Retooling Teacher Education Programmes: A Panacea for -High Quality Pre-Service Teachers

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Abstract

This paper tries to argue for the repositioning of teacher education and preparation in Nigeria with the use of information communication technology which would invariably give birth to quality teachers and quality performance that would be at par with the dictate of the 21st century as well where the exigencies of Covid-19 has placed us as a nation. It stresses the need for curriculum review that would force the teacher educators to enhance themselves in the use of latest technology in teaching. The paper suggest that only teacher educators who have the knowledge of information communication technology (ICT) should find their way into our teacher preparatory institutes. The paper recommends that adequate supervision and monitoring should be given to teacher educators to ensure that they devote time to the use of technology in preparing the pre-service teachers found under their tutelage.

Keywords: Teacher education, Pre-service teachers, Curriculum review, ICT, Monitoring

The Concept of Education

The concept of education has attracted different definitions by scholars, and the definitions vary from one scholar to the other as perceived by each one. This is because the concept has not lent itself to any strict consensual definition. Defining the concept of education depends on the perspective from which one view it. The most important factor however is that education is essential to man and that it is an important means of developing a nation, as well to be noted that education varies from place to place. Education therefore, plays an important role in improving the choice and quality of life, enhancing social, economic productivity and initiating the process of empowerment and redistribution of resources.

It is for this reason that Okafor (1988) noted that "no developing nation will develop fast enough without placing its ultimate priority on education". Most definitions, however revolves around people's expectations of the school as a socio-academic institutions, with respect to (a) the purpose of the school, (b) what is taught or should be taught, (c) how it is taught and to whom it is taught, and (d) the effectiveness of what is taught and/or relevance of the entire programme to the needs of individual learners and their society (Ogunyemi, 2009). However, to Obanya (1982) an educational institution refers to a place they called the school, which is formally established by the society for the cultivation of the head, the hand and the heart. It would therefore be observed that no one definition of the concept of education appears to agree exactly with the other.

But from the various attempts by experts, it could be deduced from their definitions that education emphasizes knowledge, behavior, duties of citizens and initiations into social ideals.

The Concept of Teacher Education and Teacher Education Curriculum

Teacher education (TE) refers to the policies, procedures, and provisions designed to equip prospective teachers with the knowledge, attitudes, behaviours and skills they require to performing their task effectively in the classroom, the school and wider community. Therefore, teacher education and preparation is in fact a crucial factor because it is the process of initiating, preparing student teachers, retraining of existing teachers in schools, and equipping them with relevant experiences, skills and competencies to tackle the responsibilities of education profession effectively. So, teacher education and preparations, if properly attended to, will develop capacity building and keep the teachers and teacher educators abreast with latest teaching skills and ready to interact with student in the classroom (Okeke, 2012). The importance of teacher education is recognized worldwide, in that it is through teacher education that teachers are trained and they also train the born and unborn generation who will manage the affairs of teacher education of the nation.

There is a general recognition and agreement today that the education and professional development of teachers is the key to open up and improve students' learning opportunities. It is therefore important to manage teacher education and preparation during this period of 21st century, because of the rapid changing socio-economic and political environment occurring within the global context. Teacher education is no longer the one that should prepare teachers in preparation for a specific jobs, rather, the goal of teacher preparation should be the one that inculcate learning-to-learn skills, as well the inculcation of 'knowing yourself', or developing the best in you (intra-personal skills) with knowing and getting along with other skills (intra-personal skills). Investments in teacher education should therefore be with the ultimate aim of optimally focusing on effective teachers.

The purpose of teacher education is to produce well-qualified professional teachers that can adjust to the changing needs of the learners, the society, as well development of the prospects of the modern society. Nnachi (2008) observed that teachers are the brain-box of educational activities and his position and activities are quite inevitable in championing the educational affairs. That is why continuous education for teachers cannot be toyed with. Teachers' can be likened to the entrepreneur who harmonized other factors of production namely; land, labour, and capital, they are the most important element in the school more than the other factors, and so, the future of a nation rests in the hands of its teachers, for the quality they possess today will inevitably be reflected in the citizens of tomorrow of such nation. It was hinted that if there is assurance of quality in teacher education, there will be certainty for social development and human civilization (Nnachi, 2006).

