

QUALITATIVE INSTRUCTIONAL DELIVERY IN TVET: A VERITABLE TOOL FOR COMBATING ECONOMIC RECESSION IN ANAMBRA STATE, NIGERIA.

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Abstract

Technical, Vocational Education and Training (TVET) plays an important role in technological advancement and economic sustainability of many nations. Yet Nigeria like many other developing nations is faced with unemployment and some anti-social behaviours especially in this global economic crisis. Therefore, this study attempts to find out how to combat economic recession through qualitative instructional delivery in TVET. Three research questions and three null hypotheses tested at 0.05 level of significance using z-test statistics guided the study. Survey research design was used with a population of 181 TVET teaching staff in two Colleges of Education (COEs) in Anambra State, Nigeria. No sampling was done because the population was manageable. A 28- items questionnaire tagged “QIDTVET”, drawn on a 4-point scale was used for data collection by the researchers. Face and content validity of the research instrument was carried out by two experts in the department of Technology and Vocational Education, Ebonyi State University, Abakaliki. Reliability of the instrument was established using test re-test method which yielded a coefficient (r) value of 0.87 using the Pearson Product Moment Correlation Coefficient. Data were analyzed using mean rating and standard deviation to answer the research questions while z-test statistics for the hypotheses. The study revealed that teachers’ quality, infrastructural facilities and teaching methods have greater roles to play in attaining quality in instructional delivery in TVET. Thus it was recommended among others that government agencies should fully support the COEs through adequate budgetary allocations and fund for the procurement of instructional facilities which will aid qualitative delivery of

instruction; also regular training and retraining of teaching staff should be organized on the effective use of these facilities and modern teaching methods to ensure adequate inculcation of skills and knowledge to students who should be economically viable in the country.

Keywords: TVET, quality, instructional delivery, teaching methods, economic recession

Introduction:

Skill and knowledge acquisition are the propelling forces for economic growth and social development of any nation. The national policy on education highlighted Nigeria's desire to achieve her national goals through education hence the need for the acquisition of appropriate skills, abilities and competencies both mental and physical. Thus skills and abilities acquired by individuals enable them to live and contribute to the development of the society. To this end, Ayomike, Okwelle and Okeke, (2013) agreed that skills and knowledge are the engine for economic growth and social development of any nation. Such skills and knowledge are found in Technical, Vocational Education and Training (TVET).

Technical, vocational education and training (TVET) is concerned with the acquisition of knowledge and skills for the world of work to increase opportunities for productive empowerment and socio-economic development in knowledge-based economies and rapidly changing work environment (Maclean & Kerre, 2009). Also TVET is a system of education designed to impart necessary skills and competencies leading to the production of craftsmen, technicians and technologists who will be enterprising and self-reliant, thus having the greatest potential to generate employment, reduce poverty and youth restiveness (Federal Ministry of Education, 2009). According to Audu, Aede, Yusri and Mohammad (2013), it is that type of education which leads to the acquisition of applied skills that will enable its recipients to secure employment in an occupation. Hence TVET is an important skill oriented education with prospect of stimulating employability and national development (Raimi & Akhuemonkhan, 2014). According to Raimi & Akhuemonkhan, TVET is split into various skills such as: life skills, work skills, soft skills and specific technology skills at lower or higher levels. Emphatically, Raimi & Akhuemonkhan opined that the goal of producing creative, innovative and resourceful graduates will be achieved when quality training in TVET is enhanced.

The quality of knowledge which is generated in TVET institutions is critical to national development and competitiveness. Asiyai and Oghuvbu (2009) defined quality as a measure of how good or bad the products of higher education institutions are in terms of their academic performance and meeting established standards. Quality delivery is a prerequisite for effective productivity in education industry and hence quality education is an instrument for effecting national development. According to Ekong (2006), quality builds knowledge, live skills, perspectives, attitudes and values. When quality education is delivered high enough to meet set standards, the products should be able to perform well in the world of work in real life situation. When quality is low, performance cannot meet the set standards. To this end, Eze and Akamobi

(2014), stressed that quality in teaching, therefore, can be described as a way of managing the educational sector and the services provided to ensure that they are kept at high standard that will positively affect its products. It is only quality TVET that can produce skilled workforce and entrepreneurs that will help transform the nation economically through job creation. In support of this assertion, Maclean (2011) agreed that well positioned TVET could play multidimensional roles of stimulating economic growth, social development, wealth creation, poverty reduction and skills enhancement.

