%</td>
<td>10.4%</td>
<td>X²=6</td>
<td></td>
</tr>
</tbody>
</table>

Money should be paid to farmers whose livestock is killed by leopard

<table>
<thead>
<tr>
<th>Money should be paid to farmers whose livestock is killed by leopard</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>P</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area</td>
<td>0%</td>
<td>1.6%</td>
<td>9.8%</td>
<td>41.3%</td>
<td>47.3%</td>
<td>P=0.0001</td>
<td></td>
</tr>
<tr>
<td>Control area</td>
<td>0.5%</td>
<td>22.8%</td>
<td>30.2%</td>
<td>34.2%</td>
<td>12.4%</td>
<td>X²=133</td>
<td></td>
</tr>
</tbody>
</table>

Killing of leopard should be strictly regulated
| Core area | 1.9% | 24.6% | 47.6% | 22.1% | 3.8% | P=0.0001
| Control area | 0% | 2% | 49.5% | 47% | 1.5% | X²=70

**Killing of leopard should be allowed**

| Core area | 3.2% | 17.4% | 47.3% | 29.7% | 2.5% | P=0.0001
| Control area | 5.5% | 47.5% | 43.7% | 3.5% | 0% | X²=89

**It is necessary to give more people information about leopard**

| Core area | 2.2% | 12% | 34.4% | 38.8% | 12.6% | P=0.0001
| Control area | 0% | 1% | 45.6% | 44.6% | 8.9% | X²=30

1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree
Fitting ICT and Technical Writing Skill Into Teachers' Production Programme for Achieving the Millennium Goals

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Abstract This paper puts forward another idea that can enhance the achievement of the educational goal with specific skill such as introducing the course 'Technical and Scientific writing for all students in Colleges of Education. The paper suggests some measures in the method of impacting the skill that can be improved upon for the realization of the national millennium development goal in developing countries. It highlights the goals of teacher’s education in consonants with technical writing. The paper approaches the agitation in a semi-empirical style of presentation using such elements as statement of problem, purpose questions and significant of the idea. It further states the scope necessary for implementation of the agitated idea. The part that teaching and learning play in this proposal and the specific perspective of each were fully explained and conclusion drawn with summarized strong worded appraisal which agitates that Technical and Scientific Writing as a course be made compulsory to all students of teachers training programmes especially in Colleges of education.

Introduction

The most common and effective slogan of the millennium development goal is “education for all…” initially completed with the phrase …in year 2000” but Nigeria with more than ten years behind that schedule has not dropped the idea. Several efforts have been put in places awaiting the fulfillment of that dream. One of such efforts for the achievement of that dream is here in this paper postulated.

The provision of education for all has been a major concern of most countries since the international declaration in 1990. According to Obinanjo (2008), the issue has gained global impetus with five international agencies such as (UNESCO; UNDP; UNFPA; UNICEF and the World Bank) spearheading the movement. She further affirms that precisely 189 heads of governments including Nigeria reached an agreement to end extreme poverty, target education, environmental sustainability, etc. popularly known as the Millennium Development Goals (MDGs). Technical and Scientific Writing is an information communication technology skill that entails all learning experiences that have to do with proper writing presentation of the information communication technology. Ensuring education for all in this modern technological era should best be done through the actual knowledge and understanding of all that are entail in written presentations.

Since the independence of some developing countries, the society generally has witnessed a lot of phenomenal developmental changes in areas of Polities, Agriculture, Science and Technology. Communication as well has keen competition in education sectors. ICT now plays a dominant roll and presented written information in every student-teachers’ life becomes very vital. In all, quality and modernization of concepts and ideas written information to covey the intended meaning adequately have in recent time always been identified as one area mostly in need of attention for student teachers’ improvement in developing countries to achieve certain goals by socio-economic analysis.

