

Improving on the Practical Skills Profile of Student-Teachers in Technical Education: Challenges and Prospects

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Abstract

Federal Colleges of Education (Technical) in Nigeria is saddled with the responsibility of producing Nigeria Certificate in Education Technical teachers with the needed practical skills that enables them meet the set-out objectives in the National Commission for Colleges of Education (NCCE) minimum standards. Conversely, achieving the noble policy objectives of the NCCE has been a mirage due to some uncertainties. Therefore, this study seeks to explore senior workshop personnel's view on the challenges and prospects of improving on the practical skills profile of student-teachers. The study adopted a qualitative case study approach where data was generated from senior workshop personnel from automobile, building, electrical/electrical, metal works and woodwork technology departments who were purposively selected. The data was analysed thematically. Findings highlighted the presence of out-moded tools and equipment, non-functional machinery and inadequacy of workshop personnel training. Recommendations were also made..

Keywords: *Improving Skills, Challenges and Prospects*

Background to the Study

Education is a dynamic tool of change in technical education skills acquisition, hence government in different parts of the world invest massively in the type of type skills required for the present generation (Umunadi, 2013). According to Umunadi, the recipient of such programme must be exposed to curriculum content of technical education that will lead to the production of people who can initiate socio-economic development in their countries (2013). With this view among others, the present 2004 edition of Nigeria National Policy on Education (NPE) was reviewed to “repositioning

science, technical and vocational education in the scheme of national education for optimum performance” (NPE, 2004). According to the policy, vocational education is described as being a characteristic of education that promotes the acquisition of hands-on skills and applied scientific knowledge. This was because TVET was envisioned as a solution to technological competence in the school system and the tackling of the challenges of unemployment. The introduction of technical and vocational subjects in the six-three-three-four system impelled the demand for TVET teachers hence led to the establishment of technical teacher education programmes in Nigeria to award the Nigeria Certificate in Education (NCE) and Bachelor of Education (B. Ed) among others (Adah, 2007). With this conception in mind, Nwoke (as cited in Lilly & Efajemue, 2011) posited that the National Technical Teachers College (NTTC) presently Federal College of Education (Technical) Akoka-Yaba, Lagos was established as the first organised institution for the training of TVET teachers in Nigeria. The reason being that the technological advancement and development of any nation lies on the type of training given to its teachers (Lilly & Efajemue, 2011). Nigeria has had a long history of TVET teachers' shortage due to the limited number of technical and vocational institutions (as cited in Lilly & Efajemue, 2011). However, the need for intensive training of technical and vocational education and training (TVET) teachers culminated to the establishment of nine (9) more Federal Technical Colleges and two Colleges of Education (Technical) in Omoku, Rivers State and Potiskum in Borno State in 1989 (Lilly & Efajemue, 2011). This according to them gave birth to technical and vocational institutions; hence the need to train competent and skilled teachers in the TVET sub-sector of the country's education system (ibid). According to the National Commission for Colleges of Education [NCCE] (2012, p. 84) minimum standards for NCE Vocational and Technical Education the objectives of the program shall be to:

1. Produce qualified technical teachers and practitioners of technology capable of teaching Basic Technology in Junior Secondary Schools;
2. Produce technical NCE teachers who will be able to inculcate scientific and technological attitudes and values into the society;
3. Produce qualified technical teachers motivated to start the so much desired revolution of technological development right from Nigerian schools; and to prepare technical teachers so as to qualify them for a POST-NCE degree program in Technical Education.

In order to achieve the above stated objectives for NCE Technical program, a recommendation was made for the provision a unit workshop in each given area of specialisation and equip them in line with the equipment listed in the minimum standards (NCCE, Minimum Standards, 2012, pp. 114-7).

