

IN-SERVICE TRAINING NEEDS OF SECONDARY SCHOOL TEACHERS ON INFORMATION AND COMMUNICATION TECHNOLOGY

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Abstract

The importance of in-service training and development in Information Communication Technology for secondary school teachers has been intense. The tempo was raised by the fact that Information Communication Technology has been emphasized in the National Policy on Education to equip teachers and students to live effectively in our modern age of Information Communication Technology. Again, it is to provide an opportunity for students to acquire more knowledge, develop skills of hard work in it, be abreast with the realities of Information Communication Technology in Nigeria. To this end, (his paper highlights the relevance of ICT based in-service training for teachers in the area of ICT. Unfortunately, the laudable policy on ICT in-service teacher training has a lot of problems militating against its implementation. In the light of the above, some strategies, implications and recommendations are highlighted, among which are that the Federal Government should sponsor teachers for the ICT in-service training and that both the Federal, state and other stakeholders should provide ICT equipment and infrastructure to enable teachers lay their hands on experiences after their ICT.

Introduction

Information and communication technology advancement has transformed the whole world into a 'global village' (Inyama, 2000) with the proliferation of modern technological equipment such as computer teleconference, internet, electronic mail, video text, cable television etc for the process of teaching and learning. People can now easily get in touch and exchange information in multimedia electronically from any point on the globe to another.

Information and Communication Technology (ICT) is the acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information using electronic devices (Evans, 1984; Lucey, 1987). In other words, ICT involves handling of text, images, graphs, charts, audio-materials, instructions and music to processed information by organization and re-organizing, storing, and retrieving, sorting and analyzing, presenting and communication. NCET (1995) and Iseyemi (2003) opine that ICT refers to electronic materials, overhead projector, slide projector, C-ROM, film stripes, calculators, video tape recorder, television, telegraph, telephone, micro films, internet services, etc.

Ochi-Okorie (3993) strikes a vital chord when he asserts that information is power and that the ICT is man's greatest tool for harnessing that power. Information and communication technology is the application of knowledge, devices and systems to the problem of managing data to make them meaningful and accessible to users (Okwo, 2002).

Education in recent years is becoming very expensive. The students population explosions diversify the dimension of the programmes, such that it needs adequate information and communication technology to manage our educational system. This has to do with the use of computer and telecommunications systems like audio visual formats, telephone, radio, tape record, overhead projector, television, slide projector, CD-ROM and film stripes. These could be appreciated through the ICT training for secondary school teachers. A teacher with quality training in ICT gives birth to quality ICT students.

The ICT can guide a user through a course of instructions on a Video Display Unit (VDU) to facilitate understanding of the subject matter. ICT is a very powerful teaching tool and can be used to teach all school subjects through the computer - assisted - learning (Nwoji, 2002). How can a teacher use ICT without having any knowledge of it?

In-Service Training of Teachers

In-service training for teachers means training acquired after the teachers have been employed. For example, a teacher can further his/her education to earn a higher or more knowledge. Harris (1980) describes in-service training as any planned programme for learning opportunity provided for staff in active service in order to improve their performance. In-service teacher training could as well be described as life-long education, continuing education, professional development, staff development and personal development (Afe, 1993). The National Policy on Education (1998) makes emphasis on in-service teacher education as an avenue for updating the teacher's knowledge, skills and attitudes in the task of assisting children to learn better, more and quicker. In-service training for teachers improves professionalism. It makes teachers remain current and relevant in the education system,

Types of In-Service Training for Teachers

1. Sandwich programme.
2. Seminars.
3. Workshops.
4. Conferences.
5. Overseas training.
6. Teacher Vocation Course (TVC).

Arubay (1992) identifies a brief one or two day meeting or study groups that meet on weekends or month-ends to work on specific educational problems or projects. Correspondence, tuition, materials, with occasional lecture sessions are also in in-service training.

Training and Development

Training and development of teachers for ICT is very important for a developing nation like Nigeria. Olele (2001) notes that for any teacher to be relevant, he/she must become a member of the intellectual network of the whole world via ICT. Training and development refers to a planned effort by an organization to facilitate the learning of job related behaviour (Wexley and Latnam, 1981). Human development revolves around educational development and training. Hyda and Shafritz (1983) see training as part of the process of development that enhances and maintains individuals within an activity sequence, employee development, based on several key criteria that training be job or career related, relevant to enhancing advancement potential, useful in improving organizational effectiveness and of sufficient relevance to employee. On the other hand, development is an extremely complex process through which human beings progress in their quest to achieve an adequate adaptation to the world. Laird (1991) defines training as a meeting between people and technology in order to achieve organizational effectiveness. This definition arises as a result of exact requirement to perform the technology of their tasks.