The idea in Technical and Scientific Writing is as important as human in resource for national development. Man in nature’s demands and requirements, must respond to instruction accordingly.
Everything man does is for the achievement of objectives. Technically in writing is as eminent as man. Accordingly, information presented in written form is as man desire and require such in correct order and form. The proper presentation of information to actually depict real intent in appreciative form, adequately calls for one who is also perfectly groomed for the work for perfect or adequate result. Technical and scientific writing training is the only art that can offer such skill. Just as word are produced in the right terms, sequence and tenses for a given or intended meaning, so must the presentation of such be sine-qua-non and apt to be effectively handled for the best way of giving adequate training as to achieve these goals.

The National Policy on Education (NPE) in its philosophical base stipulates among others education is for the development of the individual into a sound and effective citizen and for the provision of equal access to educational opportunities. It intends to achieve its goals among others through the inculcation of the right type of values and attitudes for the survival of the individual and the acquisition of appropriate skills and the development of mental physical and social abilities and competencies as equipment for the individual to live in and contribute to the development of the society. To this end teachers’ education which is the pivot around which this aim can be achieved need be properly equipped to provide the best intended. In consequence, the quality of instruction at all levels especially in teacher education programmes has to be oriented towards inculcating the values of the acquisition of competencies necessary for self-reliance. The NPE further affirms that teachers’ education shall continue to be given major emphasis in all educational planning and development. This in effect endorses the facts agitates here in this paper on offering technical and scientific writing to all levels of educational programmes. To this end, the goals of teachers’ education need be revisited.

Goals of Teachers’ education in Consonant with Technical Writing

The National Policy of Education spelt out the goals of teachers’ education among others to include, the production of highly motivated, conscientious and efficient classroom teachers for all levels of our education system. It also intends to encourage further the spirit of enquiry and creativity in teachers; and provides teachers with the intellectual and professional background adequate for their assignment and make them adaptable to changing situations.

On the other hand technical and scientific writing is a specialized form of exposition or writing which is concerned with the communication of idea in a form that the reader can understand and use. Technical writing covers a broad spectrum of expression that transcends science and technology. It provides the technical knowledge and vocational skills necessary for development to certain individuals. It also gives training and imparts the necessary skills to individual who shall be self reliant economically. The techniques of technical writing that comprises orderly delivery of ideas, consideration of audience intelligence levels for medium of expression and explanation of new concepts used has the quality of clarity, logically, accuracy and brevity highly maintained.

The fact that the understanding level of audience and terms assumed to be out of place for the audience are put into consideration before imparting new knowledge are technical writing skills that are in agreement with the making of teachers.

According to Ozuruoke (2007), universities, colleges of education, polytechnics and other vocational institutions have curricula in the field of business and vocational education that they embrace. This does not cover technical and scientific writing.

Statement of Problem

Several nations are witnessing lots of phenomenal developmental changes in every sphere of life from the industrial revolution through the jet age down to the present computer and other electronic media age that now hinge on Information Communication Technology. Even Newspaper, magazines, periodicals of various
nature as well as reports of organizations are rolled out daily for the consumption of the general public.

Techniques are required to make these write-ups palatable. Again, teachers are in the most expected point of discharging these functions of making any one adequate in this area of writing. Good writing techniques certify the conditions of enable any written contact system all over the globe. The art of these writing techniques in operations ought to be perfect and accurate to really conform to the quality desire associated with the global rapid growing socio-economic reading and writing life. This is the state everyone who conveys message or information through written documents ought to be operating on in life now. But not all can do it due to the ignorant and or inability of some to realize that there are techniques that are involve in communicating that makes it adequate, creating a gap in the fast intended global communication link. Some have to wait or seek for others to assist them in editing or even doing the writing itself. This becomes the problem identified and proposed to be tackled herein with the assurance that critical look and implementation of the agitated idea will yield the anticipated positive improvement especially in the process of making the teachers.

Purpose

This skill development technique, if adopted is capable of ensuring that information communication techniques can be applied, perfectly handled by almost every productive person in the teaching profession if not all as a sure quality education for millennium development goal in the developing countries.

