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Editorial

The papers in this edition of JESR are designed to expand the flow of ideas among educators, and development scholars. Its goal is not only disseminating current knowledge about development but is also engaged in furthering this curiosity. This work therefore contributes to the global debate on education and sustainable development as well as examining lessons of experiences for policy options.

It is a great opportunity cooperating with the Mediterranean Center of Social and Educational Research. This partnership metamorphosed into this Special Issue. The entire editorial team of JESR were highly resourceful reflected in their unflagging zeal and commitment. We thank Dr Lisa Licata for her commitment to duty which ensured the success of the project.

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Prompted by the concern of the state of education in the global south, this special edition mediated on a number of issues of contemporary relevance and pertinence.

Please read on!

Dr. Jacinta A. Opara

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and
President, African Association for Teaching and Learning
Historical Development of Azeri Education System and the Effects of the Private Azerbaijani-Turkish Schools

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Abstract The foundation of Azerbaijan education system laid down thousand years ago. Azerbaijani Education System has taken shape by various elements until it comes to its today's case. One of these significant elements is the private Azerbaijan-Turkish (Gulen-inspired) schools. These schools have a major role on the passing from the Russian Traditional school education to modern one. These schools have positively affected the Azerbaijan culture, the economy and the policy by their outcomes in last 19 years. The students they raised have come to important classes in community, both inside outside of the country. By this way the positive effects of these schools have increased day by day. The private Azerbaijan-Turkish (Gulen-inspired) Schools have contributed to development of Azerbaijani education system. As a result they have formed a model for education organization and schools model of modern world.

Keywords: Azerbaijan, education system, Turkish schools

Introduction: History of Azerbaijan Education System Development

Azerbaijan education system laid down thousand years ago. It has been taken shape by different elements until it becomes like today's case. One of these significant positive elements is, clearly, Private Foreigner Schools. It has been touched at the in details.

According to Azerbaijan history, the education system of country originated in III century B.C., and the first educational system was found during VIII century. As it is know that the modern education system of Azerbaijan includes of three chronological periods: the first system being from 1918 to 1920, and the next period from 1920 to1990 forced by the Soviet Union, and the present education system maintained since country became self-governing from the Soviet Union in 1991.

According to Dr. Jafar Jafarov, Rector of Azerbaijan Tourism Institution, after the end of the Soviet Union, in all post-soviet countries there launched processes directed to generate the origin for independence in all the parts of the social life and beginning it by reason of the modern world standards. One of the most vital duties for them was to get rid of old educational structure, modernize it to new socio-economic circumstances and combine into developed worldwide standards.

As it is a seen that in collapse of socialist socio-economic systems, the establishment of the basis of the country’s education in a new socio-economic and political environment turned into one of the critical problems of today. Researches began that era changed country’s direction to the modern world standards, counting integration to Europe in educational field.

Main Problems of System During the Transition Period

1) Azerbaijan and Armenia war
2) Preparing new textbooks,
3) Lack of modern curriculum,
4) Training aids
5) Learning and reading materials with transition from Cyrillic to Latin Scripts. Formation of new economic relations
6) Limited financial resources
Minister's Suggestions for the Trouble

The ministry of education shares his ideas about overcoming the current problem of education with these words: I wish we had private high schools in Azerbaijan to compete with the public high schools. If Azerbaijan wants to move ahead with its market economy and integrate itself into the world economy, it needs more private schools. When the government sees that talented students choose to attend private schools, it will increase the quality of its public schools.

He continues his speech with the followings: For example, there are many Turkish schools in Azerbaijan, and the level of education in those schools is very high. Graduates from Turkish schools are accepted in many different universities.

As it has been seen, “Private Turkish Schools” are always on the table as a good alternative to make reform on the education system of Azerbaijan. During last decades, Azerbaijan receives support from various companies and international humanitarian organizations such as UNICEF, EXXON, and BP Amoco as well. It means that country is seeking solutions for the reform at all times.

Why do we Work on Mainly Secondary Education?

As it is known that general secondary education is the largest portion of the Azerbaijan education system in terms of coverage and the education reform in Azerbaijan has been mainly concerned with the general secondary education. Therefore, this area is one the fields need to be studied.

Educational Reform Attempts of Country

According to state officials, there are three main objectives for educating Azerbaijani youth. Primarily, Azerbaijani students need to be taught the Azeri language and their own country’s history and culture. Following this, they should gain knowledge of at least one foreign language. Then, they should be able to use modern technology, especially communicational devices.

It is a reality that Azerbaijan had succeeded praiseworthy progress in educational reform and developments in the face of many difficulties in the country. In contrast, Azerbaijan still, like any other countries including the most developed ones, meets troubles in education. However, the things have done till now are not good enough for reaching at educational goals.

Road Map of Reforms In the Last Decade

Educational reform program held by international organizations such as UNESCO and World Bank in 2003 follows three stages. The first stage preparing the reform plan has been completed. Many specialists have been sent to the U.S., UK, France, Japan, Turkey and central European countries to study the educational systems in those countries. For this stage, The World Bank provided $295,000.

The second leg of reform would be carried out from 2000 to 2003. 20 schools had been chosen throughout the country to be completely repaired and re-equipped. Those schools’ programs would be completely changed, and their teachers would join special training seminars. The World Bank had offered $5 million credit to obtain this program underway. All of Azerbaijan’s first-grade teachers have already attended two-week training seminars to learn about the new programs. Now they are implementing what they’ve learned in their classrooms.

One of the major problems with the schools’ existing textbooks is that they are written in very difficult language. Most were written by academics and college professors who had never set foot inside an elementary classroom. Therefore, there is a necessary to touch this issue as well. The salaries of teachers are so low right now; some of them are behaving in unethical ways, taking bribes. The system has just
recently started a program to combat this. The last stage was analysis of the results of this trial period. However, it can be said that all of the attempts are moving so slowly.

**Looking for New Ways to Improve the Quality of Education System**

It should be known that taking part in this reform processes will not automatically resolve existing problems in high education in a short period. It charged those countries with the responsibility of solving many problems. And, let Azerbaijan faces the realities of their serious problems.

The other fact is that the potential staff of a state and its inadequate structures is not enough for solving this serious dilemma. It is a certainty that reforms being implemented in country's high education system wholly depend on the active participation of public society, especially high school teachers and students in the processes. However, not to waste huge time, experienced programs such as Turkish schools could be implemented as soon as possible. Since, they have been applied in this region in last 18 years.

**Views of the Society for the Education Reforms**

According to the survey done by Azerbaijan Tourism Institution, 70 per cent of the teachers and 74 per cent of the students declared that the level of education is not high for the present day and needs sweeping reforms. Only 14 per cent of the students agreed with the idea that the level of education meets today’s demands. The hopeful point in this survey is that the majority of the secondary school community conceives the necessity of increasing the quality of education and is morally and psychologically ready for the reforms in this respect. This survey results are an obvious proof of the necessity of radical reforms and of the moral support for the educational reforms. According to the results of the survey, it becomes clear that either students or teachers are not satisfied with the speed of the reforms which are being carried out.

**Basic Secondary School (From Grade 6 to 11) Problems:**

According to some researches done by important international institutions, the most common problems of Azerbaijan Education system can be outlined like:

1. financial and technical basis of educational institution, which do not meet modern requirements;
2. outdated curriculum;
3. inadequate content of textbooks and training aides for modern standards;
4. poor financing;
5. lack of ICT provision;
6. inefficient staff preparation for labor market requirements.
7. insufficient financial and technical resource basis;
8. 76% of schools located in non-standard buildings;
9. 500 school buildings in unsatisfactory condition;
10. unavailable heating system in 85% of schools;
11. 74% of schools working in 2-3 shifts, 32.5 % students attending 2nd or 3rd shifts;
12. overload of schools by 3/4 times in comparison with the projected capacity;
13. high density of students in classrooms (40-50 students per classroom).
14. low rate of computers per student at 1 computer/1,047 students;
15. only 4.4 % of schools have access to internet;
16. shortage of teaching staff for different subjects in rural areas;
17. no foreign language teaching in 10.3 % of schools;
18. outdated system of assessment of students’ learning achievement;
19) inadequate curriculum to meet modern requirements;
20) insufficient teachers’ professional skills;
21) inefficient funding mechanisms.

Some Solutions Implemented for the Problems

Since then till now some works have been implemented to improve the quality of this level of education, such as:
1) construction of 205 new schools during the past 3 years;
2) new refurbishment and equipment of 23 schools for children in need of special care, by the initiative of the UNESCO Goodwill Ambassador Mrs. Mehriban Aliyeva;
3) 143 schools to be constructed by September 2005;
4) modernization of 152 (83%) out of 182 textbook titles, new design of 52 teaching guides;
5) free provision of textbooks for I-XI grade students, by September 2005 (117 books and 8 million copies);
6) publication and provision of encyclopaedic dictionaries in Latin scripts (18 titles; 846,000 copies, total $ 1.7 million);
7) publication and distribution of 50 books of classic and modern Azerbaijan and world literature in Latin scripts;
8) Azerbaijan’s past performances in World Olympiads in chemistry, biology, and physics, informatics;
9) implementation of a 5-day academic week in pilot schools;
10) the government’s acceptance of State Standards of general secondary education and basic study plan in 1999.

Things Should be Done:

In connection with future perspectives, the following key points are thought to be implemented:
1) development of a new curriculum;
2) development of new textbooks and reading materials;
3) creation of equal opportunities in general education and usage of innovative methods;
4) change in the structure of general secondary education (5-4-2);
5) complete transition to a 5-day academic week in all schools;
6) development of new mechanism of in-service teacher training;
7) development of a new system of students’ learning assessment;
8) improvement of the managerial mechanism;
9) provision of ICTs in schools up to the computer/student ratio of 1/33;
10) usage of new funding mechanism in schools;
11) improvement of financial and technical basis in schools (realization of the school construction programme) and provision of modern equipment;
12) reduction of the number of shifts and student density in classrooms.

The Followings are Expected from Reform Results:

1) improvement of the content of secondary professional education;
2) creation of the staff development system in accordance with labour market demand and development perspectives;
3) intensification of ICT;
4) optimization of the network of secondary professional educational institutions;
5) improvement of management and planning in educational institutions;
6) establishment of marketing services in educational institutions.

Resource: UNESCO's report

Education Reforms in Azerbaijan: World Bank Project on Education Reform

As it is known, education has been reformed in Azerbaijan. The Education Reform Project was implemented in general secondary education on the basis of the World Bank Project on Education Reforms from 1999-2004 at a cost of $5.5 million. This education reform project includes the following components:
1) reform in the field of curriculum development and provision of methodological materials;
2) reform in the field of in-service teacher training;
3) monitoring and evaluation.

Possible Areas of Cooperation with UNESCO

Concerning the outstanding issues of all levels of education and the priority areas in which Azerbaijan wishes to engage in further cooperation with UNESCO, the Minister mentioned the following key areas: sustainable human development, equal rights to education, improvement of legislation, education quality, introduction of ICT in education, improvement of education management, curriculum development, in-and pre-service teacher training, accreditation of educational institutions, introduction of new funding mechanism, improvement of the mechanism of transfer from one tier of education to another one.

Aim of Studying Abroad with a Government Scholarship

One of the solutions is specified as sending clever students abroad with government scholarships for master and PhD programs. The state officials thought that these high-qualified staff group may accelerate the reform process after coming back. It is expected that the change of the general secondary education structure by withdrawal of some subjects from a basic education plan, and addition of new subjects and issues of subject integration in the preparation of curricula.

Challenges of Reforms

Achieving academic freedom, strong and vigorous student, quality of education system programs, corruption, cooperation with international institutions, battle to cultural imperialism, and school-industry relations are the most important problems.

Private Turkish Schools are the starting of a new period towards unity in the international Education System, covering such important issues as access to Azerbaijan education, term of education, and recognition of secondary school education documents as well as creation of appropriate mechanism for these goals. Quality is changing of the existing form, and stability of the evolutionary effort.

As Another Alternative: Private Schools

While government-supported schools are the model for students in basic education at the turn of the millennium, increasing efforts are being made by international organizations and other private funders to create private educational opportunities in the country, especially at upper levels.

With the private Turkish schools, it has begun in 1993; special attention was directed toward revising and improving Azerbaijani textbooks and the curricula used in Azerbaijani schools. As already mentioned,
noteworthy problems existed with the textbook situation in the 1990s. Textbooks were neither sufficiently plentiful nor of adequate quality to provide students with the necessary instruction in subjects that would have direct applicability in their lives, nor were students given the type of instruction that would enable them to transfer school learning to everyday situations or to competently solve problems in the real world.

Even though in some schools officers and stuff were ready to put into service a more student-focused and active-learning style of teaching by the late 1990s, the lack of appropriate resources on modern teaching methods delayed progress in modernized teaching style in the country. Accordingly, one of the most important reforms attempted by the private Turkish schools in tandem with the Ministry of Education 1993 centered on training teachers in more student-focused, active styles of teaching involving student projects and activities.

According to some scientists that reform in Azerbaijan's education system was necessary, and could be done in two ways: 1) by enacting step by step reform of the whole secondary education system or 2) by starting from ground zero, establishing a small institution with new models, as a kind of a synthesis between an international perspective and national values. Government officials liked the idea of starting a new private model, and although the government could not offer money, it gave private Turkish Schools permission to try. Its eye-catching results are in front of us with tens golden medals from different part of the world.

History of Turkish Schools in Azerbaijan

Turkish Schools are the private schools opened in Azerbaijan in 1991 after the collapse of Soviet Union. Those are exactly non-governmental organizations. They provide better education and bringing Western education system to this country. The characteristics of Turkish schools making contribution to national education can not be ignored.

The Ministry of Education especially states the same think openly. Additionally, due to lack of public schools in number compared to the population, many citizens could not have schools to study. The Turkish schools, with positive or negative aspects, were closing the gap in this field.

These schools led the way to start a practical training in the science instead of theoretical. These schools have made positive impact on Azerbaijan structure of society, cultural structure, even economic and political life. They have greater impact on, especially, enrolment issue, secondary school management understanding, technical training, classroom layout, modern methods in education and techniques, bringing new disciplines and professional training.

In this study, I have tried to examine the effects of private Turkish Schools on Azerbaijan Education System. It has occurred that these schools have prepared a program by taking into account of sensitive points of the region's political situation in Azerbaijan.

Properties that make them different or superior schools are teacher-student-parents relationships, equipment, technical equipment and the fact that they were advanced in terms of publication. It can be said in a different way that the modernization of education in Azerbaijan has been renewed with the positive contribution of these schools.

The crucial importance of these schools’ education management style formed a difference with their approaches in education, to behave in a plan and systematically, with the difference of student relationships.

According to another view, private schools are preparing more advanced ground for the opening of other schools with their equipment, and technical structures, and their renewing power structure. Additionally, they make Western Education be more attractive with their new methods and techniques. The results of these studies are reflected in the education system.

These schools, the new address of principled and targeted education, are carrying the modern understanding of education and training systems of their original countries into Azeri Education System.
Effects of Turkish School on Education System

If an educational system is in relation to with other countries for student, technology, tools exchange, these countries related systems with the education are in the environment of education system.

Turkish Schools have brought new methods in Azerbaijan’s western concept of education in a period in which country was nearly a century behind the developments. Schools are, at least, the institutions have been notified scientific and technological developments in the West on the basis of information stage.

New systems of education that start with Private Turkish Schools grow up students who are researcher, experimenter, questioning, and analyzing. Schools implement their works in an enviable care. All the details have been thought out related to today’s conditions such as library and laboratories, modern classrooms, meeting and exhibition halls, residential buildings, canteens.

The goal is to complete the student’s every need here. Even if the family does not find support for their students, teachers are interested in them as close friends. Schools are not only the places learned information but also reinforced the practical training information.

Possible Positive Outcomes of Turkish Schools

There is a reality accepted by everyone else in this country that these schools have impacted the Azerbaijan culture, economy and policy by their attractive workings positively since they have been founded. Their graduates have come to main classes in the state and community. In this way the impacts of these schools have increased. At the same time, they have started to clearing out the Soviet integrity by their systems, curriculum, management types, and works.

At the first stage it can be say clearly that Private Turkish Schools have contributed to advance of Azerbaijan education system positively. With these, they have shaped a representation for Azerbaijan education organizations and schools as a modern of model. How it happened is going to be analyzed below in details.

In private foreign schools, management team, teaching staff and school organization developed better than the local schools. All the details response to the needs of the students is thought out in the schools such as culinary, dormitories, bathrooms and others.

In these schools, learning is easier and more permanent with the modern classrooms, laboratories, and libraries; in these application areas, theoretical knowledge can be transferred in daily life easily.

These schools resemble western Schools with textbooks and other educational tools. Extremely well-trained instructional staffs are different from local school ones with having a different the student-teacher approach. The use of multi-award system rather than punishment encourages loyalty to school. The graduates of these schools do not live employment problem. Due to having been employed with the most important tasks of the state and society has increased the demand for schools.

The impact on the characteristics and formation of Azerbaijan education system: Private foreign schools have effected to education system in Azerbaijan before with their purposeful of the principle. They were caused entering the educational understanding similar to Western Education System instead of traditional in the Education of Azerbaijan.

Initiation and spread of foreign language education in secondary schools: In the past, languages were Russian and Persian to learn for Azerbaijanis other than worldwide language, English. These languages were not also considered to be part of foreign language. Especially, scientific and technological developments were increased the importance of learning Western languages.

Providing modern education: These schools as a model of western education systems are conveying all
the innovations in the West. They, acting according to their respective countries' education systems, are carrying new teaching techniques, methods, the information and tools to the students as soon as possible.

**Integrity and continuity in education:** Turkish Schools became an example by extending their institutions from kindergarten to university and continuing as a whole. From a view, they are the pioneers for starting continuous and compulsory education. The understanding of starting from the fundamental consciously instead of top becomes a proliferated in the society by helping of private schools.

**Student-centered Education Model:** These schools developed various ways to be loved and accepted by the students with the reality of being in a foreign country. Some days, they strive to recognize their students as their friends. At first, they try to explore different aspects of students' abilities; skills, intelligence and emotions, then they tried to give course to them. They took into consideration of the student wishes at first, and tried to point the students as a player in the education. By bringing the student in the center of education, they have started student-centered course.

**The importance of high-qualified teacher in education:** In these schools being literate is not enough for being teachers. Teachers generally studied all the teaching profession to be teachers. These schools' teachers must be skillful and knowledgeable in many areas. They are taking office with approaches by learning how treated to students. Students who graduate from schools began to compare Turkish Schools with the Azerbaijan schools, and then the importance of teachers' pedagogical training also emerged. Newspapers, magazines publish articles including praise of teacher who are good at children's psychology. Thus, this issue was entered the Azerbaijani educational system, with the example of private Turkish schools.

**Setting up fully-equipped schools:** Schools with their developed management team, teachers and school organization help sciences, and opened modern classrooms, laboratories, and libraries. All the other requirements were considered such as kitchen, dormitory, and bathroom in these schools serving as boarding schools as well.

**Starting of field Education:** They have followed a path separated different fields instead of following a single style, and types of education in accordance with the nature of schools. They have followed an educational road to develop students according to their ability and achievement.

**To bring new solutions to the issue of financial resources in education:** Taking regular budgets and a share of certain amounts from their respective countries revealed a new understanding of the foundation in the education. Most importantly, they demonstrated the need that the state is the main owner and supporter of public education. By opening mercenary schools, they have formed a sample to meet the costs of education by parents instead of the state as well.

**Making changes in the concepts of punishment and reward:** They have taken the Western schools' system of denying from the award used in Azerbaijan education. They have pointed to the importance of multi-award instead of punishment in education. Without forgetting being a foreign country, they have tried to gain more sympathy while teaching. Students have been encouraged by small gifts, certificates of honor, medals. School meals, moral entertainment, picnics, contests boosted their demand.

**To demonstrate the importance of school-parents cooperation:** They are in cooperation with parents instead of being in harmony only students. Family visits and various informative meetings were held for this aim. It has been provided a pleasing establishment of closeness to the schools by helping of activities done
for the parents. It has been increased their influenced by taking support from parents.

**To demonstrate the importance of review in Education:** The founders of the schools, principals are taking care about the review of the works seriously. The staffs that do not follow the objectives of the school or not meet aimed behaviors are being dismissed immediately. School staffs have made a habit of accountability by acting in controlled responsibility.

**Environmental education orientation:** Private Turkish Schools are also interested in the school environment at a time the public schools gradually withdraws and moves away from the society. Brochures are printed; conferences and seminars are held.

**Exposing the concept of a private school:** Differences are brought to education and the graduates have acquired roles in the society attract the attention of their parents. Families are ready to pay money in order to educate their children in these schools. The schools are the pioneers of the concept of private school education in Azerbaijan.

**Brining the concept of competition in the education:** They prepared a suitable environment for opening other qualified private schools unconsciously with their high standard equipments, technical structures, and structures of renewing themselves in advanced. Turkish Schools had to compete with other private schools and local schools to improve their efficiency. As a result of each race, they have increased the quality, diversity, and their conditions of being sought after. Today, Turkish schools still preserve their existence is among the most preferred schools. It is accepted the purpose of growing up “universal qualified students” with these schools, especially, with the opening of the Baku Turkish College. Turk College has chosen a secular educational method. Graduates of the school were involved in an important place both in society and state structure. Despite all changes in the education system, the graduated students of this school create the positive changes in the society.

In conditions of globalization in the world, can they be used as a counter-model to reduce the negative effects of globalization? Without losing their national identity, can these schools be set up the student educating model but growing with "school spirit" to ensure benefits of universal nature of globalization?

What is the role of private schools in regard to reducing "brain drain" which is one of the important issues of Azerbaijan? Numeric data can also be helpful to investigate this issue?

All these questions’ answers can be addressed as the subject of a new research project. Only a few researches have been done about development of Azerbaijan education system after the collapse of Soviet Union. Internationally, only UNESCO and World Bank are interested in this subject. When it is taken into account of the geopolitics situation of the country and its hot topics, a high qualified education staff is necessary to overcome all of these problems. Thus, this topic is so vital to have a bright and clear view about Azerbaijan’s future. As it is known that only high qualified people can make positive differences.

As conclusion, Turkish schools are pioneers about occurrence of systematic expansion of schooling and literacy and education. In addition, they have been role models for the providing the provision of financial resources and budget plans, schools’ teaching staff, accurate selection of textbooks and curriculum as required by professional educators. Briefly, these institutions made a huge contribution on Azerbaijan education system. For these reasons, private Turkish Schools entered into Azerbaijan Education System as the new model school. In this way, they have begun to take a change the current schools by increasing the basic attributes of the system in this direction.
References

Bishku, M., Turkey's Entente with Israel and Azerbaijan: State Identity and Security in the Middle East and the Caucasus (review) The Middle East Journal - Volume 64, Number 3, Summer 2010, pp. 493-494
Cansever, E., “Turkey in decade’s best economic, trade phase with Azerbaijan”, Today’s Zaman Turkish Daily Newspaper, 30 May 2009, Saturday, Baku
Cansever, E. Weekly Turkish Magazine, Aksiyon, Number: 551
Received from “General Education in Azerbaijan Education in 2001”, [ Accessed: 01.07.2011 http://www.min.edu.az/docs/u2tehsil.html]
Students’ Acceptance and Commitment to E-Learning: Evidence from Pakistan

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Abstract Technology enabled learning is widely growing throughout the world at consistent pace. The increasing acceptance of e-learning lies in its time, distance and resource advantages comparing with traditional face to face learning. This research study was conducted to know the factors affecting students’ acceptance and commitment with e-learning based on responses from 120 online students enrolled in Commonwealth of learning MBA/MPA programme in Allama Iqbal Open University of Pakistan. Results showed the favorable attitude and commitment with e-learning by the students. Students’ characteristics and, technology and resources were found as the two key factors explaining the acceptance and commitment with e-learning. Managerial implications are discussed based on the research findings.

Keywords: Instructors’ characteristics, students’ characteristics, technology and resources, and Olive structure, study material and contents and e-learning acceptance and commitment

Introduction

Overview to E-Learning and its Significance

Learning is a process which starts during very initial ages of life cycle and continue and never stop till the demise. We have different reasons, intentions and aspirations behind learning. In corporate environment, people learn as they have the desire to be rewarded and excel from counterparts or even some time to refrain punishment. On the hand, status, knowledge thirst, power, employment, job obligation, self-satisfaction and social pressure are also the main antecedents to learning (Cross, 2004a). In the society, learned persons are always regarded therefore, we observe natural tendency of individuals toward learning to enhance knowledge, skill and attitude.

Organizations have now realized the fact that their long-term success is only possible if they have the ability to develop and retain human capital. Especially intellectual capital has become the primary factor of production (Cross, 2004b). This might be the reason, corporations motivate and provide financial assistance to their employees to learn and serve. Broadly training, academic education and self development are the three main approaches to facilitate learning process. Education is categorized as the best method to impart and capitalize learning.

With the advent of e-learning, the development process has now been revolutionized. E-learning is the web-based learning which utilizes web-based communication, collaboration, multimedia, knowledge transfer, and training to support learners’ active learning without the time and space barriers (Lee, Yoon, and Lee, 2009).

Universities and educational institutes have incorporated e-learning in their teaching and learning methodologies to facilitate students. Face to face learning postulates time and space barriers as learners are
required to acquire knowledge at specific time and location. On the other hand, e-learning provides time and place utility. In addition, e-learning allows students to continue their educational journey in cost effective way and facilitate the dissemination of knowledge in timely manner (Lee, Yoon, and Lee, 2009). As Paechter and Maier (2010) argued that e-learning is the best option when skills in self-regulated learning are to be acquired.

**Allama Iqbal Open University and its E-Learning Effort**

Allama Iqbal Open University (AIOU) is a distance learning university established in 1974 with the aim to provide education to those individuals who cannot continue their education due to distance, cultural or traditional bondages. In 2003, AIOU offered Commonwealth of Learning MBA/MPA programme to empower executives with the professional learning and to enable them in harnessing the economic and social development of Pakistan. By keeping the significance of e-learning into account, in 2008 AIOU offered some of its programmes by incorporating e-learning in its education delivery system. Their e-learning platform was termed as **Open Learning Institute of Virtual Education (OLIVE)** which is duly based on Moodle (Learning Management System). Parallel to face to face mode of study, their e-learning efforts is also successfully being carried out throughout the country.

Contemporary researches conducted in e-learning domain shows astounding acceptability of e-learning in various environment. However, the contribution from Pakistani environment is still awaited. Over past two years, despite wide appreciation and gradual increase in student enrollment in olive system, there has not been any effort made to know the level of students' commitment with e-learning (OLIVE in AIOU environment).

**Literature Review**

E-learning has acquired attention of various researchers due to its gradual prevalence and flexibility. Most of the research studies were made in streamlining the implementation and adoption of e-learning (Ali and Magalhaes, 2008; McPherson and Nunes, 2008; Selim, 2007). In addition, extensive review of the literature shows that e-learning acceptance, effectiveness, participation and student satisfaction remained the focal point of various researches. Although all these factors tend to focus at the e-learning success in long-run in different settings but literature does not reveal any sufficient evidence relating to students' loyalty and commitment with e-learning for future. As the following excerpts show the key issues addressed in the e-learning domain;

**E-learning Acceptance**

The study of (Lee, Hsieh, and Ma, 2010) revealed that individual, organizational, and task characteristics were the key predictors of e-learning acceptance in organizational contexts therefore incorporating such measures may enhance employees' acceptance of e-learning systems more effectively and efficiently. Lee, Cheung, and Chen, (2005) conducted a study to know the influence of extrinsic (perceived usefulness and ease of use) and intrinsic (perceived enjoyment) factors on the acceptance of e-learning. Perceived usefulness and perceived enjoyment were found the main predictors towards intention to use e-learning. While ease of use couldn't significantly explain the criterion.

Yiong, Sam and Wah (2008) also strived to know the acceptance of e-learning among distance learners at the Open University of Malaysia by investigating students’ behaviors and attitudes towards e-learning, institutional factors, instructors’ characteristics, interactive applications and technology or system. Results showed the moderate level of acceptance. Ahmed, (2010) made a little different effort within the context of e-learning as the author investigated the acceptance of hybrid e-learning through three variables i.e. information technology infrastructure, instructor characteristics and organizational and technical support.
All the three critical success factors significantly and directly impacted the learners’ acceptance of hybrid e-learning courses.

**E-Learning Effectiveness**

Numerous efforts have been made in determining the factors that can enhance e-learning effectiveness. As Johnson, Gueutal and Falbe (2009) conducted a study to integrate previous research findings about the factors which affected e-learning effectiveness. Results revealed that individual learner characteristics and technology characteristics are the two factors that enhance e-learning effectiveness only if meta-cognitive abilities mediate this relationship. Meta-cognitive activity reflects an individual’s awareness, knowledge and regulation of his or her cognitive processes (Flavell, 1979). Another research effort was made by Poon, Low and Yong (2004) to know the effectiveness of the online learning process through students’ behavior, characteristics of lecturers, interactive application, technology or system, and the institutions. All the factors were found to be the main predictor of the effectiveness of e-learning.

**Participation in E-Learning**

Researchers have recommended different measures in order to enhance participation in e-learning from the students. Generally student satisfaction and perceived usefulness are the key factors in explaining the behavioral intention of learners to use the e-learning system (Liaw, 2008). Perceived usefulness was also reported by Lee, Yoon and Lee, (2009) as key predictor towards e-learning participation. Moreover Lee, Yoon and Lee, (2009) presented the significant influence of instructor characteristics and teaching materials on perceived usefulness of e-learning, while perceived usefulness and playfulness were found as the predictors of the intention to use e-learning.

On the other hand, Garavan et al., (2010) showed that person's characteristics, perceived barriers and enablers, motivation to learn, self-efficacy, and instructional design characteristics predict the participation in e-learning.

Schneckenberg (2010) made a different attempt by targeting faculty members to know the factors affecting their participation in e-learning and concluded that universities will have to create innovative portfolios including formal and non-formal measures like communities of practice, peer groups and networks. Furthermore, institutional incentives like e-learning rewards and career opportunities may also be given to key users of e-learning for sustained use of e-learning technologies in their respective course teaching.

**Student Satisfaction with E-Learning**

As mentioned before, satisfied students are likely to exhibit more behavior intentions to use e-learning system (Liaw, 2008). Therefore, preceding researches are enriched with measuring student satisfaction and its determinants. Flexibility in terms of time and place are considered as the factors that students appreciate in e-learning (Hong, Lai and Holton, 2003). But student satisfaction with e-learning also largely depends on instructor’s expertise in e-learning. Instructors’ counseling and support also helps in explaining the e-learning achievement and course satisfaction (Paechter and Maier, 2010). Student–instructor interactions also reported as key instrument for students’ satisfaction by Hong (2002). Especially instructor needs to provide high assistance at the start of the course for better student satisfaction (Hong, 2002).

Wang (2003) conducted a study by analyzing adult respondents and found that personalization, content, learning community and learner interface were the key factors that help in measuring student satisfaction with e-learning systems. Lu and Chiou (2010) endeavored to know the impact of contingent variables on the relationship between four predictors (interface friendliness, perceived community, content richness, perceived flexibility) and students’ satisfaction with e-learning. All the variables were found key predictors to students’
satisfaction with e-learning while among the three contingent variables (Gender, job status and learning style), only student job status and learning styles produced statistically significant moderating effects on the relationship between predictors and e-learning system satisfaction (Lu and Chiou, 2010).

Malik (2009) effort was more contextualized in nature. The study revealed the factors from Pakistani perspective which played influential role towards student web-based learning satisfaction. Findings showed that facilitation of technical matters, attitude of student and instructor, their computer efficacy, teacher response during e-learning, friendly interface of the e-learning environment were the core factors that influence student satisfaction towards e-learning.

Based on the previous researches, this study endeavored to investigate the factors predicting e-learning acceptance and commitment with the context of Open Learning Institute of Virtual Education (OLIVE) system of Allama Iqbal Open University. Students’ commitment with e-learning in this study is defined as “the extent to which students are deeply involved and motivated towards e-learning and willing to incorporate e-learning as an independent mode of learning system in future”. While the predictors included instructors’ characteristics, students’ characteristics, technology and resources, and Olive structure, study material and contents.

Methodology

Participants

Students enrolled in the Commonwealth of Learning MBA/MPA Programme and opted Open Learning Institute of Virtual Education (OLIVE) system as mode of study were treated as the population of the study. No distinction was made with respect to their semester level and number of courses opted. Even the students who had discontinued their online educational journey partially or fully were also targeted to know the attitude. University record showed that in total 131 students were coming under these specifications.

Procedure

Keeping in view the limited size of population, an attempt was made to collect as many responses from the target population of the study. Students using e-learning system in their education might feel it comfortable to
respond through the website / online survey. Therefore a questionnaire was developed in soft form by using
the services of http://freeonlinesurveys.com/. The questionnaire was forwarded to all students with brief
information about the main purpose of the study through email. Some students were also given hard copies
of the questionnaire on their convenience. By considering the pressing academic schedule, questionnaires
were floated during holidays. However, it was made mandatory to each student to forward duly filled in
questionnaire within seven days of receipt of email. Such measures helped in collecting around 127
responses. Some of questionnaires were deleted as seen attempted in casual way. The survey was totally
anonymous and students were not required to show their identify. Ultimately responses of 120 students were
analyzed through SPSS 15.0.

Measures

Instructor's Characteristics, Student's Characteristics and Technology & Resources

Items to measure instructor's characteristics and student's characteristics were taken from the study of Selim
(2007). For instructor's characteristics total 8 items were given while for student's characteristics it was 7.
Five point likert scale ranging from 1. Strongly Disagree to 5. Strongly Agree was used to record responses.

Olive Structure, Study Material and Contents

To measure Olive structure, study material and contents, total 8 items were used. All the items were self-
constructed and based on five point likert scale ranging from 1. Strongly Disagree to 5. Strongly Agree.

E-learning Acceptance and Commitment

The construct of e-learning acceptance and commitment being broad in nature, was measured with 11 items.
These items were taken from different studies of Liaw (2008) and Lee, Hsieh and Ma (2010). However, some
of items were slightly modified and few items were self-constructed. All the items were based on five point
likert scale ranging from 1. Strongly Disagree to 5. Strongly Agree.

Results

Demographical Analysis

Demography of the population shows that most of the subjects were between 26 to 45 years of age as 58%
selected this age bracket. Reason being only executives working at managerial level could take admissions
in the online Commonwealth MBA/MPA programme. Most of the respondents were male (68%) while 32%
were females. Since individuals having 14 years of education could be enrolled therefore, respondents with
bachelor level of degree (14 years of education) were calculated as 64% while 33% had acquired master
level (16 years) of education. Furthermore, 76% of the respondents were employed and 22% were managing
their own business affairs.
84% of the subjects revealed their income level between 21,000 to 50,000. Employees working at lower and lower middle level of management in Pakistan roughly earn from 40,000 to 50,000 on monthly basis, therefore this figure looks quite logical. Most of the respondents showed their working experience between 5-10 years. In Pakistan normally students look for job after graduation or post-graduation degree. After serving the organization for few years, they start enhancing their educational level for the sake of their career growth. Our respondents were mostly from 2nd semester of the Commonwealth MBA/MPA programme as representing 44% of the sample while other highest representation was obtained for 1st and 3rd semesters as 27% and 23% respectively.