It was for this reason that it was stated in the National Policy on Education clearly and unambiguously that teachers shall be professionally trained, as "no educational system can rise above the quality of its teachers" pg 33. (70a). It also goes on to clearly specify the

objectives of teacher education in Nigeria as follows;
i. produce a highly motivated, conscientious and efficient classroom teachers for all levels of the educational system.
ii. further encourage the spirit of enquiry and creativity in teachers.
iii. help teachers fit into the social life of the community and the society at large and enhance their commitment to national goals.
iv. provide teachers with the intellectual and professional background adequate for their assignment and make them adaptable to changing situations, and
v. enhance teachers commitment to the teaching profession.

All of these, it is believed would be achieved through the teacher education curriculum with the content and learning experiences the pre-service teachers would require to adequately prepare him/her for effectiveness in teaching as embedded in the teacher education objectives. Curriculum according to Tanner & Tanner (1975) is defined as the planned and guided learning experiences and intended learning outcomes, formulated through the systematic reconstruction of knowledge and experience under the auspices of the school for the learner's continuous and willful growth in personal social competences. Nichols (2012) define curriculum as what happens to student for which the school is responsible. The sum total of human endeavour geared towards the realization of the societal aspirations through the institution of the school. She continues further that the major variable in human endeavour are the teachers (who implement the curriculum); the students (who are basically learners that the curriculum is planned for); the support system (from government and private initiative); and the curriculum planners (who are usually experts that design the curriculum), recommended implementation strategies and evaluate to ascertain the extent of achievability of the curriculum objectives. Curriculum therefore is all the experiences that learners are exposed to under the guidance of the school.

The components of teacher education curriculum are:
-General studies: This is aimed at exposing teachers in preparation to fields other than their own area of specialization, this is to enable them participate and contribute meaningfully in discussions on emerging issues, different from their area of specialization to make them versatile and build their self confidence.
-Foundation studies: These are the core education courses that are meant to equip the teachers in preparation with professional skills. They include (philosophy of education, sociology of education, history of education, educational psychology, educational administration etc).
-Area of specialization: This is the students own special subject area. This will ensure that the teachers in preparation have an in-depth knowledge of the disciplines which also prepares them for further studies. And lastly,
-Teaching practice: Teaching practice is that period the student teacher is giving the opportunity to put into practice all he/she has been taught in theory, in the teaching learning process in the classroom. It is a field experience practiced in the primary or secondary schools for a certain period of time.

Retooling Programmes for Teacher Educators

A teacher educator may be narrowly defined as a higher education professional whose principal activity is the preparation of beginning teachers in the universities and other institutions of teacher education, such as the national colleges of education, teacher training colleges and teacher centers etc. A broader definition might include any professional whose work contributes in some way to the initial education or the continuing professional development of schools and teachers. The professional who engage in training the prospective teachers are teacher educators (or, in some contexts teacher trainers). A teacher educator helps in-service and pre-service teacher trainees to acquire the knowledge, competences and attitudes they require to be effective teachers. A lot of teacher educators are usually involved in the initial or ongoing education of teachers, often, they each always specializes in teaching about different aspect of knowledge or discipline (e.g. educational ethics, philosophy of education, sociology of education, psychology of education, specific-subject areas, general studies etc).

However, retool, means revise or reorganise, especially for the purpose of updating and improving. Retool provides a workshop or factory with new tools. Retool, according to the Oxford advanced learner's dictionary, means to replace or change the machines or equipments in a factory so that it can produce new or better goods. In the context of this paper however, retooling means re-equipping the teacher educators to better enhance them for the training of would be teachers with quality knowledge and skills that better equips them for easy employability at the end of their training and also for easy switch of jobs for those already on the job. Retooling teacher educators refers to the preparation, teaching or facilitating of "teacher educators" commonly refers to both those who educate prospective teachers and those who educate practicing teachers. That is, to those who initiate, guide and support teachers learning across the life span. Sometimes, the term teacher educators refers only to educators of prospective teachers, that is, to those who teach future teachers, and not those who provide professional development for practicing teachers.

The prevailing paradigm is that the teacher educators has to possess both the content (knowledge of specific areas) and method (education principles and their practical applications) as well a shift to the use of technologies to reach out to the teachers in preparation, so as to enhance their quality and effectiveness when they found themselves on the job, for it is believed that most teacher educators teach the way they had themselves been taught, or the way they had been taught to teach. Retooling teacher educators would require them to possess needed skills to respond to the demands of rapidly changing times fuelled in the use of ICT (information and communication technology) which is a novel way in our country of connecting both the teacher educators and teachers in preparation, even when they are removed in space and distance.