Inducing Questions

1. What is or are the specific degree or course programme pre-requisite to the learning of writing techniques and their application and operation?
2. Who are the specific set of persons that ought to know and use writing techniques for communication of information?
3. What are the relevant programmes associated with the skill acquisition of technical and scientific writing?
4. On what occasion or condition does the use of technical and scientific writing becomes necessary in the society.

Significance of this Development Option

Fruitful objectives in investment are gainfully reaped when results are promptly communicated. This skill educational option of ensuring that every teacher becomes technical and scientific writing compliance will definitely encapsulates both private and societal economic growth which is the main goal of any developing nation.

Scope of Implementation

This education development technique can be adopted by any nation, state or area as technical and scientific writing is paramount these days. However, this is highly recommended for especially those within the teaching profession. Concentration can be on those who may be running the teaching profession programmes in tertiary institutions.

Teaching and Learning as Relating to Technical and Scientific Writing Skill

The art of imparting and receiving education, as relating to ICT and Keyboarding will fully be comprehended with a revisit to their meanings. Arolasafe (2004) has ICT defined as “Information and Communication
Technologies are computing and communicating facilities and features that varies by support teaching and learning, and that it includes a range of activities in education”. Technical and scientific writing is one and major among the activities so stated, especially in the present written media revolutionary trend. It’s concept and application involves the use of elements such as charts, graffiti, cartoons, silhouette, connotation, etc.

Most among technical and scientific writing related activities include clarity, logical, accuracy succinctness or preciseness and other devices to reveal effective and sequences on technical writing, developing special awareness and psycho-motor control. It is further stated that technical and scientific writing has a number of features which makes it particularly suitable for teacher education. This includes:-

(a) Combination and integration of full range of media essential for effective learning since technical and scientific writing uses sound and vision from electronic media, text and periodicals like newspaper, magazines, signposts, etc.

(b) Provision of new opportunities to teachers and learners as well as involving all in the prevailing global village through writing.

(c) Provision of new economic and business participation involvement opportunities in the world no matter the distant apart as newspaper and other periodicals are found in almost every nuke and cranny.

(d) Interest increase and involvement on the part of students and even teachers' relationships as provided by lesson aids, instructions, information in written form that even enhance enthusiasm.

(e) Then opportunity of enabling students or learners generally to work and learn on their own with the aid of reading and writing.

From the above facts it should be understood that the major objectives of scientific and technical writing are to produce a clear, logical, accurate, and succinct piece of literature for a specific use or purpose.

These new technology have become central to contemporary teachers whether you are working in an office or in the field of studies. Every person in one way or the other is using scientific and technical writing.

Arolasafe (2004). Summarized the general use of ICTs in which technical and scientific writing is included that will enhance national development in the present dispensation that it:

- Help in school administration
- Train students in skill for future use and for learning process
- Provisions of assess to information and communication out-side via written media
- To support teacher development via external written materials
- Support and potentially transform the learning and teaching process.

For so, it is crystal clear that skill of technical and scientific writing is eminent and ought to be embarked upon since our nation have a very high need for achieving the intended millennium development goal. A clear process of doing this is through a formal educational system of teaching and leering. It becomes imperative here for this paper to specifically outline the perspective through which it can be achieved.

**Teaching Perspective for Developing Technical and Scientific Writing Skill**

This part of the paper considers the teaching or training aspect of developing the KEYBOARDING SKILL for the ICT compliance, for pre-service and the in-service personnel and others generally refers to as learners. This should be seen as an essential component for successful application of ICT skill across societal technological acquisition generally. This implies that Keyboarding for ICT is a tool for enhancing education and training of students, teachers and others as well as a tool that teachers can use to enhance their development and job at hand. Arolasafe (2004), sees training as a key requirement.

Teachers have been polarized in their acceptance of the new technologies while some have enthusiastically integrated computer and the internet into the classroom, others have been cautious in their welcome and some have simply rejected the technologies probably for fear and lack of keyboarding skill.

