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Challenges of Enrolment in Technology Education in Nigeria: A Focus on Technical and Vocational Education Program in Colleges of Education

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Abstract:

The main purpose of this study was to investigate the challenges of enrollment in technology education in Nigeria with a particular focus on technical and vocational education (TVE) program being offered in colleges of education. A qualitative approach was applied to elucidate the views of the participants (administrators, teachers, and students in TVE). Purposive sampling technique was used to select six participants comprising 2 administrators, 2 teachers, and 2 students in TVE from colleges of education within the North Central Region of Nigeria. A semi-structured interview was used data gathering and constant comparative was used to analyze the data. The findings of the study indicated that personal interest, entry qualification, gender, age and economic status are the individual-related challenges of enrollment in TVE program. The participants identified family influence, economic status, peer group influence, public attitude towards TVE as societal-related challenges. Admission policy, capacity of training facilities, availability of instructional personnel, tuition and others charges are among the institutional-related challenges of enrollment in TVE program according to the participants. Governmental-related challenges were also found to include policies, funding, supervision, and evaluation of program. The study concluded by calling all the stakeholders in education especially TVE to be more committed their responsibilities so that, the challenges of enrollment in TVE program in colleges of education in Nigeria can be tackled individually and collectively.

Keywords: Challenges, enrollment, technology, vocational and technical education (TVE)

1. Introduction

The challenges of enrollment decline in technology education and its related educational programs seem to have become common issues among the developing nations of the world- Nigeria inclusive. For instance, African Economic Outlook (Outlook, 2010) reported that between the year 2001 and 2005, enrollment in technical and vocational education in North Africa was 22.95%, Latin America was 11.6%, South Eastern Asia was 9.5%, and Sub-Saharan Africa, Nigeria inclusive was 5.2% of the total enrollment in schools. In Nigeria, this ugly trend in enrollment into technical and vocational education (TVE) program seems to remain unchanged. In Nigeria, higher education students' preferences between year 2007 and 2010 clearly demonstrated that the youth continue to indicate more interest in non-technical academic programs than technical or technology-oriented programs. In 2007, 2008, 2009, and 2010, the students' preferences for university education were 911,679, 1,192,050, 1,184,651, and 1,330,531 respectively. Whereas, the students' preference for polytechnic, monotechnic, and college of education within the same period were 167,836, 310,022, 342,908, and 45,140 (Shu'ara, 2010). The record of students' preference for polytechnic, monotechnic, and college of education, especially in 2010 show a very disturbing situation of enrollment decline in these all important aspects of educational system in Nigeria. It has been observed that this enrollment decline syndrome in technology education has persisted over the years, most especially, in the technical and vocational education area in colleges of education.

Technology education is the aspect of education that prepares people with practical skills, knowledge and attitude required in the world of work (ILO, 2002; Ekuje & Akor, 2009). It is type of education that produces skilled personnel for various socio-economic activities in every society, especially in running and maintaining industrial machines and other facilities in both public and private sectors (Ojimba, 2013). The Federal Government of Nigeria (FGN) regards technology education in her National Policy on Education (NPE) as one of the tertiary education programs which incorporates post-secondary education in technology offered in polytechnics, monotechinics, and colleges of education technical (Nigeria, 2004). Technology education program in the polytechnics and monotechinics lead to award of National Diploma (ND) or Higher National Diploma (HND), while program in colleges of education leads to award of Nigeria Certificate in Education (NCE). The polytechnics and monotechinics train technicians and technologists for commerce and industries, while the colleges of education technical train vocational and technical teachers for the teaching profession, commerce and industries, and leadership.

Technical and vocational education (TVE) program offered in colleges of education is an integral part of technology education in Nigeria. Technical and vocational education in Nigeria has witnessed many years of transformation, from the pre-colonial era to