Analysis

Descriptive results of the collected data shows positive trend of all variables. Students using e-learning were agreed with various items relating to instructor’s characteristics (Mean = 3.24, SD = 0.86), student’s characteristics (Mean = 3.35, SD = 0.66), technology and resources (Mean = 3.54, SD = 0.57), olive structure, study material and contents (Mean = 3.44, SD = 0.51) and e-learning acceptance and commitment (Mean = 3.64, SD = 0.60) within the context of Open Learning Institute of Virtual Education (OLIVE).
While the correlation results also showed strong positive relationship between all independent variables with dependent variables. Especially, the results highlighted the strong positive association between students’ characteristics and e-learning acceptance and commitment ($r=0.64$, $p < 0.05$) and also between technology and resources and e-learning acceptance and commitment ($r=0.61$, $p < 0.05$).

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variables</th>
<th>Adjusted R Square</th>
<th>$\beta$</th>
<th>$t$ Stat</th>
<th>$P$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-learning Acceptance and Commitment</td>
<td>Instructor's Characteristics</td>
<td>0.6391</td>
<td>0.1857</td>
<td>4.5223</td>
<td>0.0000</td>
</tr>
<tr>
<td></td>
<td>Student's Characteristics</td>
<td></td>
<td>0.3386</td>
<td>5.9384</td>
<td>0.0000</td>
</tr>
<tr>
<td></td>
<td>Technology and Resources</td>
<td></td>
<td>0.3894</td>
<td>5.9391</td>
<td>0.0000</td>
</tr>
<tr>
<td></td>
<td>Olive Structure, Study Material and Contents</td>
<td></td>
<td>0.1893</td>
<td>2.7829</td>
<td>0.0063</td>
</tr>
</tbody>
</table>

Regression results revealed the strong effects of nearly all explanatory variables i.e. instructor's characteristics, student's characteristics, technology and resources, olive structure, study material and contents on criterion variable i.e. e-learning acceptance and commitment. Total $63.91\%$ ($\Delta R = 0.6391$) variations in e-learning acceptance and commitment is explained by all predictors. The most predicting qualities were found with students’ characteristics ($\beta = 0.34$, $t = 5.94$) and technology and resources ($\beta = 0.39$, $t = 5.94$). Coefficient values for instructor's characteristics and olive structure, study material and contents remained as ($\beta = 0.19$, $t = 4.52$) and ($\beta = 0.18$, $t = 2.78$).

### Discussions and Findings

The results of the study showed an encouraging finding regarding the perceptions of the students about various measures of e-learning and its acceptance and commitment. During theoretical review, it was observed that previous researchers are more inclined towards measuring information system success, determining students'/employees' attitude towards technological learning, student satisfaction, e-learning effectiveness, e-learning participation etc. However, not much found about determining the factors causing involvement and commitment to use online based learning mechanism for longer period of time. Therefore, this study was an effort in this regard to highlight some of the factors impinging upon students’ acceptance and commitment with e-learning for future.
Students were of the view that they were comfortable with using personal computers and it was their own preference to select e-learning rather intimidated by anyone. Secondly, they appreciated the way their instructor put efforts in e-learning system of education. According to their opinion, their instructors were passionate towards this particular system of learning, therefore always found well composed and prepared for contents delivery. In emerging world, energy problems and resource unavailability may pose impediments in proper penetration and usage of technological means. However, the subjects under study were found satisfied with the availability of high speed computers and internet in educational premises and offices. Even showed satisfaction with course contents and updated supplementary material. All in nutshell, students using e-learning were found adequately motivated towards this mode of study and recommended this as an autonomous learning tool.

Significantly high relationships are found between independent and dependent variables. Especially students’ characteristics were found highly related with the e-learning acceptance and commitment. This shows that when students are comfortable and accustomed with using PC and internet then it entices them to prefer e-learning over traditional face-to-face learning. Another significantly high relatedness is found between technology and resources and e-learning acceptance and commitment. This validate the concept of flexibility and easiness of technological resources as when students found e-learning mechanism (Olive) easy to operate and requisite course material is well placed then it ultimately enhances the satisfaction with e-learning functions / components. Furthermore, relatively low but significantly high association was calculated between instructors’ characteristics and e-learning acceptance and commitment. It reveals that e-learning acceptance also largely depends upon online teacher/tutor. When they effectively deliver online lectures and found receptive towards students’ queries then it generates the interest and motivation of students which further generates loyalty to e-learning as preferring e-learning in other educational programmes.

Regression analysis was also carried to know the interdependence of the variables. Regression results explained the strong predicting qualities of nearly all explanatory variables on criterion variables. Especially, student’s characteristics and technology and resources are the two core factors determining e-learning acceptance and commitment. Students who have friendly attitude towards technology and having all the facilities to continue their online education may accept e-learning system voluntarily. Every individual has been affected due to wide prevalence of technology but some people take it whole heartedly and incorporate internet and Information Technology in official work, learning, serving, fun etc. Such individuals are more comfortable with e-learning then traditional face-to-face learning. However, technology resources and equipment may pose threat to such segment. In country like Pakistan, where power sector is facing crisis and internet facilities are also little expensive in relation to the purchasing power of common citizens, students feel insecure in preferring e-learning. Therefore, facilitating them in this regard may enhance e-learning acceptance and commitment at large.

In conclusion, the results of this study shows that when instructors are enthusiastic about e-learning, students are comfortable with using technology and have all the technological resources, and last not the least when they have easy access to the Internet wherever they move then all such facets help to make them committed with e-learning on lasting basis.

Practical Implications

The author presents following implications based on the result of this study;

1. There is a strong need to hire online instructors/tutors/teachers having key interest and command on e-learning. Instructors need to motivate students in using all the components such as discussion forums, e-chats and other supplementary materials, and also be responsive towards student’s questions and queries.

2. Universities and educational institutes should enroll students who are willing to take e-learning
mode of study voluntarily rather forced to do so. Students having interest in e-learning incorporate all the components of e-learning in their learning process.

3. Technology and resources play vital role for the wide acceptance and commitment of e-learning. It is the prime duty of the government to provide technological resources (computers, notebooks, internet etc) at reasonable prices so that students can take the best advantage not for e-learning but also for any kind of learning activity. High speed internet and advanced computers with updated features would certainly enhance the motivation towards e-learning.

4. For the success of e-learning, sufficient teaching materials should be placed at the website related to course objectives and it should be sufficient, interesting and updated regularly.

References


Foreign Direct Investment and the Performance of the Nigerian Economy

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Abstract Foreign Direct Investment (FDI) is investment that is made to acquire a lasting management interest (usually 10% of voting stock) in an enterprise and operating in a country other than that of the investors (Jhingan, 1998). This paper examines FDI and the performance of the Nigerian economy. It investigates how FDI impacts economic growth in Nigeria. The paper recommended among other things, that there should be policies and programmes that will promote or improve FDI and macroeconomic variables in the economy.

Introduction

An agreed framework definition of Foreign Direct Investment (FDI) exists in the literature. That is, FDI is an investment made to acquire a lasting management interest (normally 10% of voting stock) in a business enterprise operating in a country other than that of the investor defined according to residency (World Bank, 1996). Such investments may take the form of either “Greenfield” investment (also called “mortar and brick” investment) or merger and acquisition (M&A), which entails the acquisition of existing interest rather than new investment.

In corporate governance, ownership of at least 10% of the ordinary shares or voting stock is the criterion for the existence of a direct investment relationship. Ownership of less than 10% is recorded as portfolio investment. FDI comprises not only merger and acquisition and new investment, but also reinvested earnings and loans and similar capital transfer between parent companies and their affiliates. Countries could be both host to FDI projects in their own country and a participant in investment projects in other countries. A country’s inward FDI position is made up of the hosted FDI project, while outward FDI comprises those investment projects owned abroad. One of the most salient features of today’s globalization drive is conscious encouragement of cross-border investments, especially by transnational corporations and firms (TNCs).

Many countries and continents (especially developing country like Nigeria) now see attracting FDI as an important element in their strategy for economic development. This is most probably because FDI is seen as an amalgamation of capital, technology, marketing and management.

Sub-Saharan Africa as a region now has to depend very much on FDI for so many reasons, some of which are amplified by Asiedu (2001). For a developing country like Nigeria, the inflow of a foreign capital may be significant in not only raising the productivity of a given amount of labour, but also allowing a large labour force to be employed (Sjoholm, 1999). The effort by several African countries like Nigeria, to improve their business climate stems from the desire to attract FDI. In fact, one of the pillars on which the New Partnership for Africa’s Development (NEPAD) was launched to increase available capital to US $ 64 billion through a combination of reforms, resource mobilization and a conducive environment for FDI (Funke and Nsouli, 2003).

Nigeria as a country, given her natural resource base and large market size, qualifies to be a major recipient of FDI in Africa and indeed is one of the top three lending African countries that consistently received FDI in the past decade.

However, the level of FDI attracted by Nigeria is mediocre (Asiedu, 2003) compared with the resource base and potential need. Further, the empirical linkage between FDI and economic growth in Nigeria is yet unclear, despite numerous studies that have examined the influence of FDI on Nigeria’s economic growth with varying outcomes (Adelegan, 2000 and Akinola, 2004). However, recent evidence affirms that the
relationship between FDI and growth may be country and period specific. Asiedu (2001) submits that the
determinants of FDI in one region may not be the same for other regions. In the same vein, the determinants
of FDI in countries within a region may be different from one another and from one period to another.

The results of studied carried out on the linkage between FDI and economic growth in Nigeria are not
unanimous in their submissions. A closer examination of these previous studies reveals that conscious effort
was not made to take care of the fact that more than 60% of the FDI inflows into Nigeria is made into the
extractive (oil) industry. Hence, these studies actually modeled the influence of natural resources on Nigeria’s
economic growth.

**Foreign Direct Investment and the Performance of the Nigerian Economy**

According to Jhingan (1998) direct investment is the formation of a concern (business) in which company of
the investing country has a majority holding. The formation of the business concern may be financed
exclusively from foreign source lending to the creation of fixed assets. In the same vein, the World Bank
(1996) conceptualized Foreign Direct Investment (FDI) as investment that is made to acquire a lasting
management interest (usually 10% of voting stock) in an enterprise and operating in a country other than that
of the investors (define according to residency) the investors purpose being an effective voice in the
management of earning either long term capital or short term capital as shown in the nations balance of
payments account statement.

Nigeria’s foreign investment can be traced back to the colonial era, when the colonial masters had the
intention of exploiting our resources for the development of their economy. There was little investment by
these colonial masters. With the research and discovery of oil foreign investment in Nigeria, but since then,
Nigeria’s foreign investment has not been stable.

With the end of oil boom in 1982, Nigeria found herself in a quagmire of economic problems. The
external sector, these problems include unsustainable balance of payment deficits, a rapid escalating debt
stock and a crushing debt service burden. Internally, the economic problems include unsustainable fiscal
deficit, rising unemployment and galloping inflation. Above all, investment has collapsed and this contributed
strongly to a reduction in real output and per capita real income level. In the late 1980’s and early 1990’s
despite Nigeria’s implementation of SAP, beginning from 1986, investment remained low and refused to
recover significantly, the decline in investment in the late 1980’s and the low investment ratio which persisted
into the 1990’s no doubt partly explains the slow growth of output during this period. It is certain that with
significant recovery of investment, particularly foreign investment, a meaningful resurgence in output growth
would remain elusive. And also if foreign investment remains at the current low level of per capita
consumption and income and endanger the sustainability of the adjustment effort and hopers of poverty
 alleviation.

**Impact of Foreign Direct Investment on Economic Growth in Nigeria.**

There have been some studies on investment and growth in Nigeria with varying results and submissions.
For example, Odozi (1995) reports on the factors affecting Foreign Direct Investment (FDI) flow into Nigeria
in both the pre and post structural adjustment programme (SAP) eras and found that the macro policies in
place before the SAP were discouraging foreign investors. This policy environment led to the proliferation and
growth of parallel markets and sustained capital flight.

Ogiogio (1995) reports negative contributions of public investment to GDP growth in Nigeria for
linkages between Foreign Direct Investmen (FDI) and economic growth in Nigeria. Endozen (1968) cited into
Adeolu (2007) discusses the linkages effects of Foreign Direct Investment (FDI) on the Nigerian economy
and submits that these have not been considerable and that the broad linkage effects were lower than the
Chenery-Watanaba average (Chenery and Watanaba, 1958). Oseghale and Amonkhiemam (1987) found that Foreign Direct Investment (FDI) is positively associated with Gross Domestic Product (GDP), concluding that greater inflow of Foreign Direct Investment (FDI) will spell a better economic performance for the country.

Ariyo (1998) studied the investment trend and its impact on Nigeria’s economic growth over the years. He found that only private domestic investment consistently contributed to raising GDP growth rates during the period considered (1970-1995).

Furthermore, there is no reliable evidence that all the investment variables included in his analysis have any perceptible influence on economic growth. He therefore suggested the need for an institutional rearrangement that recognizes and protects the interest of major partners in the development of the economy.

Examining the contributions of foreign capital to the prosperity or poverty of LDCs, Oyinola (1995) conceptualized foreign capital to include foreign loans, direct foreign investments and export earnings. Using Chenery and stout’s two-gap model (Chenery and Stout, 1966) cited in Adeolu (2007) he concluded that Foreign Direct Investment (FDI) has a negative effect on economic development in Nigeria.

Adelegan (2000) explored the seemingly unrelated regression model to examine the impact of Foreign Direct Investment (FDI) on economic growth in Nigeria and found out that Foreign Direct Investment (FDI) is pro-consumption and pro-import and negatively related to gross domestic investment. Akunlo (2004) found that foreign capital has a small and not statistically significant effect on economic growth in Nigeria.

However, these studies did not control for the fact that most of the Foreign Direct Investment (FDI) was concentrated in the extractive industry. In other words, it could be put that these works assessed the impact of investment in extractive industry (oil and natural resources on Nigeria’s economic growth).

On firm level productivity spillover, Ayanwale and Bamire (2001) assess the influence of Foreign Direct Investment (FDI) and firm level productivity in Nigeria and report a positive spillover of foreign firms on domestic firm’s productivity.

Much of the other empirical work on Foreign Direct Investment (FDI) in Nigeria centered on examination of its nature, determinants and potentials. For example, Odozi (1995) notes that foreign investment in Nigeria was made up of mostly “Greenfield” investment, that is, it is mostly utilized for the establishment of new enterprises and some through the existing enterprises. Aremu (1997) categorized the various types of foreign investment in Nigeria into five: wholly foreign owned; joint ventures; special contract arrangements; technology management and marketing arrangements; and subcontract co-production and specialization.

In his study of the determinants of Foreign Direct Investment (FDI) in Nigeria, Anyanwu (1998) identified change in domestic investment, change in domestic output or market size, indigenization policy, and change in openness of the economy as major determinants of Foreign Direct Investment (FDI) inflow into Nigeria and that effort must be made to raise the nation’s economic growth so as to be able to attract more Foreign Direct Investment (FDI).

Jerome and Ogunkola (2004) assessed the magnitude, direction and prospects of Foreign Direct Investment (FDI) in Nigeria. They noted that while the Foreign Direct Investment (FDI) regime in Nigeria was generally improving, some serious deficiencies remain. These deficiencies are mainly in the area of the corporate environment (such as corporate law, bankruptcy, labour law etc). and institutional uncertainly, as well as the rule of law. The establishment and the activities of the economic and financial crimes commission (EFCC), the independent corrupt practices commission, and the Nigerian investment promotion commission are efforts to improve the corporate environment and uphold the rule of law. Has there been any discernible change in the relationship between Foreign Direct Investment (FDI) and economic growth in Nigeria in spite of these policy interventions?

Akinlo (2004) investigates the impact of Foreign Direct Investment (FDI) on economic growth in Nigeria using data for the period 1970 to 2001. His error correlation model (ECM) results show that both private capital and lagged foreign capital have small and insignificant impact on economic growth. This study however established the positive and significant impact of export on growth. Financial development which he
measured as M₂/GDP has significant negative impact on growth. This he attributed to capital flight. In another manner, labour force and human capital were found to have significant positive effect on growth.

However, an important fact about Foreign Direct Investment (FDI) and growth debate is the endogeneity case in which Foreign Direct Investment (FDI) is theorized to impact positively on economic growth and consequently, lead to greater market which in turn attracts further Foreign Direct Investment (FDI) as well (market size hypothesis). Market size hypothesis states that markets with rapidly expanding economic growth tend to give multinational firms more opportunities to make more sales and profits and therefore become more attractive to Foreign Direct Investment (FDI). This study will therefore make its contributions by examining the contributions of Foreign Direct Investment (FDI) to growth. In addition, analyze the reality or otherwise of endogeneity theory, then determine the contributory variables to Foreign Direct Investment (FDI) flow in Nigeria.

**Recommendations**

1. Appropriate policy measures to attract foreign capital should be formulated and implemented to boost increased economic growth.
2. Policies that will bring about improvement in foreign direct investment and the balance of payments (BOP) in the economy should be encouraged.
3. Policies and programmes that would promote or stimulate foreign capital in the form of FDI and reduce unemployment should be encouraged.
4. Programmes and policies that promote FDI and reduce inflation should be promoted.
5. The Federal and the various state governments should as a matter of priority, improve the business environment by consciously providing necessary economic and social infrastructure, which will lower the costs of doing business in Nigeria and attract FDI into the country.

**References**


Gender Budgeting as an Instrument for Educational Attainment in Kenya

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Abstract Gender issues have continued to play a key role in the formulation of sector wide public policy, worldwide. It is notable that gender gaps in many developing countries remain a challenge in the education sector. The purpose of policies is to guide action towards some identified practical goals; policies lose meaning when they remain unimplemented. Moreover, it is important to understand the process of policy formulation and implementation because it is crucial to the final outcomes. In contemporary education theory and practice, feminist thought provides invaluable direction on gender policies that seek to enhance inclusiveness and equality in education so that it does not discriminate against girls and women or any minority groups. This paper will, therefore, provide an overview use of gender budgeting as an important tool in the hands of the state to eliminate gender disparities from educational perspective against feminist theoretical frameworks. The purpose of the study is to establish the impact of gender budgeting on accessibility to quality education by the girl child. The study identified a wide range of factors that have led to gender disparities in Kenya and reveals that significant positive changes have been realized in the education sector although a lot more is required.

Keywords: Gender, gender gap, budget, gender responsive budgets and gender policies

Introduction

Kenya is one of the East African countries with a population of 38 million according to 2010 census report and a total adult literacy rate of 87%. It is extremely heterogeneous with 48 ethnic tribes. It has Gross domestic product based on purchasing-power-parity (PPP) per capita US$ 1,784 (2010est.). Agriculture is the second largest contributor to Kenya’s gross domestic product (GDP), after the service sector. The principal cash crops are tea, horticultural produce, and coffee; horticultural produce and tea are the main growth sectors and the two most valuable of all of Kenya’s exports. Coffee has declined in importance with depressed world prices. The production of major staple crops such as corn is subject to sharp weather-related fluctuations.

Gender

The usage of “gender” seems to have first appeared among American feminists who wanted to insist on the fundamentally social quality of distinctions based on sex (Scott, 1986). Their aim was to understand the significance of sexes of gender groups in the historical past, the functioning and sustainability of the social order (Natalie, 1975). They made considerable contribution to the politics of gender empowerment, as well as the issues of equal opportunities and access to resources such as property, wealth and education over time. Feminists have a common denominator as an interest in the interrogation of women’s inequality and subordination to men. They have, over time, made considerable contribution to the politics of gender empowerment, as well as the issues of equal opportunities and access to resources such as property, wealth and education. The point of focus is issues of equal opportunity in access to resources for women and men, especially in education and employment and support of affirmative action as a compensatory strategy for redressing past inequalities, particularly against women and girls. Patriarchal ideologies tend harbor oppressive tendencies towards women, denying them autonomy and agency. Accordingly, patriarchy is accused of defining characteristics of society based on all forms of oppression that are extensions of male supremacy (Humm, 1995).

There is need to capture gender perspectives within social reality provides the foundation for greater
understanding of the complexities that characterize gender issues. In this sense, gender Perspectives prompts us to always ask the question ‘how does this action, decision, outcome or benefit affect women vis-à-vis men or girls vis-à-vis boys?’ It thus helps us to always locate femininity and masculinity as relational concepts and to critique how a decision that is gender blind can affect females and males in different ways (Graffins, 1985). Archaeologists and anthropologists have discovered much about early pre-class societies. They content that when people lived co-operatively and there was no division into classes women were not oppressed. Yes, there was a division of labour based on men's greater physical strength and on the demands of childbearing and breastfeeding. This division did not denigrate women in any way. A woman having a baby was recognised as the huge contribution to society which it is.

Globalization may be defined as the shrinking of the world into what is popularly referred to as “the global village.” The 20th Century ends as the world moves towards a new era characterized by a globally integrated economy, where decisions regarding, production consumption and other aspects of social relations increasingly include transnational dimensions. Forces of globalization are real and their influences are felt everywhere. It entails free trade, free mobility of both financial and real capital, and rapid diffusion of products, technologies and information and consumption patterns. As indicated in the 1999 World Survey on the Role of Women in Development, in the age of globalization, Governments’ policy choices have shifted in favour of openness of trade and financial flow. Policies calling for lighter regulation of industry, privatization of state-owned enterprises and lower public spending have characterized the programmes of governments around the world. Liberalization policies coupled with technological advances in communications accelerated the impact of economic integration, thus eroding conventional boundaries particularly that of the national state.

World Development Report (1999/2000) draws attention to the strong reactions provoked by globalization, both positive and negative. According to this report globalization is praised for the opportunities it brings, such as access to markets and technology transfer, but it is also feared and condemned because of the instability and risks that can accompany it. Foreign investment and international competition can help poor economies to modernize, increase their productivity and raise living standards. The significant gender differences and disparities with respect to decision-making powers, participation, and returns for effort that prevail in different societies need to be taken into account when responding to the forces of globalization. Due to gender inequalities and discrimination in most parts of the world, women would be affected negatively by globalization processes to a greater extent than men. On the other hand, there can be significant gains for women with globalization. It is necessary to systematically monitor the gender impact of change so that the goals of gender equality and the expansion of human capabilities are not sacrificed.

At the policy level, the impact of globalization on women and gender relations continues to be neglected nationally and internationally. Entities of the United Nations system are taking steps to integrate the goals of macro-economics with those of social development. Yet more remains to be done to integrate gender equality dimensions in their normative, policy and operational work so as to ensure the continuing leadership of the system in promoting gender equality, development and peace within the context of globalization. The Beijing + 5 process provides an opportunity to reflect on the impact of globalization in determining further actions and initiatives for the full implementation of the Beijing commitments (World Development Report (1999/2000))

The growing integration of economies and societies around the world is a complex process that is variously affecting different regions, countries and areas and their populations. Among other things, globalization has enhanced employment opportunities for women, where previously they had not existed. It has also brought great freedom to women, especially those living in traditionally conservative countries like Indonesia, Ireland and Thailand, where women are able for the first time to be economically independent of men and to have at least some choice in their personal lives. Ultimately, by bringing women into the workforce, globalization has given women a power they lacked in the past—the power to end the system that breeds poverty, exploitation and oppression. The migration of women in search of employment opportunities
has helped to ease the problem of poverty in many cases and meet the labour needs of a number of countries. Globalization has also contributed to the creation of new associations of women and the strengthening of their networks to offer mutual support and resources. In several countries in the region, new information and communications technology (ICT) have improved the access of women to health, microcredit, employment opportunities and information in general.

At the same time globalization has had such negative consequences for women and children. It has made women to suffer disproportionately from IMF and World Bank policies as public services are cut and they are forced to care for sick, disabled and older relatives, as well as earn a living. Globalization threatens the livelihoods of workers, it can undermine banks, and it can destabilize whole economies when flows of foreign capital overwhelm them. The globalization process thus offers opportunities, as well as challenges for human development and gender equality. It has further reinforced many existing gender inequalities: The traditional sexual division of labour has been furthered through the addition of new locations and forms of work. What remains constant is the low economic value accorded to work performed primarily by women in conditions of exploitation, no job security and violations of human rights. Perhaps the most critical of the impacts of globalization on women is the worsening situation of violence against women. One aspect of this deserves urgent attention – the trafficking of women and girls.

Under conditions of globalization the limits on the states’ ability to provide social protection, provisioning of needs and human capital investments has become more strained. This poses a major challenge to poverty eradication programmes and the efforts to respond to the needs of the less visible segments of the population especially women and children, in responding to their right to basic services and development of their capabilities. The withering away of the welfare state and increasing cost of social services has constituted a uniformly negative outcome for poor women, in developing countries.

The shift of societal costs of reproduction and maintenance of labour power and other welfare provisions from the public sector to a sphere where these costs are no longer visible, i.e. the household, is made possible by increasing women’s workload within the household. The shock of market fluctuations, yet another immediate impact of integration into global markets with intensifying effects on poverty, is also absorbed by poor women by working harder both inside and outside the household. In many instances, women combine home making and piece working with reproductive activities in the household and rely more extensively on the use of children’s labour for domestic work, households’ production and cash earnings.

By and large, the adjustment costs associated with economic restructuring in many countries have increased the economic hardship for the poor. The human damage caused by economic deprivation in terms of one’s capabilities and future prospects in life, is greatest for those who are least prepared to withstand it, i.e. poor women. In the long run, the impact of the shifting and adjustment costs onto society’s most vulnerable groups results in disinvestment in human capabilities with far reaching effects on society at large (Human Development Reports 1997 and 1999). At global level, developing countries have experienced exploitation by dominant powers that had occupied and extracted resources through colonialism, post-colonialism and cultural imperialism including the multinational corporations. Coupled with structural adjustments policies the national states are left vulnerable economically and politically. They cannot sustain themselves without SAPs that negatively impact on the poor and especially women. According to Usher: The increasing centralisation of the state, and the intensification of resource use for industrial development, is causing the gradual erosion not only of natural resources but also of people’s customary rights to land, cultural integrity, local knowledge and sense of belonging.

Globalization and the Kenyan Woman

The Kenyan woman, regardless of her community of origin and regardless of her station in life, occupies a second-class position. Ours has been and is still a male-dominated society. The patriarchal hierarchies designed by our great grandparents, implemented by our grandparents and perfected by our fathers are still
alive and being justified by contemporary society. At birth, three beatings of the drum and three ululations instead of five are heard faintly. The parents of a new born baby girl receive half-hearted congratulations. These are the responses when a girl is delivered instead of a boy.

The Kenyan women form slightly over half of the country’s 38 million people. They are the tillers of the land, they are the food processing and marketing resource people, and they are the psychological and physical nurturers of families. In other words, when we talk about the position of Kenyan women in the global village, we are referring to the half of the population on whose shoulders the country stands. For the Kenyan woman, the global village seems to be a mirage or an elusive spring of water. To begin with, the rural woman lacks not only the tools but also the necessary training and information to take advantage of this spring thus the need for education. Education empowers individuals through imparting knowledge and information. In addition, it broadens one’s perspective to alternative means of survival. Without it, therefore, how would the rural woman be expected to take cognisance of what the global village offers? Similarly, if these women are not equipped to venture further than their homesteads, it would be difficult for them to stand up and walk before they can see these alternatives.

Structural adjustment policies mirror colonial policies in that conditions imposed by IMF and World Bank for countries borrowing money at a higher interest rates under austerity measures, combined with corruption of national officials leave their populations, especially women worse off than they were. “What kind of choices do women have when subordination, poverty and degrading work are the options available to most?” The point is not to deny that women are capable of choosing within contexts of powerlessness, but to question how much real power these ‘choices’... have. They do not make them under conditions they create but conditions and constraints that they are often powerless to change” (Wangari 2002, p.299). Some of these choices come with a price over their bodies. Women are sold as sex slaves in their entry to Western countries while others become the so called “illegal aliens" working as domestic workers or in sweatshops under horrible conditions. According to US central intelligence agency (CIA) report in 1999, each year “50,000 of women are brought into the U.S to work in sex industries, domestic labor and sweatshops” (Kempadoo, 2001, p.31).

According to Kempadoo, the operational of foreign or allied troops produce particular forms of prostitution which has been tolerated and regulated by local government. In this case, women's bodies have been sacrificed for global political alliances. Sex tourism can also be understood within the context of SAPs to the extent that Third World countries cannot depend merely on the exploitation of other resources. Debt payments and interest rates demanded by the international financial institutions situate the Third World at a point in which they cannot participate in the global markets. Sex tourism becomes the venue for earning foreign exchanges. HIV/AIDS has become a global crisis in which more often than not the people in the Third World have been accused of their uncontrollable sexual behaviors. However, HIV/AIDS should be seen within the context of globalization in which resource allocation and control are in hands of the major players in global economy.

An unfortunate scenario presents itself with regard to the urban poor women. In most cases, the urban poor women and girls are uneducated, semi-skilled and unskilled, constantly in search of means of survival. Owing to lack of job opportunities many of them have ended up selling the only wares at their disposal: their bodies. Hence they have become commodities and lost the human face that would enable them to access the global market as human beings. Subsequently the global market has ended up trading in them, either at home or as sex exports abroad. On the other hand, from my conversations with urban Kenyan women, in most cases, the supposed head of the household “The man" becomes the head only in figurative terms. The woman not only pays the helper, but also often pays for school fees for the children, electrical bills, telephone, water and food. Thus the entry of women to labor force is not necessarily a road to an empowerment for most women in the Third World. However there is need to equip the woman with “access tools" in order to reap the fruits of globalization and participate in the global market.
Education

Female education has been recognized as one of the critical pathways to promote social and economic development. Female participation in education has been cited as the single most important investment that a developing country can make, translating into better living conditions for families and increased productivity. The international community has made commitments to universal primary education and free education for all (EFA), particularly for the girl child. For example at the 2000 Dakar Word Education Forum, one of the goals was to eliminate gender disparities in primary and secondary education by 2005, and to achieve gender equality in education by 2015. However, realization of these goals appears to be elusive, particularly in the Third World. Evidence from sub-Saharan Africa indicates that although there have been improvements in female participation, girls and women’s access to education remains limited in many countries across the region, and there has actually been a drop in girls’ enrolment and retention rates in both primary and secondary education (Odaga and Heneveld, 1995). This is due to a combination of socio-economic, socio-cultural, political and institutional factors constraining women’s education.

Education empowers one to fight against oppression, exploitation for transformation of the society (Beijing Declaration September 1995). Therefore it is important for both individual as well as social freedom. Education empowers women to bring about necessary changes such as smaller and healthier families (Wamahui, 1996). The benefits of women’s education to society in general are immense. In the workplace, education increases skills needed for job entry, improves chances of vertical mobility, and enhances overall labor market productivity. It also has positive consequences at home, including improved health, increased child survival rates, reduced fertility rates; lower infant mortality rates, and better protection against HIV and AIDS (Tembon et al 2008). Education of women and girls is therefore not only a moral and human rights issue, but also an economic and development issue.

Having the opportunity for education and the development of an education capability expands human freedoms. Not having education harms human development and choosing and having a full life. Education argues Sen (1999) fulfills an instrumental social role, has instrumental process role and has empowering and distributive roles in facilitating the ability of the disadvantaged, marginalized, and the excluded to organize politically. Overall education contributes to interpersonal effects where people use its benefits to help others hence contributing to the social good and democratic freedoms.

The situation in Kenyan secondary and universities is as below:

![Secondary Schools Completion Rates by Gender 1999-2004](image)

The completion rates for boys are higher than for girls implying a significant gap in completion rates between the boys and the girls at secondary school. The reasons attributed to drop out at this level are high cost of schooling coupled with high poverty levels, unfriendly school environment especially for girls, socio-cultural factors and the low anticipation of future benefits of education. Other factors include teenage pregnancies, early marriages, and social attitudes towards women, cultural practices, inadequate and gender-based curriculum and teaching materials, family preferences to educate boys, sexual harassment and heavy domestic workload for the girl child, cost-sharing arrangements prompted by Structural Adjustment Programmes, (SAPs)reductions in government expenditure in education, inadequate facilities in public girls’ schools and worsening poverty (Republic of Kenya 1999b). Gender inequality is reinforced in the classrooms in many ways. Research studies show how girls conform to sex roles stereotypes indulging in “female behavior” such as being quiet, reserved passive which is expected of them by teachers. Seating arrangement, allocation of tasks carries the same notion. All these restrict their classroom performance and academic achievements. As Nambissan states, all these form the “hidden curriculum” of the school and tend to reinforce gender identities among children (Nambissan, 1995; Chanana, 1990; Probe Report, 1995; Ramachandran, 2000).

According to Wamahiu (1997), a multiplicity of inter-related factors contributes to the under-participation (non-enrolment, lower persistence and poorer performance) of girls in formal and non-formal education programmes in Kenya. A complex interplay of macro-level policy and micro-level practices, beliefs and attitudes determine whether households and communities feel it profitable to educate their daughters. A pervasive patriarchal ideology influences policy and practice at the national, community and school level, marginalizing Kenyan girls in education. Some of the concerns raised at the Beijing Conference and framed within the Kenyan context still persist to a large extent Jacobs (1994).

Students’ enrolment in public universities by Gender, 2001/2002-2006/2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001-02</td>
<td>63.24</td>
<td>36.76</td>
</tr>
<tr>
<td>2002-03</td>
<td>65.26</td>
<td>34.74</td>
</tr>
<tr>
<td>2003-04</td>
<td>64.9</td>
<td>35.1</td>
</tr>
<tr>
<td>2004-05</td>
<td>63.2</td>
<td>36.8</td>
</tr>
<tr>
<td>2005-06</td>
<td>65.8</td>
<td>34.2</td>
</tr>
<tr>
<td>2006-07</td>
<td>65.1</td>
<td>34.9</td>
</tr>
</tbody>
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At the university level, women remain underrepresented, forming about 40 percent of the total student population in 2007 (Republic of Kenya 2008). Women's low rates of attendance at the university level reflect the cumulative effect of factors that hinder their progression in education from the time they enter school at
the preprimary level. Women’s representation remains low despite the fact that the government has lowered girls’ required university entry points (calculated based on grades and difficulty of courses taken at the secondary level) by one point to improve women’s access to university education (Committee on the Elimination of Discrimination Against Women 2006). The effects of this low representation in education are reflected in the labor market, where women represent only 30 percent of all wage employees in the modern sector (Republic of Kenya 2008).

The challenge for girls’ education in Kenya is to ensure that girls enroll in school and successfully complete their educations. The Kenyan government needs to address limitations on access and retention. Current efforts have centered on removing financial barriers to access by making primary education free and by subsidizing secondary education. These policies and programs have not been wholly successful, and despite increased total enrollment, significant regional and gender disparities exist. Poor students’ access has improved overall, but for many girls, access and retention remain elusive. Equal opportunity will depend on infrastructural changes, such as expanding access to water and electricity to reduce girls’ responsibilities, building boarding schools in arid and semiarid areas, and providing security to make sure girls attend school consistently. Kenya has also recorded milestones in fighting the traditional rite, including passing and implementing legal instruments such as the National Policy for the Abandonment of FGM/C, the Children’s Act of 2001 and the Sexual Offences Act of 2006.