There is a level of unjustifiable cynics base on previous experience of disregard for secretarial skill
(Shorthand Typewriting) yet the reversible love for electronic typewriter as down to the present computer has not completely wiped out the disrespect and dishonour for the so called “Commercial Subjects” Osofisan (2004) in support said that with the inevitable proliferation of ICT even in the classrooms, the role of the teacher must change to bridge the lax gap created by the previous perceptions. Arolasafe (2004), has four recommendations as reasons for this to happen. Thus:

(a) Because ICT will cause certain teaching to become absolute and new electronic forms of distributed information communication must be employed.

(b) ICT may also make some assessment methods redundant as on-line test can easily be used as information associated with previous score records of each successive tests results can be entered automatically.

(c) It will be crucial for teachers to encourage critical thinking skill, promote information literacy, and nurture collaborative working practices to prepare children for a new world in which no job is guaranteed for life and where people switch careers several times, as the internet gives access to an exponentially growing storehouse of information sources due to almost unlimited networks of people and computers and unprecedented learning, research and jobs or working opportunities. Unfortunately, misinformation and inaccuracies are similarly present in great numbers on the internet so one of the new roles of the teacher within the electronic classroom will be separate out quality information from misinformation identification, classification and authentication of electronic information sources will be critical new tasks for teachers.

(d) Teachers must begin to reappraise the methods by which they meet children’s learning needs and match curricula to the requirements of human though. The internet can be the most excellent way to adapt information to meet their characteristics of human information processing. Traditional methods of imparting knowledge such as lectures, books and the conference papers are characterized by a linear progression of information. Human minds are more adaptable than this and refocusing for national development achievement becomes students with the non linear means to match human thinking process.

In addition to the above, various significant and unique opportunities are provided by ICT which technical and scientific skill can enhance for national development when used for developments of human resources. Among them are:

- It provides stimulation of specific psycho-motor skill through mini and micro-lessons which can be watched, manipulated and tested with signs, illustrations, abbreviations etc. ICT with technical and scientific writing can also provide demonstrations of real teachers in real classroom settings representing a range of subjects, approaches and methodologies. These demonstrations can then be dissected, analyzed, watched again, and assessed over time without disrupting an actual class.

- It enables teachers education to be provided at a distance to the trainees location, thereby saving travel time and cost and also avoiding disruption of classroom routines as teachers can learn at their own time.

- It allows education to take place any time and any place as well as allows learning on demand whether they are ready or not.

- Since teachers often have to deal with changes in knowledge methodologies, pedagogical issues, students or learners and school culture, professional isolation on initial and specialized training ought no longer to be invoke ICT keyboarding skill allows education especially the finger skill to communicate, exchange information, interact in chat rooms and on bulletin boards, and hold discussion forum and visual conferences on screen with the use of the finger on keys of the ICT equipment.

- Use of technology for teacher also enables the teacher to acquire extra finger usage technology.
With the bountiful benefits so far highlighted here, the numerous barriers and challenges which Arolasafe (2004) stipulated may be considered to affect the smooth implementation of the idea in context here as stated below thus:

- Lack of teachers' confidence and computer anxiety
- Lack of technical and scientific writing skill competence as combination to computer knowledge.
- Lack of access to resources to technical equipment required
- Lack of time for the inculcation of both in learning periods
- Technical problems especially power source
- Resistance to change and negative attitudes
- No perception of benefits
- Impact of public examinations
- Age differences and gender differences

Challenges such as programme seem to often cover one aspect only; not training teachers in the productivity skills development of both. Course may be programmed as only being supply-driven without teachers demand as inputs. Benefits often overstated leading to fanaticism and frustration when not readily realized. Training is never enough once-off especially international and some never-do0without learning purposes.

All these are ideas of the past with the inculcation of ICT and technical writing skill national development technologically through teachers' programmes us really assured to be achieved.