The above objectives if achieved will help reduce poverty and unemployment in our society since the program is conceived on the philosophical aim of TVET teacher education that is centred 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 (Lilly & Efajemue, 2011). However, it is worth noting that TVET program has faced huge challenges due to ill-equipped workshops, obsolete equipment, non-functional tools and machinery among others (Osami, 2013; Abassah, 2011; Idialu, 2007; Nworgu, 2007). Despite the recognition accorded TVET globally, the achievement

of its objectives as outlined in the NCCE minimum standard is farfetched if the facilities within the sector is not in good shape. Therefore, this study seeks to explore senior workshop personnel views on the challenges and prospects to improving the practical skills of student-teachers in Federal College of Education [Technical] (FCET), Omoku, Rivers State, Nigeria.

Objective of the Study

The objective of this study was to explore senior technical workshop personnel views on the challenges and prospects to improving on the practical skills profile of student-teachers' in FCET, Omoku, Rivers State, Nigeria.

Significance of the Study

The significance of this study is that it would provide a platform for making suggestions for improving on the present state of TVET facilities. This also will aid the production of TVET teachers with the needed practical skills, and also meet the desired objective of the NCE Technical program in Nigeria.

Methodology

The study adopted a qualitative case study design. The study was guided by one research question which sought to know the challenges and prospects to the improvement of practical skills in student-teachers. To answer the question, senior workshop personnel who have spent not less than twelve (12) years in the institution under study were purposively selected from the following departments: Automobile, Building, Electrical/Electronics, Metal Works and Woodwork Technology. These participants were selected based on the fact that they have direct bearing experience in the field and phenomenon under study (Charmaz, 2006). Data was generated through personal interviews conducted with each of the departmental senior workshop personnel. Comparison was made on the data collected from each of these personnel and analysis was thematically made.

Results

The study revealed the following: lack of modern facilities; lack of standard workshop facilities; inadequacy of tools and equipment; lack of training for workshop personnel; non-functional tools and equipment, among others. What these revelations imply is that producing student-teachers under such atmosphere will mean producing graduates without the needed practical skills that meets the objectives of the NCE technical program. These assertions can be justified from participants' excerpts below.

Four (4) amongst the five (5) participants bemoaned the level of facilities in their College. These are evident in the excerpts below:

“... When we talk about facilities here in this college, it is nothing to write home about.... nothing because what we are using here when I attended GTC Ahoada I saw all these things there... we needed the government to visit the work, workshop and reinstate the equipment, when I say equipment I mean the tools and the machines because what I am seeing here they are stagnant, no one working, we cannot rely on any machine there in the workshop that it is working....the tools are all blunt, they are dead materials, government need to look in, in terms of facilities in

technical education...so that they will have a good product they are producing for future...because when we are producing our students with this kind of facilities what will the future be?...I am closed to twenty years here, before I came to this school, the machines have been here...uptil now they are still the same...(MWWP)”

Similarly, on facilities, other participants have this to say:

“... for the proper performance of students in the technical education particularly the automobile workshop, because that is the highest industry in the world, the should be provision of equipment and other instructional materials.... government should provide dead vehicles (models), this will also facilitate teaching and learning in technical education.... The type of facilities we have now, ... you know that everyday things are increasing, the type of facilities we have now, some of them are obsolete.... (AWP)

Correspondingly, another Participant alleged:

“... I have served here for fifteen years, there are no good facilities, ...we improvise...on me for installation aspect, on my own I ask the students to buy their tools they use...but when it comes to other areas, the equipment is there but since they are obsolete it will not be precise (EWP)

Alternatively, another participant said:

“... the machines we are having here are not the machines we are supposed to have, like all these machines we're having here are for the elementary part of it, the place (workshop) is not well organised...we don't have enough machines to use here, the machines we're having here does not have the capacity to do strong work...instead of us to work here we take the work to where they have strong machines...(WWP).

From the excerpts above, it is evident that there is inadequacy in terms of facilities, also highlighted is the presence of out-moded tools and equipment, poorly built workshops and non-functional machinery among others. On the training of workshop personnel, these participants have this to say.

“... I went for the training 2011, but the training was that we are supposed to go for other training, the school was supposed to send us to another company.... that has been the only training I have been to when I was in level 6/7(EWP)”.