Women in Kenya remain disadvantaged, with opportunities for educational, social, and economic advancement inferior to those of men. Women are underrepresented in modern sector wage employment, political and judicial decision making, and all major public service appointments. Numerous social, economic, and cultural barriers limit women’s participation in these areas. Women’s underrepresentation in education is a primary factor. Given the significant benefits of women’s education, equity in education is essential to improving circumstances for all Kenyans. As the leading provider of education, the government should acknowledge that compensatory mechanisms may be required to level the playing field for disadvantaged girls, and it should adopt an approach that uses these mechanisms. To make education’s accessibility equitable to all means, adopting policies and initiatives that support equal provisions across genders.

Policy Issues in Kenya

The policy measures for addressing the problems related to retention began with the enforcement of the Children’s Act which provides for the right to education by every Kenyan child. Further, a policy that prohibits repetition in schools is being strictly enforced. This should work in favour of girls who have been victims of repeating levels. Adult education Programmes are being strengthened to enlighten parents to appreciate the value of girls’ education in particular. At secondary school level, issues regarding girls’ low participation in education is being addressed.

Policy measures are also in place to enhance transition and entail the expansion of existing secondary schools to an average of three streams. To complement this policy measure, the government deliberately promotes the establishment of new secondary schools especially in deficit areas. Girls’ schools are supposedly receiving extra attention to enhance their retention. Day schools to reduce the cost of secondary education are emphasised. Despite the advantages of having boarding schools, the cost has in the past shut many girls out. Furthermore, emphasis is laid on refurbishing existing secondary schools with the aim of enhancing the quality of the learning environment. Although day’s schools would be far much cheaper, would the girls manage to cope with the pressure of house chores and education? What about the distance to the schools, would parents allow their daughters to travel far away daily to access the schools? On such grounds boarding schools then become the first best option for girls.

The government has started targeted bursary schemes to benefit those in the poorest quintile. Girls are receiving a lot of attention in this regard. The question is which girls are receiving this attention? Are they the poor and needy or the rich and well connected? Additional measures to improve the quality of learning and to
reduce the costs entailed in the direct provision of teaching and learning materials, especially in sciences, an area where girls are most disadvantaged. The policy entails regulating the cost of secondary education by rationalizing the learning costs through curriculum review and enhancing the teacher/pupil ratio. The policy priority for university education is to expand opportunities to all deserving Kenyans. The government seeks to expand available places in public and private universities. Policy on gender mainstreaming in universities has also received attention. There is a focus on the enhancement of internal efficiency in the utilization of resources. More importantly, policy focuses on enhancement and sustainability of quality. While this is happening, affirmative action is used to increase the enrolment of girls in degree programmes.

A gender education policy framework that provides for planning and implementation of gender responsive education sector programmes was mooted in 2003. The key gender concerns highlighted in education include disparities in enrolment, retention and transition rates, negative socio-cultural practices and attitudes which inhibit girls' access, learning environments that are not conducive to girls, stereotyping in learning materials and in class teaching, and the drop-out of girls due to pregnancy and early marriages. The Gender and Education Policy developed in 2003 makes provision for the re-admission of girls who become pregnant while still at school, even allowing them to seek a place at a different institution to the one they originally attended. This is to avoid the girls being stigmatized by their former schoolmates, as a result of pregnancy. However, parents who are willing to allow daughters to return to school might struggle to provide care for their new grandchild while its mother was at school – or be hard pressed to feed an extra mouth. Without family support, a teenage mother could find herself forced to leave school, no matter what the law stipulates.

A major contribution to the gender debate in the Kenyan education system is the publication of the current policy framework for the Kenya Education Sector Support Programme 2005-2010, entitled 'Delivering Quality Education and Training to All Kenyans'. It is noteworthy that this policy recognizes gender equality as being central to the attainment of the EFA and MDG goals and has proposed a number of strategies to address gender concerns in education (Republic of Kenya, 2005).

Most governments have expressed a commitment to gender equality objectives and to gender mainstreaming, but often there is a gap between policy statements and the ways in which governments raise and spend money. They have also expressed commitments to greater transparency and accountability of resource allocations through the national budget. Since the budget determines the origin and application of public financial resources, it plays a central role in the process of government, fulfilling economic, political, social, legal and administrative functions (Elson et al. 2000). Budgets focus as such would fail to address specific areas of gender disparities given that women and men are at asymmetric levels of socio-economic development. This calls specific intervention by the government thus the need for gender responsive budgeting.

**Gender Responsive Budget Initiative**

A gender responsive budget initiative is a tool and a process designed to facilitate a gender analysis in the formulation of government budgets and the allocation of resources. It is an attempt to disaggregate the government's mainstream budget according to its impacts on women and men. It refers to the process of conceiving, planning, approving, executing, monitoring, analyzing and auditing budgets in a gender-sensitive way. It does not aim to produce a separate budget for women. Gender budgeting is actually seen as a socio-economic tool for ensuring gender equity in the development process and lays a strong emphasis on engendering public expenditure and policy. Budgets focus as such would fail to address specific areas of gender disparities given the unequal social order that exists in the society. Benefits would be unequally appropriated thus the need for specific interventions. Gender Responsive budgeting initiatives are very diverse, but they all have in common one essential question: What is the impact of the government budget, and the policies and programmes that it funds, on women and men, girls and boys? The gender budgeting
exercise would potentially assist and lead to the following empowering measures (Centre for Budget and Governance Accountability):

- Addressing gap between policy commitment and allocation for women by emphasizing on adequate resource allocation.
- Putting pressure and focus on gender sensitive programme formulation and implementation.
- Mainstreaming gender concerns in public expenditure and policy.
- By being a tool for effective policy implementation where one can check if the allocations are in line with slated gender sensitive policy commitments and are having the desired impact.

Gender responsive budgeting helps to ensure the realisation of gender equality goals and improved compliance with the Convention on the Elimination of Discrimination against Women. They promote greater accountability for public resources to the people of a country, especially to women, who are generally more marginalized than men in decision-making about public money (Elson, 2002). The key question gender responsive budget initiative raises is: what impact does this fiscal measure have on gender equality? Does it reduce gender inequality; increase it; or leave it unchanged (Budlender and Sharp 1998)? Intervention should be both at institutional and individual level. Incentives to the girls and also parents seem to work well. In Bangladesh parents are food baskets, in Pakistan oil is dished out and some parts of India cycles have been given to the girls to help them access schools easily. However what parents’ value cannot be controlled by the government. This should not be reason for not initiating gender responsive budgeting for governments especially Kenya which has stagnated at the first stage of awareness. Policies enacted have to be implemented fully to arrest the gaping gender gap in education at all levels of the system. Universities should aim at channel out more girls so that the Kenyan woman can compete favourably with others in the job market. Women should therefore be equipped with “access tools”.

References


Elson, D.1998.‘Integrating gender issues into national budgetary policies and procedures; Some policy options’, Journal of International Development, November


Sharp, R. 2000. The economics and politics of auditing government budgets for their gender impacts, University of South Australia, Magill, South Australia, Hawke Institute Working Paper Series, No.3.

Sharp, R. 2003. Budgeting for equity: Gender budget initiatives within a framework of performance oriented budgeting, UNIFEM.


Problems of Vocational Teacher Education in Rivers State of Nigeria

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Abstract: The establishment of Technical/Vocational teacher training institution hinges on the need for adequate vocational teachers/manpower in the educational sector. This paper identified problems facing vocational teacher education in Rivers state. The population of the study is vocational students at tertiary level in the state. Sample of 288 was derived from vocational NCE Students and post NCE students in proportion of 150 and 138 respectively in two tertiary institutions in the state. Structured questionnaire was used to collect data. Frequency, percentage and chi-Square (X2) were used to analyse the data collected. Results show that there are significant differences on the perception of problems such as poor planning, lack of political will, poor infrastructure and ineffective SIWES in the implementation of vocational teacher trainee programmes.

Keywords: Problems, challenges, vocational, teacher and student.

Introduction

Introduction of technical and vocational education in Nigeria was envisaged as a panacea to technological competence in the educational system and reduction in the unemployment market, yet up till now there are high visible problems. According to Nwoke (1980) National Technical Teachers College (NTTC) now Federal College of Education (technical) Akoka-Yaba, Lagos which was established in 1967 was the first organised training of technical/vocational teachers in Nigeria. The technological progress and development of a country is dependent on the technical and vocational training given to Technical and Vocational Education Teachers. Mbanefo and Bamiro (1989) noted that Nigeria experienced a long history of technical teachers shortage in quantity and quality because there were only two Federal Technical Teacher Colleges in Yaba in Lagos and Gombe in Bauchi State. Adah (2007) said the introduction of technical/vocational subjects in the 6.3.3.4 propels the demand for technical/vocational teachers hence the establishment many to run technical teacher education programmes to award NCE and above.

Though, there was foreign assistance, the need for intensive local trainings of technical/vocational teachers led to the establishment of nine more Federal Technical Colleges and two Colleges of Education (Technical) in Omoku, Rivers State and Potiskum in Borno State in 1989. This emerging necessity gave birth to technical and vocational institutions hence the need to train competent and skill teachers in the vocational technical sub-sector of the Nigerian educational system. Training and re-training in the field of Technical Vocational Education is very necessary in a fast growing technical and scientific global world, where there is out-smarting in the scientific and technological breakthroughs. To reduce poverty and joblessness (unemployment) in our society, technical and vocational teacher education is anchored essentially on the training of the needed teachers from NCE and above, competent in practical skills, knowledge, and attitudes for service delivery in the educational sector. FRN (2004) indicated that Technical and Vocation Education is used as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding any knowledge relating to occupations in the sector of economic and social life. So by implication various institution and programme that offer vocational and technical education such as apprenticeship, business studies, agricultural science, ICT, Home Economics, metalwork, woodwork, etc and programmes for teachers who work in polytechnics, and colleges of education and allied tertiary institutions are embedded in the policy of productivity and technological growth. The role of the teacher is essential to all
aspect of economic development as the end implementer of educational curriculum. The Federal Government recognises the crucial roles of the technical and vocational institutions as a source of supply of essential skilled manpower for the industries and for self employment as well as of technical and vocational teachers.

Problems in Technical and Vocational Teacher Education

There are many challenges worthy of noting. There is still lack of political will despite promises made by succeeding governments to focus attention on education for the needed economic drive. The political system in Nigeria does not favour continuity of programme or policy initiative made by others hence abandonment of project/programmes. There is need for higher student enrolment by motivating students in VTE through the supply of training materials; and real SIWES practice in reputable firms/industries.

Nworgu (2007) with other expert in the vocational field enumerated the problems as:
1. Lack of participatory framework: When educational reforms are dictated by privilege policy makers without generating it from the people directly involved; thereby creating problems of ownership, sustainability and lack of awareness on the part of those meant to implement the programme/reform.
2. Poor Planning: Executing programme without adequate planning of necessary conditions and infrastructure to put in place is common in Nigeria, and Rivers State is not different.
3. Lack of Capacity: The need for requisite manpower (personnel) and infrastructure are necessary in attainment of goals anchored on efficiency and competence.
4. Lack of Political Will: Most programmes have failed in Nigeria because the government lack the political will in the area of adequate funding and follow-up.
5. Status quo syndrome: Negative attitude towards change and the belief that established modes of operation and practices must be maintain e.g. slowness in adoption E-classroom in almost all our vocational institution in an electronic era.
6. Obsolete curricula/infrastructure: VTE is considered a launch pad for technological development so delay in implementation of policy and poor funding makes products of VTE to be far from acquiring the needed skills demand by industries / establishment expectation fast moving world.
7. Very low student enrolment as students see teacher training as last resort.
8. Very poor teaching learning environment e.g. dilapidated classroom and lecture theatres.
9. Poor quality of academic staff. The best brains look for greener pasture.
10. Ineffective student industrial work experience scheme (SIWES)
11. Poor image of the teaching profession due to perceptual value orientation of teaching profession and vocational training in the social psyche.
12. Poor library facilities. Costly to maintain functional E-brary due to power outage.
13. Poorly/ill equipped laboratories, often with outdated equipment/tools.
14. Poor motivation of teachers and students.
15. Lack of adequate exposure through attendance to conferences and workshops due to no sponsorship or diversion of such funds by administrators (Nwoke, 1989; Okala, 2007; Adah, 2007).

Statement of Problem

Despite the fact that VTE programme has existed more than 20years in Nigeria, the needed facilitation of economic boom through graduate quality is farfetched. Lack of technological know-how and increasing level of unemployment prompted the Federal Government to establish technical colleges of education and centres of excellence in some universities for creative thinking and transformation of knowledge through technological processes into wealth and broader economic bases. Why has this laudable idea not given the needed profit and dividend? This is the thrust of this paper.
Purpose of the Study

The purpose of this study was to identify problems facing Vocational Teacher Education programmes in Rivers State.

Research Questions

1. What are the problems in Vocational Teacher Education programmes?
2. What are the solutions to the challenges in Vocational Teacher Education programmes?

Hypothesis

There is no significant difference of NCE Students and Post NCE Students on their perceptual agreement and disagreement of the problems of vocational teacher education so highlighted.

Methodology

The design of the study is survey. The study was conducted in Rivers State where there are two tertiary institutions where vocational teachers are trained. The population of the study is all the students at NCE and Post NCE levels in the schools of vocational education of the institutions. Sample size was 300 but 288 was retrieved as 150 NCE students and 138 Post NCE students. Questionnaire was the instrument used for the collection of data. The questionnaire was structured having two background information, and 15 factors of 4 opinions. The researchers and a colleague assisted in the administration of the instrument and it was retrieved within a space of one week.

For research question one, percentage was used to analyse the data collected at a significant point of 50%. Inferentially, Chi-Square at .05 level of significance was applied to test the hypothesis.

Analysis of Data and Discussion of finding

Table 1: Percent (%) analysis of NCE and Post-NCE responses

<table>
<thead>
<tr>
<th>Item</th>
<th>NA</th>
<th>ND</th>
<th>PA</th>
<th>PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of participatory framework</td>
<td>62</td>
<td>38</td>
<td>66.7</td>
<td>33.3</td>
</tr>
<tr>
<td>Poor planning</td>
<td>93</td>
<td>6.7</td>
<td>75.4</td>
<td>24.6</td>
</tr>
<tr>
<td>Lack of capacity</td>
<td>66.7</td>
<td>33.3</td>
<td>74.6</td>
<td>25.4</td>
</tr>
<tr>
<td>Lack of political will</td>
<td>67.3</td>
<td>32.7</td>
<td>67.4</td>
<td>32.6</td>
</tr>
<tr>
<td>Status quo</td>
<td>60.7</td>
<td>39.3</td>
<td>66.1</td>
<td>31.9</td>
</tr>
<tr>
<td>Obsolete curriculum</td>
<td>42.7</td>
<td>57.3</td>
<td>46.4</td>
<td>53.6</td>
</tr>
<tr>
<td>Dilapidated classroom/ infrastructure</td>
<td>89.9</td>
<td>10.7</td>
<td>89.9</td>
<td>10.1</td>
</tr>
<tr>
<td>Poor quality teachers</td>
<td>42</td>
<td>58</td>
<td>39.1</td>
<td>60.9</td>
</tr>
<tr>
<td>Poorly prepared students</td>
<td>65.3</td>
<td>34.7</td>
<td>40.6</td>
<td>59.4</td>
</tr>
<tr>
<td>Low enrolment</td>
<td>55.3</td>
<td>44.7</td>
<td>50.7</td>
<td>49.3</td>
</tr>
<tr>
<td>Outdated laboratory Equipment</td>
<td>68</td>
<td>32</td>
<td>68.1</td>
<td>31.9</td>
</tr>
<tr>
<td>No training materials</td>
<td>78.7</td>
<td>21.3</td>
<td>73.9</td>
<td>26.1</td>
</tr>
<tr>
<td>Unserious Students</td>
<td>72.7</td>
<td>27.3</td>
<td>52.2</td>
<td>47.8</td>
</tr>
<tr>
<td>Poor Image of TVE</td>
<td>42</td>
<td>58</td>
<td>46.4</td>
<td>53.6</td>
</tr>
<tr>
<td>Ineffective SIWES</td>
<td>79.3</td>
<td>20.7</td>
<td>73.9</td>
<td>26.1</td>
</tr>
</tbody>
</table>

NA – NCE Agree; ND – NCE Disagree; PA – Post NCE Agree; PD – Post NCE Disagree
In table 1, percentage of the agreement responses of 50% and above for NCE and Post NCE are 12 and 11 items out of 15 items representing overall percent significance of 80% and 73% respectively. This implies there are problems in vocational training programmes in Rivers State. According to Nworgu (2007), these problems are threats to quality vocational teacher education in this country and by implication Rivers State.

Table 2: - Chi-Square (X2) analysis on the problems of TVE programmes.

<table>
<thead>
<tr>
<th>Item</th>
<th>N X2 cal</th>
<th>Decision</th>
<th>P X2 cal</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of participatory framework</td>
<td>9.41</td>
<td>S</td>
<td>33.44</td>
<td>S</td>
</tr>
<tr>
<td>Poor planning</td>
<td>89.36</td>
<td>S</td>
<td>37.18</td>
<td>S</td>
</tr>
<tr>
<td>Lack of capacity</td>
<td>-39.99</td>
<td>NS</td>
<td>42.62</td>
<td>S</td>
</tr>
<tr>
<td>Lack of political will</td>
<td>30.63</td>
<td>S</td>
<td>17.19</td>
<td>S</td>
</tr>
<tr>
<td>Status quo</td>
<td>7.61</td>
<td>NS</td>
<td>15.60</td>
<td>S</td>
</tr>
<tr>
<td>Obsolete curriculum</td>
<td>21.37</td>
<td>S</td>
<td>-29.91</td>
<td>NS</td>
</tr>
<tr>
<td>Dilapidated classroom/infrastructure</td>
<td>99.5</td>
<td>S</td>
<td>89.19</td>
<td>S</td>
</tr>
<tr>
<td>Poor quality teachers</td>
<td>-30.46</td>
<td>NS</td>
<td>-28.52</td>
<td>NS</td>
</tr>
<tr>
<td>Poorly prepared students</td>
<td>33.1</td>
<td>S</td>
<td>-6.17</td>
<td>NS</td>
</tr>
<tr>
<td>Low enrolment</td>
<td>29.05</td>
<td>S</td>
<td>-45.72</td>
<td>NS</td>
</tr>
<tr>
<td>Outdated laboratory Equipment</td>
<td>19.98</td>
<td>S</td>
<td>-16.67</td>
<td>NS</td>
</tr>
<tr>
<td>No training materials</td>
<td>1.36</td>
<td>NS</td>
<td>34.47</td>
<td>S</td>
</tr>
<tr>
<td>Unserious Students</td>
<td>63.29</td>
<td>S</td>
<td>-25.51</td>
<td>NS</td>
</tr>
<tr>
<td>Poor Image of TVE</td>
<td>7.88</td>
<td>S</td>
<td>-5.88</td>
<td>NS</td>
</tr>
<tr>
<td>Ineffective SIWES</td>
<td>55.5</td>
<td>S</td>
<td>33.42</td>
<td>S</td>
</tr>
</tbody>
</table>

N X2 cal is for NCE; P X2 cal is for Post-NCE; P< .05; X2 - tab = 7.82; df=3

In the above table, calculated Chi-Square (X2) values 9.41 and 33.44; 33.44 and 37.18; 30.63 and 17.19; 99.5 and 89.19; and 55.5 and 33.42 on the problems of poor planning, lack of political will, dilapidated classroom & infrastructure, and in effective SIWES respectively show there are significant differences on both the NCE and Post NCE on the levels of agreement and disagreement because these values are more than the critical expected value of 7.82 at 5% level of significance with 3 degree of freedom, as such, the null hypothesis saying there is no significant difference of NCE Students and Post NCE Students on their perceptual agreement and disagreement of the problems of vocational teacher education is rejected.

Also, Chi-Square (X2) analysis in table 2 shows, there is no significant difference on the perception of both NCE students and poor NCE students on the responses on the problems of poor quality teachers, therefore the null hypothesis - there is no significant difference of NCE Students and Post NCE Students on their perceptual agreement and disagreement of the problems of vocational teacher education is accepted on this problem. However, taking a cursory look at the same table 2, there are variations on their level of agreement and disagreement of NCE and Post NCE on problems of lack of capacity, status quo, no training materials. NCE respondents have no significant statistically X2 calculated value while the post NCE respondents have significant difference on their level of statistical agreement and disagreement.

On the problems of absolute curriculum, poorly prepared students, low enrolment, unserious students and poor wage/salary of VTE, NCE group have statistical significant in their responses while the Post NCE
had no significant difference on their level of agreement and disagreement on those problems. These problems are not seen in the same light as indicated by the dispersion in both responses. This outcome slightly disagrees with Nworgu (2007), Okala (2007) and Adah (2007) on the problems highlighted, so the generalisation of these problems may be doubtful as per this study.

Conclusion

Technical/Vocational Education and Training in this country is currently an important educational necessity to propel technological aptitudes and inventions. This paper has looked at problems and challenges facing the implementation of Technical/Vocational Teachers’ Education programmes in the country focusing on Rivers State. It should be noted that a well thought out programme without proper implementation to achieve desired outcome is a waste of time and economic resources. It is therefore believed the outlined problems or challenges will soon be overcome by strong political will of the policy makers and the willingness of all Vocational Teacher Education policy makers and implementers to match action with words. So there should be commitment of all stakeholders to the development of Technical/Vocational Teachers through quality training in Rivers State, Nigeria.

Recommendations

Students in Vocational Teacher Education Programmes are supposed to be given innovative technologically based training that promotes application of expertise to improving society by fulfilling scientific and technological growth as such, we recommend specifically, the following:

- Need for aggressive implementation of the use of ICT in teaching-learning processes in TVE beyond E-mail access and social networks.

- Need for government to mandatorily train and re-train teachers to capacity in teacher supply and quality of trainees.

- Activities in the classroom should reflecting real life economic necessities.

- Effort of Teacher Registration Council Nigeria– TRCN should be geared towards improving the status of the teaching profession. Entrance into the profession should be checked and also teachers remuneration should be competitive to others in public service.

- Need for adequate exposure through Government sponsored attendance to conferences, seminars, and workshops.

- Need for adequate funding of vocational teacher education for the needed impact in teaching and learning.
References


Nworgu, B. G. (2006) “The role of Science and Technology Teacher Education in the Current Economic Reform Agenda” Being a Guest lecture delivered at 2006 Pre – Convocation lecture of FCE(T), Umunze April

Impact of Innovation and Change on Contemporary Teaching and Learning as an Advancement from Myth to Reality

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Abstract This paper addresses the impact of innovation change on contemporary teaching and learning as an advancement from myth to reality highlighting creativity in education, change and innovation and teachers as catalysts in improving critical thinking skills. Also from myth to reality in teaching and learning, the end of conventional instructional design: types of learners and contemporary teaching and learning were treated. Since the society is dynamic and need to move from imagination to reality so as to stand the test of time, it is therefore suggested that modern approaches to teaching and learning be introduced like emphasizing on learner-centred teaching to encourage life long learning, adapting to fit into the digital world by getting acquainted with information and communication technology (ICT), the use of computer and being abreast with electronic-learning and electronic-library for convenience and to reflect modernity.

Keywords: Innovation, change, creativity, teaching, learning.

Introduction

Creativity in education is not just an opportunity but a necessity. First, several emerging trends entail an alteration in the way young people learn and understand. The generation of the ‘New Millennium Learners’ is characterized by multitasking, short attention spans, gaining information in non-linear ways. Teachers have to attract their interest and attention in a new way, and as a result the development of creative approaches is called for. (Redecker, 2008, Pedro, 2006, and Simplicio, 2000 cited in Ferrari, Cachia and Punie, n.d.).

Change and innovation are probably two major concepts that must be built into an organization that is aiming at standing the test of modern period when dynamism is fastly replacing conservatism. Change has been described as the alterations that occur in persons, structures and technology. Innovation on the other hand refers to any thought behaviour or thing that is new because it is qualitatively different from existing forms. (Fadipe and Adepoju; Bassey (n.d.) cited in Babalola and Ayeni 2008:487, 433).

Teaching is to impart knowledge or skill and learning is to acquire knowledge or skill by study. (Wiki.answers.com).

Teachers need to be skilled in the specific process necessary to cultivate learner centred environments and changing the focus from teaching to learning. Though existing instructional skills are still potentially valuable in the initial orientation of novice learners, teachers need to appreciate how to work across the spectrum from such conventional guided instruction to self-directed discovery learning. Moreover, teachers are to develop the skills to be able to effectively nurture individual approaches to learning, to design generative and ill-structured learning experiences, to cultivate individual relevance by harnessing the experiences and understandings of learners as they are (and as they evolve) and orientate to an emergent and inductive instructional practice. Consistent with constructivist design, it is critical teachers develop a capability to developing generative topics and related content that build on the existing knowledge,
understandings, and emotions of learners. (Darwin, n.d).

Myths and Realities attempts to clarify the importance of academic and vocational integration in relation to emerging pedagogy, teaching and learning practices and school-to-work efforts. Current research on teaching and learning supports constructivist pedagogy which contends that people construct knowledge through their interpretive interactions with and experiences in their social environments. In constructivism, the focus of teaching is on empowering learners to “construct new knowledge” by providing opportunities for them to test academic theories through real-world applications of knowledge in settings that are socially relevant to their lives. (Brown, n.d).

This paper therefore seeks to highlight the impact of innovation and change on contemporary teaching and learning as an advancement from myth to reality.

The Concept of Change and Innovation

Change connotes something different from what used to be or a variation in the status quo. Educational change therefore means a variation or deviation in educational policy, practices, objectives or methodology from what it used to be. The change may be quantitative or qualitative and it may be an improvement (positive) or deterioration (negative) in the existing status quo. Also, it can either be deliberately brought about (planned) or accidental (unplanned), all that matters is that there is something new.

Innovation on the other hand is a positive planned and specific change that is initiated to facilitate the achievement of some defined goals. Educational innovations are planned changes in the educational objectives, policies, programmes, methods or practices with the intent of improving educational goal achievement. It is a type of educational change designed to modify only some feature of the educational system. (Agabi cited in Agabi and Okorie, 2002:1).

Teachers as catalysts in improving critical thinking skills

Articulation and Reflection (A&R) are methods of instruction connected to cognitive apprenticeship and fall under the umbrella of situated cognition theory. The methods are associated with a move away from viewing the learning process as mechanistic and towards the conceptualization of learning as something “emergent and social”. More directly, Articulation and Reflection are two parts of cognitive apprenticeship that strive to ‘place teaching and learning and within a rich and varied context that is meaningful and authentic to students’. Articulation and reflective work together as a pedagogical strategy. Reflection skills promote critical thinking and students construction of knowledge, articulation skill give students the ability to communicate that knowledge with others. These methods of instruction give students the opportunity to express what they are learning as it relates to their own learning experiences and to self-evaluate their process. (Brill, 2001; Brill, Kim, and Galloway, 2001:20 cited in Harkness, Porter and Hettich, n.d).

Articulation and Reflection can be used to improve learner’s critical thinking skills. Students should be able to ask questions, solve problems, investigate, analyze, and develop new knowledge. Reflection and Articulation are methods which are designed to help learners focus. By allowing them to focus, the teacher encourages the learner to more closely observe expert problem solving and to understand their own problem-solving strategies. This process encourage students to “develop a reflective practitioner’ stance and to think critically about what they do”. (Kraus, 1996:20 cited in Harkness, Porter and Hettich, n.d).

From Myth to Reality in Teaching and Learning

Beane (1998) in Brown (n.d) highlights several factors reflecting support of the pedagogy of construction: (1) Growing support for active learning and knowledge construction in place of rote memorization and the accumulation of knowledge constructed by others. (2) Interest in patterns of brain functioning as related to
learning. (3) An emerging awareness that knowledge is socially constructed, influenced by one’s prior knowledge and social, cultural, and academic experiences.

Student centered teaching, project-oriented instruction, problem based learning and contextual teaching and learning are currently promoted as strategies for implementing constructivism. However, they also reflect the philosophy upon which academic and vocational integration is based: that education must forge connections between knowledge development and its application to workplace. Learning in context and constructing knowledge through socially based experiences are two teaching/learning concepts that draw upon principles of curriculum integration. When these reformed pedagogical approaches are incorporated in cross-disciplinary, multidisciplinary, interdisciplinary and work-related integration models, they not only help students to see the connections between subject areas, but enable them to recognize the interrelated aspects of all learning and life experiences. (Brown and Pritz, forthcoming cited in Brown, n.d).

The End of “Conventional” Instructional Design: Teaching from Industrial to Information Age

Conventionally, instructional design as a discipline is understood primarily through its past manifestations: generally behaviourist-cognitivist in emphasis, highly linear in form, abstracted from the teaching/learning process and grounded in systematic rigidity. (Darwin, n.d). However, as Smith and Ragan (1999 in Darwin, n.d) assert, instructional design in essence is a “reflective process of translating principles of learning into plans for instructional materials, activities, information resources and evaluation”. Hence, as understandings of effective learning has changed, in particular over the last decade with emerging consensus around constructivism, so instructional design has evolved to reflect this changed understanding of learning.

Reigeluth (1999) in Darwin (n.d) succinctly characterizes this change in instructional design as moving from “monologue to a dialogue” reflecting a focus on learning (as opposed to instruction), encouraging the exploration of multiple perspectives, centered on social collaboration and the building on individual learning. Inevitably, this change to instructional design represents a significant departure from convention paradigms of systematic practice and notions of controlled learning processes.

Darwin (n.d) opines that the magnitude of change in contemporary and future work place environments has necessarily profound implications for how learning is designed, delivered and sustained into the future. Therefore, this is by necessity a shared change, needing to be manifested equally in the work place as well as learning environments. Table one broadly illustrates the enormity of the challenges presented by this transformation from industrial to the information age and suggesting some of the shared characteristics of the future workplace and by inference, future learning.

Types of Learners

According to McCarthy (1987) cited in Zhang and Bonk (2008) in extending Kolb’s (1984) experiential learning approach, she developed the 4MAT system which also addresses four types of learners: (1) innovative (2) analytic common sense and (4) dynamic.

Innovative learners are primarily interested in personal meanings and try to connect their learning situations to their daily lives. Instructional approaches that might be effective in this regard include cooperative learning, brainstorming and content integration activities. Such innovative learners deeply appreciate personal reasons and connections within their learning environments. Analytic learners tend to focus on acquiring facts to understand concepts and processes, they might prefer lectures, independent research projects, opportunities to analyze real-world data and listening to expert viewpoints and advice.

Common sense learners want to know how things work and tend to succeed when practical learning activities are used. Instructional methods for them include the use of manipulatives and other hands-on tasks as well as kinesthetic experiences.
Table 1: Teaching from industrial to information age

<table>
<thead>
<tr>
<th>Industrial age</th>
<th>Informal Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atomized knowledge</td>
<td>Holistic understanding</td>
</tr>
<tr>
<td>Relatively constant and local</td>
<td>Rapid, dynamic and global</td>
</tr>
<tr>
<td>Prescriptive and deterministic</td>
<td>Prospective and probabilistic</td>
</tr>
<tr>
<td>Situational, incidental learning</td>
<td>Universal, life long learning</td>
</tr>
<tr>
<td>Single loop focus (reproduction)</td>
<td>Double loop focus (continuous improvement)</td>
</tr>
<tr>
<td>Planned, structured and homogeneous</td>
<td>Innovative, ill-structured and diverse</td>
</tr>
<tr>
<td>Direct, demonstrated and specific competence</td>
<td>Multidisciplinary and generic capability</td>
</tr>
<tr>
<td>Hierarchal, stable and stand alone</td>
<td>Networked, fluid and virtual</td>
</tr>
<tr>
<td>Privileged singular knowledge</td>
<td>Shared multiple intelligence</td>
</tr>
<tr>
<td>Determined (formal) mode of learning</td>
<td>Multi-modal (formal/informal) learning</td>
</tr>
</tbody>
</table>

Dynamic learners are primarily interested in self-directed discovery. Popular instructional methods might include independent study or self-selected experiences, games and simulations as well as interactive role-playing and debates.

Even though learners have their preferences, McCarthy contends that true learning strengths are evident in a learner who can move from one mode of learning to another depending on the requirements of the...
particular problem or learning situation. Thus, the curriculum should be designed in ways that allow learners to shine as well as encourage them to stretch to new learning height. In effect, learners should learn within their comfort zones as well as in places beyond or at the edges of their learning envelopes. As a tool for both classroom management and organizational change, the 4MAT system attempt to shed light on learning at the individual, group and organizational levels. It is useful for explaining and demonstrating the diversity of learning approaches.

Contemporary Teaching and Learning

Ferrari, Cachia and Punie (n.d) assert that a major enabler for fostering creative learning and innovative teaching is certainly the teaching and learning format. If technologies for instance, are adopted on a large scale, but their usage is a plain reproduction of old, traditional teaching formats, their impact on creativity will be minimal.

Therefore, current educational systems need to adopt new methods and formats that are suitable for present and future learners, that grasp and expand students low concentration span that provide them with interesting, up-to-date and engaging materials. In line with this, fostering creativity also requires an active mode of learning and consequently a new teaching format where the teacher is a coach and supporter and learners are empowered to take ownership of their own learning processes.

However, Nwagwu, Ijeoma and Nwagwu (2004:222) posit that the development of information and communication technology (ICT) has fostered globalization which has literally reduced the world to a global village. It is therefore expected that the engine of change and progress in organization will be partly driven by an intelligent response to available technology and materials. For an organization to develop the skill and competence to meet the challenges of the modern world, it should select and use available information and technology. It should be guided in its choice by issues of relevance, easy applicability, affordable purchase price, low maintenance cost and a high degree of tested and guaranteed efficiency of machines and materials under well trained professional staff.

Summary

The concepts of creativity in education, change and innovation and teachers as catalysts in improving critical thinking skills were addressed, including from myth to reality in teaching and learning and the end of “conventional” instructional design: teaching from industrial to information age. Also, types of learners and contemporary teaching and learning were not left out.

Conclusion

It is therefore concluded that the importance of change and innovation to contemporary teaching and learning cannot be overemphasized as they enhance knowledge renewal through constructivism, thereby concretizing knowledge as an advancement from imagination/myth to reality.

Suggestions

Change and innovation are twin bedfellows necessary as approaches to teaching and learning that results in a transformative educational experience for both the teacher and the learner. Since the society is not static but dynamic, emphasis should be on constructing meaningful learning environment that are consciously learner-centered rather than instructor-centered and orientated to encouraging life long learning.

Globalization has implication for widespread systematic change and innovations in all aspects of education, from curriculum to teacher preparation, institutional structures, school calendar, teacher
certification and government policy.

However, science and technology has further bridged the gap between the imaginary and the real hence issues are substantiated. The indicators include information and communication technology (ICT), the use of computer against manual, electronic-learning and electronic-library among others, hence the digital world.

References


Rationales of Internationalisation of Higher Education in Europe: Meaning and Approaches

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Abstract Since the European unification project started in the 1950s, rules, regulations and policies have been formulated by the European Union (and its predecessors) to facilitate the mobility of products and people; internationalisation are examined, along with its relationship to terms such as globalisation. Sometimes, the terms are used interchangeable and are related but not the same thing. There is fundamental difference and at the same time dialectical link between them. This paper analyses the meaning, definition, rationales, and approaches of internationalization based on relationships between nations and their institutions. It outlined the different road internationalisation has taken.