**Conclusion**

Proper adoption into the rapid changes in technology including technical and scientific writing skill will ensure that ICT and technical writing skill will proliferate into all classroom activities being scientific in nature and subsequently into a general all round digital techniques in information presentation operations. It is predicated that there will be many benefits for both the learner and the teacher. ICT with technical writing skills will also require a modification of the role of the teachers, who in addition to classroom teaching will have other skills and responsibilities in information communication management and control. Many will become specialist in the use of distributed learning technique the design and development of shared working spaces and resources and visual as well as real guides for students who use electronic media in relation to technical and scientific means.

Ultimately, the use of ICT will enhance the learning practice experiences for teachers, students as well as for other intended learners, helping them to operate, think and communicate creatively. This no doubt enhances national development. ICT keyboarding will also prepare our children and/or all categories of learners for successful live and skilled career in an increasingly technological world as the present global digital dispensation. The goal education for all no matter how delayed, must definitely be achieved at the long run.

This paper so far, tried to bring to light the importance of refocusing on ICT keyboarding in education processes generally and how the different and varying components underlining this current global digital revolution can be used for teaching and learning in both the classroom and outside learning environments. It also brought to light what individuals and co-operate bodies can achieve as per national development with these skill and however stressed that this absolutely depends on the support of trainees and trainers as well as from all educational administration institutions, organizing or managing bodies as well as the prevailing intentions. In fact, this paper assures that you can be your own boss today with a national education development goal generally on ICT Keyboarding in particular.

**Summary**

Technical and scientific writing skill ought to be a must task for any professional teacher in an Information
Communication Technology compliance society to enhance societal individual development. Thus invariably will result to sustainable poverty alleviation as well as achieving major development goals of any given country.

References


Creative Dramatics as an Effective Tool in Contemporary Education: A Pedagogical Discourse

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Abstract Creative dramatics remains a relatively new and burgeoning phenomenon in contemporary education. It is an attempt to use drama for more functional purposes. This paper surveys the instrumentality of creative dramatics as a classroom experience and as an effective educational tool in contemporary education. It carefully considers its meaning and implications, scope, aims and objectives as well as its values to the growth of the child in all development gamut; as well as the vital and invaluable role of the teacher in permeating the world of the child to understand and assist him to master the realities of his surrounding as he is being prepared for the real world and a better living in life.

Keywords: creative dramatics, child centeredness, pedagogy

Introduction

Creative dramatics, otherwise known as educational drama is a relatively new phenomenon and an attempt to use drama for more functional purposes; and has so rapidly grown in recent years. Harvel (1987: 163) in affirmation attributes this development to the “wider movement towards the ‘new’ or ‘progressive’ principles of education; which as Worugii (2006) notes grew out of research in behavioural psychology in education. It presents an effective approach in pedagogy. From the perspective of meaning and scope, let us take the initiative by asserting that creative dramatics implies any activity which presents a situation involving people in active role playing, and which emphasizes attitude rather than character. This is because when a child takes on a role, he only adopts an attitude rather than a character.

Attitude here can be viewed from Johnson’s (1979: 130) perspective as:
A combination of concepts, verbal information, and emotions that results in a predisposition to respond favourably or unfavourably towards particular people, groups, ideas, events, or objects.

The chief concern of creative dramatics is the child [children]. In other words, creative dramatics upholds child centeredness. Hildebrand (1986), a renowned child educationist, in an attempt at a definition sees creative dramatics as the spontaneous imaginative role playing taking place in schools for young children. Koste (1978: 6), in leaning credence to this view sees it as “involving the mental act of imagination transformation”. Uka (1982: 201), in citing Professor Brochet, has observed creative dramatics as a phase of improvised dramatic situations, as stimulated in children.