Types of Training and Development for Teachers in ICT

Koontz and Weinhich (1986) list a number of training programmes for in-service teachers. .

- 1 Induction training gives the teacher an opportunity to meet his/her colleagues to learn the idea of his/her job fits into the classroom. In June 1991, the Lagos State Ministry of Education ran series of induction workshops for secondary school teachers.
2. On-the-job training is usually done by skilled or experienced teachers during supervision exercise by the supervisors, instructors or the inspectors. They coach the teachers on how best to write lesson notes, use instructional materials for teaching and learning,
3. Off-the-job training is the type the employee participates in the training activities outside the school e.g. conference, seminars and workshops. It could be an oversea, off the job training.
4. One to one training is useful in teaching a person on how to operate equipment like a machine or ICT equipment. This affects the person's attitude greatly. One to one training has three basic areas (a) the preparation, (b) the briefing, and (c) the training session itself.
5. Cross training involves rotation, it gives the employee the opportunity to handle different jobs within the system. Yet be able to attend his/her training in rotation.

Meaning of Secondary School Education

Secondary school education is the form of education received by children after primary school education. It is called the post - primary education and it serves as a link between primary and university education (Ogbonnaya, 2003).

Secondary school in Nigeria is made up of two stages, the senior and junior secondary school and each is of three-year duration. The objective of the secondary school among so many others is to provide an increasing number of primary school leavers with the opportunity of higher quality education with diverse

curriculum to cater for the differences in talents and opportunities. It is aimed at equipping students to live effectively in our modern age of science and technology (National Policy of Education, 1998). The importance of the secondary school cannot be over emphasized. It provides an opportunity for students to acquire more knowledge, develop skills of hardwork, sacrifice, tolerance, diligence, kindness, sympathy and truthfulness. It inspires in the youths the desire to aspire high, desire for achievement, self-improvement and self-actualization. The senior secondary school (SSS) prepares the children for the W.A.S.C., the G.C.E. and the J.A.M.B respectively. These give them the opportunity of gaining admission into any University of their choice. While the junior secondary school (JSS) provides both academic and pre-vocational work and prepares the children for the 'Junior School Certificate/ which is handled by each state of Nigeria.

Teacher Education

Teachers transmit facts and knowledge to the youth. Ezeocha (1992) perceives the teacher as a person who possesses both the natural and professional inclination, ability, aptitude and the competence to effect teaching and learning. Ezeocha regards the teacher as a model, moulder, motivator, director and a catalyst whom children seek for guidance. Also, Lassa (1996) observes that the teacher is the initiator of learning process, the learning skills, the co-ordinator of the learning sequence, the assessor of the learning efficiency and indeed the pivotal element in the entire educational development. In spite of this enviable role of the teachers and the emerging realities of ICT in Nigerian Educational Curriculum implementation, the teachers in-service training is neglected. The teachers' education should be the foundation of quality and need of all levels of education.

Teacher Education is that component of any educational system charged with the education and training, for the improvement, growth and quality of teachers (Afe, 1993).

The Purposes of Teacher Education Programme are stated in the National Policy on Education (1998) as follows:-

- (a) to produce highly motivated, conscientious and efficient classroom teachers;
- (b) to encourage spirit of enquiry, and creativity in teachers;
- (c) to help teachers to fit into the social life of the community and society at large and to enhance their commitment to the national objectives;
- (d) to provide teachers with the intellectual and professional background adequate for changing situations, and
- (e) to enhance teacher's commitment to the teaching profession.

Relevance of ICT In-Service Training and Development for Teachers

Nwagwu (1998), and Akinsuade, Oyetunde, Akpa, Enoch and Ezenwafor-Ozobi (2000) list some aims of teacher education on ICT.

3. The training of teachers will bring about the improvement of good quality of teaching methodology and its learning processes.
2. The advancement of the competencies required of ICT.
3. The re-orientation or re-training of teachers towards the new dimensions of ICT development. They can explore the world through the Internet.
4. To provide teachers with the intellectual and professional backgrounds adequate for their assignment and to equip them with the emerging realities of ICT in Nigerian Educational Curriculum.
5. To encourage further the spirit of inquiry and creativity in the teacher and to make them adaptable to any changing situation not only in the life of our country but in the wider world where ICT is advancing.
6. ICT will give the teachers a new role-designing learning situations for learners to manipulate information towards solving realistic problems, facilitating the learners to take initiatives, think critically and solve problems. With these, students can become creative, imaginative and be in a better position to acquire reasoning skills (Eastmond, 2000).
7. In addition, teachers need to be literate in this dominated world of instructional uses of ICT. The instructional challenges could be found in the utilization of various computer assisted-instruction mode. To this end, Heinich, Molenda, Russell and Smaldino (2002:227) have formed in a tabular form the various utilization of CAI Mode by describing the roles of a teacher.