the post-colonial period of military regimes and the present day democratic dispensation. The pre-independence TVE witnessed a little development because the priority attention of the colonial administration in Nigeria was on literary education (Fafunwa, 1974). The colonial administration failed to adequately address the skill needs of Nigerian economic activities, even when in 1921 Phelps-Stokes Commission on Education recommended that education should be adopted to the needs of the people, and that objectives should include the development of character, promotion of healthy living and acquisition of industrial skills (Fafunwa, 1974). The report was not given the needed attention by the regime that could promote skill training and development in Nigeria. The major and noticeable changes in TVE in Nigeria came in the 1970s after the civil war. The adoption of the new policy on education in Nigeria in 1981 ushered in the establishment of technical and vocational schools such as technical colleges, colleges of education technical, polytechnics, monotronics, and universities of technology for the development of skilled manpower at all levels for the nation (Dung-Gwom, 2010). Since then, the federal as well as the state governments of Nigeria and the private sector have been involved in the establishment and running of TVE in Nigeria. Enrollment of students into these various institutions was initially enhanced for more than a decade, probably because there was a lot of motivational issues such as the reconstruction and rehabilitation program of the then military regime after the civil war, and the oil boom era. However, when the number of both public and private conventional higher institutions in Nigeria started increasing and when the motivational program of the government for technology education began to slim, enrollment into TVE was adversely affected gradually. The challenge of low rate of enrollment of students into TVE program in colleges of education in Nigeria today, can be perhaps, traced to several factors such as individual-related, societal-related, and governmental-related factors.

It has been observed that the challenges of TVE in most African countries are similar in many respects, and these have been adversely affecting the rate of enrollment of students into the program. Researchers have found that enrollment decline in TVE generally is majorly a function of societal negative attitude towards it (Igbinedion & Ojeaga, 2012 (Igbinedion & Ojeaga, 2012; Nyanjom, 2012). Technical and vocational education (TVE) has suffered a lot of relegation in many of the African nations including Nigeria. It is considered among many people as the education for those with low IQ, who cannot make it academically, for those from low income or economic backgrounds, for the disabled, and for school dropouts. The trend has remained unchanged in many societies across the globe. It is more appalling that even some elites lack the correct conception of TVE and its role in the development of economy in the society (Ogwo & Oranu, 2006). The implication of this negative societal attitude towards TVE can also be traceable to other factors like the low prestige accorded graduates of TVE, discrepancies in certificate ratings and rankings in workplace. The consequences of all these behaviors are very obvious, which include low interest in enrollment into TVE program among students or prospective candidates, shortage of skilled manpower, increase in youth unemployment, youth restiveness, increase in poverty rate, and insecurity and high rate of crimes among others (Fuandai, 2007; Ebenehi, & Oguiche, 2013; Ochedikwu, Ukuma, & Attah, 2013). If unemployment must reduce, then, the current trend of enrolment decline in TVE program must change by enhancing the subsequent rate of enrollment. The aim of this paper therefore, is to qualitatively investigate the challenges of enrollment into TVE program in colleges of education in Nigeria from the perspectives of the administrators, teachers, and students of TVE.

2. Statement of the Problem

Enrollment into TVE program in colleges of education in Nigeria has witnessed a steady decline annually for some years now. In addition to the statistics provided in the introduction to this study on enrollment decline in technology education, it has been reported by the National Bureau of Statistics (Statistics, 2009) that there has been an annual steady drop in enrollment into colleges of education from 355,560 students in year 2004 to 225, 362 in year 2008, and the trend has remained unchanged up till now, most especially in TVE program. The influential factors responsible for this ugly development or trend in TVE annual enrollment rate may include the personal attitude of the candidates towards the program, the environmental/societal factors, the admission policy of the institutions, and governmental-related factors (Azubuike, 2011). The decline in enrollment into TVE program of colleges of education in Nigeria, contributes in a great deal to the rate of unemployment among the youth. This is because those who are properly equipped with skills will usually have better chance for employment opportunities in the labor market (Opurum & Christopher, 2011). The consequences of youth unemployment are always very obvious in terms of security and socio-economic development of the nation (Audu, Kamin, & Balash, 2013). Eventually, there will be increasing rate of insecurity to life and property, youth restiveness, crimes and other anti-social behaviors in the society where unemployment thrives.

Furthermore, available research literature on TVE in Nigeria seems to have their major focus on conceptual issues about its different variables without any specific empirical investigation on the challenges of enrollment in colleges of education. There is a need therefore, to understand and to describe empirically through qualitative means, the perception of the administrators, teachers, and students on the challenges of enrollment of students into TVE program in colleges of education in Nigeria.