Keywords: internationalization, globalization, mobility, nations, institutions

Introduction

Massification of the student flow and its bipolar nature (the dominance of the United states in the Western bloc and of the Soviet Union in the Communist bloc) were the main characteristics of international dimension of Higher Education in Europe in the 1960s and 1970s. The open door and laissez-faire policy and the one way dimension were the other characteristics of the process of internationalisation of higher education, at a global level and in Europe in particular. However, the 1980s produced four distinct changes, first in the open door mobility of individual students, second in the development of a research and development policy for the EC, third in student mobility as an integrated part of study, and fourth in the widening of scope to other regions: third countries in Western Europe, Central and Eastern Europe, third countries outside Europe, and development co-operation.

European universities have always had a wide range of international contacts and academic collaboration with partner institutions around the world. However, in the past decade the development of a European Higher Education Area (EHEA) has led to an accelerated 'Europeanisation' characterised by strategic and more structured networking and cooperation among European universities. With the consolidation of the EHEA came the realisation that Europe is increasingly attractive globally, both as a study destination and a partner for exchange. Today, 'internationalisation' beyond Europe has become a strategic goal of European governments and universities, and practically all institutions and countries provide offers for international students and reflect on their interaction with the wider global academic community.

In order to support these developments, in 2006 EUA launched its International Agenda, which puts high emphasis on policy dialogue and partnership. It considers the international perceptions of European higher education, and strives to ensure that international academic cooperation is based upon a community of interests that respects and fosters academic values and cultural diversity.

Under this strategy, EUA seeks to:

• create opportunities for dialogue with international partners in order to promote the attractiveness of Europe and to keep abreast of international developments affecting higher education institutions worldwide
• undertake project work with members and international partners to explore critical global issues in higher education
• relate the European experience in higher education integration to other regions
• promote inter-university cooperation by providing a forum to members for forging institutional alliances and partnerships, supporting universities to respond to global challenges and position themselves internationally.

Ever since, EUA has closely monitored European and international policy processes linked to
internationalisation, and has also fostered dialogue and cooperation relations with its sister organisations, i.e. national and regional university and rector associations and networks in other parts of the world.

**Internationalisation: Policy Framework**

One of the core objectives of the Bologna Process was to render Europe more attractive internationally. This has, in many ways, been accomplished, as the EHEA has drawn considerable attention from the rest of the world. Simultaneously, countries and institutions in Europe have increasingly promoted themselves as study destinations and academic partners with high quality offers. In recent years, EUA has been active in explaining and promoting the European reforms to partners in other parts of the world, and has also contributed to the discussions on European internationalisation.

In addition, EUA is part of the BFUG (Bologna-Follow-Up-Group) working group on the Global Dimension/International Openness, particularly with regards to the objectives of policy dialogue and cooperation with other world regions. As a result of this work, in 2007 at their London meeting European Ministers launched the “strategy of the Bologna process in a global setting”.

In the late 1960s the internationalisation of higher education was still a rather restricted phenomenon in Europe. Although, since those days, the transnationalisation of higher education has become one of the priorities in educational policy, in particular but not exclusively thanks to ERASMUS and other EC programs, internationalisation in the sense of institutional change is still in an initial phase. And the changes are taking place in an uneven and piecemeal way. Internationalisation of higher education in Europe will still have to overcome enormous obstacles in reaching a stage in which it is no longer an ad hoc phenomenon imposed upon higher education from the outside, but a natural and integral part of its mission, its plans, and its academic programs.

In general terms, we define internationalisation as the complex of processes whose combined effect, whether planned or not, is to enhance the international dimension of the experience of higher education in universities and similar educational institutions (Teichler, 1986). Formal definitions aside, the perception and definition of internationalisation is influenced and to a large extent constructed by the role and viewpoint of the various stakeholders in education: the European Commission, government, the private sector, institution, faculty, and student.

For an understanding of the European situation, it is important to recognize the diversity of routes through which the concept of "inter-nationalisation" is emerging and coming to be recognized as an accepted goal for institutions, governments, and national or regional academic structures. The process is far from uniform or consistent; and in some national systems of higher education the idea of internationalisation as a process does not fit easily or naturally. The emergence of explicit strategies for internationalisation, visibly supported by policy statements and the commitment of resources, is only part of the picture and takes place under many different circumstances and imperatives.

Research on internationalisation of higher education in Europe is even more recent and fragmented than internationalisation in itself. Much existing research focuses on student mobility as the most accessible and quantifiable index of internationalisation, at the expense of less readily researchable but equally significant indicators such as curricular and organizational change. While the tradition of research into academic mobility and international education is longer and more established in the United States, much of it is of limited relevance to Europe. As Teichler notes: In European countries, research on academic mobility was undertaken only on a very small scale prior to the 1970s and addressed almost exclusively issues of students and staff from developing countries. Later on a substantial amount of the research available addresses pragmatically the driving rationale of the programs for international cooperation and mobility, initiated by the European Community. Irrespective of the countries involved, most of the research available on academic mobility and international education seems to be occasional, Özaczzdental, sporadic or episodic.

Consequently much of the research material available on Europe has characteristics of an emergent
discipline in its 'preparadigmatic phase': by which is meant a stage of development at which many excellent single studies are being conducted.

The Historical Context

To understand the European situation, it is essential to place current developments in a historical dimension. Many authors have commented on macrohistorical changes affecting educational mobility and cooperation: the creation of nation-states in the nineteenth century and earlier; Europe's historical role in the world, in particular its role in colonialization and in the process of decolonialization; the impact of higher education in France, Germany, and the United Kingdom on higher education in the rest of the world; recent trends in European integration; the collapse of the former Soviet Union and associated East-West rapprochement; recession and financial constraint; "massification" of higher education; the dissolution of some structures and blocs and the emergence of others. Institutions, as they participate in these events, bring with them their own microhistories-their individual biographies, which may stretch back many centuries or reflect a far more recent foundation. An institution's response to the 'push' and 'pull' factors for internationalisation will always reflect the intersection of these micro- and macrolevel histories.

Confining discussion to the macrolevel, the 1960s in Europe are not seen today as a period of internationalisation-more reference is made to the Renaissance times of the Dutch philosopher Erasmus. But it would be entirely wrong to believe that international student mobility was absent then.

In general, the period 1950-1970 was, according to Baron, characterized by a "foreign policy" among receiving countries of "benevolent laissez-faire": of open doors to foreign students-students, who to a large extent, came from the former and, at that time, still existing French and British colonies. Some elements of this are still seen in the pattern of student flow to these countries, although (in the British case especially) the impact of more recent policies has largely transformed the picture. According to Baron, in the period 1950-1970 promoting academic mobility was predominantly seen as an element of foreign policy. From the point of view of the receiving countries, provision and care for foreign students were perceived as connected to foreign policy objectives, such as maintaining political influence with future elites in other countries and preparing useful contacts for international relations in commerce and industry.

Guy Neave (1990), Director of Research of the International Association of Universities (IAU), sees massification of the student flow and its bipolar nature (the dominance of the United States in the Western bloc and of the former Soviet Union in the communist bloc) as the main characteristics of internationalisation in the 1960s and 1970s. The open door and laissez-faire policy and the one-way dimension were the other characteristics of the process of internationalisation of higher education, at a global level and in Europe in particular.

The universities themselves played a mainly passive role as receivers of foreign students. Gisela Baumgratz-Gangl (1992), gives the following characteristics of internationalisation in Europe before the introduction of the European programs: historical ties with former colonies (usually combined with cultural and linguistic ties); political considerations; presence of political refugees; economic considerations; educational demands; research cooperation in the natural sciences; top-level postgraduate study; migration of "guest workers"; increasing foreign language competence at school level; traditional links between disciplines (mainly philology); traditional mobility of elites; improvement of transport and communication and expansion of tourism; cooperation at postgraduate level between Western Europe and the United States; mobility of Third world students and staff to Western Europe (brain drain).

Although this list looks impressive, the effects of these factors on higher education cooperation within Europe were marginal. International activity was mainly oriented toward the cooperation of European higher education with the United States (outward mobility) and with the Third World (inward mobility). A European policy for internationalisation did not exist. The 1980s produced two distinct changes: first, in the open door mobility of individual students; and second, in student mobility as an integrated part of the study at home.
With respect to the individual mobility of students, the European nations and universities began changing their benevolent laissez-faire policy to a more controlled reception and in some cases the active recruitment of fee-paying foreign students. Alice Chandler, in a study in 1989 published by the Institute for International Education, stated: What has changed in recent years is the balance of motives. Humanitarianism and internationalism still exist as rationales for foreign student enrolments. But they have been overshadowed in both rhetoric and reality during the 1980s by the increased emphasis on pragmatics: by the monies to be derived from foreign student tuitions, by the purchases and expenditures made by foreign student tuitions, by the purchases and expenditures made by foreign student tuitions, by the purchases and expenditures made by foreign students as tourists, and by the less measurable but ultimately even more important contribution to be made by foreign graduates as future financial and diplomatic allies.

The best example of that change was the British decision in 1979 to introduce “full-cost fees” for foreign students. Higher education as an export commodity quickly became dominant in the United Kingdom, as it already was in the United States.

For most people on the European continent, to consider the education of foreign students as an export commodity is still an anathema. On the European continent, the reception of foreign students is still based more on foreign policy arguments than on considerations of export policy. Often, it can fairly be claimed that foreign students cost more money, owing to the subsidy of higher education, than they generate. This was also the case in the former communist countries such as the Soviet Union, where students were received for ideological reasons but now are no longer welcome because of the high costs to their hosts' faltering economies.

It is not unlikely that, in the coming decade, the international movement of students as an export commodity will also spread over the European continent and will become a more important element of higher education policy than it has been in the past, both at the national and at the institutional levels. Examples of this new focus can already been seen, for instance, in the Netherlands. A recent policy document of the Dutch government declares the recruitment of foreign students to be a policy issue and announces the introduction of full-cost fees for non-European Union students. This is a remarkable change away from the past two decades, when national policy aimed at discouraging foreign students from study in the Netherlands.

Other examples can be seen in Central and Eastern Europe, where universities develop programs for foreign students, in order to attract the foreign currency that is so important for their infrastructure because of lack of sufficient national support. An important market is the children of former emigrants to the United States, who see the relatively cheap training in their countries of origin as an alternative to the high costs of academic training in the United States.

In the late 1970s and early 1980s the notion of "study abroad", in the sense of sending students to foreign institutions of higher education as part of their home degree program, became an issue that overshadowed the developments in individual mobility of students. From the 1980s to the present student mobility as a one-way, individual process stimulated by political and/or economic considerations has (with the exception of the United Kingdom) lost prominence as a policy issue. It has been marginalized by the greater attention given to student mobility in the framework of exchange programs, which have been among the top priorities in higher education policies in the 1980s and 1990s.

Before this period, managed programs for exchanges of students and staff did exist, such as the Fulbright program in the United States and the bilateral cultural and academic agreements of European countries. But these programs were limited in both funding and scope, stimulating mainly unrelated exchanges at postgraduate level. In the 1970s, more structural exchange stimulating programs were established, first in Sweden and the Federal Republic of Germany. These programs were inspired by the development of study abroad programs of American universities in Europe in the same period, but the German and Swedish schemes distinguished themselves from their American examples by the fact that they were much more focused on integration of their own students in the foreign host universities, where the American programs...
were more isolated satellites of the American home institution.

In 1976, the Council of the European Communities adopted an action program for education. This was the first such move, since the Treaty of Rome did not mention education as an area for community action. The Commission had to justify its action program by non-educational, mainly economic criteria. But the action program of 1976 was the basis for future activities in academic cooperation and exchange within the European Community. And, ironically, the lack of a legal basis for action in the field of higher education gave the European Commission a great deal of freedom for creative action: a freedom and creativity that would have been less within a more formal structure.

In 1976, the Joint Study programs scheme was established by the Commission, aimed at "the promotion of joint programs of study and research between institutions in several member states". The focus of this experimental program was primarily the stimulation of academic mobility within the EC. The program grew gradually from thirty-two projects in 1976-1977 to two hundred in 1983-1984, with a budget of 700,000 ECU. In 1984, the Commission added a budget line for student grants into the Joint Study programs Scheme. This scheme was replaced in 1987 by its successor, the "European Action Scheme for the Mobility of University Students": ERASMUS.

The rationale behind ERASMUS was primarily political and economic: to stimulate a European identity; and to develop international competitiveness through education. Thus ERASMUS and the other educational programs as such are a logical addition to the Research and Development programs launched by the European Community to keep up with Japan and the United States in the technological race.

These programs have gradually been opened to the countries of the European Free Trade Association (EFTA Norway, Sweden, Finland, and Austria-and to Switzerland. The Scandinavians created their own mobility program, Nordplus, to stimulate inter-Scandinavian mobility and cooperation in higher education. With the coming inclusion in the European Union of the first three of these countries, the educational programs will become even more European.

Since the implementation of the ERASMUS program in 1987, significant results have been achieved in cooperation and exchange within higher education and between higher education and industry in the European Union.

Antonio Ruberti (1993) commissioner for education and research, published a new discussion paper, in which he stressed the importance of a more coherent continuation of the existing programs (combining ERASMUS and LINGUA into one program) and a closer link between these and the Research and Development programs of the European Union. Based on that document, on 4 January 1994 the European Commission presented a new program, called SOCRATES. This is an umbrella program covering three areas: higher education, school education and other transverse measures (promotion of linguistic skills, open and distance learning, information promotion).

In addition to SOCRATES, Commissioner Ruberti also announced a five-year program for action in the field of vocational training, called LEONARDO (after Leonardo da Vinci). Characteristic of this new approach is the extension of educational policy from higher education to secondary and vocational education (although some smaller programs in the latter field already existed, such as PETRA, FORCE and IRIS, now incorporated in LEONARDO). LEONARDO will include many aspects of the former COMETT program, such as internships for students in higher vocational training; but its main focus is on innovation in secondary vocational training.

Within SOCRATES, for the area of school teaching, a budget is set aside to encourage the setting up of partnerships between secondary schools for carrying out joint educational projects, in particular in the area of languages, cultural heritage, and environmental protection. The promotion of schooling of immigrant and gypsy children and the skills updating of educational staff will be part of the "Europe at School" program in SOCRATES.

The role of the European Commission in higher education has not been limited to educational mobility and exchange. The EC has played an important part in stimulating internationalisation of higher education.
The Research and Development Programs

Internationalisation of research is a phenomenon that is already generally accepted. International joint ventures of research groups are no longer exceptional, and there is a long tradition of conferences, seminars, workshops, and congresses for academic exchange of ideas and findings. On the other hand, the technological needs of modern society demand very expensive research projects that individual research groups, institutions of higher education, companies, or even national governments cannot.

Cooperation with Central and Eastern Europe

The opening up of Central and Eastern Europe has had an enormous impact on higher education in this region and on cooperation between institutions of higher education in Western, Central, and Eastern Europe. As Denis Kallen makes clear, academic cooperation and exchange already existed before this opening up and was developing rapidly in the 1980s, in particular with Poland and Hungary. Cooperation concentrated mainly on staff exchanges and far less on student exchanges. From the point of view of the regimes in these countries, academic cooperation was mainly a political issue and little institutional or personal autonomy was possible.

Although, as Ladislav Cerych (1989) states, the opening up of Central and Eastern Europe had a global effect, the increase in academic mobility with Western Europe was quantitatively greater than with any other area. Regional proximity and the political push by national governments and the European Commission formed the basis for this strong inner-European academic cooperation.

The European Commission, through its so-called PHARE program, opened the way for several forms of cooperation, both in R&D and in education. The best-known example is the Trans European Mobility Program for University Studies (TEMPUS), which provides support for the development of education by way of mobility grants for students and faculty and infrastructural support.

TEMPUS covers ten countries in Central and Eastern Europe, excluding the republics of the former Soviet Union, for which region in 1993 a new scheme, TEMPUS-TACIS, has been established. The impact has been enormous. In TEMPUS, some 750 projects have been implemented since the program's start in 1990, including more than 1,800 institutions of higher education, companies, and organizations. Up to 1993 around 6,500 students had been granted the opportunity to study in Western Europe, and some 10,000 staff members have gone to Central and Eastern Europe.

Thanks to TEMPUS and other programs supported by national governments and other international private and public organizations, a rapid improvement in the educational infrastructure and of the quality of education has been achieved. One of the main problems still to be solved is the brain drain of qualified faculty and students. But although this and many other large problems remain to be solved, an important step forward in bridging the gap between higher education in Western and Central and Eastern Europe has been made. In the field of R&D, also, thanks to the support of the EC and national governments, the situation in Central and Eastern Europe is better than it was ten years ago.

There is ground for some concern in the lack of cooperation among the institutions of higher education in the Central and Eastern European countries themselves, and, related to that problem, a tendency toward nationalist instead of regional approaches. Another cause of concern is the growing tendency in programs for Central and Eastern Europe to give almost exclusive priority to the hard disciplines, seen as directly related to economic development, at the expense of the “vulnerable sector” and disciplines in higher education. Further concern lies in the one-way direction of mobility and cooperation. Only recently has a small but growing stream of students begun to move from West to East.

If higher education in Central and Eastern Europe is to escape from its dependence on support from Western Europe, then a relationship of two-way exchange and cooperation must prevail. The extension of the ERASMUS scheme and other EC programs for higher education to Poland and Hungary, and gradually to the other ten countries participating in the TEMPUS scheme, would be an important contribution to the autonomous development of higher education in that region, and (as was the case with the EFTA countries) an excellent case study for their future participation in the European Union as a whole.
Development Aid Programs

Support to the Third World in general, and to higher education in the South in particular, has received much attention in Western Europe. In the Netherlands, for example, in the 1970s and 1980s, internationalisation of higher education was almost exclusively oriented to cooperation with higher education in the developing countries, with financial support from both the national government and the institutions themselves.

This situation changed in the course of the 1980s. As Alan Smith states: When it comes to the role of the academic community in the context of providing development aid, however, the current situation appears to be much less encouraging. In so far as figures are available, it would appear that support for such activities has tended to stagnate or even recede, and even in the more positive cases growth-rates have tended not to keep pace with those in the area of cooperation between industrialized countries.

The new orientation toward support for higher education in Central and Eastern Europe, and the policy shift of major education funders like the World Bank away from higher education and toward the primary education sector, are among the factors that explain this development. For some parts of the developing world, notably countries of sub-Saharan Africa, the picture is exacerbated by the displacement effect of the transformations in the former Soviet Union and the consequent loss of formerly available study opportunities there.

There are, however, signals that development aid to higher education in the Third World is receiving new attention. At the Annual Conference of the EAIE in December 1993 in The Hague, Colin Power, assistant director for education of UNESCO, reconfirmed the need for international cooperation and assistance by stating that existing statistics indicate the ever widening gap between the developed and the developing countries in the field of science and technology. He was supported in his appeal by Ismail Serageldin, vice president of the World Bank, who stated: Europe, which has given so much to the world, both good and bad, must remain engaged with the rest of the world at this time when the end of the cold war brings both crises and opportunities. It is important that the next generation of Europeans should continue to look beyond their own frontiers, not motivated by dreams of empire or domination, but by the individual and collective enrichment that will come to Europe and the Europeans in recognizing our common humanity in the billions of the poor beyond their borders as well as in the peoples of the competing industrial economies across the world.

The European universities have an important role in this process, as the defender of core values of humanism, tolerance, rationality and reason. The European Commission has become one of the important international funding organizations for development cooperation in the educational field, alongside national governments. One fact already becoming clear is that institutions of higher education in Europe wishing to be active in development cooperation will increasingly need to work together in European consortia, instead of acting alone.

The General Impact of the EC Programs

The European programs for exchange and cooperation described above have transformed international mobility from a purely one-way flow, involving very small numbers of unrelated movers, to managed flows involving large numbers under directly related multilateral exchanges at all levels of higher education. One could call this development the external democratization of the international mobility of students, giving students from lower and middle classes and of middle-level qualifications access to study abroad that had once been restricted to the upper classes and a limited number of highly qualified students. To paraphrase Peter Scott in his keynote address given at the third Annual Conference of the EAIE in Montpellier in December 1991: "Student exchanges and international education must be conceived in terms of peoples talking to peoples, not elites talking to elites.... (Student exchange) must become routine, mundane, part of the fabric of everyday academic life" instead of being "exceptional or a privileged process".
Gisela Baumgratz stresses the different road internationalisation has taken, thanks to European programs: Compared with traditional mobility patterns in Europe and the United States, the programs have introduced a new pattern: limited periods of study abroad forming part of the study course at undergraduate level; educational cooperation and staff exchange alongside the traditional research cooperation; and highly selective postgraduate programs for freemovers.

The response of the institutions of higher education to the EC initiatives was positive but at first rather reactive: "as long as Brussels is giving us money, why should we oppose the idea". As Ladislav Cerych has said, Community funds are not and never will be available to European higher education to solve its financial problems; they will never cover more than a very small proportion of needs. Misunderstandings and over-expectations in this respect have been and probably remain common among European universities, their staff and their students.

Soon this became clear. Participation in the European programs did not generate income but demanded active involvement and investment on the part of the institutions and departments. This involvement in turn, however, has created a shift from passive response to active involvement. Institutions of higher education, departments, faculty, and students have had to decide what would be the positive effects of participation in the ERASMUS and other schemes and what price they were prepared to pay. Such decisions were traditionally made from the point of view of academic and personal experience. Now, under the schemes, instead of something extra and exceptional, a study abroad experience had to be an integral part of the curriculum. For that reason, exchange of information on the course offerings and levels of study became crucial, as was the development of mechanisms of recognition of courses taken abroad through systems of credit transfer.

For varying reasons and to differing extents, the sending of students and faculty abroad was generally seen as the most important aspect of the exchange programs. That this also entailed the reception of foreign students and faculty was at first seen by many institutions more as a drawback than an advantage. The reception of foreign students in large numbers confronted institutions of higher education with unforeseen problems, both in the classrooms and in support facilities. Language barriers, different academic backgrounds and academic calendars, housing, and insurance were among the many problems to be solved.

The problems that institutions of higher education are faced with differ by country and type of institution. For example, the United Kingdom is confronted with a high demand of students wishing to spend their study abroad period there, mainly for language reasons. In a recent survey, students of the different countries of the European Union, when asked for their first preference of study abroad-with the exception of U.K. and Irish students (first preference: France) and students from Luxembourg (first preference: Germany mentioned the United Kingdom as their first place of preference. At the same time, higher education in the United Kingdom, for financial reasons, is less keen to receive large numbers of non-fee students from the Continent and also has problems stimulating their own students to participate in the exchange programs with the continent.

Despite these problems, we can now say that ERASMUS and the other EC programs have placed internationalisation high on the priority lists of national, institutional, and departmental strategic plans. Several national governments, private funds, and regional entities have established funds alongside the EC programs to stimulate international cooperation and exchange. Seven years after the creation of ERASMUS, one may say that institutions of higher education in Europe have largely learned to cope with its demands and those of the other EC programs.

In many institutions of higher education smaller or larger offices of international relations have been established at the institutional, and frequently also at the departmental, level. With due regard to variation and exceptions, the trend is for institutions to give internationalisation a central place in their mission statements, strategic plans, and budgets. From a move imposed by the outside world, internationalisation is becoming an integral part of higher education policy. Institutions of higher education, faculty, and students are increasingly placing international education at the center of their strategies.

Because of the complexity and diversity of the European situation with regard to higher education, and
the systemic changes in progress at all levels, some of whose long-term effects are hard to predict, it is not possible to draw for Europe a simple model of uniform progress toward internationalisation. Some broad trends, however, can be discerned. A broad tendency for strategies for internationalisation that have in the past been tacit, fragmented, and ad hoc to become explicit, managed, and coordinated. This tendency is more marked in Northern than in Southern Europe. In Central and Eastern Europe, this process manifests itself more in a reform of the old highly centralized and controlled central policies and their transformation into a more open and autonomous structure.

- The gradual development of a more interactive model of internationalisation, with policy decisions, support systems, and organizational structures located at both central and decentralized levels, and with flexible connections between these levels.
- A gradual change from a reactive response to EC and national programs and funds for internationalisation to a more autonomous, proactive policy of internationalisation at both the institutional and the departmental levels.
- Alongside the above, a gradual diversification of resources for internationalisation, combining EC and national with institutional and private funds.
- More attention to networking on a multilateral and structural basis, in research, curriculum development, and delivery.
- An increasing professionalization of those with responsibility for international activities in institutions. This again is more marked in the North than the South of Europe, and may have negative as well as positive results, since there is a danger that international activity may become 'ghettoised' rather than integral to the life of the institution.
- An increasing priority being given by Western European institutions to strategies for cooperation with Eastern and Central Europe and the rest of the world: globalization of international cooperation, in response and in addition to the process of (Western) Europeanization, as stimulated by the European Commission.
- A growing awareness of the importance of the academic aspects of internationalisation, such as curriculum development, credit transfer, and research training.
- A growing recognition of the value of effective procedures for evaluation, monitoring, and quality assurance with respect to international activity.

Set against these trends, certain counter pressures and tensions need also to be noted, among them the following:

- The tension between incentives to internationalize, and the rationales for cultivating a distinctive institutional and national identity; resistance to what has been called the 'denationalizing' effect of internationalisation.
- Linked to the above, the emergence within Europe of a new 'localism: an assertion of local and regional identities in other spheres as well as education. Cross-border cooperation at institutional level, which is an emerging pattern in some areas, combines elements of 'internationalism' and 'regionalism'. At present it is impossible to predict what accommodations there will be between these new groupings and the centralizing forces in Europe, such as the competencies of the EU.
- The cost-benefit balance of international activity, with regard to both the institution and the individual.
- The proliferation of different types of institutions, the expansion of new sectors and specialisms, and the growth in numbers of private-sector institutions seeking an international presence in Europe. These developments present challenges to the more established institutions, authorities and policy-making structures, whose outcome cannot at present be clearly foreseen.

The European Commission, confronted with the fast-growing interest in its educational programs, conscious
of the new role of education under the Maastricht Treaty and aware of a positive change of attitude in the institutions of higher education toward its educational programs, has finalized the necessary preparations for the follow up of the mobility programs, since 31 December 1994 was the expiry date of the present phase. In 1991, the European Commission published the white paper mentioned above, the "Memorandum on Higher Education in the European community". This document was the basis for an intensive debate on the role of the European Union in education and on the future of the educational programs. Although in general it was well received, critical comments were made by the educational sector on the one-sided focus by the European Commission on economic and political criteria at the expense of a broader cultural and academic approach.

The stimulus for internationalisation in Europe has come in particular from the European Commission, the main original reason being a fear on the part of the European Commission that Europe would lose the technological race with the United States and in particular Japan, unless science and technology were stimulated at a European level.

The European Commission now stresses the importance of international cooperation and exchange in higher education from a political and cultural point of view, and emphasizes the need for the creation of a European identity: a 'citizenship of Europe'. While the Commission has played an active role in stimulating and supporting intra-Community educational mobility and cooperation for a number of years, its legal competence in the educational field dates only from the adoption of the Treaty of Maastricht in 1993.

One may say that the intention of the European Commission is to stimulate internationalisation of higher education in Europe in order to contribute to European economic growth and to spread a European unity through cooperation in research and education. The "added value" of Community action in the sphere of education is according to the Commission, in the words of its president, Jacques Delors, the mutual integration and opening up to each other of general education and professional training systems are an economic issue, in terms of maintaining competitiveness, and a political issue, in terms of defending democracy and human rights.

The European Association for International Education (EAIE), in a comment on the Memorandum on Higher Education in the European Community, acknowledges the positive role of the European Commission in stimulating internationalisation of higher education within Europe, but at the same time questions the confusion of internationalisation with Europeanization.

For the European Commission, the main focus of internationalisation is Europeanization: achievement of European excellence; strengthening of Europe's position in the global economy; safe guarding and strengthening Europe's cultural heritage; strengthening the basis for further political development and for European Political Union; a European Community dimension in higher education; the European dimension of curricula.

The EAIE points to the danger of an Eurocentric view of internationalisation and (citing Peter Scott) sees a potential contradiction between Europeanization and internationalisation: Intra-European exchanges cannot be regarded as fully 'international'. Indeed, as the European Community deepens and widens, they will increasingly be seen as 'internal' rather than 'external' exchanges. Nor can they be regarded as a substitute for wider global relations.

Although, as we shall see, the EC is playing an important part in the globalization of academic cooperation and exchange, it does not altogether escape this criticism of a disproportionate Eurocentrism in its view of international education. The European Commission, despite its crucial and dominant role, is not the only stakeholder influencing the development of internationalisation in Europe. In general, there lacks any common view among stakeholders about the 'what', the 'why', and the 'how' of internationalisation. Within Europe, a great diversity of arguments, social, economic, and educational, are deployed to support the internationalisation of education. Some of these arguments have their origin in the needs of society and/or the economy, some in the needs of education itself. Together they constitute a set of overlapping rationales for the process and activities of internationalisation. In turn, they form the basis of the incentives for
Internationalisation that are perceived by stakeholders, and the justifications that are made internally and externally. And, as has been said before, there is potential coincidence, but also conflict, between the interests of the different stakeholders: international governments, the private sector, institutions, departments, faculty, and students.

In the Berlin communiqué of 19 September 2003 the Ministers of the Bologna Process signatory States invited the European Network for Quality Assurance in higher Education (ENQA) through its members, in cooperation with the EUA, EURASHE, and ESIB to develop “an agreed set of standards, procedures and guidelines on quality assurance and to explore ways of ensuring an adequate peer review system for quality assurance and or accreditation agencies or bodies, and to report back through the Bologna Follow-up Group to ministers in 2005. The Ministers also asked ENQA to take due account of the expertise of other quality assurance associations and networks.

All across Europe, countries and universities are engaged in a process of modernization. From an EU perspective, these reforms are part of the Lisbon Strategy for Growth and Jobs, which also encompasses reinforced cooperation in vocational education and training (Copenhagen Process). To establish synergies between Copenhagen and Bologna, the Commission has brought forward its proposal for the European Qualifications Framework for lifelong learning (EQF). This is linked to and supported by other initiatives in the fields of transparency of qualifications (EUROPASS), credit transfer (ECTS -ECVET) and quality assurance (ENQA -ENQAVET). Of similar importance is the link between the European Higher Education Area and the European Research Area (EHEA and ERA)

The European Commission aims to support these efforts with the help of programmes like Erasmus, Tempus in respect of neighbouring countries, and more globally through Erasmus Mundus. The Commission also works to support the modernization agenda through the implementation of the 7th EU Framework Programme for Research and the Competitiveness and Innovation Programme, as well as the Structural Funds and the European Investment Bank. All across Europe, countries and universities are engaged in a process of modernisation. From an EU perspective, these reforms are part of the Lisbon Strategy for Growth and Jobs, which also encompasses reinforced cooperation in vocational education and training (Copenhagen Process). To establish synergies between Copenhagen and Bologna, the Commission has brought forward its proposal for the European Qualifications Framework for lifelong learning (EQF). This is linked to and supported by other initiatives in the fields of transparency of qualifications (EUROPASS), credit transfer (ECTS -ECVET) and quality assurance (ENQA -ENQAVET). Of similar importance is the link between the European Higher Education Area and the European Research Area (EHEA and ERA).

Conclusion

Internationalisation being based on relationships between nations and their institutions, takes differences as a starting point for linkages, where Globalization ignores the existence of nations and their differences and looks more for similarities than for differences. Though, Internationalisation of Higher Education and Globalization are linked phenomena, because institutions of Higher Education- privatised, deregulated and more entrepreneurial- become active players in the goal market place, but trying to maintain their autonomous position as academic institutions, holding strong to diversification more than harmonisation. Specific initiatives such as branch campuses, cross-border collaborative arrangements, programs for international students, establishing English-medium programs and degrees, and others have been put into place as part of internationalization. However, the fair and transparent principles that many countries have agreed to were not necessarily implemented very widely. Many higher education institutions are still ignorant of the convention despite its ratification by the government. Many find it difficult to implement though only a tiny minority. The promotion of the European dimension in higher education can be helped by more transparency between existing educational systems.
References


Gisela Baumgratz-Gangl (1992) Trends and Development concerning Mobility and Internationalization of Higher Education in Europe. In Goodwin and Teichler (eds.): Globalism and regionalism in academic mobility (International colloquium Academic mobility in a changing world: Regional and global trends, Wassenaar / NL 12 - 14 November


U. Teichler (2005). The formative years of scholars: proceedings from a symposium held at the Haga forum, Stockholm, 9-11 November

Evaluating the Implementation of NTI/NCE Mathematics Programme by Distance Learning System

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Abstract The study evaluated the implementation of NTI/ NCE mathematics curriculum by distance learning system. The study was guided by three research questions and corresponding hypotheses. The population was made up of 322 NTI mathematics students and 15 course tutors while the sample was made up of 158 students and 7 courses in four NTI study Centers in Bayelsa state Nigeria. The instrument used for the study was NTI Mathematics Curriculum Evaluation Questionnaire (NMCEQ). The instrument was validated by experts and a coefficient reliability of 0.82 established using Crombach's alpha method. Pearson product Moment Correlation Coefficient was used in analyzing the data. Findings revealed a significant relationship between structural facilities, teacher's qualification and evaluation on the implementation of the NTI/NCE mathematics curriculum by distance learning system. The paper therefore suggested among others the provision of adequate facilities and the training and retraining of teachers for the effective implementation of the curriculum.

Keywords: Evaluation, Implementation, Mathematics Programme and Distance Learning.

Introduction

In the past decades, student's enrolment in schools has increased without a commensurate improvement in school facilities and manpower. This problem as noted above has called for the introduction of different forms of non-conventional education programmes in Nigeria and other parts of the developing world. Such non conventional programmes are often called different names such as correspondence education, home study, independent study, continuing education, part-time, studentship, sand which programmes and distance learning system.

Danjuma (2004) noted that though these programmes are operated using different learning styles, and administrative system, a major feature about them is that the students and teachers do not have a direct contact as obtained in the more conventional education programmes.

The need for distance learning system according to Ezeni (2006) affects almost all sector of Nigeria society. The author stressed further that the house wife need distance education to effectively teach and monitor the academic progress of her children and ward at home, the farmer also need high degree of distance learning, inform of extension programme for improved crop and animal yield, the trader and artisan need a form of distance learning for improved productivity and better service delivery. In the education scene teachers need to improve their knowledge through in service programmes to enhance better teaching and learning and contribute maximally to community service.

This is sensitive to the Federal Government Commitment to teacher production and retention as noted in the FRN (2004). The policy document clearly stated that teacher education will continue to be given a major emphasis in all educational planning and that "no education system can rise above the quality of its teachers.” To effectively implement this policy statement, FRN through the national policy on Education (2004) noted that the minimum qualification for teaching is the Nigeria Certificate in Education (NCE).
Such policy statement if strictly followed without certain adjustment in teacher education programme, will certainly throw many serving teachers out of the teaching profession thereby increasing the rate of unemployment in the country. In a survey carried out by Jubril (2005) 29.8% of Public primary school teachers in Kebbi State, Nigeria had qualifications lower than the NCE. This therefore means that such teachers need in-service training programme to safe guide their jobs. Relative to this, College of Education, Universities, National Open University and the National Teachers Institute (NTI), has instituted different distance learning programmes for teachers aimed at training and retraining of teachers to achieve set goals. Jegede (2003) noted that among these bodies, the NTI stands very strategic among others in producing middle level manpower at the NCE level in meeting the demands of teacher education in Nigeria.