However, the exigencies of covid-19 have exposed the deficiencies of a lot of teacher educators in technological knowledge and usage. The ICT revolution can be seen and felt everywhere around us, the computer

usage in teaching and learning is penetrating all spheres of our educational activity. There has been an overwhelming rate of penetration of mobile phones, with various applications for teaching and learning (twitter, facebook, whatsapp, zoom etc). The use of which has become entrenched as an integral part of today's global culture in teaching and learning. The internet and the worldwide web are now part of today's global culture in education e.g. satellite communication, wireless radio, cable television, and teleconferencing. Today's world has gone virtual, as we begin to operate virtual learning, virtual offices and so on.

It is unfortunate that many of our teacher educators could not take advantage of the new trend to enhance teaching and learning as a result of which teaching and learning have come to a stand-still, because many of them lack knowledge of information communication technology to reach out to their learners, even at a time like this when covid-19 has forced us out of schools. A lot of teacher educators are ignorant of the innovation ICT has brought into teaching and learning, others perceived ICT has been too difficult to learn and therefore hold tenaciously to their old ways of teaching. This is because a good number of teacher educators that are teaching in our teacher preparatory schools today may not have had the opportunity of ICT during their training. The new world we are in now has revolutionized thinking on the goals of education and how it should be delivered. Teaching has also been revolutionized to emphasized creative teaching methodologies and transformational pedagogy. Teacher educators and teachers in preparation therefore, need to be revolutionized to fit appropriately into this new world of digitalization.

Teacher education delivery today is still conventional in nature and purposes, the integration of theory and practice for teachers in preparation still remain inadequate, teachers in preparations are prepared in competences and skills which today do not necessary equip them for becoming professionally effective and of good quality. This is unconnected with the fact that those training them are also deficient in the 21st century skills and methods of teaching with which to equip the learners with, so as to enhance their training for better quality, easy employability and solving societal problems and to make them at par with colleagues in the global world.

The teacher educators familiarity with the latest educational development in skills and pedagogy approaches are still limited, part of retooling is the professional development in computer usage in educating the teachers in preparation, technological literacy, equipping the educators with latest and new methods of teaching. Teacher educators themselves must be trained to make use of technology in the classroom. However, the biggest obstacle to adding technology of any sort into the classroom experiences is teacher educators themselves.

Teacher educators should be equipped with everything needed to be able to make informed decision, it is when this is done that they would be able to perform their role of diagnostician and prescriptive clinicians, which they were, that they can equip their learners with skills and methods that would keep them abreast of time. It must be noted also that "technology will not replace teachers, but teachers who use technology will probably replace teachers who do not".

Training and retraining of teacher educators cannot be overemphasized. Training will acquaint the individuals with new skills and knowledge that would enable them perform their duties more efficiently Okoroafor (2010). It is through training, especially in information and communication technology (ICT), that teacher educators can develop their potentials and become ICT compliant, making use of various electronic platforms to reach out to their learners. Nigeria, it is believed is blessed with qualified academics who are teacher educators, who only need some training in ICT to fast-track national development.

Imogie (2013) stated that the 21st century has been described as an era of knowledge economy with set of skills as a result of globalization and technological changes. Participation in the knowledge economy requires a new set of human skills, innovations and competences. Teacher educators therefore, should have higher qualification as well train and retrain to be capable of greater intellectual independence. Education should prepare students for a changing society and should itself generate social change. New challenges that have emanated in the changing society as a result of globalization through ICTs need new approaches, methodologies and solutions. In other words, learners especially teachers in preparation should be well prepared to find solutions and answers to meet the future needs and challenges of the society. Teacher educators should as a matter of necessity equip themselves with the knowledge of ICTs to guide and put pre-service teachers through the fast changing society.

The teacher educators are one of the most important agents on which quality education hangs in our teacher preparation schools. To ensure the best quality services at all levels of educational systems, high productivity and the best possible quality in the teaching force, then retooling of teacher educators matters a lot in preparing quality teachers. This is because, with the recent technological changes and advancement in the various sphere of life within the global context, teacher educators needs to be abreast with new knowledge in ICT usage through consistent up-grading that would enhance their competence.