From the foregoing, it becomes pertinent to draw a line at the age bracket with which creative dramatics involves. This is basically the infant level up to six for whom in Peter Slade’s opinion, drama as an art form becomes a natural way of discovery for the real world. Creative dramatics therefore, a purely classroom experience, is concerned with helping children to gain mastery over their intellectual and linguistic powers. It helps them to develop the ability of effective words usage in ordinary conversation, and at the same time allowing them to express and affirm their perception of reality and surrounding – the world around them. Koste (1978: 95) on a summary note opines that its essential aim is to master reality.

Therefore, early involvement in dramatic activity is essential in child’s education. It expands the child’s vision beyond his own experience. Through creative dramatics, the child is able to find himself, to discover his personality, his potentialities and limitations, his movement and language capacities and his particular interests. For the sooner he develops the ability to control his emotions, opinions and thoughts, and learns to verbalize and communicate his ideas spontaneously, quickly and adequately, the sooner he is being
equipped with a valuable aid tool in life without which he cannot project himself as a fully integrated adequate personality.

Creative Dramatics as an Effective Educational Tool

Creative dramatics is a most valuable tool in contemporary education. Abone (1990: 105) posits that it is a powerful instrument in promoting qualitative primary education. As an educational tool, she observes that “it is a process of developing and acquiring artistic skills”, and stresses that “it is those skills that enhance effective drama”; and further asserts that “creative drama is a learning process”. Here, two key words: developing and acquiring become pertinent and worthy of note. Perhaps, they seem to bear the whole strength of creative dramatics.

Earlier observation has been made that creative dramatics or educational drama is more recent: an attempt by people to use drama for more functional purposes. It is this utilitarian background therefore that predicates it as an educational, besides recreational tool. Thus informing the recent departure from what used to be the earlier dramatic convention for instance in Nigerian primary schools: a convention which Onyekuba (1995: 5) observes, engages children in dramatic activities only when they prepare for occasions like the parents day celebration etc, which are basically for entertainment, by the status it has recently assumed in model primary schools.

Uka (1982: 201) asserts that:

If according to some philosophers that the mind is a tabula rasa on which one may print anything, the child’s mind as he grows into society and its values, is one of the most malleable tabulae.

At this level, the child is still at an impressionable age. Creative dramatics therefore seeks to embed and inculcate on him those attributes that are positive. Dramatic activities in early childhood enable the child to be more alive and sensitive to his environment. Through it, he not only discovers himself, but becomes more aware of other people and situations around him and develops sensitivity towards them.

Through drama, other subject areas could be explored for the awareness of the child. For instance, literature as a form of life experience is initiated in children’s plays, since it expands the realms of the child’s vision beyond what he has actually observed to reach places, times, and people he cannot directly know. Biblical stories could be made more exciting by dramatization. Historical events could also be brought to a more realistic level. People of other lands and their activities can be staged in geography pageant much as teaching in other subject areas could be reinforced through selected topics and themes to aid children’s understanding.

Therefore, when we consider the instrumentality of drama as a springboard to other knowledge experience, either through exploration or imagination, it becomes apt to absolutely assert that creative dramatics is indeed, an efficient, effective and most valuable tool in contemporary education.

The Place of Improvisation

It is important to note that creative dramatics posits a group situation in which individuals create with others within the group towards a certain resolution. This creative or composing process therefore much as it encourages and enhances such individuals’ skills in the process makes a grater demand on their independent intelligence. This is the level of the inner resources which Peachment (1976: xiii) emphasized: a situation which predicates improvisation as an indispensable part of the process, in which participants attain both transition and imaginative transformation in their role playing as they develop and acquire such skills.

The emphasis here as upheld by Heathcote (1988: 45) is on the use of improvisation to aid a learning or teaching experience. In other words, what becomes of the role taker (the change) from the confrontation and challenge of such situation as he spontaneously organizes his responses in living through it. Simply put, the knowledge (learning) he acquires.
In this process therefore, the insight and adaptation through improvisation into such situation as then created all contribute to learning as well as to language development as the participants find words to communicate within the group.