The National Teachers Institute (NTI) was established in 1978 through decree 7. The Institute was originally set up to manage Teacher Grade II (TCII) examinations in the three core subjects (mathematics, English language, and General Paper). These were the three core subjects, which were Federally examined for the award of Teacher Grade Two Certificates, which was then almost the highest qualification needed for teaching at the Primary School level. Following the national policy directives of NCE as the minimum qualification for teaching, the scope of NTI was widened to include mounting of courses leading to the award of the Nigeria Certificate in Education (NCE Primary) in certain subject areas to qualify recipients to teach in primary school. At present, the institute, runs NCE programmes in subject areas such as Christian Religions Studies (CRS) Cultural and Creative Arts (CCA) English Language (Eng), Islamic Religions Studies (IRS), others are Physical and Health Education (PHE), Social studies (SOS) Primary Education Studies (PES), Education (EDU), Integrated Science (ITS) and Mathematics (MAT).

Any school programme need periodic evaluation. Such evaluation can be in part or whole. Jeremiah and Alamina (2006) noted that the evaluation can be carried out in almost all the stages of the curriculum development process, from the need assessment stage to quality control stage. Such report can provide comprehensive data which can be used as quality control mechanism which may call for subsequent innovations. Thus the fundamental problem of this study is to evaluate the level of structural facilities for the implementation of NTI/NCE programme in mathematics by distance learning system in Bayelsa State Nigeria.

Statement of the Problem

Teacher education in Nigeria has witnessed a lot of innovation in the past decades. These innovations were aimed at improving teaching and learning. The poor performance of school children in public examinations is an eloquent testimony that such innovation has not yielded an acceptable dividend.

Of all the factors that could be responsible for this, the school environment, motivational variables, instructional strategies and media are often attacked by concerned citizens and the government. Little or no attention is paid to the fact that lack of periodic evaluation of school programme could cause damage in the system, there by making it impossible to achieve set goals and objectives. The researchers noted that some earlier studies on evaluation were carried out without matching them with the NCE mathematics programme through distance learning system in Bayelsa state. This research is an attempt to fill that gap. It is therefore pertinent at this time when Nigeria is moving towards Scientific advancement to constantly monitor and evaluate our mathematics education programme as it determine the direction of our Scientific break through.

Purpose of the Study

The major concern of this study was to evaluate the implementation of the NTI/NCE mathematics programme of the Distance learning System. In this regards, the study was designed specifically to achieve the following objectives.

1. To determine the relationship between structural facilities and the implementation of NTI/NCE
Research Questions

To guide the study, the following research questions were posed:

1. To what extent do structural facilities relate to the implementation of NTI/NCE mathematics programme by distance learning system?
2. To what extent do teachers qualification relate to the implementation of NTI/NCE mathematics programme by distance learning system?
3. To what extent do evaluation strategies relate to implementation of NTI/NCE mathematics programme by distance learning system.

Research Hypotheses

To guide the study, the following research questions were transformed or converted into corresponding null hypotheses.

(HO₁) There is no significant relationship between structural facilities and the implementation of NTI/NCE mathematics programmes by distance learning system.
(HO₂) There is no significant relationship between teacher’s qualification and the implementation of NTI/NCE mathematics programme by distance learning system.
(HO₃) There is no significant relationship between evaluation strategies and the implementation of NTI/NCE mathematics programme by distance learning system.

Research Methods

The research design for this study was the descriptive survey. The population comprised 322 mathematics students and 15 course tutors in six NTI study centres during the 2009/2010 academic year. The sample was made up of 158 students and 7 course tutors, which was drawn from the population using the proportionate random sampling technique. The instrument used for the study was Mathematics Curriculum Evaluation Questionnaire (MCEQ) The instrument was validated by experts and coefficient reliability of 0.82 established using Crum Bach alpha technique. Data collected was analyzed using pearson product moment correlation coefficient.

Hypothesis testing

(H) Hypotheses One
There is no significant relationship between structural facilities and the implementation of NTI/NCE mathematics programme by distance learning system.

Table 1: Pearson Product Moment Correlation Coefficient Analysis of relationship between structural facilities and implementation of NTI/NCE mathematics programme.
The data presented in table 1, indicated that the calculated r. value of 0.199 is greater than the critical r. value of 0.195, at 164 degree of freedom at 0.05 alpha levels. Hence, the null hypothesis which states that there is no significant relationship between structural facilities and the implementation NTI/NCE Mathematics programme by Distance Learning System is rejected. This implies that there is a significant relationship between structural facilities and implementation of NTI/NCE mathematics programme by distance learning system.

(2) Hypothesis Two
There is no significant relationship between teacher qualification and the implementation of NTI/ NCE mathematics programme by distance learning system.

Table 2: Pearson Product Moment Correlation Coefficient analysis of relationship between teachers qualification and implementation of NTI/NCE mathematics programme by distance learning system.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\Sigma x$</th>
<th>$\Sigma x^2$</th>
<th>$\Sigma xy$</th>
<th>$\Sigma y$</th>
<th>$\Sigma y^2$</th>
<th>df</th>
<th>r.cal</th>
<th>r.crit</th>
<th>Decision at p&gt;.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher qualification</td>
<td>2002</td>
<td>25444</td>
<td>34350</td>
<td>164</td>
<td>0.245</td>
<td></td>
<td>0.195</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Implementation</td>
<td>2788</td>
<td>51040</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = significant at 0.05 alpha level, p<0.05 at df = 164

It is established from table 2, that the calculated r. value at 0.245 is greater than the critical r. value at 0.245 is greater than the critical of 0.195, at 164 degrees of freedom and at 0.05 alpha levels. Hence, the null hypothesis is rejected, which implies that there is a significant relationship between teachers qualification and the implementation of NTI/NCE mathematics programme by distance learning system.

(3) Hypothesis Three
There is no significant relationship between evaluation strategies and the implementation NTI/NCE mathematics programme by distance learning system.

Table 3: Pearson Product Moment Correlation Coefficient analysis it relationship between evaluation strategies and the implementation of NTI/NCE mathematics programme by distance learning system.
<table>
<thead>
<tr>
<th>Variable</th>
<th>$\Sigma y$</th>
<th>$\Sigma y^2$</th>
<th>$\Sigma x$</th>
<th>$\Sigma x^2$</th>
<th>$\Sigma xy$</th>
<th>df</th>
<th>r.cal</th>
<th>r.crit</th>
<th>Decision at</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation strategies</td>
<td>2152</td>
<td>29384</td>
<td>36819</td>
<td>164</td>
<td>0.201</td>
<td>0.195</td>
<td>*</td>
<td>p&gt;0.05</td>
<td></td>
</tr>
<tr>
<td>Implementation</td>
<td>2788</td>
<td>51040</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = significant at 0.05 alpha level, p< 0.05 at df = 164

From Table 3, it is established that the calculated r. value of 0.201 is greater than the critical r. value of 0.195, at 164 degrees of freedom and at 0.05 alpha levels. This implies that the null hypothesis is rejected, therefore, its further indicates that there is a significant relationship between evaluation strategies and the implementation of NTI/NCE mathematics programme by distance learning system.

**Discussion of Findings**

The major objective of this study was to evaluate the implementation of NTI/NCE mathematics programme by distance learning system. The result of the investigation indicated a significant difference between structural facilities and the implementation of NTI/NCE mathematics programme by distance learning system. The Pearson Product Moment Correlation Coefficient statistics was used to establish the degree of relationship. This might be as a result of the fact that instructional facilities plays a great role in the implementation of school curriculum and that distance learning systems need to have adequate facilities that will promote effective learning. Earlier studies such as Sidney and Ngozika (2005), Andrew (2006) and Alaka (2007) all collaborate with this study. In their various findings, they identified a significant relationship between school facilities and curriculum implementation.

The findings again revealed a significant relationship between teacher’s qualification and the implementation of NTI (NCE) Mathematics curriculum by distance learning system. The Pearson product Moment Correlation coefficient was used in establishes the relationship. This might be associated with the fact that teachers play a significant role in any teaching learning process relative to the implementation stage of a school curriculum. Earlier studies such as Jeremiah (2004) and Alalibo (2010) where at variance with this findings. Studies such as Ali (2007), Elems (2008), Poploar (2008) all collaborate with the findings of this study.

The result of the investigation also revealed a significant relationship between evaluation strategies and the implementation of the NTI (NCE) Mathematics curriculum by distance learning system. The Pearson Product moment correlation coefficient was used to establish the relationship. This might be related to the fact that proper evaluation is an index of measuring the efficiency of a school programme in terms of meeting the demands of set goals and objectives. The result of other studies such as Ochilongua (2006), Eke (2009) tend to support the result of this finding. These studies all identify the cardinal role of evaluation in the effective implementation of a school curriculum.

**Conclusion**

Based on the findings of this work, the following conclusions are reached.

1. There is a significant relationship between structural facilities and the implementation of the NTI/NCE mathematics curriculum by distance learning system.
2. There is no significant relationship between teacher’s qualification and the implementation of NTI/NCE mathematics curriculum by distance learning system.
3. There is no significant relationship between evaluation technique and the implementation of NTI/NCE mathematics curriculum by distance learning system.

Recommendations

Based on the findings the following recommendations are made:

1. Facilities should be adequately provided in NTI study centers to enhance the implementation of mathematics curriculum.

2. National Teachers Institute (NTI) course tutors or teachers should be encouraged to go for in service training, workshops, seminars and conferences to update their knowledge on current trends and innovations in mathematics education curriculum.

3. National Teachers Institute and other relevant bodies should carry out periodic evaluation on the NTI programme. Such evaluation can serve as quality control mechanism which may call for subsequent innovation.

References

Teacher Education in Nepal

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Abstract The system of training for Secondary teachers was initiated in Nepal in 1957 when the government established College of Education with functional and technical assistance of the government of USA. The College of Education offered a two year I.Ed. program for the 10-year high school graduates to train lower secondary teachers. The College also offered a one-year B.Ed course for those who holds Bachelor’s degree in other subjects other than education. The Institute of Education was offered the responsibility to conduct all the in-service and pre-service training. The Ministry of Education started getting directly involved in the in-service teachers training program during the early years of 1980’s when the government executed Science Education Project. In-service training has a special connotation in Nepal. As the training is mandatory for all teachers, the government has made a special arrangement to provide 10-months training to the serving untrained teachers. School clustering and professional support to the cluster schools by Resource Persons have become part of the national educational training system in Nepal. Demand driven trainings help develop skill and attitude to solve specific pedagogic problem to teachers directly related to the solution of day to day problem through which the teachers gain knowledge and skill to solve the specific teaching problem.

Keywords: Pre-service training, In-service training, School based, Training center based, Resource center

Introduction

Nepal is a country in South Asia with a population of about 28 million populations. It is surrounded by two great neighbours the People’s Republic of China in the north and India in the south, east and west. The country has three distinct geographical characteristics: plain, hill and mountain. Most of the people live in the hill and plain. Government of Nepal is committed to the right of every child to quality basic education. Jomtien Conference and Dakar Framework of Action highlight the commitment of government to provide basic education of good quality to all children by 2015.

Schooling in Nepal began about 152 years ago. The political changes in 1951 brought fundamental changes in the educational scenario, beginning the expansion of schooling facilities in the country.

Source: http://www.theodora.com/wfb
Education Structure

Nepal’s school education system comprises five years of primary (grades 1-5), lower secondary (grades 6-8) and secondary (grades 9-10). Now according to restructuring of school education the primary grades will be from grades 1-8. A national level of School Leaving Certificate (SLC) examination is carried out at the end of grade ten. Higher Secondary level of grades 11 and 12 are extension of Secondary education system of higher education.

The system of higher education consists of Bachelors’ degree of three to four years’ duration depending upon the subject and two years of Masters’ degree. Some universities also offer Postgraduate Diploma and master of Philosophy (M.Phil) courses. PhD (Doctorate of Philosophy) is regarded as the highest degree offered. Presently, the intermediate level, equivalent to higher secondary level is also being offered under the system of university education. However, the government intends to merge this intermediate level into the higher secondary system.

A separate line of Sanskrit education also exists in the country that runs from the school level to higher education. At the school level, Sanskrit school curriculum is compatible with the curriculum of general school.

Similarly, a technical stream of education has also been developed in order to produce low and middle level human resource necessary to carry out the task of national development.

School Curriculum

Nepal has a system of using national school curriculum that is being used in all the schools of the country. Curriculum Development Centre under the Ministry of Education and Sports (MOES) is a legally authorized body to develop and implement school curriculum up to grade 10. Higher Secondary Education Board, an autonomous body under the MOES prepares curriculum for higher secondary schools and conduct external examination at the end of grade 11 and grade 12. This body is also authorized to issue the certificate of completion.

Teacher Development

The system of training for secondary teachers was initiated in Nepal in 1957 when the government established College of Education with functional and technical assistance of the government of USA. The College of Education offered a two year I.ED program for the 10-year high school graduates to produce trained lower secondary teachers. In addition, the college also, offered a one-year B.Ed course for those who hold Bachelor's degree in subjects other than education. In 1973, the College of Education was converted into the Institute of Education as one of the ten institutes of Tribhuvan University. The Institute of Education was offered the responsibility to conduct all the in-service and pre-service training. As a part of Tribhuvan University, the Institute of Education had several campuses in different parts of the country. The Ministry of Education started getting directly involved in the in-service teachers training program during the early years of 1980’s when the government executed Science Education Project with the financial assistance of Asian Development Bank.

The Institute of Education conducted various types of teacher training programmes during 70’s and 80’s. These programmes were: Women Teacher Training Programme, Remote Area Teacher Training Programme, A-level Programme, Campus Based B-level Programme, On-the-Spot Teacher Training Programme, Primary teacher Training through Distance Learning and Radio Education Teacher Training Programme.
Academic and Training Requirement for Teachers

Successful completion of 12 year schooling is the academic requirement for lower secondary school teachers. A bachelor degree is the academic requirement for secondary school teachers. A ten-month training is a mandatory requirement for any person to be qualified for permanent tenure for the teachers of primary, lower secondary and secondary teachers. However, there is a system to recognize the training requirement if the candidate had offered education as his or her major subject. Two systems are in operation:

System 1: Students of higher secondary schools or university first year and second year can major in “Education”. Such students are recognized as persons having completed 10 months training and qualified as trained primary and lower secondary teachers.

System 11: A one-year B.Ed. course offered to Bachelor degree holders is regarded as complete training for secondary teacher.

Pre-service Training System

The system 11 stated above is the pre-service training for secondary teachers. The Universities also offer a 3-year B.Ed program to produce trained graduates for secondary teaching. Pre-service training of lower secondary teachers and secondary teachers has remained the responsibility of academic institutions. Tribhuvan University is the only major institution to provide pre-service training for secondary teachers. It runs Intermediate, Bachelor’s, Master’s, M.Phil. and Ph.D Programme in teacher education. Purbanchal University has started B.Ed Programme. Kathmandu University is conducting M.Ed, M.Phil. and Ph.D Programme.

In-service Training System

The long term 10 months training is regarded as in-service training when the training is offered to the serving teachers. There are thousands of permanent untrained teachers. As training is mandatory for all teachers, the government has made a special arrangement to provide the 10-month training to the serving untrained teachers. Recently, the Ministry of Education has devised a special package of long-term training. The package consists of three modules. Module 1 cover 330 hours out of which 132 hours are offered on the training center and 198 hours are offered in their own schools (school-based). Module 11 consists of 660 hours, which is offered through “Distance Mode”. Module 111 also covers 330 hours out of which 132 hours are offered in the training center and 198 hours are offered in the schools (school based).

The main characteristics of different modules are:

Module 1

A) Training Center Based (1 month-132 hours)
   - Face to face (direct participation)
   - Subject teaching (Pedagogy)
   - Knowledge and skill oriented subject matter

B) School Based (1.5 month-198 hours)
   - Experiment centered
   - Related school teaching.
   - Use of knowledge, skill, attitude learning in training center during the training
Module 11 (5 months-660 hours)

- Based on distance learning
- Knowledge based
- Emphasis on related subjects
- Use of self learning materials, audio-visual aids
- Use of modern technologies like computer, e-mail, internet etc. (based on availability)
- Workshop
- Correspondence

Module 111

A) Training Center Based (1 month-132 hours)

- Face to face (direct participation)
- Inclusion of professional development related subject matter
- Professional knowledge and skill oriented

B) School Based (1.5 month-198 hours)

- Experiment centered
- Teaching in related school
- Use of knowledge, skill, attitude in classroom learnt in training center
- More emphasis on doing the activities of skill oriented subject matter to be done as activities of trainee during the training period

These three modules are related to each other and the teachers themselves decide from which modules they are going to take their training.

**Short Term In-service Training for Teachers**

Short term training for teachers was first initiated by Education for Rural Development Project (Seti Project) in 1981. This project has introduced the concept of school cluster. A group of 10-15 schools were grouped into one cluster with a Resource Centre to constantly provide professional support to the cluster schools. A hall (One) Resource Centre was built in a centrally located secondary school and the head teacher was appointed to operate the Resource Center professionally. A single head teacher could not perform the tasks without the assistance of the teachers of the school. So, the head teacher distributed tasks among the other teachers and distributed the remuneration among the teachers. There was no Resource Person as such during the Seti Project.

The primary Education Project, during the years of 1990’s, institutionalized the school cluster system with a Resource Person for each school cluster. The successive education projects further reinforced the cluster concept and the short term training through the Resource Persons.
Science Education Project

MOES direct involvement in major in-service training began with the Science Education Project to produce science teachers for the lower secondary and secondary teachers. The Secondary Education Project (1993) was established to conduct 10 month short term in-service training of Science, Mathematics and English teachers This Project developed Science Education Development Centers.

School clustering and professional support to the cluster schools by Resource Persons have become part of the National Educational Training System in Nepal. The Resource Person operates through a Resource Centre and there are about 1100 Resource Centers in the country. Only few of the 1100 Resource Centers have a training hall and work place for the Resource Persons. Resource Persons are attached to one of the Secondary Schools of the Cluster.

Secondary Education Support Project

Secondary Education Support Project has envisaged 200 Lead Resource Centers with stronger capacity to provide continuous professional support to the teachers through other less equipped Resource Centers. However, MOES has decided to establish only 46 Lead Resource Centres on an experiment basis. Some districts have ETC (Education Training Centre) A, some have ETC B or C. National Education Development Centre (NCED) is an apex body for short term training at the central level.

Demand Driven Training

A Demand driven training is training organized for the teachers on the basis of need of training identified by the teachers and head teachers. This training should originate from the school level. The need of such training is identified by the head of the department and the head teacher in consultation with the teacher. The Training Unit in the District Education Office should appoint a Short Term Teacher Training Committee headed by the head of the training Unit. This committee study the training needs identified by the schools and conduct the training.

UNICEF, Plan International, Save The Children. And JICA also run short-term trainings to the teachers in specific areas of their choice. For example, some agencies organize training on Peace Education for few schools of some districts. Other agencies provide training for improving mother tongue education. NCED provides professional support to the organizers of these training in the areas of training curriculum development and TOT (Training of Trainers).

Demand driven trainings help develop skill and attitude to solve specific pedagogic solution of day to day problem. This training is an instructional process through which the teachers gain knowledge and skill to solve the specific teaching problem.

Conclusion

Teacher training should be regarded as a continuous process. Appropriate and adequate content exposure is needed to the prospective and in-service teachers with due exposure to pedagogical areas. A balance between content areas and pedagogy only can take the new perspectives of teacher education in teacher’s profession. Strategies for providing refresher training to all the trained teachers should be applied. Educational technology could improve the quality of teacher education. Due to lack of attractive salary and other incentives teachers take the teaching job only as platform. To motivate the capable and qualified people towards teaching adequate financial incentives should be worked out.
References

Shrestha, K.N, (1998), Primary Education Development Project, An Assessment of Achievement, ADB, Kathmandu


Indiscipline In Secondary Schools: A Cry To All Stakeholders In Education

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Abstract The study examined factors responsible for indiscipline among secondary school students and the need for all stakeholders in education to find solutions to the problem of indiscipline in our school system. Survey research design was employed for the study; the study population was all government secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State estimated to be about 3,024. 200 students were used as sample using simple random sampling technique. The study was guided by four research questions. Instrument used for the study was "Students Indiscipline Questionnaire" (SIQ) with 12 items. The instrument was validated by experts and a reliability coefficient of 0.80 was established using test-retest reliability technique. Mean was used as a statistical tool to answer the four research questions. From the findings, parental attitude, government nonchalant attitude, teachers' influence and peer-group influence among others were found to be responsible for indiscipline among secondary school students. Recommendations were also made.

Keywords: Indiscipline, Secondary Schools, Cry, Stakeholders and Education

Introduction

Most schools in the past were voluntary agency schools. As at then, there was high degree of discipline in school. There was harmony as principals, teachers and students demonstrated awareness of their responsibilities in the school. Moreso, parents and teachers shared the same view of students' desirable behaviours. The quality of school system as regards to discipline was very high up till the end of Nigerian civil war in January 1970.

After the civil war, things began to change. All forms of indiscipline were manifested by the students. Indiscipline is negative form of discipline, Zubaida (2009) citing Dare, Hashim, Sweinan and Ofie (2004) defined discipline in schools as respect for school laws and regulations and the maintenance of an established standard of behaviour and implies self-control, restraint, respect for oneself and others. A behaviour that contradicts the above becomes indiscipline. According to Tunor (2002), if students cultivate the habit of discipline in schools, there will be a smooth running in the school system but reverse will be the case if students are not discipline.

Zubaida (2009) identifies various forms of indiscipline among the secondary school students such as truancy, lateness to school, cultism, drug abuse, insulting/assaulting, stealing, rioting, and many other anti-social vices. According to Zubaida (2009) and Eyinade (1999), a number of these acts of indiscipline were directed against constituted authorities and established rules. An example of this is refusal to wear the right school uniform and going out of bounds without permission. The respect which teachers command among students had been seriously worn-off. And some teachers have not done much to help the situation by their actions. This problem has turned to a national issue.

Our leaders in the past have tried to remedy this situation but the problem proved not to be solved. One of the cardinal objectives of Education as spelt out in the National Policy on Education (2004) revised, is to inculcate right type of values and attitudes for the survival of the individual and Nigerian society. Onyije and
Ojedapo (2010) identify some factors that cause indiscipline among students such as government nonchalant attitudes to education, parental factors and teachers’ attitude.

Therefore there is need to get at the root causes of indiscipline amongst the secondary school students with a view to finding a solution. In this light the researchers concern is to find out factors responsible for indiscipline among secondary school students. With a view to provide solutions in order to make our educational system what it ought to be.

Statement of the problem

The problem of indiscipline in schools has persisted over the years. These acts have either been carried out individually by the students or as a group which result to rioting or revolts. There is no doubt that students indiscipline generally militates against effective teaching and learning and production of useful acceptable members of the society. It is therefore, observed that some parents appear to have denied their parental roles or responsibilities towards their children.

If the teachers are frustrated and lack motivation in themselves, they are not likely to motivate other to learn or occupy their time in productive education. The Government contributes to indiscipline by not providing adequate facilities/equipment in the school. Community/Society influence contributes to indiscipline among secondary school students due to economic recession. Peer-group influence contributes to indiscipline among students in the form of uncomfortable environment where the students are scared of their parents.

Purpose of the study

The purpose of this study is centered on finding out whether:

a. Parents attitude towards their children contributes to indiscipline among secondary school students.
b. Teachers attitude towards the students contributes to indiscipline among secondary school students.
c. Government activities contribute to indiscipline among secondary school students.
d. Peer-group influence contributes to indiscipline among secondary school students.

Research Questions

The study attempts to proffer answers to the following questions based on the purpose of study.

i. To what extent is parents influence contribute to indiscipline among secondary school students?
ii. To what extent does teachers’ attitude contribute to indiscipline among secondary school students?
iii. To what extent does government activities contribute to indiscipline among secondary school students?
iv. To what extent does peer group influence contribute to indiscipline among secondary school students?

Methodology

Design

This study is a survey study, therefore survey research design was adopted to investigate or appraise the opinion of the people.
The Study Population

The study population comprised of all Government Secondary School students in Ogba/Egbema/Ndoni Local Government Area with a population of Three thousand and Twenty-Four (3,024) students at the senior secondary level.

Study Sample/Technique

The sample was made up of two hundred (200) respondents which are purely students. Simple random sampling technique was used to select these respondents.

Research Instruments

A questionnaire titled “STUDENTS INDISCIPLINE QUESTIONNAIRE” (SIQ) was used for the work. The questionnaire contained twelve items.

Validity Of The Instrument

The questionnaire items were designed with the assistance of measurement and evaluation experts who ascertained face and construct validity of the instrument.

Reliability of the instrument

Test-retest reliability method was used for the reliability of the study. Reliability co-efficient of 0.80 was obtained using Pearson correlation technique.

Administration and Retrieval of Instrument

The instrument was administered directly to the respondents who were guided on how to complete the questionnaire items. All the copies of the questionnaire administered to the students were also retrieved by the researchers at the end of completion on same day.

Technique of Data Analysis

The data analysis technique used was “mean scores” the mean scores of the students in relation to the research questions was used to determine the causes of indiscipline among secondary school students. Any item with 2.5 and above was accepted.

Data Analysis and Results

Research Question One

To what extent does parents influence contribute to indiscipline among secondary school students? This research question sought to know whether parental attitude towards their children contributes to indiscipline among secondary school students. It comprises of 3 items in the questionnaire as shown below.
Table 1: Summary of Questionnaire items that answer research question one

<table>
<thead>
<tr>
<th>S/n</th>
<th>Questionnaire item</th>
<th>No. of respondents</th>
<th>Responses</th>
<th>Total Score</th>
<th>Mean</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>SA A S SD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>I don’t go to school regularly because my parents do not provide necessary material for me.</td>
<td>200</td>
<td>320 240 76 2</td>
<td>638</td>
<td>3.19</td>
<td>Agreed</td>
</tr>
<tr>
<td>2.</td>
<td>When I do wrong my parents do not punish me</td>
<td>200</td>
<td>368 210 70 3</td>
<td>651</td>
<td>3.26</td>
<td>Agreed</td>
</tr>
<tr>
<td>3.</td>
<td>My parents often quarrel and fight at home.</td>
<td>200</td>
<td>280 240 90 5</td>
<td>615</td>
<td>3.08</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Mean Score = \( \frac{1904}{600} = 3.17 \) or \( 3.19 + 3.26 + 3.08 = 9.53 \)\( \frac{3}{3} = 3.17 \)

The mean score of research question one = 3.17

From the table above, the mean score of the 3 items used to answer research question one is 3.17 which is greater than the cut-off point of 2.5, hence it is agreed that parental attitude as a factor is responsible for indiscipline among secondary school students.

Research Question Two

To what extent does teachers' attitude towards the students contribute to indiscipline among secondary students?

Research question two seeks to know whether teachers' attitude is a factor responsible for indiscipline among secondary school students. This comprises of 3 items of the questionnaire as shown in the table below:

Table 2: Summary of questionnaire items that answer research question two

<table>
<thead>
<tr>
<th>S/n</th>
<th>Questionnaire item</th>
<th>No. of respondents</th>
<th>Responses</th>
<th>Total Score</th>
<th>Mean</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>SA A S SD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>My school authorities do not give due attention to welfare of students</td>
<td>200</td>
<td>200 300 90 1</td>
<td>591</td>
<td>2.96</td>
<td>Agreed</td>
</tr>
<tr>
<td>5.</td>
<td>Little or no attention is paid to students problems by teachers in the school</td>
<td>200</td>
<td>248 300 70 3</td>
<td>621</td>
<td>3.11</td>
<td>Agreed</td>
</tr>
<tr>
<td>6.</td>
<td>Teacher in my school often ignores students complaints</td>
<td>200</td>
<td>300 243 80 4</td>
<td>627</td>
<td>3.14</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Mean Score = \( \frac{1839}{600} = 3.07 \) or \( 2.96 + 3.11 + 3.14 = 9.21 \)\( \frac{3}{3} = 3.07 \)

The mean score of research question two = 3.07
From the table above the mean score of the 3 items used to answer research question two is 3.07 which is greater than the cut-off point of 2.5, hence, it is agreed that teachers’ attitude as a factor is responsible for indiscipline among secondary school students.

**Research Question Three**

To what extent does government activities contribute to indiscipline among secondary school students? This research question tends to know whether government activities contribute to indiscipline among secondary school students. This comprises of 3 items of the questionnaire as shown in the table below.

**Table 3: Summary of the questionnaire items that answer research question three**

<table>
<thead>
<tr>
<th>S/n</th>
<th>Questionnaire item</th>
<th>No. of respondents</th>
<th>Responses</th>
<th>Total Score</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>Abolition of corporal punishment in school by government makes student to behave unruly</td>
<td>200</td>
<td>300 240 80 5</td>
<td>625</td>
<td>3.12 Agreed</td>
</tr>
<tr>
<td>8.</td>
<td>Lack of infrastructural facilities makes students to behave unruly</td>
<td>200</td>
<td>248 264 90 5</td>
<td>607</td>
<td>3.04 Agreed</td>
</tr>
<tr>
<td>9</td>
<td>Inadequate provision of laboratory and workshop equipment makes students to behave unruly.</td>
<td>200</td>
<td>260 234 100 7</td>
<td>601</td>
<td>3.01 Agreed</td>
</tr>
</tbody>
</table>

Mean Score = \( \frac{1833}{600} = \frac{3.06}{3} + \frac{3.04}{3} + \frac{3.01}{3} = 9.17 = 3.06 \)

The mean score of research question three = 3.06

From the table above the mean score of the 3 items used to answer research question three is 3.06 which is greater than cut-off point of 2.5, hence, it is agreed that government activities are responsible for indiscipline among secondary school students.

**Research Question Four**

To what extent does peer-group influence contribute to indiscipline among secondary school students? This research question seeks to know whether peer group influence contributes to indiscipline among secondary school students. It comprises of 3 items of the questionnaire as shown in the table below.
Table 4: Summary of the questionnaire items that answer research question four

<table>
<thead>
<tr>
<th>S/n</th>
<th>Questionnaire item</th>
<th>No. of respondents</th>
<th>Responses</th>
<th>Total Score</th>
<th>Mean</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>My behaviour changed due to my friends influence</td>
<td>200</td>
<td>320 222 88 2</td>
<td>632</td>
<td>3.16</td>
<td>Agreed</td>
</tr>
<tr>
<td>11</td>
<td>I and my school friends often decide to stay away from school</td>
<td>200</td>
<td>288 225 94 6</td>
<td>613</td>
<td>3.07</td>
<td>Agreed</td>
</tr>
<tr>
<td>12</td>
<td>My friends and I often go to night parties at school</td>
<td>200</td>
<td>280 198 110 9</td>
<td>597</td>
<td>2.99</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Mean Score = \( \frac{1842}{600} = 3.07 \) or \( 3.16 + 3.07 + 2.99 = 9.22 \) \( \frac{9.22}{3} = 3.07 \)

The mean score of research question four = 3.07

From the table above the mean score of the 3 items used to answer research question four is 3.07 which is greater than cut-off point of 2.5 hence, it is agreed that peer-group influence is one of the factors responsible for indiscipline among secondary school students.

Discussion of findings

To ascertain if parental influence contributes to indiscipline among secondary school students, the questionnaire items 1 to 3 were analyzed in table one (1). The findings revealed that parental influence constituted a contributing factor to indiscipline among secondary school students. The finding also agreed with the remark of Coombs (2000), which state that the difference associated with different home background influences ones life which in turn influences ones behaviour.

To ascertain if teacher’s attitude is a contributing factor to indiscipline among secondary school student, items 4 to 6 in the questionnaire were analyzed in table two (2). The findings revealed that teachers attitude is a contributing factor to indiscipline among secondary school students. This is accordance with Rogers (2003) who states that the child is naturally good, but it is the teacher that corrupt him. He also agreed that teachers ignores student’s problems and complaints whether academic or otherwise. This prepares ground for indiscipline to the students.

To ascertain if government activities are contributing factors to indiscipline among secondary school students. Items 7 to 9 of the questionnaire were analyzed in table three (3). The findings revealed that government activities are contributing factors to indiscipline amongst secondary school students. Eyinade (1999) referred to the issue of non-provision of facilities required to make learning environment conducive to students which in return makes them to be indiscipline.

Essen (1990), also stated the issue of ill equipped laboratories, large and crowded classes as a contributing factor to indiscipline in schools. Onyije and Ojedapo (2010), also point out government nonchalant attitude to provision of materials as cause of indiscipline among secondary school students.

To ascertain if peer group influence is a contributing factor to indiscipline among secondary school students, items 10 to 12 of the questionnaire were analyzed in table four (4). The findings revealed that peer-group influence is a contributing factor to indiscipline amongst the students. According to Iburun (2005), he stated that peer-group is of great importance as it affects young people’s way of life. And this relates more to the adolescent stage where most of the respondents belong.
Conclusion

From the findings of the study, it is believed that indiscipline of students is as a result of parental influence, teachers' attitude, government activities and peer-group influence. Therefore, to curb indiscipline among the students, attention must be given to parental influence, teachers' attitude, government activities and peer-group influence.

Recommendations

The findings of the study have revealed that all the factors investigated are important in any attempt to curb indiscipline among secondary school students, hence, the following were recommended:

1. Both the home and school environment should be made exciting and conducive for learning to the children (students), and other educational requirement such as library, laboratory, workshop should be provided and equipped by parents, teachers, government and all stakeholders in education.

2. Cordial relationship should exist between parents and schools authorities through active membership of Parents' Teachers Association (PTA).

3. The mass and electronic media should be used to enlighten all stakeholders in the areas investigated on the effect of indiscipline in the society.

4. There should be reward for good conduct and punishment for bad conduct at home, school and society at large by parents, teachers and government.

5. All schools should have a competent professional Guidance Counselor.

6. Students should be taught on how to have good behaviour and respect by parents, teachers and all stakeholders that will be acceptable in the society.

References

Administrative Problems of Open Distance Education in Nigeria. A Case Study of National Open University of Nigeria

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Abstract The purpose of this study was to identify the administrative problems of open and distance education in Nigeria with particular reference to National Open University of Nigeria and to ascertain whether there is a significant difference between the administrative problems of National Open University in the two broad geo-political zones (Northern and Southern zone) of Nigeria. To guide the study, two research questions and one hypothesis were formulated. The study was carried out in all the study centres in the geo-political zones of Nigeria. The population of the study comprised of five administrative staff from each of the 26 study centres of National Open University of Nigeria, numbering 130, who also served as respondents. Questionnaire (NOUAPS) was used for data collection. The data generated were analysed with mean and t-test. It was found that there is no significant different between the administrative problems identified in the study centres of National Open University in the Northern and Southern geo political zones of Nigeria. The most serious problem identified is the administration of the study centres by people who lack sufficient experience in the field of educational administration to develop, maintain and manage exemplary programs. Recommendations were made based on the findings.