Similarly, the AWP assert that:

“...In respect of training, we have what is called staff welfare training. Every staff is entitled to training yearly, but because of the dwindling economy of the country, schools don't meet up again, but if you are opportune to go once a year or 2 timesit is of an advantage. The purpose for going for seminars and workshops is just to get acquainted with developments, what is happening in your own area of specialisation...the last time I went for training is far back 2001 at federal Government Technical College, Yaba, Lagos”.

On the training of workshop personnel, both excerpts highlighted that the institution is reluctant when it comes to the training of workshop personnel. This however, will hamper their function as workshop personnel which in turn will also affect their role as assisting student-teachers in their practical workshop task.

Discussion

Workshop Personnel in the institution under study were voluble about the condition training facilities and equipment in the College, this they considered a major hindrance to the development of practical skills in student-teachers. One of the problems highlighted by most of the participants was the presence of obsolete tools and equipment, poorly workshop, lack or poor delivery of consumable training materials. In agreement with the findings of this study is the findings of Osami (2013), who bemoaned the state of facilities in TVET institutions as part of the challenges to effective implementation of its programmes. According to Idialu (2007) and Afeti (2009), for effective TVET delivery, there is a need for adequacy in the provision of training facilities and appropriate workshop equipment to ensure quality training in TVET institutions. Idialu (2007) remarked that most training institutions in Nigeria are bedeviled by lack of training equipment, workshop and allied facilities and poorly equipped laboratories. Training cannot be properly done without the necessary facilities and equipment needed; it is on that premise that Olaitan (1996) noted that the environment where TVET is organized is not properly prepared in terms of being equipped with the necessary training facilities and equipment. Idialu (2007) remarked that enhancing the quality of teaching and learning demands teaching with real materials in an environment that is typical of the workplace. Blanton (as cited in Akamobi, 2005) remarked that there is a limit to which teachers can improvise; therefore teaching in an environment that looks like the workplace has the following potential: it adds interest and effectiveness to instructional programmes through the provision of different learning experiences by teachers; facilitates and makes learning more enjoyable for students; it eliminates inexperience among students; it stimulates the interests of students thereby bring out the will in them to contribute in their own learning.

On the training of TVET personnel participants also lamented on the College's lack of willingness to send them on training. In line with this, Berhe (2011) submits that the achievement of a quality TVET delivery is solely dependent on the provision of effectively trained teachers and other technical personnel that bear the charge of preparing students with the desired skills for the changing workforce. This assertion is supported by Strong and Wenrich (as cited in Antonios, 2006) who argued that quality TVET programs are distinguished by having to their credit highly trained, experienced, technically competent, and enthusiastic staff that range from coordinators, teachers and counsellors – all who partake in the training process. According to Berhe (2011), teachers and all other personnel of quality TVET programmes are expected to be masters of their work, meticulously skilled in every phase of their career, and well-informed regarding all technically related issues in their field. Achieving this will be very difficult in an environment with poorly built workshops with ill-facilities. Therefore, the attainment of success in TVET teacher education lies the quality of its training personnel (Atchoarena & Delluc, 2002).

Conclusion

The NCE technical program is such that if well implemented will yield the desired objectives as outlined in the NCCE minimum standard. Students in Technical Education program is supposed to be acquainted with modern technologies to keep pace with and carry out the needed technological revolutions in schools as enshrined in the NCCE policy document. From the findings of this study, it is obvious that the major challenges to improving student-teachers' practical skills profile is the lack of the needed facilities and deficiencies in the training of workshop personnel. In order to achieve these noble objectives outlined in the policy document, the following recommendations should be considered:

1. There is need for the government to mandatorily invest in the Colleges through the provision of modern technological facilities to ensure student-teachers are equipped with the needed practical skills.
2. Government should through the provision of funds to NCCE encouraged workshop personnel sponsorship to seminars, workshops and conferences among others so as to update their knowledge in their area of specialization.

There should be periodic monitoring and evaluation of teacher training institutions to ensure the objectives slated in the policy documents are made.

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