**Communication as the Life Blood of the Process**

Communication allows men … to be inclusive of one another … to integrate their meaning for each other … (and) to share more fully in communion with their natures. Communication between two human creatures is an act of interlocking their emergent knowings in the sequence of upcoming moments as they share them. (Heathcote, 1977: 43)

Communication emphasizes reciprocity – giving and receiving in turn. Creative dramatics as a classroom experience does not just demand an effective communication among children, much as it enhances it, it involves a communicative system between the teacher and the child (children): an intercourse and feedback between each other. The two engage in constant communication in reciprocity – encoding and decoding, vice versa.

The teacher is a sender and a receiver as well as the child, both in the provision of the stimuli and responses and in clarifications. Heathcote (1977: 44) clarifies that as one party encodes, the other receives and reorganizes his response in relevance to what the former should next receive and use in turn. It is not a one-way traffic, but a continuum process of giving and receiving which holds as far as the drama lasts.

Hence communication through reciprocity enhances the educative process to which educational drama aims. It is the center that holds the system: a fulcrum on which it revolves. Thus its failure only translates to the overall failure of the system.

**Creative Dramatic as an Educational Mode into other Art Forms**

Creative dramatics activities undoubtedly develop children’s interest in other art forms, thus making these forms instrumental in facilitating it as an educational or learning process. For instance, the use of story as an invaluable art form became necessary because of children’s enthusiasm about it. This stimulates their interest in literary art. Such story which must be well chosen must be charged with appropriate theme, situation and atmosphere which should have a consideration that should be suitable to the child’s intellectual development.

The value of creative art activities also to the general development of the child as they are being employed in creative dramatics cannot be ignored. The child’s power of imagination and observation is sharpened much as he gets introduced to early forms of writing and reading as well as movement. Art activities therefore not only reflect a child’s inner self, they help to form it.

In creative dramatics, as the child engages in active role playing, such other form as language is inevitable. Therefore, through the complementary role of other art forms in creative dramatics, much as interest in them is enhanced, its educational objectives are most fully realized.

**The Values of Creative Dramatics**

Creative dramatics is an invaluable activity. It contributes to the child’s growth in all gamut of development, much as it affords the adult the opportunity of helping children in resolving their problems. The values of creative dramatics are numerous; these include:

1. **Cognitive Development of the Child**
   Creative dramatics can be highly instrumental to the development of children’s awareness and
sensitivity. With their dramatic roles expanding as their world broadens, children gain insight and experience and master realities around them. In mastering these realities, their sensitivities are sharpened alongside. Language skill becomes inevitable in this process and is developed as well.

2. Developing Sound Mental Habit
Creative dramatics encourages and fosters development of children’s imaginative and independent intelligence. Through the world creative dramatics creates and the demands of such world, a child although he works in concert with others, uses his individual imaginative thinking. He is enabled to crystallize his own impression about life and is encouraged to work out solution to his problems in the process.

3. Developing Creativity and Talent
The child’s imagination and thought is stimulated in dramatic activity from which words and actions are so spontaneously expressed. The child is therefore led into a creative process which encourages him to work out solution by himself to that creative discovery.

Creative dramatics abundantly enables children to creatively develop their physical and expressional skills besides mental abilities. They gain mastery in language arts through constant manipulation of words in their dramatic roles in addition to dexterity in body movements and action. Put succinctly, creative dramatics fosters the physical, expressional, and creative skills of the pupils as an educational process.

4. Development in Socialization
Creative dramatics engages the child in active role taking situations. The child begins to develop a concept of his own role. This enables him a better understanding of both himself and others, and to develop sensitivity towards them. In this sympathetic climate, he is allowed to open up to himself for a better cooperation with others.

5. Play is the child’s natural medium for self expression. The child’s bursting emotions are released in a healthy manner in dramatic play. Among the range of feelings which burst to be released through child’s play are: joy, love, fear, rejection, anxiety, anger etc.