Keywords: Administrative Problems, Solutions, Open University

Introduction

A definition of open and distance education cannot be too precise. It would be as precise as the concept of distance itself is or as precise as the concept of education can be, both of which are within the province of subjectivity. In an attempt to define open education, Burge (1993) states that it is a situation in which the learner uses resources in a flexible way to achieve their goals. The resources here could be print, audio, computer based; used at home, at a study center, in the work place, with or without the guidance of a tutor or mentor.

On the other hand, Mujibul (2008) sees distance education as situations in which learners are physically separated from the educational provider, and communicate in writing (using letters, e-mail, fax or computer conferencing) verbally (by telephone, audio, conferencing, videoconferencing), or in face to face tutorial sessions.

From the above definitions therefore, open and distance education is forms of education and training in which using learning resources rather than attending classroom sessions, is the central feature of leaning experience. It is a field of education that focuses on the pedagogy, technology and instructional system designs that aim to deliver education to students who are not physical “on site” in a traditional classroom or campus. It is a process used to create and provide access to learning when the source of information and the learners are separated by time and distance or both. In other words, distance education is the process of creating an education experience of equal quality for the leaner to best suit their needs outside the classroom situation. It is worthy to note that there is a considerable overlap between the two terms, open and distance leaning and they are often used together to refer to the whole range of leaning approaches as described above. Open and distance education courses that require a physical on-site presence for any reason,
including taking examination is considered a hybrid or blended course of study and it is the most popular in Nigeria today. Since establishment of National Open University of Nigeria, thousands have embraced this mode of education having seen it as an approved one in the national policy on education.

Statement of the Problem

With the passing of the Open University bill into Law in Nigeria in 1983, and the test transmission on February 4, 1984 started on Federal Radio Corporation of Nigeria (FRCN), National Teachers Institute (NTI) in Kaduna, and the National Open University of Nigeria (NOUN) in Lagos are the official institutions that offer open and distance education through Distance Learning System (DLS). Since then the staff and students of National Open University in both undergraduate and post graduate levels complained bitterly about series of administrative problems they encounter in different study centres of the institution.

Unfortunately, the rate of turnover from the National Open University of Nigeria reveals that the rate is slow in meeting the demand of staff and students in her study centres as well as that of the society. This slow pace has been due to certain constraints. These constraints which will be called problems in this work seems to have a nucleus in the administrative aspect propelling teaching and learning in the entire study centres of National Open University of Nigeria. It is therefore the intention of the researchers to expose the administrative problems of open and distance Education in Nigerian with particular reference to that of National Open University of Nigeria.

The purpose of this research is to identify the administrative problems of Open and distance education in Nigerian with particular reference to National Open University of Nigeria and ways of solving them. The result of the study and recommendations if implemented would enable the National Open University of Nigeria administrators and planners to solve the administrative problems existing in all their study centres. A study of this nature is important for development and growth of the university.

Based on the stated problem and purpose, two research question and one hypothesis were formulated to guide the study.

Research question:-

(1) What are the administrative problems of National Open University of Nigeria study centres in Nigeria?

(2) What are the solutions to the administrative problems of National Open University study centres in Nigeria?

HYPOTHESIS

There is no significant difference between the administrative problems of National Open University study centres in the two broad geo-political zones (made up of North East, North West, North Central and South East, South West, South-South) of Nigeria.

METHODOLOGY

The survey approach of ex-post facto design was used for this study. This design was found fit because the opinions of administrative staff were sampled about the phenomena that had already occurred in the respective study centres in the geo political zones.

Population of this study consisted of all the administrative staff in the twenty-six study centers of National Open University of Nigeria numbering 130
Table 1: The distribution of the sample in terms of the number of Administrative staff in each study centre of National Open university in each geo-political zones in Nigeria.

<table>
<thead>
<tr>
<th>Geo-political Zones</th>
<th>Study centres</th>
<th>Number sampled</th>
<th>Geo-political zones</th>
<th>Study centres</th>
<th>Number sampled</th>
</tr>
</thead>
<tbody>
<tr>
<td>North East</td>
<td>1) Federal Polytechnic Bauchi</td>
<td>5</td>
<td>South East</td>
<td>14) Federal Polytechnic Nekede –Owerri</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2) Yola Study Centre</td>
<td>5</td>
<td></td>
<td>15) National Root Crop Institute Umudike</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3) Kashim Ibrahim College of Edu. Maiduiguiri</td>
<td>5</td>
<td></td>
<td>16) Enugu Study Centre</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>4) Damaturu study centre</td>
<td>5</td>
<td></td>
<td>17) Anambra study Centre</td>
<td>5</td>
</tr>
<tr>
<td>North West</td>
<td>5) Kano Study Centre</td>
<td>5</td>
<td>South West</td>
<td>18) Ibadan Study Centre</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>6) Kaduna Study Centre</td>
<td>5</td>
<td></td>
<td>19) South West Resource Centre, Abeokuta Ogun State</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>7) Shehu Study Centre</td>
<td>5</td>
<td></td>
<td>20) Adayemi College of Edu. Ondo</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>8) Katsina Study Centre</td>
<td>5</td>
<td></td>
<td>21) Lagos Study Centre</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>9) Plateau State Polytechnic Jos</td>
<td>5</td>
<td></td>
<td>22) Oghogbo Study Centre</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>10) State College of Education Ilorin</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11) Abuja Study Centre</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12) Minna Study Centre</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13) Makurdi Study Centre</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>23) EDDI South-South Community Centre</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24) State College of Education Rumuolumeni P.H</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25) Benin Study Centre</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>26) Yenagoa Study Centre</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>27) State College of Education Nsukka</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>28) Nsukka Study Centre</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Sample AND Sampling Technique

All the administrative staff in the twenty-six study centres of National Open University in the Six Geo-Political Zones of Nigeria was sampled as indicated in table 1.

National Open University Administrative problems and solution questionnaire (NOUAPS) was the instrument used for collection of data for this research. The NOUAPS had two sections, A and B. Section A had 14 items and measured the administrative problems in the study centres of National Open University of Nigeria. Section B also with 5 items while measured the solution of problems contained in section A. These added up to 19 items, all measured in a four point likert-type scale of highly acceptable (4 points), acceptable (3 point), unacceptable (2 points) and highly unacceptable (1 point)

Face and content validities of NOUAPS were ascertained by experts in the field of measurement, evaluation and administration. Test-retest reliability coefficient of 0.78 was established for NOUAPS by administering the instrument twice within a two-week interval on 20 administrative officer of outreach centres of Nwafor-Orizu College of Education Nsugbe, Anambra State. The data from test and retest exercise was correlated using the Pearson product moment correlation coefficient, (r).

The researchers used face to face distribution technique in administering their questionnaire to respondents in the South East Geo-political Zone and electronic administrations by sending the questionnaire through e-mail of other respondents in the remaining geo-political zones. Mean and t-test were used to analysed the data collected.

Data Analysis AND Results

This portion indicates the summary of data collected from the respondents and were analysed according to the research questions and hypothesis.
Table 2: Administrative problems of NOUN study centres

<table>
<thead>
<tr>
<th>S/No</th>
<th>Items</th>
<th>Respondents from N. East, N.W and N. central Geo-political</th>
<th>Respondent from B.East S.W and S.S Geo – Political Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HA</td>
<td>A</td>
<td>UA</td>
</tr>
<tr>
<td>1.</td>
<td>Appointment of Non-specialists in Educational Administration and planning as centre Director</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>2.</td>
<td>Accommodation problem</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>3.</td>
<td>Lack of facilitators in some courses</td>
<td>15</td>
<td>43</td>
</tr>
<tr>
<td>4.</td>
<td>Irregular payment and omission of some facilitators honorarium</td>
<td>40</td>
<td>25</td>
</tr>
<tr>
<td>5.</td>
<td>Autocratic leadership style adopted by most centre directors</td>
<td>-</td>
<td>52</td>
</tr>
<tr>
<td>6.</td>
<td>Inadequate funding</td>
<td>-</td>
<td>65</td>
</tr>
<tr>
<td>7.</td>
<td>Lack of receptive to open and distance education by most Nigeria</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>8.</td>
<td>Inability of the centre directors to identify and recruit committed facilitators</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>9.</td>
<td>High cost of technology to support programme</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>10.</td>
<td>Insufficient and unequal distribution of course materials</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>11.</td>
<td>Staff disobedience</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>12.</td>
<td>Course allocation conflicts</td>
<td>40</td>
<td>23</td>
</tr>
<tr>
<td>13.</td>
<td>Inaccurate data for effective planning</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>14.</td>
<td>Lack of supervisor</td>
<td>28</td>
<td>32</td>
</tr>
</tbody>
</table>

All the items in table 2 had their mean scores above to cut off point of 2.5 and are therefore the administrative problems of all study centres of National Open University in the six geo-political zones of Nigeria.

Research Question 2

What are the solutions of administrative problems of the study centres of National Open University in the six political zones in Nigeria?
Table 3:- solution of the administrative problems of noun study centres.

<table>
<thead>
<tr>
<th>S/No</th>
<th>Items</th>
<th>Respondents from N. East, N.W and N. central Geo-political Zone</th>
<th>Respondent from B.East S.W and S.S Geo –Political Zone</th>
<th>HA</th>
<th>A</th>
<th>UA</th>
<th>H.UA</th>
<th>Total</th>
<th>X</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adequate accommodation should be provided in all study centre (permanent structures)</td>
<td>18</td>
<td>47</td>
<td>-</td>
<td>-</td>
<td>203</td>
<td>3.12</td>
<td>A</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td>2.</td>
<td>The programme should be sufficiently funded</td>
<td>40</td>
<td>23</td>
<td>2</td>
<td>-</td>
<td>174</td>
<td>2.67</td>
<td>A</td>
<td>15</td>
<td>43</td>
</tr>
<tr>
<td>3.</td>
<td>Adequate and qualified facilitators</td>
<td>20</td>
<td>35</td>
<td>10</td>
<td>-</td>
<td>205</td>
<td>3.15</td>
<td>A</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>4.</td>
<td>Enough course materials should be provided in all study centres</td>
<td>20</td>
<td>35</td>
<td>2</td>
<td>8</td>
<td>197</td>
<td>3.0</td>
<td>A</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>5.</td>
<td>Specialist in educational administration and planning should be employed as centre directors</td>
<td>36</td>
<td>20</td>
<td>4</td>
<td>5</td>
<td>217</td>
<td>3.33</td>
<td>A</td>
<td>40</td>
<td>20</td>
</tr>
</tbody>
</table>

In table 3, all the items had their mean scores above the cut off point of 2.5. This indicates that they are the solutions to the administrative problem of the study centres of National Open University in all geo-political zones in Nigeria.

Hypothesis

There is no significant difference between the administrative problems of National Open University study centres in the two broad geo-political zones (made up of N.E, N.W, N. Central and South East, S.W, South-South) of Nigeria.

Table 4 Correlation co-efficient computation for testing the above hypothesis

<table>
<thead>
<tr>
<th>Geo-political zones</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>t-cal</th>
<th>Df</th>
<th>Alpha level</th>
<th>t-tab</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.E, N.W &amp; N Central</td>
<td>14</td>
<td>3.21</td>
<td>0.35</td>
<td>0.22</td>
<td>26</td>
<td>0.05</td>
<td>0.37</td>
<td>Accepted</td>
</tr>
<tr>
<td>S.E, S.W &amp; S.S</td>
<td>14</td>
<td>3.26</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From table 4 above, it can be observed that the t-calculated value is 0.22 which is less than the t-table value 0.37 for 26 degree of freedom at 0.05 level of significance. For this reason therefore, the null hypothesis is accepted, hence there is no significant difference between the administrative problems of National Open University study centres in the two broad geo-political zones of Nigeria.

Discussion

The results obtained from the analysis of data in table 2 identified the following as administrative problems in all the study centres of National Open University of Nigeria:-

- Appointment of non education administrators as centre Directors in open and distance education
centres. As center Directors and supervisors main duties are to get things done in a proper way from the workers, they are supposed to be experts in education administration, planning and supervision. Same should be applicable to the appointment of the Vice Chancellors in universities running open and distance education.

The above finding is in line with (Aguna 2006) which states that inadequate planning, recruitment of staff, late production as well as of course materials and non utilization of experts in the field of educational administration and planning are affecting the proper implementation of the programmes.

- Accommodation problem. All the center used for open and distance education whether established by public or private institution are operating in either hired structure or hosted by already established institution. Building provided for offices and lecture rooms are inadequate resulting to slow rate of work in the office as well as in teaching and leaning.

This is in consonance with Obayi (2007) which states that no effective work can be done in a congested environment. A situation where the chief executive of a study center and his administrative staff share one room apartment as their office make jest of administrative block of a campus in a higher institution of such cadre.

This situation belittles not only the chief executives and her staff but the institution herself. Owerri and Port Harcourt centers of the National Open University of Nigeria are experiencing the problem right now. In line with this Nwaga (2007) pointed out that lack of space in their office has affected students guidance and counseling services. She received with dismay series of students’ complaints on lack of classroom for facilitation coupled with insults from students of Federal Polytechnic hosting them.

These problems exist in all National University (open and distance education) study centre thereby leading to delay in performance of office duties, facilitation and restlessness to the centre Directors who run around resolving conflicts between the host students and his/her students. Stressing on conducive work environment. Moore (2005) observed that in the environment where human beings work, the interfaces between them and environment affect and determine the level of human performance and output (production) at the workplace. Irrespective of the type and level of technology employed at the congested environment existing in different learning centres; the problems related to these aspects cannot be eliminated completely as technology in use is being assessed continuously, and no two persons can work exactly in the same way on the same job because of difference in inherent capabilities and responses to work environment. The primary concern of management of open and distance education (National Open University of Nigeria) should be to provide a conducive accommodation (environment) for work, so as to achieve the best-possible performance from the staff and the students.

Irregular Payment and Omission of Some Facilitators Honorarium

In most cases facilitators from different study centres of National Open University of Nigerian have complained about irregular payment and omission of their names in the schedule for payment of their honorarium. When such happens no supplement voucher is raised to pay them before the next semester runs out. For instance the facilitators have not received their last two semesters honorarium up till now including those whose names were omitted before. This results to negative motivation of the affected facilitators. They become frustrated and their rate of work will be drastically reduced.

Leadership Style Adopted BY Centre Directors/Administrators

The success of National Open University of Nigeria (NOUN) is largely depended on the quality of its leadership. The leadership style adopted by most centre managers could be branded as “medieval instrument”. They tend to be autocratic in the way they manage their permanent staff and facilitators. The human side of management is a thing that “belongs to the other side of the fence”. Communication style
between management and employees whether on permanent or temporal basis is jaundiced”.

It is usually from top-down, not the other way round, workers are given rare opportunity to talk let alone defend their rights.

The administrators mainly are “they who must be obeyed”. Some of the centre Directors or co-ordinators have been found wanting or dismissed due to negligence of duty, abetting examination malpractices and being involved in one corrupt practice or another.

In view of this many Nigerians are still doubting the quality and acceptability of the products of open and distance education in the labour market. Further more, the academic system does little but accord National Open University poor recognition so that many potentially good leaders are reluctant to accept leadership opportunities in open and distance education programmes including the institution under study. This raises a member of problems such as:

**Inadequate Funding and Lack of Receptive to Open and Distance Education**

Most people who are used to the traditional system of tertiary education are not receptive to open and distance education/learning resulting to low enrolment in most centres of National Open University of Nigeria. Majority of them are in the upper house of the Nation (senate) which is the highest policy making body. They tend to disparage open and distance learning by allocating mega amount of money to it thereby in-capacitating the management of the programme. It is only when enough fund is released to the administrators that they can do a reasonable work.

**Inability of the Administrators to Identify and Recruit Committed Facilitators**

It is the responsibility of the personnel department of National Open University of Nigeria various institution to recruit their staff. Because of the peculiar nature of the programme only very few qualified candidates apply for facilitating in the programme thereby making it difficult to recruit enough facilitators to cover all the courses in different centres.

Commenting on this, Veduin and Clark (1991) state that teachers with enthusiasm for non-traditional course work are few and difficult to convince to be absorbed as facilitators in open and distance education programme.

Therefore managers waste a lot of time, searching for qualified facilitators willing to handle core science courses.

**High Cost of Technology to Support Open and Distance Education**

Institutions offering open and distance education must consider the initial cost as well as the continuing cost of installing, maintaining, using and upgrading technology to support open and distance education service. Telecommunications and connectivity costs such as those needed to use the internet are ongoing costs. The administrators running National Open University did not anticipate connectivity costs and subsequent barriers in planning their programmes. This has led to continuous addition investments in toll-free lines and computers (Willis, 1993). Also, they did not plan to have many competent computers staff to support internet use or to develop the few available. Therefore, ongoing staff training costs must be considered and fund provided for it.

**Insufficient and Unequal Distribution of Course Materials.**

The centre directors’ office in different centres are always invaded by student demanding their course materials which are insufficient in number and unequally distributed to their centres. Students are forced to
download or photocopy course materials which they have already paid for. This problem has led to delay in facilitation and conflict between the centre Directors and the students.

Staff Disobedience

Some staff recruited by the personnel department of different National Open University of Nigeria and posted to their study centers are seen as threats by the center Directors because of the difference in academic qualifications and experience. In centers where many facilitators are more experienced and qualified academically, their center Directors feel inferior and find it difficult to control them. Most facilitators who find themselves in this situation tends to impose their decisions on the center directors, ill-advice other facilitators and students thereby making the center difficult to control by Directors.

Course Allocation Conflicts

Many things are usually done on “Man-Know-Man” basic by some center Directors. This is highly reflective of course allocation Lopsidedness which is skewed in favour of Lady-friends, relations and old boys. This practice creates conflict among facilitators, and between facilitators on tracing who has been handling the course and why it should be re-allocated. This ugly act has resulted to the transfer of reliable and efficient guidance councilor handling the job to other centers by the center Directors to enable him/her perpetuate the evil act.

Inaccurate Statistics

National Open University (Open and distance education) cannot succeed without statistics which is the basic ingredients for effective planning. Information is needed on the number of participants being planned for in order to project needs as correctly as possible. Unfortunately, most of the center Directors plan are not backed by valid information, a situation such as this makes their plans to rest on inaccurate projections and predictions. This matter is compounded by unimaginable increase in dropout rate, general lack of information gathering and storing facilities. Furthermore, inadequate data on the personal characteristics of the learner affect effective planning. It is worthy to note that student motivation has a power effect on attrition and completion rates, regardless of institutional setting. Motivators for open and distance students are often different from the traditional students. Knowles (1980), in explaining the advantages of knowing the learner, believes that learner behaviour is influence by a combination of the learner’s needs plus the learner’s situation and personal characteristics.

Knowing these personal characteristics is an important aspect of planning open and distance learning courseware and strategies. Since these students are not close to the Directors, how can they identify their needs, situation and personal character for their plans to be successful. In line with this, Ofole (2007) observed that after matriculation majority of the students may not have any other contact with the center Director or guidance counselor except in the examination hall. This situation makes planning difficult.

Lack of Supervisors

The supervisors should carry out their own personal supervision of the facilitators in every study center to enable them make personal observations of facilitators activities and efforts. The center Director and the supervisors are supposed to ensure that all tasks and activities are actually carried out on time and in a proper manner. Unfortunately, the absence of supervisors in the centers have compounded the problems of the center administrators since they cannot carry out both duties effectively.
Solutions:

These problems cannot be allowed to continue:
In view of this, the under listed solutions can remedy the situation

1. Adequate accommodation should be provided by institutions running open and distance education programmes. Therefore, for institutions owned by government like National Open University, permanent structures should be erected.

2. The programmes should be properly funded in order to achieve the objectives for establishing them.

3. Adequate and qualified facilitators should be recruited. Those who are capable can be allowed to facilitate in not more than two centers.

4. Enough course materials should be produced and distributed to the students on registration to avoid delay in facilitation and encourage prompt completion of course content.

5. National Open University should employ specialists in Educational administrations and planning as centre Directors in all her study centres.

References

Aguna I.C. (2006), towards a theory of Independent Learning and teaching Finland Journal of Distance learning 3(1), 52-63
Clerk B. (1991) Enhancing Adult learners progress in India, Teaching at a distance; 15, 10-25
Moore, G (2005) Factor which determine course completion in Adult learning programmes: International Journal of education 12,63-71
Ofole N.K (2006), Towards the improvement of distance education American Journal of distance education 5(3)37-52
Knowles, M. (1980 The modern practice of adult Education: from Pedagogy to Androgogy. Chicago Follet publishers
Ethiopian Teacher Education System: Barriers and Contradictions

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Jimma University, Ethiopia

Kedir Assefa Tessema
Alemaya University, Ethiopia

Abstract This research explores some contradictions, dilemmas, and chaos in Ethiopian teacher education. It illuminates how state actors have been engrossed in and obsessed with the rhetoric of system overhaul and reform, and yet continues to signal contradictory messages in their discourse and practices. The paper points up that three years after a comprehensive 'teacher education system overhaul' was declared, the state 'change agents' themselves are not yet familiar with and conversant in the metaphors and curricular concepts their overseer consultants had introduced to them. Indicators have been identified from what I term 'formalistic' documents, school observations and the author's direct experiences that show schooling and teacher preparation activities do not match in aims, practices, and conceptions. Rather, as the paper argues the mismatches and disconnects seem to reflect the depth of the confusion and the superficiality of the engagement to change and improve teacher education in Ethiopia. Finally, the paper puts forward the strong need for a revisit of the conceptual, discoursal, and practical state-of-the-art.

Introduction

Discussions of higher education need to be placed within larger processes of socio-economic and cultural restructuring. While higher education does indeed have its own specific histories and its own relatively autonomous dynamics, the entire sphere participates in and is connected in complex ways to social transformations and to struggles over power (Apple, 1998, p. 181).

This quote is chosen to illuminate the nature of my analysis. My arguments on educational activities are heavily grounded on the view of using multiple lenses that reveal Ethiopian political and power contentions in the landscape of public education; it justifies constrictions and convulsions between discourse and practice as a struggle and legitimated attempt to use education as a vehicle for controlling the hearts and minds of citizens.

At present, Ethiopian teacher education [1] is characterized as a terrain of persistent contradictions, challenges, and chaos. Engrossed in and obsessed with the rhetoric of system overhaul and reform, state actors have officially opted for a swift and sweeping change in the structure and content of teacher education since 2003. Although three years have passed, the state 'change agents' themselves are not yet familiar with and conversant in the metaphors and curricular concepts their consultants had introduced to them. Now, more and more indicators are accumulating that suggest schooling and teacher preparation activities do not match in aims, practices, and conceptions. The disparities both within and between the discourse and practice reflect the depth of the confusion and the superficiality of the engagement to change and improve teacher education in Ethiopia. In particular, practices in secondary schools and teacher preparation activities in education faculties are in a state of increasingly diverging tension and conflict.

My analytic reflection was aided by the data I gathered through classroom observations, a survey questionnaire, a lived-in-it experience, and faculty archive. In particular, I was able to uniquely capitalize on my personal experience since I have been directly involved [2] in drafting and standardizing secondary English teacher education curriculum as well as its implementation. In this paper, I begin with a discussion of major developments and activities in teacher education in the last few years with a hope of situating my analysis in a historical context. Second, I examine salient contradictions through multiple lenses that magnify
state-university-school activities. Third, I wish to bring to the surface the dilemmas the state is faced with in priority setting and delivering neo-liberal agendas. Next, I focus on discrete programming, the subversive modality of freshman students’ enrollment, and the practicum as 'sources' of chaotic practices and behaviors. This will be exemplified by a case study focusing on practices observed at Alemaya University and the surrounding region in eastern Ethiopia.

A Glimpse of Recent Developments

Following the shift of political power in 1991 [3], one of the policy promises and discourses was to effect major change in the national education system. By issuing the Ethiopian Education and Training Policy in 1994, an official educational conviction and commitment was formulated which asserted four educational goals: quality, access, relevance and equity. More recently, a 'system overhaul' and 'paradigm shift' was promised and argued for regarding the way teachers are prepared. Among the actions taken, formal schooling has given a slightly modified apparatus or structure. Similarly, post-secondary and higher learning institutions have been restructured to effect a two-tier four cycle approach. That is First Cycle Primary (1-4), Second Cycle Primary (5-8), First Cycle Secondary (9 and 10) and Second Cycle Secondary (11 and 12).

Among the ideological and pedagogical rationales put forward to justify the need for reform is the following:

To date, it is known that our country's education is entangled with complex problems of relevance, quality, accessibility and equity. The objectives of education do not take cognizance of the society's needs and do not adequately indicate future direction. The absence of interrelated contents and mode of presentation that can develop students' knowledge, cognitive abilities and behavioural change by level, to adequately enrich problem-solving ability and attitude, are some of the major problems of our education system (Federal Democratic Republic Government of Ethiopia, 1994, p. 2)

Like all other formal education, teacher education programs have undergone structural changes; notably, a structural and curricular realignment has been made in all teacher education activities. For instance, pre-service secondary teacher education has been reduced from four years to three. Other aspects of changes have apparently been made to conform to the change in the duration of time. A prescriptive approach has been adopted to formalize and 'legitimize' rhetoric/vision as well as subsequent actions. In the same old fashion, a formalistic and homogeneistic approach has been pursued to 'address' the 'flawed' teacher education practices in Ethiopia. The formalizing of teacher education visions and actions has been pursued with the issuance of official positions which might possibly be represented as follows:

Fig. 1. The directions taken to formalize official educational discourses.

<table>
<thead>
<tr>
<th>Formalistic Official Document 1: Ethiopia's Training and Education Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Issued in April 1994 by the Federal Democratic Ethiopia.</td>
</tr>
<tr>
<td>• General policy statements concerning national educational/training premises</td>
</tr>
<tr>
<td>• Teacher education illuminated as a priority area.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Formalistic Official Document 2: The Quality and Effectiveness of Teacher Education in Ethiopia</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Issued in September 1999 by Ministry of Education.</td>
</tr>
<tr>
<td>• Identified problems, weaknesses and solutions.</td>
</tr>
<tr>
<td>• Specified/hinted resources and structures needed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Issued in November 2002 by Ministry of Education.</td>
</tr>
</tbody>
</table>
A blue print/framework concerning what has to be done, when, and how

**Formalistic Official Document 4: A National Curriculum Guideline for Pre-service Teacher Education Programmes**

- Issued in March 2003 by Ministry of Education.
- Program outlines and components.
- State principles, aims, nature of learning, curricular contents, course breakdown, assessment procedures, and sample procedure for practicum.

The term 'formalistic' is used here to refer to the production and dissemination of a certain policy discourse. From the diagram, it can be inferred that the discourses were produced at a central place and disseminated in a top-down fashion. For example, one of the above formalistic documents, a National Framework for Teacher Education System Overhaul (2002), is reflective of the centrally controlled orchestration of curriculum. Apparently produced by the Ministry of Education [4], this document outlines the rationales for reforms, missions, vision, and the objectives of teacher education in Ethiopia. It also outlines a set of reform tasks needed to improve the teacher education system. This document states that five sub-committees would be set up to initiate work in relation to teacher education. One of the sub-committees would review and revise the pre-service teacher education curricula of first cycle primary (Grades 1-4), second cycle primary (5 - 8 grades), and secondary (grades 9 - 12) schooling.

Members will be drawn from TEIs [Teacher Education Institutes], MOE [Ministry of Education], VSO [Voluntary Service Overseas] and the steering committee. The members will be divided into three groups: first cycle primary, second cycle primary and secondary teacher education. For the initial work, a core group will be formed consisting of the steering committee (1), VSO (2), TEIs (3) and MoE (4). Education professionals from the MoE, TEIs and REBs [Regional Education Bureaus] will work with the sub-committee (2002, p.23).

The document also identifies the need to include participants from DfID, Ireland Aid and BESO [5].

Despite the claims and positions held in the formalization of the discourses, the pathways or the discourse flow suggests the centralization or control of discourse production and decision-making processes. The discourses attempt to articulate neo-liberal epistemological foundations and agendas.

**Contradictions: skilling in conflict with deskilling**

Official discourses, conceptions and practices in the entire landscape of teacher education reflect mismatches, far-fetchedness, conflicts and misalignments.

One of the frequently and glaringly noticeable contradictions is what is conveyed rhetorically about the preparation of skilled/knowledgeable teachers or educators (or the improving of the skills/knowledge of practicing teachers or educators) and what is actually done in practice. On the one hand, there is a heated argument or action, to some extent, for skilling practitioners or the would-be practitioners. On the other hand, there is the opposite of skilling, i.e., deskilling. I use the word 'skilling' to refer to any implicit or explicit argument or action towards the acquisition of knowledge or skills of teaching. It includes subject matter knowledge, language skills, pedagogical skills, practical knowledge, etc. that is acquired through long-term courses or short-term training sessions and workshops. By contrast, deskilling refers to a condition that leads in the opposite direction to skilling as a consequence of lack of a self-improving situation or dehumanization.
Table 1. Skilling metalanguage, reiterations and activities.

<table>
<thead>
<tr>
<th>'Skilling' Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skilling metalanguage</strong>: An array of skilling vocabulary has been reiterated in various policy documents. Exemplar 1: relevance, quality, accessibility, developing students' knowledge, cognitive abilities, competence, school experience, practicum, active learning, student-centered, participatory learning (see Ministry of Education, 2002, 2003)</td>
</tr>
<tr>
<td><strong>Skilling vision</strong>: Several documents have reiterated that there would be a commitment to shift the paradigm totally in favor of a more skills-oriented pedagogy. Exemplar 2: &quot;This vision presents a paradigm shift. Rote, passive learning has been replaced with a commitment to active, learner-focused education&quot; (Ministry of Education, 2003, p.2).</td>
</tr>
<tr>
<td>Exemplar 3: The document further states that there is a need for &quot;paradigm shift&quot; which involves teaching for changes in ideas and people's lives, &quot;taking the real world into the classroom and taking teachers out into the real world&quot;, and democratizing teacher education by &quot;giving teachers, students and citizens confidence to make decisions and take initiative, to take control of their world&quot; (Ministry of Education, 2003, p.2).</td>
</tr>
<tr>
<td>Exemplar 4: &quot;The increase in the amount of time allowed for Practicum is in line with the paradigm shift which will emphasize the importance of teaching skills as much as academic ability for teachers in Secondary Education. The shift requires that subject content be taught in a way that enables it to be taught in schools, and that all other material delivered should also be directly related to practical reality ... Students learn subject contents through real teaching and experience; have the opportunity to try and practice various teaching techniques, form of assessment, teaching aids ... &quot; (Ministry of Education, 2003, p.57).</td>
</tr>
<tr>
<td>Exemplar 5: &quot;There is a fundamental need for a National Framework for Teacher Education in order to bring a cohesion and coherence to the national educational system ... to create 'learning communities' with a common sense of purpose and also contribute to an enhanced professional identity and morale&quot;(Ministry of Education, 2002, p.1).</td>
</tr>
<tr>
<td><strong>Activities 'aligned' with skilling</strong>: Without taking into account their appropriacy or genuine commitments, evidence of skilling activities might include: Exemplar 6: Curriculum 'reform' activities effected( at the Ministry of Education during 2003-2004) Exemplar 7: Teacher Development Fund obtained and availed to faculties to help them prepare course modules and build capacity in teacher preparation. Exemplar 8: Modules are being prepared to facilitate the provision of active learning experiences to student teachers. Exemplar 9: School-based teacher preparation has been implicated through heightened practicum activities (practicum constitutes 20% of the activities). Exemplar 10: &quot;Teacher development&quot; activities have been seen through on-the-job methodology trainings, in-service degree courses. Exemplar 11. Expansive effecting of centers of teacher education (institutes, colleges, universities). Exemplar 12. A big number of expatriate teaching force have been recruited to educate and advise student teachers in various colleges and universities.</td>
</tr>
</tbody>
</table>

The exemplars identified above might be some evidence that the Ethiopian government have effected activities in the form of rhetoric and practical actions in an apparent 'commitment' to improve the skilling capacity of the state. Rhetoric/vision also indicates that skilling has been sought not only quantitatively, but also qualitatively (see Exemplar 4 and 5). It is also evident that skilling is broadly viewed at various levels:
school level (secondary students), post secondary level (secondary school teachers, practicing and pre service), and higher learning (teacher educators) (see Exemplars 6-12). I have thus far focused on aspects that implicate or reflect 'skilling'. Turning to the opposite, I begin by identifying typical cases that indicate or result in deskilling.

Table 2. Behaviors or actions leading to deskilling

<table>
<thead>
<tr>
<th>Indicators of deskilling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intensifying instructors’ work:</strong> Following the unprecedented expansion in faculty, staff workload increased almost 100%. Exemplar 1: the average workload of an instructor at Alemaya University's Faculty of Education in 2002 was 9 credits. It is now almost 15 class hours a week. Non-implementability of school experience for student teachers. Exemplar 2: Although student teachers must spend a great deal of their time in secondary schools with the facilitation of a faculty advisor and cooperating teachers, at present they do so only half the amount the ministry of education without the amount of facilitation envisioned. For example, Practicum IV (Semester 1, 2005/06 academic year), spent in secondary schools only for three weeks though the curriculum stipulates a block of six weeks. Incompatible situation in secondary schools: the emergent misfit between what student teachers have been prepared for and the introduction of digital TV instructional delivery. Exemplar 3. Out of the 40 class time, 30 minutes are taken by the TV lesson. The teacher's role is 'lesson introduction' and 'lesson summarizing' The student teacher has been prepared to plan, to involve students in active learning experiences, to assess, to advise, etc.</td>
</tr>
</tbody>
</table>

It is evident from the above exemplars that the state of teacher education is in contradiction. Contrary to skilling indicators shown earlier, in Table 1, deskilling is also rampant as exemplified in Table 2. Since the cases of classroom TV programs are typically reflective of the deskilling agenda, I would expound the issue further. The state has tried to justify right from the beginning the need for televised instructional modality by identifying certain ideological, pedagogical, and economic rationales. The argument runs: "In the globalized world Information Communication technology is vital", and because of this, "installation of satellite receiving devices known as plasma display panels (PDPs) in every classroom at secondary level" are necessary. Presently, 2,978 television programs are produced to be transmitted in 458 secondary schools (The Federal Democratic Republic of Ethiopia, 2004, p. 8). Arguing further, the report identifies the following reasons for the introduction of PDP: "to present abstract concepts in a simplified manner; to transmit uniform education to many students found in different places at the same time; to enable students to have access to model and competent teachers; to demonstrate laboratory equipment found in one place (classroom) to other learning classrooms" (pp. 8-9).