3. Purpose of the Study

The general purpose of this study is to ascertain the challenges of enrollment of candidates into TVE program in colleges of education from the perspectives of the administrators, teachers, and students of TVE in Nigeria. Challenges of enrollment in this context refer to problems regarding the process admission and registration of candidates into TVE program in colleges of education in Nigeria. This means barriers that are responsible for decline in the number of students that opt for or offer TVE program in colleges of education (Fuandai, 2007). Technical and vocational education is an integral part of technology education which incorporates post-secondary education offered in polytechnics, monotronics, and colleges of education technical. It is for practical skill training and occupational preparation in different kinds of occupational areas (Wakawa, Mshelizah, & Kumbi, 2010; Jande & Dechi, 2007; Ndomi, 2006). Technical and vocational education is the aspect of education that prepares its trainees with practical skills, basic scientific knowledge, values and attitudes required for real work life in the respective occupational

disciplines of training such as in agriculture, electrical, electronics, mechanical, building, wood work, home economics, business education, and fine arts (Aliyu, 2010). The specific objectives of the study are:

1. To determine administrators' views on the challenges of enrollment of students into TVE program in colleges of education.
2. To determine teachers' views on the challenges of enrollment of students into TVE program in colleges of education.
3. To determine students' views on the challenges of enrollment of students into TVE program in colleges of education.
4. To synthesize the views of the administrators, teachers, and students on the challenges of enrollment into TVE program in colleges of education.

4. Significance of the Study

The findings of this study will have both theoretical and practical benefits to technology education. Theoretically, the findings will add to the existing body of knowledge in technology education. Practically, the findings will benefit all the stakeholders and future researchers in technology education, particularly, TVE in Nigeria in the following ways:

1. The findings will help stakeholders especially managers of TVE in policy decisions, curriculum reviews, program implementation, supervision, and evaluation.
2. The findings will be helpful to future researchers in technology education as a reliable reference material.
3. The findings will help to indirectly address the unemployment problem among the youth by creating awareness of the importance of TVE in skill training and development among them.

5. Research Questions

The following research questions will guide the researcher's interview to elucidate the various opinions of the participants in this study:

1. What are the challenges of enrollment of students into TVE program in colleges of education from the views of administrators?
2. What are the challenges of enrollment of students into TVE program in colleges of education from the views of teachers?
3. What are the challenges of enrollment of students into TVE program in colleges of education from the views of students?
4. What are the challenges of enrollment of students into TVE program in colleges of education from the combined views of administrators, teachers, and students?

6. Methodology

This study adopts a qualitative method research approach and is based on the use of a semi-structured interview in order to ascertain the challenges of enrollment into technology education in Nigeria, particularly, into TVE in colleges of education. The participants for this study are drawn from colleges of education in the North Central Region of Nigeria. This region consists of six states and the federal capital territory Abuja. The states include Benue, Kogi, Kwara, Niger, Nassarawa, and Plateau. Purposeful sampling technique was used for the selection of the six participants which include 2 administrators, 2 teachers, and 2 students in TVE respectively. Purposeful sampling becomes necessary in a situation where the characteristics or special features of a subject grants him/her the qualification to be included in the sample (Fraenkel, Wallen, & Hyun, 2012). This ensures that only those elements relevant to the study are included. The interviews were conducted based on one-on-one to enable the participants provide their sincere opinions individually without other participants' knowledge. The interviews were conducted in the following order:

1. A Dean of school of technical and vocational education (an administrator).
2. A Head of department (HOD) in the school of TVE (an administrator).
3. A Teacher from business education department.
4. A Teacher from technical education department.
5. A 300 level student from technical education department.
6. A 200 level student from agricultural education department.

The interviews were guided by the research questions and the researcher used writing and recording to document the information gathered from the participants. The data was later transcribed and coded into four sub-headings by the researcher based on their categories, and the findings and discussions were stated.

7. Findings and Discussions

The findings and discussions of this study are organized under the following sub-headings with regards to the challenges of enrollment in TVE program in colleges of education based on the perspectives of the respective participants in response to the questions:

- (a) Personal-related challenges.
- (b) Societal/environmental-related challenges.
- (c) Institutional-related challenges.
- (d) Governmental-related challenges.