However, the scourge of unemployment, anti-social behaviors, kidnapping, terrorism, among other vices in Nigeria are so brutal that economic prosperity is hindered. It is believed that only quality TVET can remedy the situation hence the need to improve the quality of instructional delivery. Lack of quality TVET is observable in the poor state of workshop facilities, tools and equipment in TVET institutions in Nigeria (Umunadi, 2011), In support of this statement, Umar and Ma'aji (2010) affirmed that most of the TVET institutions in Nigeria have been forced to perform below standard due to non-availability, poor management and often neglect of TVET facilities needed for effective skill acquisition by students. Hence there is the need to provide adequate facilities, quality teachers, tools and equipment for effective implementation of TVET programmes in Nigeria. According to Idialu (2012), quality TVET entails high quality in standard of teaching by qualified teachers using available materials, adequate teaching methods, and proper evaluation of students of the programme. Idialu advised that assessment of quality teaching should be an ongoing multidimensional programme and its effectiveness in achieving set goals depend largely on quality instructional delivery by teachers using adequate materials and resources. Adegoke (2002) stated that the quality of TVET experts is a major factor affecting the development and quality of TVET in Nigeria and other parts of the world. As a result of inadequate qualified personnel, most of the equipment and machines in some institutions are easily abandoned because they lack competent hands to operate them.

Prior to the global economic crisis, the federal government of Nigeria had already engaged in a cycle of ongoing review of curriculum, pedagogy and assessment practices to ensure quality in TVET. Such reviews according to Udoka (2010) were aimed at increasing coherence between different aspects of school practices providing a more focused and big picture framing of instructional delivery in schools. Besides, the National Board for Technical Education (NBTE) in furtherance of her mandate of enhancing quality of TVET in Nigeria had organized conferences on capacity building, use of modern technology in instructional delivery, among others for TVET teachers. Despite all these programmes by NBTE, poor pedagogical skills among TVET teachers have continued to affect instructional delivery in training institutions (Yakubu, 2009). To this vein, Yakubu stressed the need for Nigerian government to increase support structures and financial resources that are necessary for TVET expectations to be met.

Undoubtedly, today's economy is full of sophistication with a lot of competition among job seekers the world over. Thus TVET teachers must strive hard to ensure that students are

equipped with the necessary skills and knowledge within their trades in order to face the challenges of the labour market (Omo-Ojugo & Ohiwerei, 2008). However, Osakinle, Omijigin and Falana (2010) stated that teachers in Nigeria deliver lesson mainly through verbal instruction due to non-availability of teaching and learning materials while the students serve as passive listeners. In support of this assertion, Alseddiqi and Mishra (2010) postulated that the current teaching and learning processes in technical and vocational education is still conducted using traditional way without teachers injecting new approaches which thus deprive the students from learning the current skills needed for employment. To this end, (Shiyan, 2010) advocated for proper selection of teaching methods by TVET teachers so as to broaden students' horizon and develop critical thinking among them. This, according to Shiyan will create vision for both teachers and students in order to promote talents and business potentials. Also Kennedy (2011) advocates for proper selection of teaching methods for a particular classroom situation to enable the teachers accomplish specific goals in their subject areas. Thus the production of skilled manpower through the use of appropriate teaching methods and facilities by well trained teachers will ensure their maximum contribution towards the economic survival of the nation in the face of global economic crisis.

Statement of the Problem:

Qualitative instructional delivery in TVET institutions is one of the matters of concern which continues to draw attention to government and various TVET stakeholders in Nigeria. The commitment of TVET affairs to NBTE to manage since 1977 with a vision to enhance quality for sustainable development, economic growth and leadership has not maximally yielded the desired result. This is evidenced in increasing unemployment rate, anti-social behaviors, kidnapping, terrorism and other vices that are inimical to economic, social, political and educational development in Nigeria. This situation could have been brought about by a number of factors which include poor governance, insufficient funding, inadequate instructional facilities/materials, unsuitable teaching methods, unhealthy learning environment and lack of teachers with appropriate skills. This calls for continual improvement in the quality of TVET delivery in Nigeria through the use of adequate facilities and quality staff. According to Idialu (2012), quality TVET cannot be guaranteed without a conscious effort to improve the quality and quantity of personnel to meet the desired expectations.

To find solutions to all these societal ills is the main thrust of this study. Therefore, there ought to be a fundamental change in instructional delivery process in TVET. This should be so because today's work place demands individuals with creative thinking and problem solving skills to support lifelong skills development and focus on future market needs. Hence there is a clarion call for qualitative instructional delivery in TVET as a way out of the present economic recession in Nigeria.

Purpose of the Study:

The purpose of this study is to find out how qualitative instructional delivery in TVET can help in combating the present economic recession in Nigeria. This study specifically intends to investigate:

1. Teachers' qualities as vital tool in achieving qualitative instructional delivery in TVET.
2. Infrastructural facilities as vital tool in achieving qualitative instructional delivery in TVET.
3. Teaching methods as vital tool in achieving qualitative instructional delivery in TVET.