Need for Retooling Teacher Educators

Teachers are nation builders with a strong capacity to change the society, and when teacher educators know the importance of technology, communication skills, and pedagogies, and inculcate these things in teacher education curriculum, we will get a positive change in the products of our teacher education program for the production of quality teachers. From the growing realization that in this modern society, scarcely is anyone ever fully trained for the rest of his life or career. Not only must skills be continuously upgraded, new skills must frequently be acquired, if the teacher educators, teachers in preparation and the educational institutions are to meet the changing demands of the internet age.

With training and retraining of teacher educators, the quality of the learners would be enhanced. Yussuf (2007) identified ICT as electronic technologies used for accessing, processing, gathering, manipulating, presenting and communicating information. He stated that where ICTs are employed in education, they can accelerate, enrich and deepen basic skills in reading, writing, mathematics and

sciences. He also went further by saying that using ICTs by teacher educators relates to academic practice of today's word, encourages active learning, support innovative teaching, reduce the isolation of teachers and encourages teacher and student to become active researchers.

Using ICTs in teaching therefore, will motivate and engages teachers in preparation to learn as they become more independent and responsible for their learning. There are so many strategies that can be used to adopt ICTs into instructional strategies or the teaching and learning process. Central to the application of ICTs in teaching and learning is the role of the computer and now other communication devices. The diverse roles the computer plays in teaching and learning has aptly being grouped into five (5) by Ofoefuna (2005), these are virtual teaching, multithreading, web-based instruction (www), instructional slides and tutorial (audio) and the computer assisted instruction (CIA).

It is therefore important that teacher educators are fully computer literate and numerate, should be well equipped, professionally trained to effectively use ICT-based tools as well as social media tools in the teaching learning process. This, it is believed would strengthen teaching and learning process in the teacher preparation institutions, so that teaching can move away from the time honored model of scholarly professor who lecture students in the classroom to more learner-centered managed approaches, fuelled by the use of ICTs. According to Imogie (2013) these needs and challenges in ICT usage are best accomplished through education whose bedrock are teacher. What the teacher knows and does, can make a difference and what he does not know, cannot do, can be an irreparable loss to the learner (Akale, 2002).

Conclusion

Today, we are in a technological world, where things are happening fast, parents and teachers and other stakeholders would also like to be getting results fast. And so as a nation, to realize the various objectives we have set for our teacher education programme, we must as a matter of urgency respond to the latest development in the field of education. The teacher is the brain box for information and intellectual enhancement of the learners. Therefore, proper training of the teachers is needed for the good of the society and the nation at large. It is however obvious that there are challenges in teacher education in Nigeria, but this should not deter Nigerians for qualitative teacher education in our teacher preparatory institutions.

Recommendations

In recognition of the importance of teacher education in every developing and developed nation, as a catalyst for qualitative teachers in our schools, as pointed out by Okebukola (2005) and Nnachi (2006), that the training of teachers should not be haphazard. That teacher educators must ensure total commitment to the preparation of the would be teachers. The following recommendations were made for quality performance in teacher preparation

-The teacher educators should be made to have a conceptual understanding of the field of education, so that they produce teachers who in turn are not just responsible only for the task of teaching in the classroom but who also are imbued with the perspectives of creating individuals who can apply their minds to the diverse situations that obtains in the field of education.

-There should be seminars, conferences, workshops and series of trainings, which should familiarize the teacher educators with strategies which are new in teaching, latest technology such as the use of power-point, the use of interactive board, computer assisted instruction(CIA), other communication devices, virtual teaching, multithreading, web-based instruction (www) instructional slides, and tutorial audio.

-There should also be a serious change in teacher education curriculum which will force the teacher educators to enhance themselves in the use of latest technology in teaching so as to produce teachers who are ICT compliant and can apply and adopt the same in the teaching learning process.

-Employments of teacher educators should be most carefully carried out, so that it is only teachers educators who have the knowledge of ICT and can adopt same in the teaching learning process that should find their ways teaching in our teacher preparatory schools in Nigeria. And lastly,

-There should be more monitoring given to teacher educators to ensure that they devote time to the use of technology in preparing the pre-service teachers found under their tutelage.

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