7.1. Personal-Related Challenges

Personal-related factors which were found as the challenges of enrollment in TVE program include interest, entry academic qualification, career aspiration, economy, age, and gender. The dean, the head of department, and the teachers agreed that personal interest, inability of candidates to obtain the required admission entry qualification, the career that the candidates intend to go into, economic status of candidates, that is their ability to finance the cost of training, consideration of age, and gender are among the

challenges of their enrollment in TVE program in colleges of education. The participants however, further pointed out that age and gender are not very serious factors among the challenges of enrollment in TVE program because, where there is interest, age or gender cannot constitute a serious barrier. The head of department added that the notion among Nigerians that certain careers or occupations and courses in TVE are gender-biased adversely affect enrollment in TVE program in colleges of education Nigeria. The teachers also added that enrollment in TVE program is usually hindered by lack of proper counsel from the appropriate quarters by the candidates, and their dislike for teaching profession, since they are aware that colleges of education are meant to train teachers. The views of the students on personal-related challenges of enrollment in TVE program were not quite different from those of the administrators and teachers. However, the students mentioned that lack of interest in technically-oriented program, dislike for teaching career, lack of sponsorship, and age are among the perceived challenges of enrollment in TVE program. This findings tends to agree with Azubuike (2011) who identified personal interest, aptitudes, abilities values and judgment of candidates as vital influential elements affecting attitudes towards TVE. Personal-related challenges of enrollment in TVE program in colleges of education therefore, are those factors that the candidates consider as barriers at the initial stage of planning for admission into the program. It deals with self-assessment of one's interest and ability or capability to run the TVE program successfully.

7.2. Societal/Environmental-Related Challenges

The views of the participants categorized under societal/environmental-related challenges of enrollment in TVE program showed that societal/environmental influence is a powerful force in any educational system. All the participants indicated that the family influence, economic and educational status of parents, peer group influence, negative public attitudes or comments about TVE, uncertainty of employment opportunities, career prospects, and low prestige accorded TVE are among the challenges of enrollment in TVE program in colleges of education. This findings is agreement with (Anyakoha & Eluwa, 2000) who also found that an average Nigerian family or parent would not like their child to earn a living as a full-time farmer, plumber, painter, and technician. Occupational parents with higher education in Nigeria, in most cases, would not encourage their children to take courses in TVE. They would rather want their children to be medical doctors, lawyers, bankers, among others, not even minding their children's personal interests, and abilities.

The peer group influence on enrollment in TVE program in Kenya for instance, constitutes 27.8% of the determinants students' enrollment (Nyanjom, 2012). This suggests that peer group influence actually constitutes a significant challenge to enrollment in TVE program not only in Nigeria but in other developing nations of the world. The youth who are the prospective candidates for enrollment can see and hear by their observations how the society regards TVE graduates or products, for example, the low prestige attached to practical skill careers as compared to high prestige to others. For the youth, prestige alone can be enough reason not to take any course or career in TVE, not to even talk of other issues such as job prospects, and the availability of opportunities to practice effectively. The negative attitude developed by the society towards TVE over a long time has made the people to easily believe that TVE is meant for those who cannot cope academically, economically disadvantaged group, physically disabled, and orphans in the society. These misconceptions of people about TVE add a lot to the present challenges of its enrollment in the colleges of education in Nigeria.

7.3. Institutional-Related Challenges

The views of the participants categorized under this sub-heading as challenges of enrollment in TVE program include admission policy or requirements of the colleges, capacity of training facilities, infrastructures, instructional personnel available, tuition fees, and advertisements. The administrators and teachers pointed out that when there is a very high admission requirements, enrollment will be adversely affected. They also saw the capacity of training facilities, availability of teachers, and infrastructural facilities such as water, electricity, office accommodations, classrooms and hostels as part of institutional-related challenges of enrollment in TVE program in colleges of education. Students agreed with the administrators and teachers but still added that high tuition and other charges, and lack of adequate advertisement of TVE program or sensitization of the public by institutions, contribute to the challenges of enrollment in TVE program. (Wakawa, Mshelizah, & Kubili, 2010) and (Aliyu, 2010) found that TVE program cannot be implemented effectively without fund. They pointed out that limited annual budgetary allocation to TVE, hampers its operation and one of the results is usually low enrollment into the program. Then, because the institutions will try to make do with what they have, they are usually forced to use the human and material resources available to them and consequently reducing enrollment figure to the level they can manage.

Observation has shown that students prefer that are institutions that are fairly equipped with training facilities and infrastructures, so the lack of these, will affect enrollment. In addition to that, students use advertisement a lot and if any institution fails to advertise, it is normally assumed that it lacks quality and attractive programs. In essence, inadequate advertisement or sensitization is a challenge to enrollment in TVE program in colleges of education in Nigeria.