Contrarily, in my opinion, the motivation is the imperialistic and capitalistic agenda of market creation and globalization. By way of refuting the pedagogical arguments put forward in the above quote, I try to show economic rationality and neo-liberal agendas behind the current information technology revolution in schools. Unlike the nature of knowledge and methods of knowledge construction echoed in the formalistic documents mentioned earlier, the latest arguments to justify plasma focus on knowledge transference. The argument trivializes knowledge production as mere concretization of 'abstract' concepts. According to the state's position, knowledge is also homogenistic and homogenizing. Through such contradictory positions, they convey to us their underpinning epistemological foundations. It is conceivable that the banking or transmission concept of knowledge permeates both in discourse and actions. Such knowledge cannot be
empowering; it cannot be helpful to those who have been denied access to educational opportunities as argued. According to Freire 1984 (cited in Keesing-Styles, 2003, p.4), education should not be about the transfer of knowledge but rather the collaborative and collective production of knowledge grounded in the reality of students' lives. Banking education is domesticating. The co-production of knowledge founded in the context of students' lives is liberating or humanizing. Human life holds meaning through communication and dialogical relations at the heart of any educational experiences. PDP, or as it is widely known "plasma", denies this type of dialogical relation. It positions students only in the role of passive listening - obedience and taking orders rather than negotiating meaning. Therefore, the implicit ideology of dominant groups to perpetuate the culture of silence is apparently at work. A 'culture of silence', a concept advanced by Freire, refers to a condition "in which people are unable to distance themselves from their life activity, making it impossible for them to rise to the level of reflection and therefore unable to guide one's own destiny" (Jacobi, 1975, p. 65).

Taylor (1989) argues that creativity, values and commitments are both individual and social constructions. They are indeed 'sources of the self' and fundamental to the making of identity, but they cannot be constructed without the benefit of a social context. Here the pedagogy of a teacher working with the autonomous learner is most likely to address the issue of motivation through the careful (sometimes supportive, sometimes challenging) matching of knowledge with students' search for meaning (Bates, 2002, p. 6). Plasma denies this kind of independence and social context. Plasma regards the learner as a passive recipient, not as an active, socially constructed agent. It doesn't consider learning and literacy as creative activities through which learners can begin to analyze and interpret their own lived experiences, make connections between these experiences and those of others, and in the process, extend both consciousness and understanding. This is a negation of Freire's notion of Praxis, which refers to action with reflection or "... action that is informed and linked to certain values" (Taylor, 1993, p. 53).

Plasma favors a unitary or monolithic style of learning because of its pre-programmed, non-rewindable, non-repeatable, and auditory/visual characteristics. However, "[r]esearch by scholars like Howard Gardner at Harvard has shown that people learn through a wide range of modalities, visual, auditory, kinesthetic, and that we have multiple intelligences (Freed, 2006, p. 2). The case is a "one-size-fits-all" approach to education and thus fails to cater for the diversity of students and their needs and interests. Learning theories emphasize multiple approaches and channels to cater for the diverse learning styles of students. Classrooms must adjust to students instead of students adjusting to the teacher or the technology replacing the teacher.

The national TV educational project is also an indicator of the nature of the schooling enterprise. It is an important and emergent signifier of the implicit political and cultural embeddedness of schooling. According to McLaren (1989, p. 160), schools are "cultural arenas where a heterogeneity of ideological and social forms often collide in an unquitting struggle for dominance." Plasma is a robust and unambiguous evidence to challenge the traditional view of education as a neutral process. It indicates quite glaringly that schooling is a form of cultural politics that endorses only forms of knowledge that support a particular vision of the past, present and future(p. 8). The national televised education program is an attempt to centralize knowledge and curriculum, and by doing so, to control the hearts and minds of students. It is to make the teacher powerless as a political and liberating agent.

It dehumanizes and deskills teachers. It erodes the human relationships between students and the teacher as students increasingly rely on the TV screen. The teacher becomes irrelevant. At present, nowhere is there any program to prepare teacher candidates/teachers for plasma educational programs. As a result, the disconnect between university and schools is increasing, and more importantly, the need for university-based teacher education programs is becoming questionable - a contradiction to the 'empowerment' and teacher education system overhaul rhetoric.

This is a debilitating phenomenon in which teachers have been losing control of their practice. Teachers have become simple technicians who look in to smooth broadcasts or transmissions of TV programmes. Teachers do not plan and execute what they plan. They are mere TV operators. They are simply
executioners of what others planned or wanted to happen in the classroom. This is, according to Apple (2000), characterized as *deskilling*.

As employees lose control over their own labor, the skills they have developed over the years atrophy. They are slowly lost, hereby making it even easier for management to control even more of one’s job because the skills of planning and controlling it yourself are no longer available. A general principle emerges here; in one’s labor, lack of use leads to loss (p.116).

Apple further explains that when individuals cease to plan and control a large portion of their own work, the skills essential to doing these tasks self-reflectively will atrophy and are forgotten (p.117).

Teacher candidates are being made to have a "school experience" in an environment where teaching is replaced by broadcasting. At schools, teacher candidates practice operating TV to fit into the existing reality. In fact, this recent development in schooling technology is symptomatic of the intrusion of the neo-liberal agenda of market. Schools are potentially large grounds where future consumers are prepared. Students are "captive audiences" (see parallels such as "Channel One" in USA schools - Apple, 1993, 1998, 2000; Molnar, 1996) who should receive TV watching skills. And then it is supposed, gradually and slowly, students get used to the ‘lingua franca’ of international consumerism. As a result, according to the state actors' magic calculation, students become 'skilled' viewers of a variety of satellite TV channels which broadcast Hollywood movies, commodity commercials and talk shows. In the long run, a huge media corporate will be created in which the youth's captivity consume both the hardware and the software. Obviously, Ethiopia's financial sources are mainly from the Bretton Woods’ institutions, the European Union and USA in the form of direct contribution to the national budget, loans and support to various development projects. Although huge sums of money flows in to 'empower' the poor through schooling projects such as digitized instructional deliveries, the ultimate beneficiaries are to a great extent those national and international companies that take part in the establishment of the digital hardware and software system the beneficiaries are, too, those state actors who expropriate their 'share' through corruption and 'legitimated' means. The beneficiaries are aggressively pushing the frontiers of the market further. A good case in point is the latest move to incorporate private schools, which so far remained resistant to plasma programs for almost a year; the government is at present threatening to close the schools unless they follow the public schools. This is demonstrably an aspect of persistent contradictions because it is happening in the midst of untold poverty. Secondary school students barely have textbooks; classrooms are crowded; chairs are dilapidated; libraries are impoverished. The poverty is already impacting the operation of the TV machines because of the frequent interruption of power, running errors, absence of expertise, and spare part shortages. According to Gee et al (1996,), educational institutions adopt a kind of socio-technical engineering such as a new set of tools and procedures, designed to change social relations in the work place. Smyth (2001, p. 10) elaborates the effects of such a rationality by identifying three relays: (1) the culture and character of teaching corrupts, because there is a tendency to individual responsibility for delivering outcomes; 2) school administration focuses on pursuing corporate visions rather than supporting the work of teaching; and (3) teachers have to lead divided lives owing to the dislocation of their pedagogic and professional identities.

Giroux ( 2000, p. 85) succinctly argues that central to such a marketization agenda is the attempt to "transform public education from a public good, benefiting all students, to a private good designed to expand the profits of investors, educate students as consumers and train young people for the low paying jobs of the new global marketplace." Summing it up, Sinclair (1996, p.229) states: "The debate about the 'what' and 'why' of education is superseded by a fixation on the 'how'."

Another possible explanation for the raging adoption of media pathways and contradictory practices lies in the appeals state actors wish to make:

Contemporary changes in official educational policy are justified by appeals to the effects of the transmission of production through the application of electronic and communications technologies on the one hand (a sort of competitive panic regarding productive competence) and by concerns for social order brought about by recognition of increasing disparities and antagonisms between social groups on the other (a sort of
moral and behavioral panic regarding social cohesion). The response to these twin panics is to attempt to restructuring of educational message systems to focus on the production skills required by the 'new economy' ... (Bates, 2002, p.4).

The introduction of pre-programmed satellite TV instructions is partly initiated because it appeals to students and parents as being 'high tech' and being along those who have advanced technologically.

Dilemmas: 'Effecting' Multiple Agendas

Both in the official discourses and methods courses, there is too much claim of making lessons student-centered, truly-engaging, and real-life-like. For instance, a professional development course called Higher Diploma (to be discussed in the next section) has been running to effect student-centered and 'active learning' methodologies. Besides, as indicated before, the preparation of modules along student-centered approaches is in progress. Apparently, all these efforts are to prepare student teachers through deep approach pathways. Conversely, the schooling reality student teachers are made to experience (as a school experience or practicum) is diametrically opposed to the "deep approaches" they have been introduced to. The contradiction is ever growing because of the high mismatches that prevail between the number of student teachers that are deployed for practicum and the accommodating capacity of secondary schools where students supposedly carry out their practice. It is evident every year that the high influx of new entrants has been aggravating the teacher-centered classroom practices dominant in teacher education centers.

Obviously, with a big increase in teacher candidate intake with a slightly improved resource, class size and work load have grown significantly. Such an expansion in size and quantity inevitably makes impossible the delivery of the system overhaul promise. In fact, the deriving force for the massification of formal education is another national promise. The government of Ethiopia has pledged to reach Universal Primary Education before 2015 and expand higher education. In order to meet this promise, every year thousands of children go to school enjoying a "free promotion" school policy. This agenda seems in the direction of increasing educational access. Therefore, as long as there are competing goals and promises, the contradictions will continue.

According to Fuller's (1996) theory of the fragile state, whose explanation about third world education is always forceful, might present the Ethiopian situation picturesquely and grotesquely.

Third World governments are under enormous pressure to deliver mass opportunity and "modern progress." The rapid expansion of education and its bureaucratized form of control does signal to local peoples that modern change is on the way. But the wait for modernity's arrival is getting longer and longer in much of the developing world. Mass schooling, despite rapid expansion and attempts at centralized control, is not delivering on its promises (p. xviii).

Ethiopia has pledged Universal Primary Education (UPE) three times. The first was in 1961 at "Addis Ababa Conference on African Education" in which UPE was pledged to be reached in 1980. The second was in 1972 in which UPE was projected to be achieved before 2000 (Tekeste, 1990). The third promise was by the current government, and as stated before, UPE has been sought to be reached before 2015. This latest pledge seems to be in alignment with the Millennium Development Goals (MDG). Goal 2 of MDG states: "to ensure that, boys and girls alike will be able to complete a full course of primary schooling" (UNESCO, 2003, p.242).

The rush to meet international promises concerning UPE and the national TV education system, as explained earlier, might point to the agenda of 'Education for All' which grew out of the 1990 Jomeitan meeting. According to Brock-Utne (1998), no matter how noble the agenda looks, it possibly exacerbates the curriculum dependency developing states suffer from, because:

... cultural conditionality is a conditionality set up by the lender or donor which has direct implications for the content of schooling, for instance, insistence on the purchase of textbooks written and published abroad, ... adoption of 'international'( read western) standards, and the neglect of African culture, including African
languages (pp.125-126)

The situation exemplified by plasma is a good case in point as a re-colonizing agenda. As Cross wrote in *The Guardian*, "Schools already receive video lessons broadcast for eight hours a day by satellite TV. The syllabus, based on South African material, is being digitized for transmission ... (2005, p.3). The exportation of knowledge in the form of syllabus and technology in the name of embracing a digital age is a metalanguage trick to cover up another mind-colonizing agenda.

The goal of the 1990 World Conference in Thailand was far from realization, confirmed ten years later at a Dakar Conference held from April 26–26, 2000. Among the reasons that surfaced during the conference were absence of democratized education, poor teacher preparation programs, unprofessional education policy and education system administration, the political and social marginalization of women, lack of teaching materials in native languages, insufficient participation of local people and irrelevant curriculum (Baaden, 2002). Despite such warnings the state is continuing to hang on to foreign curricula and languages to deliver formal education.

According to Fuller (1996), mass schooling is often promised on the grounds of bringing rapid economic growth and improvement of living standards; however, the truth is to mobilize ideological commitments in favor of the central state. Unlike what is often reflected in official discourses, the effects of the expansion of mass education are not what one would necessarily expect. In many nations, educational quality erodes because of the scarcity of material resources and technical expertise. This is another nagging contradiction in Ethiopian teacher education, a conflict arising out of competing agendas.

**Chaos: Over-Stretching, Subversive Admissions, Contesting Programs and Practicum**

Among the multiple chaotic manifestations of teacher education activities, over-stretching, interspersed/dispersed admissions, contesting programs and the insurmountability of practicum are glaringly present in almost all teacher education facilities.

To begin with over-stretching, the scale and rate of teacher candidates admission after 2003 - a year when the 'system overhaul' enacted - has been quite huge. Since then, the increase is not simply developmental or incremental, but it is rather exponential. The numerical growth is unprecedented in Ethiopian modern teacher education. Table 3 presents the enrollment and teaching staff figures for three academic years at Alemaya University [6] for comparison.

**Table 3. Number of teacher candidates and instructors/educators in nine departments of the Faculty of Education in Alemaya University.**

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<tbody>
<tr>
<td></td>
<td>Teacher Candidates</td>
<td>Instructor/Educators</td>
<td>Teacher Candidates</td>
</tr>
<tr>
<td>English Language</td>
<td>47</td>
<td>9</td>
<td>47</td>
</tr>
<tr>
<td>Oromo Language</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>History</td>
<td>35</td>
<td>2</td>
<td>42</td>
</tr>
<tr>
<td>Geography</td>
<td>55</td>
<td>4</td>
<td>79</td>
</tr>
</tbody>
</table>
As the figures for the two academic years before the structural shift indicate, enrollment for all, except the Department of Geography and Environmental Studies, had never been more than fifty students. Nevertheless, after the three-year B. Ed program began to be effected, in 2003/04 academic year, over a three-fold increase in enrollment was made. For example, enrollment for the Department of English Language was 47 in 2001/02 academic year. The following year, the enrollment jumped to 188. It was a 400 percent increase. The huge enrollment increase is incomparable with what had been in effect for a decade.

By comparison, the increase in the number of instructors/educators did not match the growth in student enrollment. For example, the growth of teaching force at the department of English Language was only 1.8 percent. Although politicians have been boasting up for the numerical growth, its consequence, as far as quality and relevance is concerned, two of the four educational goals envisioned in 1994, is extremely devastating. The 400 percent numerical improvement has worsened the precocious teacher-centered and domesticating pedagogy as each classroom has become crowded with hundreds of students. For courses such as General Teaching Methods, courses which cross cut all departments, students of two or more departments are lumped together in big auditoriums and lecture theaters and told through lectures how to teach. Such practices are resulting in irreparable and grave consequences. For instance, one of the expatriate teaching staff of the faculty who had a breathing difficulty was often forced to lecture to up to three hundred students in auditoriums. Since he had to speak far louder than his health allowed, his health began to deteriorate. At last, he decided to quit the job. The other consequence is the phenomenon of intensification. Apple (2000) explains:

Intensification is one of the most tangible ways in which the working conditions of teachers have eroded... We can see it most visibly in the chronic sense of work load that has escalated overtime. More and more has to be done; less and less time is available to do it... (p. 119).

In the current circumstance, the work load of an instructor or teacher educator has exceeded 25 hours. As time becomes scarcer for faculty staff, teacher education becomes an activity that happens routinely and with intuition rather than reflectively. Apple further explains:

Intensification leads people to "cut corners" so that only what is "essential" to the task immediately at hand is accomplished. It forces people increasingly to rely on "experts" to tell them what to do and to begin to mistrust the expertise they may have developed over years. In the process, quality is sacrificed for quantity. Getting done is substituted for work well done. And, as time itself becomes a scarce "commodity" the task of
isolation grows, whereby both reducing the chances that interaction among participants will enable critiques and limiting the possibility that rethinking and peer teaching will naturally evolve. Collective skills are lost as "managerial skills" are gained ... (2000, p.119).

In my institution, the shortage of instructors has been compensated for by engaging instructors through an 'extra work pay' system. However, in many cases, the university top management is often reluctant to approve the extra work pay checks whenever they are submitted by department chairs. In other words, although the university legislation allows the extra work pay system, the top management often delays, and even sometimes blocks, such a pay. Despite such managerial bottleneck, faculty staff continue carrying out course offering activities beyond the official limit simply to take the financial advantage the extra commitment brings. In the long run, nevertheless, the overload has an effect of deskill by separating educators from their professional development activities such as research, because of the intensity of work. I think this is not hidden from most of the faculty staff.

The challenge of intensification is not a matter that concerns only instructors or educators. As teacher educators are poorly prepared, it is a typical case of dis-empowerment for the prospective teachers. They graduate without the necessary minimum requisite knowledge and skills, and that will certainly erode their confidence.

As the opportunities for higher education are increasing significantly, the state seems to be effecting its hegemonic agenda of disuniting the student community by adopting a 'divide and admit' system. Universities admit students in staggered 'installments' because of the delays in construction activities. For instance, Alemaya University is admitting over 4000 freshman students during 2005/06 academic year. However, the delay in dormitory and library construction, which is expansively underway to cater for the growing number of students, is forcing the university to accept the students at three different times: two-third of the new students in early February and the remaining possibly a month later. In my opinion, following the recent election disputes, student protests and unrests have escalated in all institutions, and this is a big threat to the government. It is highly likely that unified voice further endangers the power hold up of the rulers. Therefore, the pressure to take 'pre-emptive' actions is strong and quite obvious.

An emergent challenge which has a 'deliberate dimension' is the mushrooming of programs. During the period in focus in Ethiopia, several programs have been introduced with the 'intention' of dealing with various aspects that have resonance with teacher education. As the public grows disenchanted with the attempt-to-win-appeals practices, the state tries to "intervene with discrete programs or administrative reforms" (Fuller, 1996, p.64).

In the short period I am assessing, among the programs introduced, the Higher Diploma Program for faculty staff, English Language Improvement Program, Pedagogical Resource Center and Teacher Development Program are visibly 'active'. These programs have significantly overlapping aims. For example, the Higher Diploma Program has the following objectives:

A program of continuous professional development ... to update themselves [teacher educators] with new outlooks, approaches and policy directions (The Federal Democratic Republic of Ethiopia, 2004, p. 11).

The Higher Diploma for faculty staff is being run by the Ministry of Education with the collaboration of Voluntary Services Overseas (VSO). In each college or university in Ethiopia, a coordinating unit has been set up largely with the help of expatriate volunteers. The unit is operating under the auspices of the Ministry of Education. The course, which is on-the-job, is mandatory for all faculty teaching staff, and so is attendance. The course must be attended for four hours each week for a year. Attendance must be completed with a successful completion of a module regardless of the background of participants. Technical rationality is the dominant guiding pedagogical theory in organizing learning experiences. This is evident in the module set up by the volunteering expatriates. Learning tasks encourage the largely adult participants to memorize, imitate, and implement national directives and prescriptive teaching principles. Knowledge and skill is considered as impositional. Knowledge and skill is taken for granted without taking into account contextual factors. HDP is a conduit in this regard. Despite the 'positive' outcome claimed by organizers,
Participants often dropout in some cases no matter what the consequence might be.

Another program, called English Language Improvement Program (ELIP), has also been run separately from HDP although its basic objective is similar. The objective has been stated as, "The Ministry of Education devised a strategy to improve the level of English of teachers" (The Federal Democratic Republic of Ethiopia, 2004, p.6). For instance, three staff members from the Department of English Language attended a one-year on-the-job EFL methodology course from Alemaya University through distance learning mode in 2004/2005 academic year. A UK college offered the post graduate diploma course in which the face-to-face part of the course was carried out at a central venue near Addis Ababa bringing together all participants from the country. The national training program was initiated partly to build capacity to effect the establishment of English skill training centers, namely ELIP, in a cascading fashion in each higher education institution. During the same period, these trainees were attending the HDP course on-the-job. At Alemaya University, one of the trainees who completed the postgraduate certificate course, has been assigned to coordinate ELIP activities though it is yet to materialize.

Still another program which has a similar intention is the Pedagogical Resource Center. This is part of the macro program to control the hearts and minds of practitioners. Its aims are to develop a center where teacher educators carry out professional development programs through research and training courses. Its activities are financed by the government of the Netherlands.

Basically, the above programs have similar intentions. However, they are running in separate spaces, though geographically close to one another, to accomplish this "mission". This is an insult to a poverty-stricken country like Ethiopia where resources are scarce and in some cases unavailable. Obviously, such undesirable competition among programs with a common and shared goal incurs increasingly high cost. The degree of competition and dissonance evident among the programs is reflective of the challenge facing teacher education in Ethiopia. The situation is also reflective of a possible confusion and panic surrounding the 'reforming' actors. Fuller (1996), on the basis of his extensive field data, argues, "[e]ducation ministries throughout the world intervene with discrete programs or administrative reforms. Yet these ... often yield results that have no effect ... " (p. 64). The state's attempt to address pedagogical problems with discrete interventive programs is no more than a desperate managerial solution.

The practicum--one of the useful teacher preparation pathways--has also come with overwhelming and disconcerting activities. It has become 'infamous' in universities for 'eating up' resources and testing the managerial 'confidence' of university leadership. University and school grounds have become chaotic scenes as a consequence of over a thousand student teachers every semester commuting to nearby secondary schools to 'effect' the school experience activities as stipulated in the national curriculum. Presently, the practicum has become infamous because of ideological, epistemological and managerial conspiracies: opposition from conservative faculty groups, complexity created due to an apparent managerial unwillingness and lack of proper preparation, and the disconnection of teacher educators from the curriculum.

Following the introduction of a TESO [7] guideline, on various consultative meetings and workshops, the debate over has been increasingly signaling the contestation to control power and maintain the status quo. The big numerical scale-up for the practicum component, from 2 credits to 25 credits, has brought about a new front for contestation between the 'architects' - who created the recent teacher education curriculum framework - and other staunch conservatives who have apparently been threatened by the significant reduction in subject matter (non-methodological) courses. From the early days of its inception, the opposition the practicum met has remained strong and unabated. In consequence, practicum has not been implemented with full commitment and expertise by faculties and institutes. This, coupled with a range of constraining factors, have made the practicum murky - a useful component of teacher education which could have been a praiseworthy element.

Another status-quo maintaining signal is the deliberate commitment of 'reform actors' to disconnect practitioners from the content and form of the practicum. Teacher educators have been kept aloof from the practicum from the very beginning. It was designed and 'thrown down' to them from the Ministry of Education.
via the Faculty of Education as an intermediary. Although the 'new curriculum' (modified in 2003) has been in action, a significant number of teacher educators have not had sufficient acquaintance with the content and form of the practicum. I have surveyed attitudes and knowledge concerning the practicum. The survey was made on the teaching staff both at faculty and secondary schools. Moreover, faculty and school administrators were involved in the survey. Overall results appear not to be in conformity with the 'system overhaul' discourses of official discourses.

Table 4. Attitudes and knowledge concerning the practicum [8].

<table>
<thead>
<tr>
<th>Knowledge about Course Number, Objectives, and Activities (%)</th>
<th>Favorable Attitude (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Low Medium High</td>
<td></td>
</tr>
<tr>
<td>Teachers who offer courses unrelated to teaching-learning knowledge/methodology</td>
<td>5 5 45 48 2</td>
</tr>
<tr>
<td>Teachers who offer courses related to teaching-learning knowledge/methodology</td>
<td>40 0 10 60 30</td>
</tr>
<tr>
<td>Laboratory and course assistants</td>
<td>2 25 68 17 0</td>
</tr>
<tr>
<td>Faculty administrators</td>
<td>38 0 15 55 30</td>
</tr>
<tr>
<td>Partner school administrators</td>
<td>15 1 60 39 0</td>
</tr>
<tr>
<td>Partner school teachers</td>
<td>35 70 30 0 0</td>
</tr>
</tbody>
</table>

It is evident from the indicators obtained through the Attitude and Knowledge Survey that the attitude to practicum is terribly unfavorable, especially among faculty staff whose principal engagements are in activities that do not directly relate to teaching/learning knowledge and skills. Favorable attitude is better among teacher educators who offer courses concerning curriculum, methodology, and schooling. However, viewed as a whole, the attitude among practitioners reflects a certain degree of disapproval or unacceptable. The practitioners' attitude might also be a consequence of inadequate knowledge about the practicum. Responses to factual questions in the Attitude and Knowledge Survey were indicators of a significant gap in practicum knowledge. Paradoxically, faculty instructors and educators seemed to be unknowledgeable about practicum objectives and activities, though almost all of them were involved in supervising teacher candidates in various practicum activities. Such a gap in practicum knowledge might be because of denial and dis-exposure in the course of curriculum development and introduction. Fullan (1993) argues: "When complex change is involved, people do not and cannot change by being told to do so" (p.24). In other words, by ignoring teacher educators in the development of curriculum, improvement in the teacher education can hardly be a dream comes true. As a result of teacher educator marginalization, the knowledge-attitude-practice (KAP) gap effect is in evidence in contemporary Ethiopian teacher education. The gap in knowledge has possibly led to unfavorable attitudes which in turn have resulted in 'amateurish' implementation of the practicum.

Another source of the practicum's insurmountability relates to the inadequacy of expertise and the sheer bulk of the activities. The unprecedented increase in admission, the depprofessionalization as well as
unpreparedness in the universities have contributed to the difficulties in implementing the practicum. Placement of student teachers in nearby secondary schools has been carried out through a centralized decision-making procedure. Assessment criteria have been determined by individuals in the faculty management. The consequence is familiar: the university community gives a bad name to the practicum, along with assessment disputes, and by and large, school disorientation and reluctance to cooperate. A good case in point concerns the disputes on assessment issues. The designs of the practicum activities have also become incompatible with the traditional student grading procedure required at the faculty. As a result, it is common to find conflicts among faculty for grading disparity and disagreements. It is also common to find faculty being forced to resubmit grades.

Concluding thoughts

In light of the arguments and reflection earlier, the following conclusions might be drawn:

1. By adopting a more or less programmatic approach, the Ministry of Education embarked on a teacher education 'system overhaul'. This to date has resulted, most visibly, in temporal changes, quite apart from the deskilling, depersonalization, and dehumanization that followed.

2. Largely, the 'change' has been taking place through top-down approaches without taking into account change agents and agency.

3. Because of the state's multiple agendas, practices are in a state of contradiction and chaos, which as yet signal no pattern of improved educational institution-building.

4. In the name of curriculum standardizing, the state agents are maintaining the status quo, which largely ignores local knowledge, diversity, social justice, self-empowerment, and learning organization. For example, the case of the national secondary school educational television system illuminates the state's aim of maintaining a unitary, uniform and singular curriculum. Although the state claims curricular uniformity via a television modality made possible educational equity, the actual classroom situation does not reflect this. Because of differential socio-economic backgrounds, the learning capacity of students is significantly variable no matter how uniform the curriculum might be throughout the country. For instance, students who are from wealthy family are most likely to benefit from the plasma because their upbringing has given them the advantage of watching television, and that would help them develop TV watching skills. Therefore, when they come to the classroom and are asked to learn via TV, they are far better off than those students who are from poor economic backgrounds.

In general, educational improvement involves intricate processes. The processes are dynamically complex. They are to a certain degree unknowable in advance. Although chaos is a normal characteristic of change processes in which contradictions and complexities play themselves out coalescing into clusters and patterns (see Gleick, 1987; Stacey, 1992; Wheatley, 1992, Fullan, 1993), the situation in Ethiopia seems contradictory and conflicting.

The situation poses important challenges to teacher educators, particularly, progressive educators. Keeising-Styles (2003) contends: "Each teacher must react to the particular context in which they work and attempt, to the best of their ability, to participate in practice that promotes inclusion, engagement and empowerment ... (p. 9). Bahruth & Steiner (2000, p. 143) also argue " ... in our profession we have two choices: We can succumb to the mainstream and become programmed toward deskilling our intellect, or we can become critical pedagogues and liberate ourselves and those who choose to join in the dialogue."
References


www.ingentaconnect.com/content/routledg/tedp/2001/00000016/ooooooo2/art/oooo5 Retrieved 11/10/05


Assessment of Internet–Assisted Learning Resources (ILAR) in Teaching Chemistry in Senior Secondary Schools in Rivers State, Nigeria

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Abstract Studies were conducted among secondary school students to assess the effectiveness of internet technology over the conventional method for data or resources generation in chemistry in Orashi zone of Rivers State. Two hundred and seventy (270) students were selected from eighteen (18) secondary schools in the study area, using random sampling techniques. Primary data were collected through questionnaire administration. Quantitative tool used for data analysis was Chi-square ($\chi^2$) statistics. The findings from this study revealed that: the generation of chemistry resources using internet system is dependent on the level of awareness of the chemistry students: a greater chemistry resources using internet system is dependent on the level of accessibility of chemistry students to internet services. It is therefore recommended that: The Government should as a matter of policy in-cooperate ICT in secondary school education system, this will enhance computer literacy among teachers and students in Nigeria schools. Internet managed technology for teachers and students should be adequately integrated in the school curriculum for gathering chemistry resources in these highly technological ages.

Introduction

The computer application and internet technology in Education is a primary concern for educators all over the world (Olele, 2008). An Assessment of the efficacy of internet technology as a formidable information super-high-medium for resources generation in chemistry is an area that attracts greater concern in this area of information revolution (Williams and sawyer, 2001; Huges 1994). According to Ikpe (2005) the internet has created a cooperative society with current information and ideas that form a virtual community stretching from one end of the world to the other. It is imperative that a modern chemistry teachers/students must stay current in order to be relevant in this information age.

Over the years, conventional methods of gathering chemistry resources have presented a difficult terrain for updating information, in addition to scarcity of information (Iji, 2005, Betiku, 2003). However, online libraries with millions of volumes on any topic under the sum present an increasable source of information for chemistry researchers (Ije, 2006, Huges, 1994). The use of a personal computer and modern telephone line quipped with some of the local carriers or internet service providers (INFOWEB, LINK SERVE and THEOBECH) offer an online medium for downloading materials by the subscribers (Ikpe, 2005). Although, some aspects of skills are required for internet users. Its low cost implications and time efficiency involved cyber café a valuable source for updating knowledge in a broad field sciences. It is on this note that this study is conducted to assess the efficacy of internet system as a reliable sources of chemistry resources for students.

Statement of the Problem

Technology has gradually revolutionized the global setting with tremendous positive impacts on modern educational system (Ikpe, 2005). A modern education system must be equipped with the relevant technology
such as internet service to facilitate information generation. Chemistry as a discipline with wide array of subsidiary fields requires a digital-based-approach such as internet services for gathering updated resources. However, some set-backs such as low level of awareness, poor internet services, non-accessibility to internet services, computer illiteracy among others militates against the smooth functioning of this scheme.

**Purpose of the Study**

The purpose of this study is to:

i) evaluate the level of awareness of chemistry students in the use of Internet to gather resources in the subject area:

ii) determine the total output in chemistry resources generated from internet system as compared to conventional library system:

iii) determine the accessibility of chemistry students to internet services for collection of chemistry resources.

**Research Hypotheses**

The following hypotheses formulated were tested at 0.05 significance level.

i) There is no significant difference between the level of awareness among chemistry students on internet resources and collection of chemistry information;

ii) There is no significant difference between chemistry students outputs generated from conventional library system and chemistry students outputs generated from internet system:

iii) There is no significant difference between the level of accessibility among chemistry students to internet resources and collection of chemistry information;

**Significance of the Study**

The results generated from this study will be useful in:

i) creating awareness on the remarkable chemistry resources accruing from the use of internet system.

ii) Mobilizing the government and cooperate bodies to equip the school system with internet services as well as organizing computer training in schools.

iii) Providing based-line information on the benefits of internet system as a source of relevant resources in chemistry.

**Research Methodology**

**Research Design:**

Survey research design was adopted for the study. Since information was collected from respondents.

**Population of Study:**

The entire senior secondary two (ss2) chemistry students in Orashi region of Rivers State constituted the population of the study.

**Sample and Sampling Techniques**

Simple random sampling techniques were used to select two hundred and seventy (270) students from twenty (20) public senior secondary schools in the study area.
Instrument Used for Data Collection

The instrument used for data collection was a questionnaire. Titled, assessment of internet-assisted learning and resources for teaching (AIALR).

Validity of the Instrument

The questionnaire was faced-and-content validated by experts from Chemistry Education Department FCE(T) Omoku, Nigeria. Useful corrections and recommendations were incorporated into the work as suggested.

Reliability of the Instrument

The reliability of the instrument was determined by test – retest technique. The reliability coefficient is 0.75, which is considered good.

Procedure for Treatment

The questionnaire were administered using students in their respective schools by the researchers. Time was taken to explain the method of response to the students. The questionnaire was partitioned into two parts: section A comprised of personal data of the respondents, while section B composed of twenty four (24) questions covering the purpose of the study. The scoring formats were categorized as follows:

- Students response that falls under upper class: 4(more than 4)
- Students response that falls under middle class: 2(3 – 4)
- Students response that falls under lower class: 1(1-2)

Data analysis was achieved through the use of T – test using the SPSS package.

Results of the Findings

Research Hypothesis 1: there is no significant difference between the level of awareness among chemistry students on internet resources and collection of chemistry information.

Independent Sample T – test

<table>
<thead>
<tr>
<th>Awareness</th>
<th>N</th>
<th>X</th>
<th>Sd</th>
<th>Df</th>
<th>T</th>
<th>Sig level</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>45</td>
<td>12.13</td>
<td>1.74</td>
<td>88</td>
<td>-30.71</td>
<td>0.000</td>
<td>Rejected</td>
</tr>
<tr>
<td>High</td>
<td>45</td>
<td>34.80</td>
<td>4.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PZ 0.005

There is a significant difference

The analysis in table 1 indicates that the t – value = -30.71 is significant at 0.000. Mean value of low – level of awareness as 12.13 and high level of awareness is 34.80 with SD of 1.74 and 4.63. The null hypothesis (Ho) of no significant difference between the level of awareness among chemistry students on internet resources and collection of chemistry information is rejected. This result implies that the generation of chemistry resources using internet system is dependent on the level of awareness of the chemistry students.
Research Hypothesis 2: there is no significant difference between chemistry students outputs generated from conventional library system and chemistry students outputs generated from internet system.

Hypothesis 2:

Table 2

<table>
<thead>
<tr>
<th>System</th>
<th>N</th>
<th>X</th>
<th>Sd</th>
<th>Sd</th>
<th>T</th>
<th>Sig</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library</td>
<td>37</td>
<td>11.51</td>
<td>0.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet</td>
<td>57</td>
<td>34.74</td>
<td>5.16</td>
<td>88</td>
<td>-27.07</td>
<td>0.000</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

P< 0.05
Null hypothesis is reject and the alternate accepted i.e there is a significant difference between……..

The analysis in table 2 indicates that t – value is -27.07 significant at 0.000 mean value of library and internet system output of 11.5 and 34.74 and SD 0.90 and 5.16 and Df =88

The null hypothesis (Ho of no significant difference between chemistry student output generated from conventional library system and chemistry student’s outputs generated from system is rejected. This result implies that a greater chemistry outputs is generated from the use of internet system.

Research Hypothesis 3: there is no significant difference between the level of accessibility among chemistry students to internet resources and collection of chemistry information.

Hypothesis 3:

<table>
<thead>
<tr>
<th>Accessibility level</th>
<th>N</th>
<th>X</th>
<th>Sd</th>
<th>Sd</th>
<th>T</th>
<th>Sig</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>42</td>
<td>11.93</td>
<td>3.44</td>
<td></td>
<td>-24.18</td>
<td>0.000</td>
<td>Rejected</td>
</tr>
<tr>
<td>High</td>
<td>48</td>
<td>35.71</td>
<td>5.50</td>
<td>88</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The analysis of table 3 indicates that the t-value of -24.18 is significant at 0.000, and the mean value of 11.93 and 35.71 obtained with SD of 3.44 and 5.50 Df is 88.