In child education therefore, creative dramatics has become a tool: an expressional mode that is not only enjoyable, but also satisfying. Thus, it satisfies the cognitive, affective and the psycho-motor domains of learning. Through it, the child’s cognitive domain (intellectual and mental level) is sharpened and made more sensitive and alert to functioning; the affective domain (feelings and emotional level) becomes more positively inclined to both reception and response to the cognitive experience; while the psycho-motor (mind activation level) similarly activates, externalizes or expresses this affectively conditioned cognitive experience as the child solidifies growth in them, as well as his ultimate personality.

Creative Dramatics as a Teaching Method: The Role of the Teacher

Understanding that children are active constructors of knowledge and that development and learning are the result of interactive processes, early childhood teachers have been recommended to recognize that children’s play is a highly supportive context for their developing processes (Piaget, 1952; Fein, 1981; Bergen, 1988; Smilansky and Shefatya, 1990; Fromberg, 1992; Berk and Winsler, 1995). Play gives children opportunities to understand the world, interact with others in social ways, express and control emotions, and develop their symbolic capabilities. Creative dramatics, therefore, is a learning process. This is no doubt manifest in
dramatic play as children engage in role playing which not only places them in other people’s shoes, but also enables them to learn in the process, as they work out these roles. As a teaching method, creative dramatics lays a solid base for effective language development in children as it inculcates effective expressional skill in them as well as the control of action in achieving desired characterization.

Through exposure to literature, creative dramatics expands the realm of children’s vision beyond what they had observed to that which they do not know. It solidifies their responses to arising conflicts in them as well as in real life as they pit themselves against these experiences. It provides an easy method of enlivening and linking most subjects in children’s lesson in the school and subjects come alive as children discover and remember essential facts during the process of acting out and retelling the basic facts; thus spurring children’s imagination which they try to recast in their story telling and creative writing as well as representations in drawing.

To successfully realize the foregoing, the role of the teacher becomes pertinent. He becomes drawn with the child in a mutual metaphor where the child becomes the seed, and he the gardener.

Abone (1990: 111) summarizes it this way:

It is the teacher who creates the teaching situation, employs suitable teaching techniques, (and) understands the nuances of the pupils and the situation by asking questions.

The teacher must be friendly, tolerant, alert and creative as well as responsive to be able to adequately create a conducive atmosphere. Also, the teacher should be guided by an acute sense of selection through which he clarifies the setting, plot and characterization to the children and then withdraws to the side line; though it might not be absolute, as situations might dictate otherwise, to observe and judge and provide any necessary assistance. The teacher who keeps close to the children, observing and listening to them, can more meaningfully plan the highly motivating worthwhile program that each of them deserves. In other words, the dramatic activities initiated by the children determine the degree of motivation that was available to them.

So, the teacher must be very sensitive to the need of his group as well as the particular need of individual child. He must be able to permeate the world of the child to get aware of the social attitude within which the child exists, both within and outside the school, as to not just make him adjust, but also adapt, as he lives through the dramatic experience.

The role of the teacher, therefore, in the educational medium which creative dramatics has become is invaluable and cannot be underestimated or ignored – it is indispensable.

Conclusion

Assiduous effort has been made in this paper to explicitly highlight creative dramatics as an effective tool in contemporary education which had resulted from the new and progressive educational principles: an attempt to satisfy the utilitarian and functional need of the new order. Obviously therefore, creative dramatics is an invaluable activity which involves children in active role playing situation: a natural way of discovery (mastering reality) and preparation for the real world, which contributes to their growth in all developmental gamuts. Through creative dramatics, children learn about themselves as well as their environment.

Creative dramatics also provides adults the opportunity of understanding children’s inner thoughts and feelings which predicates the teacher’s role indispensable in the process; as he, through a worthwhile program, is afforded the opportunity of assisting the children in finding solution to their problems.

In the light of the above, therefore, the merits of creative dramatics as an educational tool and learning process are invaluable and innumerable; they cannot, indeed, be over-emphasized. It no doubt provides an effective approach in pedagogy in contemporary education.
References