7.4. Governmental-Related Challenges

The findings of this study categorized under this sub-heading include very weak policy designed for TVE in Nigeria, inadequate funding, admission policy, poor supervision, evaluation and curriculum reviews, lack of public enlightenment, training and re-training of teachers, inadequate provision of ICT equipment, lack of bursary awards, and program evaluation. The administrators and teachers have similar views on these factors affecting enrollment of students in TVE program in colleges of education. The dean mentioned that improper handling of each of the above factors will pose a lot of challenges to enrollment in TVE program. An example of Joint Admission and Matriculation Examination (JAMB) was given. "A situation where only JAMB conducts entry examination for university, polytechnic, and college of education does not help enrollment into TVE because the objectives

of each these types of education are different one from another”. Then, he further opined that specialized education like TVE should have a specialized examination body to handle the entry screening examinations instead of JAMB.

The administrators and the teachers further stressed that each time government decides to set higher cut-off point for university admission and lower cut-off point for polytechnic and college of education admissions annually, what usually comes to most people’s minds is that university education programs are more important or superior to polytechnic and college education programs. As a result of that, one of the obvious consequences is that more candidates will prefer university education to TVE program, which is a challenge to enrollment in TVE. The participants also pointed out that inadequate annual budgetary allocation to education generally and to TVE in particular is a challenge to enrollment into TVE program, because fund is required to run the TVE programs. They added that inadequate training and re-training of TVE teachers are part of the challenges of enrollment in TVE program in colleges of education in Nigeria.

All the students held similar perceptions that certificate discriminations, lack of motivation, such as special bursary or scholarship awards to TVE students, and inadequate public re-orientation or enlightenment on the importance of TVE are parts of the challenges of enrollment into its program in colleges of education. These findings are consistent with (Jande & Dechi, 2007), and Igbinedion, and Ojeaga (2012) who found that inadequate funding, poor societal perceptions, superiority claim by university graduates, poor entry level, lack of recognition, discriminations and lack of enlightenment are the challenges of enrollment in TVE program. Observation has shown that TVE program is capital intensive because of the instructional equipment and materials, therefore, careful plan is required in its establishment and running.

8. Summary

This study investigated the challenges of enrollment in technology education in Nigeria with a particular focus on TVE program in colleges of education. Qualitative research approach was used to conduct the study, and semi-structured interviews and observation were used for data gathering from the six participants. The data gathered were transcribed and classified under four categories. The categories include personal-related challenges, societal/environmental-related challenges, institutional-related challenges, and governmental-related challenges of enrollment into TVE program in colleges of education in Nigeria.

Findings under personal-related challenges of enrollment into TVE program include interest, entry academic qualification or requirements, economy, and career aspiration of the individual candidate. Findings under societal/environmental-related challenges of enrollment into TVE program were family influence, peer group influence, public attitudes and comments about TVE. Institutional-related challenges include admission policy or entry requirements, capacity of training facilities, instructional personnel availability, fees or tuition, infrastructures, and advertisement of TVE program. Findings under governmental-related challenges of enrollment into TVE program include admission policy of cut-off points, funding of the program, training and re-training of personnel, supervision, curriculum review and evaluation of TVE program, public re-orientation or enlightenment, and special bursary or scholarship awards to TVE students as a means of motivation.

9. Conclusion

The challenges of enrollment in technology education especially TVE program of colleges of education in Nigeria are hydri-headed because they emanate from many sources, therefore, multi-dimensional approach is needed to tackle them. Enrollment decline in technology education, particularly, TVE in colleges of education in Nigeria are due to challenges encountered from the inactions of the stakeholders in education (government, society, institutions, and students) at their various levels. The challenges can be surmounted if appropriate actions are taken by the stakeholders to address the specific challenges found to be directly or indirectly relating to each of them respectively. For instance, government needs to improve funding to adequately meet the basic requirements of TVE, to also embark on serious enlightenment campaign and re-orientation of the society towards understanding the correct concept and importance of TVE. Institutions likewise, need to regularly organize seminars, workshops, conferences, and career guidance counseling services for the school community and the larger society on the importance of TVE in economic development of individuals and the society (Ukuma, Ochedikwu, & Deke, 2013). If all the stakeholders in technology education, especially, TVE pragmatically opt for a change towards improving enrollment into its program in colleges of education in Nigeria, the present challenges will become a thing of the past, and more skilled manpower will be produced for the nation’s rapid economic development. The outcome will be gradual reduction in the current rate of unemployment and poverty among Nigerian youth. Therefore, all hands must be on deck to ensure that enrollment challenges in TVE in colleges of education in Nigeria is overcome.

10. References

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