The null hypothesis (Ho) of no significant difference between the level of accessibility among chemistry students to internet resources and collection of chemistry information is rejected. This result implies that the generation of chemistry resources using internet system is dependent on the level of accessibility of chemistry students to internet services.

Discussion of Findings

The findings which stated that generation of chemistry resources internet system is dependent on the level of awareness among the chemistry students shows that there exists disparities in the level of awareness among Biology students to internet-assisted chemistry resources. This difference may be attributed to disparities in the level of technological advancement among the schools involved as reported by Ikpe (2005). This implies
that the proliferation of microcomputers and other advanced technologies in schools and other areas has contributed significantly to increased level of awareness among some students (Ikpe, 2005; Rees, 2002). While, some areas are yet to be fully integrated to the light of this knowledge explosion as reported by Anderson, (1983) and Kochmen (1995).

The findings that there is significant difference in chemistry students outputs between conventional library system and internet system shows that internet system offers better opportunity for greater richness and topicality of contents, as well as present learner with sophisticated and up-to-date minutes information with examples as stated by Iji, (2002) and Udofia, (2006). Thus, it is possible for the generation of new prospects for understanding complex connection in the subject area (Iji, 2006).

The finding which also stated that the generation of chemistry resources using internet system is dependent on the level of accessibility of chemistry students to internet services, shows that internet system has tremendous potential to enhance accessibility to information quicker, cheaper and easier (Ikpe, 2005, Huges, 1994). This further proves that technology based method of gathering information, is undoubtedly the most effective means of rapidly distributing knowledge and information to the educationally poor and starved communities as reported by Iji (2003).

**Conclusion**

This study reveals that the generation of chemistry resources using internet system is dependent on the level of awareness of the chemistry students; a greater chemistry output is generated from the use of internet system, the generation of chemistry resources using internet system is dependent on the level of accessibility of chemistry students to internet services.

**Recommendations**

It is necessary to make the following recommendations based on the findings of the study. The Federal Government should as a matter of policy incorporate information and communication technology (ICT) in the secondary school education system, this will enhanced computer literacy among teachers and students in our schools; computer training for students and teachers should be intensified as well as implementation of computer-based approach as an effective tool for teaching/learning chemistry in schools, particularly in this information and communication technology driven age.

**References**


Rees, R. (2002). Second year teacher-candidate reflect on information technology in Ontario secondary schools. How it is being used
and the challenges in present journal of information technology for teacher education. 11(2)
Improving University Education in Nigeria Through Mobile Academic Directory

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Abstract Improving the economy of third-world countries and revamping the falling standard of university education are among the challenges of the current political administration in West African and Nigeria in particular. These are captured in the vision 2020 agenda for Nigeria. Mobile devices have gradually become part of our daily life and most Nigerians cannot live without them. Devices that are compliant with Mobile Information Device Profile (MIDP) will enable software engineers to develop applications that can run on multiple platforms and improve on the system's functionality. The functionality of mobile devices can be improved to deliver any type of data to any user, anywhere in world and with the use of different programming languages. This paper models a MIDlet application that adds additional functionalities in the use of our mobile devices. It designs an academic directory that runs on any java-enabled mobile device, and provides increased access to academic information for research purposes by presenting an ideal combination of two of the fastest growing technologies in the world today: the mobile technology, and the computer network technology to build a J2ME-based mobile application. It will encourage effective university administration and interaction among lecturers for research purposes. Consequently, the standard of educational can be improved upon.

Keywords: MIDP, Mobile device, MIDlet, J2ME, Academic directory.

Introduction

Mobile devices have become part of our everyday life and most of us can no more live without them. Devices that are compliant with Mobile Information Device Profile (MIDP) will enable software engineers develop applications that can run on multiple wireless platforms and improve on the system's functionality. That is, the functionality of mobile devices can be developed to deliver any type of data to any user, anywhere in world and with the use of different programming languages. Using the generic framework provided by J2ME platform, it has become possible to develop various MIDlet applications, and thus, the power of these mobile devices can become endless. Software programs that once needed large, expensive computer systems can now be run on a single processor chip. For example, the average mobile phone handset now contains computing capabilities comparable to those of a standard desktop PC of just five years ago. No doubt, a mobile phone will lack the computational power, memory, etc of a computer and cannot perform the same functions as high-end servers or client workstations. The J2ME is Sun Microsystems's attempt to port the Java programming language to devices with such resource limitations. In this paper, emphasis is focused on proffering a solution to the problem of a complete absence of an integrated database of university lecturers and selected principal officers of Nigerian universities and the need to bridge the communication gap between the NUC officials and university authorities. This unique directory is also geared towards enhancing effective communication among lecturers in the same field of specialization. Currently, the mobile phone is being used as a tool for communication. It has helped people and organizations achieve a lot by connecting people together, via calls and sm, for purposes ranging from education, business, pleasure, etc. But its potential has not been fully exploited. This project apart from bridging the communication divide among NUC officials and the entire university community, also provides a value added service in the form of software that gives NUC, her staff, and the entire university community, more value for their money via mobile devices they already posses. The findings in this paper if fully applied will increase our access to information and information is the major tool for good decision-making and proper management and administration, especially in the university educational system. Lecturers in the same area of specialization in different universities and research centers can now engage in a more profitable interaction.
Theoritical Framework for This Study

This study used the generic framework provided by J2ME platform, which contains a subset of several specialized classes. We will focus on two of such classes: the CLDC (Connected Limited Device Configuration) and MIDP (Mobile Information Device Profile). These sets of classes make up a profile in the J2ME terminology and are based on the extremely limited device memory, processor speed, battery, and network connectivity bandwidth. The CLDC is the base platform on which the MIDP APIs are stacked. Generally, you won't have to interact directly with those classes, but certain devices require that you access those lower-level classes to perform certain functionality. The MIDP profile has been developed to support the vertical niche of cell phones or similar devices constrained by screen and keypad limitations, in addition to the obvious battery, processor, and bandwidth constraints.

Mobile Device Programming

There are many programming languages (technologies) available today for developing mobile applications. Some of these technologies include: Java 2 Micro Edition (J2ME), Python, C/C++, Easy Mobile Programming (EMP), etc. Of all these languages, the J2ME stands out as the technology (programming language) of choice because it is platform independent and has a rich set of APIs appropriate for mobile devices. Consequently, the Mobile Academic Directory of university lecturers (MOBIACAD) developed in this work made use of the Java 2 Micro Edition (J2ME).

What is J2ME?

The J2ME is Sun Microsystems's attempt to port the Java programming language to devices with resource limitations. A mobile phone, which lacks certain computational power, workstation power, large memory, etc, cannot perform the same functionality as high-end servers or client workstations. The J2ME platform is built upon the Java programming language to provide the maximum functionality available on the resource-limited device. A subset of the base functionality is provided along with some specialized classes. In this work, I will focus on the CLDC (Connected Limited Device Configuration) and MIDP classes of the J2ME. These sets of classes make up a "profile" in the J2ME terminology which is based on the extremely limited device memory, processor speed, battery, and network connectivity bandwidth. J2ME is meant for small devices such as mobile phones, TV set top boxes, Vehicle telemetric, pagers, PDAs, etc. Since applications (including their data) that will run in such devices cannot be larger than 1 MB or so, J2ME combines a resource constrained Java Virtual Machine (JVM) and a set of Java Application Program interface (API) for developing applications for mobile devices. J2ME runs atop a Virtual Machine (called the KVM) which allows reasonable, but not complete, access to the functionality of the underlying phone. J2ME was designed for devices with:

- Limited processing power
- Limited system memory
- Limited storage capacity
- Small display
- Less Battery power
- Limited connectivity to internet.

All J2ME-compliant device manufacturers include the miniature version of the JVM in their devices, which is very light weight and suitable for such small devices. This JVM enables the execution of small Java programs which are called MIDlets. J2ME can be divided into three parts, as shown in Figure 1.2 below: a configuration, a profile, and optional packages. A configuration contains the JVM (not the traditional JVM, but the cut-down version) and some class libraries; a profile builds on top of these base class libraries by
providing a useful set of APIs; and optional packages, as well, an optional set of APIs that you may or may not use when creating your applications. Optional packages are traditionally not packaged by the device manufacturers, and programmers can package and distribute them with your application. The configuration and profile are supplied by the device manufacturers and are embedded in the devices.

Figure 1.2. The J2ME stack

The MIDlet Lifecycle and Application Management Software (AMS).

Mobile devices interact with a MIDlet using their own software, which is called Application Management Software (AMS), whether by emulators or real contact. The AMS is responsible for initializing, starting, pausing, resuming, and destroying a MIDlet, (AMS may also be responsible for installing and removing a MIDlet.) To facilitate this management, a MIDlet can be in one of three states which are controlled through the MIDlet class methods, which every MIDlet extends and overrides. These states are active, paused and destroyed.

Figure 1.3. The possible states of a MIDlet and the transition between them

Materials and Methods for the Study

Information was obtained using the various tools of Object-Oriented Analysis and Design Methodology (OOADM) to capture all user requirements for the system and use the analysis and design tools of UML (Unified Modeling Language) to model the basic classes and interacting objects. Our focus was to make use of the user-requirements to model the basic classes and collaborations between them, and to give a detailed
and insightful investigation and analysis of the existing system, its working procedures, and its mode of operation. The reason for our choice of the design tools of UML (Unified Modeling Language) is because it contains a set of tools for specifying, constructing and documenting software systems. Unified Modeling Language (UML) is a standardized general-purpose modeling language in the field of software engineering. This standard was created, and is being managed by the Object Management Group (OMG). It includes a set of graphical notation techniques to create visual models of software-intensive systems and for the modeling of all phases of software development: requirements, analysis, design, programming, and testing, especially for java software of embedded systems. It defines a set of structural diagrams that are used to show relationships between objects in a system. The special tools and notations of the UML were extended to model the mobile application for this study. The following factors were put into consideration: sources of data, data analysis techniques, model specifications, etc. When choosing a methodology, it is important to consider not only the features of the methodology, but also the cost of using it, the type of problems to which it is best suited, and its limitations. In modeling the actual system, each object represents some entity of interest in the system being modeled, and is characterized by its class, its state (data elements), and its behavior. According to Khlaif M (2009), in developing any MIDlet using MIDP, we must be aware that a completely object-oriented design will not represent the best solution. Each created object requires some memory. Because of the fact that the device's available memory is very limited, your application should be economic when creating objects. Various models can be created to show the static structure, dynamic behavior, and run-time deployment of these collaborating objects. Coding platform is the Java 2 Micro Edition. The database was developed first in Microsoft Access and then converted into Extensible Markup language (XML) in readiness for use with J2ME. At the end of the day, the “jar” file format of the software was distributed via Bluetooth for installation into the mobile device used for this project, which is a mobile phone that supports Java Technology (that is, CLDC 1.1 and MIDP 2.0) named 3250.

Class Relationship in UML modeling for MIDlets

![Class relationship in UML](source: Khlaif M (2009), Pg. 88.)

Hardware and Software Requirements

Computers with at least 256MB RAM, 20GB Hard disk, a Bluetooth device & its associated drivers. The receiving phone should be MIDP 2.0 and CLDC 1.1 compatible with Bluetooth capability. The minimum hardware and software requirements that are required for the development of the MIDP application are summarized in the table 1.1 and table 1.2 below:
Table 1.1: Hardware requirements.

<table>
<thead>
<tr>
<th>HARDWARE</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor speed</td>
<td>Pentium II with at a speed of 100MHz and above.</td>
</tr>
<tr>
<td>RAM size</td>
<td>256MB and above.</td>
</tr>
<tr>
<td>Display</td>
<td>1024x768 or higher with 65536 and more colours.</td>
</tr>
<tr>
<td>Hard Disk size</td>
<td>550 Megabytes of memory and above.</td>
</tr>
<tr>
<td>Handset model</td>
<td>Any model that is java-enabled (CLDC 1.0 and MIDP 1.0 or CLDC 1.1. and MIDP 2.0 support), with a screen resolution of 128x128 or higher.</td>
</tr>
</tbody>
</table>

Table 1.2: Software requirements

<table>
<thead>
<tr>
<th>SOFTWARE</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system</td>
<td>Microsoft windows.</td>
</tr>
<tr>
<td>Java Development Kit</td>
<td>JDK 1.5 and above.</td>
</tr>
<tr>
<td>Wireless Toolkit</td>
<td>Sun Java Wireless ToolKit for CLDC.</td>
</tr>
</tbody>
</table>

Results and Discussions

Data Flow Diagram of the proposed solution The Data Flow Diagram of our MOBIACAD is displayed in the figure 1.5 below:

Input

Process

Data store

Output

Options: Call
SMS
E-mail
Overall Architecture of the Application

The architecture of the entire information flow in MOBIACAD MIDlet application is displayed in the figure 1.6 below:

![Figure 1.6 Overall Architecture of MOBIACAD MIDlet Application.](image)

Database Design

As stated earlier, the database was developed first in Microsoft Access and then converted into Extensible Markup language (XML) in readiness for use with J2ME. In developing any MIDlet application using the Mobile Information Device Profile (MIDP), full relational databases has always proved to be very expensive. In fact, the standard MIDP 2.0 does not even support the basic SQL data types such as the Float data type. Again, the standard persistent storage facility (the Record Management Store (RMS) on the MIDP is very much inadequate for enterprise applications. RMS are both very slow and not index-able and poor search functionality. In fact, RMS’s linear structure makes it a pain to handle relational or object data. To address this problem, database vendors have developed simple database solutions on top of the known RMS. Some of these databases include: the Oracle J2ME, Extensible Markup Language (XML), Simple Object Database Access (SODA), and the Standard Development KIT (SDK). These databases are extremely lightweight and fits appropriately to MIDlet applications for mobile devices. Each vendor provides its own lightweight proprietary access API. In this work, XML was used to support Persistent Storage. Persistent Storage in
MIDP is centered on record stores.

**Record Stores**

A record store is a small database that contains pieces of data called “records”. A record is simply an array of bytes. Each record in the record store has an integer identification number. Record stores are represented by instances of javax.microedition.rms.RecordStore. They are identified by a name. Within a MIDlet suite’s record store, the names must be unique. The diagram of a record store with two records is shown in fig. 1.7.

**Fig. 1.7 Inside a RecordStore**

To create a record store, MIDlets use the following static RecordStore method: `Public static RecordStore openRecordStore(String recordStoreName, Boolean Create)`. The class diagram of the record store in our MOBIACAD MIDlet is displayed in fig. 1.8 below:

**Fig. 1.7 RecordStore class diagram**

**Data Dictionary for MOBIACAD**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Field Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Schools /Faculties</td>
<td>Text</td>
<td>All schools in university</td>
</tr>
<tr>
<td>2</td>
<td>SAAT</td>
<td>Text</td>
<td>School of Agriculture</td>
</tr>
<tr>
<td>3</td>
<td>SEET</td>
<td>Text</td>
<td>School of Engineering</td>
</tr>
<tr>
<td>4</td>
<td>SMAT</td>
<td>Text</td>
<td>School of Management Technology</td>
</tr>
<tr>
<td>5</td>
<td>SOSC</td>
<td>Text</td>
<td>School of Science</td>
</tr>
<tr>
<td>6</td>
<td>SOHT</td>
<td>Text</td>
<td>School of Health Technology</td>
</tr>
<tr>
<td>7</td>
<td>Search</td>
<td>Text</td>
<td>To retrieve desired information quickly</td>
</tr>
<tr>
<td>8</td>
<td>Exit</td>
<td>Text</td>
<td>A functionality for exiting from the software</td>
</tr>
<tr>
<td>9</td>
<td>Back</td>
<td>Text</td>
<td>A link for returning to a previous menu</td>
</tr>
<tr>
<td>10</td>
<td>Clear</td>
<td>Text</td>
<td>A link for deleting a character</td>
</tr>
<tr>
<td>11</td>
<td>Lecturers on campus</td>
<td>Text</td>
<td>Names of lecturers on campus</td>
</tr>
<tr>
<td>12</td>
<td>Call</td>
<td>Text</td>
<td>A link to call a selected phone number</td>
</tr>
<tr>
<td>13</td>
<td>Send as SMS</td>
<td>Text</td>
<td>To send a staff details to a chosen phone number</td>
</tr>
<tr>
<td>14</td>
<td>Medicare,Enquiries, Emergency</td>
<td>Text</td>
<td>A link to the phone number of medical personnel</td>
</tr>
</tbody>
</table>
Site Preparation, Installation, AND Test Run

A space should be created in each department for a table and a computer (desktop or laptop), with a Bluetooth device installed on the computer.

Air-Conditioners should be installed in the room containing the computer before bringing in the computer. A staff is enough to man the system. This staff will be trained before implementation.

The software can be installed on any Java-enabled mobile phone with Bluetooth device. Examples of such mobile phones include: symbian phones, series 60 phones, series 40 phones, etc. Installation steps are as follows:

1. Locate the jar file on your computer.
2. Activate the Bluetooth facility on the mobile phone and transfer the jar file to the selected phone.
3. For series 60/40 phones (e.g. Nokia 2700), the application installs directly into your phones internal memory or memory card; while for other phones, it comes as a text message and prompts the user for installation upon opening the message.
4. Once installed, the application can easily be accessed.
5. The user can navigate through MOBIACAD using the user-friendly graphic interface (GUI).

Some of the results obtained are displayed in figure 1.8.

![Fig. 1.8. Application screens with menus](image)

Conclusion

From the results so far obtained and illustrations made, it is evidently clear that, using the generic framework provided by J2ME platform, it has become possible to develop various MIDlet applications. Consequently, the power of these mobile devices can become endless. The mobile technology is now an integral part of our everyday lives. This is the technology of the 21st century with its inherent and incredible opportunities.
In this paper, we have proffered a solution to the problem of a complete absence of an integrated database of university lecturers and selected principal officers of Nigerian universities and have bridged the communication gap between the National University Commission (NUC) officials and university authorities. This unique directory will definitely enhance effective communication among lecturers in the same field of specialization in different universities, and they can now engage in more profitable interaction. Besides providing an integrated database, we have been able to make it mobile (i.e. making it available for use on mobile phones) to suit the fast-paced lifestyle of today and to make it available and accessible to more people. This system has contributed immensely to the ICT body of knowledge because it has opened the door to a new era of software engineering especially in Nigeria. It has also included additional features in the use of our mobile devices. This will bring about accelerated development in the field of technology. It will also build capacity in embedded system technology at our institutions and Research Centers.

References

Rolf Hennicker and Nora Koch (1998) "Modeling the user requirements of mobile application with UML", University of Munich Oetingenstr, 67..
Apache Ant, 02-07-2010, ant.apache.org/
Apache Software Foundation, 10-10-2010, en.wikipedia.org/wiki/Apache_Software_Foundation
Eclipse, 02-10-2010, en.wikipedia.org/wiki/Eclipse (software).
Assessment of School Teachers’ Use of Information and Communication Technology (ICT) in Oyo Metropolis of Nigeria

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Abstract This study examines the availability and usability of Information and communication technology among secondary school teachers in Oyo Metropolis. The Research Design employed is the descriptive survey design. Three research questions were formulated for the study. The population for the study consisted of 120 secondary school teachers. Questionnaire was used as the instrument for gathering data for the study. Data collected were analyzed using frequency tables and simple percentage. Results of the study showed that ICT facilities are not available in most of the schools covered. It was also observed most teachers used as the sample for the study, are not competent in the use of ICT. Recommendations were then made to the government.

Introduction

Information and Communication Technology (ICT) may be viewed in different ways. Rodriguez and Wilson (2000) defined ICT as a set of activities which facilitate by electronic means the processing, transmission and display of information. ESCAP (2000) in its own definition defined ICT as techniques people use to share, distribute, gather information and to communicate through computers and computer networks. Marcelle (2000) described ICT as a complex varied set of goods, applications and services used for producing, distributing, processing, transforming information (including) telecoms, TV and radio broadcasting, hardware and software, computer services and electronic media. Ogunsola and Aboyade (2005) viewed ICT as a cluster of associated technologies defined by their functional usage in information access and communication of which one embodiment is the internet. Information and Communication Technology are computer based tools used by people to work with information and communication processing needs of an organization. It purview covers computer hardware, software, the network and other digital devices like video, audio, camera and so on which convert information (text, sound, motion etc) into digital form (Moursund and Bielefeldt, 1999). Information and Communication Technology as tools within the school environment include use for school administration and management, teaching and learning of ICT related skills for enhancing the presentation of classroom work, teaching/learning repetitive tasks, teaching/learning intellectual, thinking and problem solving skills, stimulating creativity and imagination, for research by teachers and students and as communication tool by teachers and students (Collis and Moonen, 2001, Derbyshire, 2003; Moursund and Bielefeldt, 1999).

The field of education has been affected by ICTs, which have undoubtedly affected teaching and research (Yusuf, 2005). A great deal of research has proven the benefits of ICT in improving quality of education (AL-Ansari, 2006). As a result of this, developed nations have integrated ICT into their educational system. Adomi and Kpangban (2010) observed that there are developments in the Nigerian education sector which indicate some level of ICT application in secondary schools in Nigeria. They traced the introduction of computer education in secondary schools to 1988, when Nigeria government enacted a policy on computer education. The Federal Government of Nigeria in the National Policy on education 2004 recognizes the prominent role of ICTs in the modern world and has integrated ICTs into education in Nigeria (Adomi and Kpangban, 2010). To actualize this goal, the document states that government will provide basic infrastructure and training at the primary school. At the junior secondary school, computer education is made a pre-vocational elective and is a vocational elective at the senior secondary school.

The Federal Ministry of Education launched an ICT-driven project known as SchoolNet, which was
intended to equip all schools in Nigeria with computers and communication techniques. Under the SchoolNet programme, MTN provided fully operational computer laboratories with 21 personal computers, VSAT interconnectivity, hand-on training in 24 secondary schools in Kaduna, Lagos, Enugu, Kwara, Rivers and the Federal Capital Territory Abuja. In all, over 49,524 pupils and 2,412 teachers were trained on how to use ICT facilities (Abdul-Salaam, 2007).

To adequately provide ICT facilities to secondary schools, the Nigerian Federal Government commissioned a Mobile Internet Unit (MIU) which is operated by the Nigerian National Information Technology Development Agency (NITDA). The MIU is a locally-made bus that has been converted into a mobile training and cyber centre. Its interior has ten workstations, all networked and connected to the internet. The MIU is also equipped with printers, photocopiers and a number of multimedia facilities. Internet connectivity is provided via VSAT with a 1.2m dish mounted on the roof of the bus. It is also equipped with a small electric generator to ensure regular power supply. The MIU takes the internet to places, areas and various and secondary schools (Adomi and Kpangban, 2010). They added that the number of these buses is so small and as a result most rural schools are yet to benefit from this project.

Successful integration of ICT in the school system depends largely on the availability and competence and the attitude of teachers towards the role of modern technologies in teaching and learning. Research works have shown that most secondary schools have either insufficient or no ICT tools to cater for the ever increasing population of students in the schools and where they are available, they are by implication a matter of out-of-bounds to the students (Chattel, 2002; Cheng, 2003; Chiemeke, 2004). Fakaye (2010) also found out in a study carried in Ibadan that in most of schools covered in the study do not have computers, hence are not connected to the internet. He added those who have computers do not use them for teaching but solely for administrative purposes. In another study by Okwudishu (2005), he found out that the unavailability of some ICT components in schools hampers teachers’ use of ICTs. Lack of adequate search skills and of access points in the schools were reported as forces inhibiting the use of internet by secondary school teachers (Adomi and Kpangban, 2010).

A survey carried out by Cirfat and Longshak (2003) revealed that only one school, out of ten has computer sets. It is worth noting that none of the ten schools has internet facility. Ozoji (2003) reported in a study that most our secondary schools do not have software for the computer to function. One of the unity schools has five computers against a population of 900 and no internet software was installed. The facilities are grossly inadequate for any meaningful teaching or learning to take place. On teachers’ competence, teachers in Nigerian secondary schools are not competent in basic computer operation and in the use of generic software (Yusuf, 2005), although they have positive attitude towards the use of computer in Nigerian secondary schools. This finding revealed the low level of ICT penetration in the Nigerian school system. This reveals the state of ICT in most of the Nigerian secondary schools. The main purpose of this study was to investigate the availability of ICT facilities, level of knowledge possessed by teachers in some selected secondary schools in Oyo Metropolis.

Research Design

The descriptive survey method was considered as the appropriate design because the study is directed towards people, their opinions, attitude and behaviors. The area covered by the study is Oyo Metropolis, covering the four local governments that make up Oyo Metropolis. They are Oyo East, Oyo West, Atiba and Afijio Local Government Area.

Research Question

The following research questions were formulated for the study:

- How readily available are ICTs facilities in schools for the purpose of teaching and learning?
- Do teachers use ICT in Teaching?
- Do teachers in secondary schools have the needed experience and competence in the use of computers either for educational or industrial purpose?

**Population of the Study**

The population of this study was made up of 120 teachers from twelve secondary schools that were randomly selected from the secondary schools in the four local governments using the random sampling technique. Ten teachers were randomly selected from each of the twelve schools making a total of one hundred and twenty (120) teachers for the study.

**Research Instrument**

The instrument for the study was developed by the researcher based on established procedures in literature. The instrument contained of three sections. Section A focused on the demographic information of the teachers. Section B focused on the availability of ICT facilities in the schools while section C contained questions on the usability of these facilities by secondary school teachers.

**Validity and Reliability of Instrument**

The face validity and content validity of the instrument were verified by experts in the Computer Science Department and School of Education, Federal College of Education (Sp) Oyo. The various suggestions made were used to modify the instrument. In order to ascertain the consistency of the instrument, test-retest method was used to ascertain the reliability. The questionnaire was administered twice on the sample. The interval between the first and second administration was three months. A correlation of 0.84 was achieved which was considered high enough to justify the reliability of the questionnaire.

**Procedure for Data Collection**

The researcher visited the selected schools to administer questionnaire developed for the study. The 120 copies of the questionnaire were administered on the respondents and collected back on the spot.

**Methods of Data Analysis**

Data Collected from the study were analyzed using descriptive statistics of frequency counts and Simple Percentage.

**Results**

The demographic information of the participants is given in table 1.

Figures from Table 1 below shows that 8.33% of the respondents are between the ages of 21 and 30, while 50% falls between 31 and 40, 33.33% are between 41 and 50 while 8.33% are 50 years and above. It also showed that 58.33 of the respondents are female while 41.67% are male. 25% of the respondents are NCE holders, while 66.67% hold a first degree and 8.33% of the respondents are masters degree holder. 8.33% of the respondents have spent 1 to 10 and 31 years above respectively in the teaching service. 58.33% of them have spent 11 to 20 years while 25% of them have spent 21 to 30 years in secondary schools as teachers.
Table 1: Demographic Information of Respondents

<table>
<thead>
<tr>
<th>ITEM</th>
<th>FACTOR</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>Age (Year)</td>
<td></td>
</tr>
<tr>
<td>21 – 30</td>
<td>8.33</td>
<td></td>
</tr>
<tr>
<td>31- 40</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>41 -50</td>
<td>33.33</td>
<td></td>
</tr>
<tr>
<td>51 and above</td>
<td>8.33</td>
<td></td>
</tr>
<tr>
<td>Sex Distribution</td>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>58.33</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>41.67</td>
<td></td>
</tr>
<tr>
<td>Educational Qualification</td>
<td>NCE</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>B.A/B.Sc/B.Ed/B.Sc Ed/B.A Ed./HND</td>
<td>66.67</td>
</tr>
<tr>
<td></td>
<td>M.Sc/M.A/M.Ed</td>
<td>8.33</td>
</tr>
<tr>
<td>Years of Experience</td>
<td>1 – 10</td>
<td>8.33</td>
</tr>
<tr>
<td></td>
<td>11- 20</td>
<td>58.33</td>
</tr>
<tr>
<td></td>
<td>21 – 30</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>31 and above</td>
<td>8.33</td>
</tr>
</tbody>
</table>

Research Question 1: How readily available are ICTs facilities in schools for the purpose of teaching and learning?
The analysis as it applies to the above research question is as shown on Table 2 below

Table 2: Availability of ICT Facilities in Schools

<table>
<thead>
<tr>
<th>SN</th>
<th>STATEMENTS</th>
<th>YES</th>
<th>%</th>
<th>NO</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>There are enough computers in my school</td>
<td>30</td>
<td>25</td>
<td>90</td>
<td>75</td>
</tr>
<tr>
<td>2.</td>
<td>My school has Educational Software for teaching</td>
<td>10</td>
<td>8.33</td>
<td>110</td>
<td>91.67</td>
</tr>
<tr>
<td>3.</td>
<td>Our computers are connected to the internet</td>
<td>5</td>
<td>4.17</td>
<td>115</td>
<td>95.83</td>
</tr>
<tr>
<td>4.</td>
<td>We have interactive Boards in our schools</td>
<td>0</td>
<td>0</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>5.</td>
<td>There are Television set that we use for teaching</td>
<td>10</td>
<td>8.33</td>
<td>110</td>
<td>91.67</td>
</tr>
<tr>
<td>6.</td>
<td>We have enough printers</td>
<td>10</td>
<td>8.33</td>
<td>110</td>
<td>91.67</td>
</tr>
<tr>
<td>7.</td>
<td>There are Photocopiers in my schools.</td>
<td>15</td>
<td>12.5</td>
<td>105</td>
<td>87.5</td>
</tr>
<tr>
<td>8.</td>
<td>Multimedia Facilities are available for teaching</td>
<td>0</td>
<td>0</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>9.</td>
<td>We have Projectors in our schools</td>
<td>2</td>
<td>1.67</td>
<td>118</td>
<td>98.33</td>
</tr>
<tr>
<td>10.</td>
<td>Presence of a virtual library</td>
<td>0</td>
<td>0</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

The results in table 2 are on the availability of ICT facilities in secondary schools. Results showed that ICT facilities are not readily available, with items 1 to 10. 75% of the teachers stated that they do not have enough computers. The study showed that none of the school covered in this study have interactive boards, multimedia facilities and virtual library. 8.33% of respondents said that they have educational software, television set and printers, while 4.17% of the respondents said their computer systems are connected to the internet. 12.5% of the respondents said they have photocopiers in their schools.
Research Questions 2 & 3: Do teachers use ICT in Teaching? and Do teachers in secondary schools have the needed experience and competence in the use of computers either for educational or industrial purpose?

The Table 3 below shows results for the analysis of the research questions stated above.

Table 3: Teachers use of ICT Facilities

<table>
<thead>
<tr>
<th>SN</th>
<th>STATEMENTS</th>
<th>YES</th>
<th>%</th>
<th>NO</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I can boot the computer</td>
<td>40</td>
<td>33.33</td>
<td>80</td>
<td>66.67</td>
</tr>
<tr>
<td>2.</td>
<td>I use the computer to teach my students</td>
<td>12</td>
<td>10</td>
<td>108</td>
<td>90</td>
</tr>
<tr>
<td>3.</td>
<td>I use the computer to keep records</td>
<td>02</td>
<td>1.67</td>
<td>118</td>
<td>98.33</td>
</tr>
<tr>
<td>4.</td>
<td>I use Microsoft Word to type Questions and other documents</td>
<td>18</td>
<td>15</td>
<td>102</td>
<td>85</td>
</tr>
<tr>
<td>5.</td>
<td>I use Microsoft Excel to teach basic mathematics</td>
<td>02</td>
<td>1.67</td>
<td>118</td>
<td>98.33</td>
</tr>
<tr>
<td>6.</td>
<td>I use Power Point In Presenting my Lesson</td>
<td>00</td>
<td>00</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>7.</td>
<td>I browse the internet to get materials for teaching</td>
<td>09</td>
<td>7.5</td>
<td>111</td>
<td>92.5</td>
</tr>
<tr>
<td>8.</td>
<td>I have an e-mail address</td>
<td>35</td>
<td>29</td>
<td>85</td>
<td>71</td>
</tr>
<tr>
<td>9.</td>
<td>I can use a search engine such as google</td>
<td>12</td>
<td>10</td>
<td>108</td>
<td>90</td>
</tr>
<tr>
<td>10.</td>
<td>I use education software such as CAI for teaching</td>
<td>08</td>
<td>6.67</td>
<td>112</td>
<td>93.33</td>
</tr>
<tr>
<td>11.</td>
<td>I can set up a database using MS Access</td>
<td>00</td>
<td>00</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>12.</td>
<td>I can use a scanner to copy images</td>
<td>02</td>
<td>1.67</td>
<td>118</td>
<td>98.33</td>
</tr>
<tr>
<td>13.</td>
<td>I can operate a printer that is connected to the computer</td>
<td>40</td>
<td>33.33</td>
<td>80</td>
<td>66.67</td>
</tr>
<tr>
<td>14.</td>
<td>I can set up a multimedia projector</td>
<td>02</td>
<td>1.67</td>
<td>118</td>
<td>98.33</td>
</tr>
</tbody>
</table>

The Table 3 above provides answers to the research question 2 and 3. 66.67% of the respondents cannot boot the computer. 10% of them use the computer to teach their students. 1.67% use the computer to keep records and use Microsoft Excel to teach basic mathematics, while 15% use Microsoft word to type their questions and other documents. 7.5% of the respondents get their teaching material from the internet, 29% have e-mail address, so it means 29% of the respondent use the computer to send and receive mail. 10% of the respondents can use a search engine, while 6.67% of them use educational software such as CAI for teaching. 1.67% of the sample can use a scanner and can also set a multimedia. 33.33% of the respondents can print using a printer. The study showed that none of the respondent use power point and Microsoft Access.

Discussion

The result of this study shows that ICT facilities are not readily available in the schools covered by this study. It also shows that most of the schools are not connected to the internet. Schools with computers do not have the relevant educational software required by their students. In addition, the computer available in these schools cannot meet the need of the large population of students in these schools. Some schools with internet connectivity have been cut off because they have not been able to pay their access fee. The findings of this study are in line with that of Fakeye (2010) and Oyejola (2007) that most schools in Nigeria are ill equipped for the application of ICT.

The study also showed that most teachers in secondary do not use ICT teaching students, for administrative purpose and for their personal purpose. It observed that most of these teachers lack the knowledge, competence to use ICT to facilitate teaching-learning process. This Fakeye (2010) attributed to non availability of ICT facilities. He believed that the non availability of these facilities greatly hinders access and inadequate training of teachers on the use and application of the computer.
Conclusion

From the study it was concluded that ICT facilities are not readily available in our secondary school and that there is low level of ICT utilization in our secondary schools. The study revealed that most teachers lack the basic skill to use the computer and other ICT devices. Based on the findings, it is however, recommended that:

1. Government should ensure that ICT facilities be provided in schools. Education Tax Fund should be involved in procuring computer for secondary schools.
2. Government should revisit the curriculum at secondary schools level with a view to incorporating the use of computer and ICT assisted instruction in the teaching and learning process.
3. Teachers at secondary school levels should be trained on the use of ICT facilities through regular seminars and computer literacy workshops to keep them abreast of computer and ICT based instruction.

References