Awotuo-Efebe (1999) notes the characteristics of CAI as an active instructional medium. It teaches and instructs the learner. CAI also allows the learner to review or practice skills previously taught. CAI allows the learner to find out more information on topics covered in the class. Thus, there is need for massive training of teachers on a continuous basis on the use of ICT and CAI modes.

Strategies for In-Service Teachers Training in ICT

Factors that could help the teacher's in-service training.

1. They could go on sandwich programmes for acquisition of ICT.
2. Conference, workshops and seminars could be organized by the three levels of government involved in education to update teachers in ICT.
3. Stakeholders could contribute financially in training teachers for ICT.
4. Provision of ICT equipment should be done by the government, organizations and individuals. They must pull resources together in order to achieve this.
5. Weekend Training for Teachers: Teachers could arrange for ICT learning during weekends.
6. Building of ICT Laboratories: There is an urgent need to provide classrooms where ICT equipments will be placed for easy accessibility for both teachers and students.
7. The Federal Government's urge to move with the ICT has made her to include computer education in the Federal Republic of Nigeria's National Policy on Education (NPE, 1998).

Problems Militating Against the In-Service Teachers Training in ICT

1. Unpatriotic attitudes of government to in-service training of teachers on ICT: Government officials has not legislated ICT as a mandate for all secondary schools in Nigeria. Despite the fact that the National Policy on Education has included ICT into the Educational Curriculum, this has not been enforced.
2. Not being aware of what the ICT can do limits people's ability to desire the use of ICT even when they have serious problems beyond the competence of conventional techniques in teaching and learning.
3. Unavailability of ICT equipment and infrastructure e.g. laboratories, building, cable television, video, computers, etc.
4. Lack of sponsorship by the stakeholders, federal and state government. They do not give financial support for in-service training for teachers on ICT.
5. Conflict between principals and teachers makes it difficult for the principals to recommend their teachers for in-service training. This causes lack of flow of information and co operation.
6. High tuition and other fees deter teachers from going for in-service training on ICT.
7. Irregularities or non-payment of salaries make it difficult for teachers to go for in-service training on ICT.
8. Strike actions or crises in tertiary institutions affect in-service training by frequently affecting their academic calendar and affecting the teachers themselves who are supposed to be in school as at when due.
9. Instability in Government Polices: one government come up with promises of huge financial backing on education, in-service training for teachers, another government may come up to change the policy of teacher's in-service training.

Implications of Teacher In-training in ICT for Technological Challenges in Secondary Schools

1. ICT literacy will be transferred to every torn, dick and harry among the youths. This implies that the nation has become technologically advantaged.
2. It will bring about national development in every sector of our life.
3. It will lead to efficient and effective production of nigh quality goods and services at low cost.
- 4.- The agricultural sector will be a new source of income added to Nigeria.
5. Nigerians will now launch their own satellite, instead of inviting Russia to do it for them.
6. There should be positive and beneficial changes in the knowledge, skills, attitude and behaviours of the ICT teachers.

Recommendations

The following recommendations are made to facilitate ICT in in-service training for teachers.

1. The federal government will enact a law that will force all secondary school teachers to go for in-service training to update their knowledge in ICT. A teacher with quality training in ICT gives birth to a quality product of ICT.
2. Government should also give a public enlightenment campaign for ICT awareness.
3. Deadline should be given to teachers lo enable them to acquire a certificate on the knowledge of ICT.
4. In-service education for teachers is a veritable programme for building the capacity to project

and defend the teaching profession especially now that information and communication technology is the order of the day.

5. ICT equipment and infrastructure like building and laboratories, computer, cable television, video, etc should be sent in each Secondary school in Nigeria.
6. Fees for ICT training should be reduced and must be monitored by the government to make sure everybody could afford it.
7. Teachers' salaries and allowances should be paid as at when due so that they can utilize their money to update themselves in ICT training.
8. ICT should be integrated in secondary school courses based on the teachers competencies in ICT in-service training and development.
9. Teachers who make an attempt to go for in-service training in ICT should be rewarded.
10. There is a critical need to evaluate the various modalities for in-service training for ICT teachers with the view to orienting the organizers towards the main objective of in-service training.
11. In as much as we need in-service training for teachers in ICT, we must carefully watch the abilities and ensure that certificates are not awarded indiscriminately so that what we aimed at, will be achieved.

Conclusion

In-service training for teachers is without doubt the key for the attainment of the educational objective on ICT. This will help the teachers upgrade their knowledge, fine-tune their competences and strengthen their commitment with a view to enhancing their professional skills and appreciating ICT in its totality and being able to perform better in the classroom. The federal government and the stakeholders must pull resources together in order to finance the in-service training of teachers in the state or local government levels.

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