Research Questions:

The following research questions were posed to help the researchers realize the purpose of this study:

1. What are the teachers' qualities considered vital for qualitative instructional delivery in TVET?
2. What are the infrastructural facilities considered vital for qualitative instructional delivery in TVET?
3. What teaching methods are considered vital for qualitative instructional delivery in TVET?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

1. There is no significant difference in the mean responses of lecturers from Colleges of Education in Anambra State, Nigeria on teachers' quality considered vital for qualitative instructional delivery in TVET.
2. There is no significant difference in the mean responses of lecturers from Colleges of Education in Anambra State, Nigeria on infrastructural facilities considered vital for qualitative instructional delivery in TVET.
3. Significant difference does not exist in the mean responses of lecturers from Colleges of Education in Anambra State, Nigeria on teaching methods considered vital for qualitative instructional delivery in TVET.

Significance of the study

The findings of this study will be beneficial to TVET teachers, Nigerian youths, Government and her agencies.

The findings of this study will assist TVET teachers to assess their areas of weakness and deficiencies and work hard for the improvement of their competencies and qualities. The findings of this study will also be of vital importance to Nigerian youths in their quest for self-employment and self-fulfillment which would provide antidote for the mass unemployment problems plaguing the economy and nation. The outcome of this study will sensitize the government and other educational agencies especially NBTE on the need to retrain TVET teachers on the current methods used in instructional delivery and provide adequately equipped workshops and facilities.

Methods

A descriptive survey research design was adopted for this study. According to Gall; Gall and Borg (2007), survey research design focuses on people, their opinion, attitudes and behaviours. This design was appropriate for the study since questionnaire was used to seek opinion of the two groups of respondents. The study was conducted in the two colleges of education in Anambra state, namely: Federal College of Education (T), Umunze and Nwafor Orizu College of Education, Nsugbe (State College)

The population of the study comprised all the teaching staff (lecturers) in TVET programmes (Technology education, Agricultural Science Education, Home Economics Education, Fine and Applied Arts Education as well as Business Education) in the two Colleges of Education in Anambra State. There are 138 TVET lecturers in FCE (T), Umunze and 43 in NOCOE, Nsugbe. The entire population of 181 was used for the study so no sampling was done.

Data used for the study was collected by means of a 28-items structured questionnaire developed by the researchers titled "Qualitative Instructional Delivery in TVET "QIDTVET". A four-point rating scale weighted as follows: Very Adequate(VA)=4, Adequate (A)=3, Inadequate (I)=2, Very inadequate (VI)=1 was used as response options. Face and content validity of "QIDTVET" were established by two experts from the department of Technology and Vocational Education, Ebonyi State University, Abakaliki. Suggestions and corrections made by the experts were used to produce the final copy of the instrument. The instrument was administered on 30 respondents from College of Education in Enugu State. The reliability of the instrument was determined using test re-test method which yielded a coefficient value of 0.87 using the Pearson Product Moment Correlation Coefficient formular to determine the dependability and trustworthiness of the research instrument.

A total of 181 copies of the instrument were administered directly to the respondents by the researchers with the help of three research assistants and this ensured a 100% return. Data generated were analyzed using mean and standard deviation for answering the research questions and z-test statistics to test the hypotheses at 0.05 level of significance. Any mean rated 2.50 or above ($x \geq 2.50$) was regarded as adequate while mean rated below ($x < 2.50$) was considered

inadequate. Also if z-calculated value was equal or greater than the critical z-value, the null hypothesis was rejected but if otherwise, the null hypothesis was accepted.

Results and Discussion

The findings of the study based on analysis of data to the research questions and hypotheses were presented in the tables below:

Research Question 1: What are the teachers’ qualities considered vital for qualitative instructional delivery in TVET?

Table 1: Mean responses on teachers’ qualities considered vital for qualitative instructional delivery in TVET

S/N	Item Statement	Federal College			State College		
		Mean	SD	Decision	Mean	SD	Decision
1	Professional and teaching experiences	2.42	0.50	Inadequate	2.36	0.86	Inadequate
2	Research experience	2.30	0.85	Inadequate	2.12	1.48	Inadequate
3	In-service training	2.10	0.52	Inadequate	1.86	0.74	Inadequate
4	Attendance to seminars, workshops and conferences	2.25	0.87	Inadequate	2.26	0.51	Inadequate
5	Basic knowledge and skills	2.15	0.80	Inadequate	2.45	1.06	Inadequate
6	Teaching of saleable skills	2.34	0.77	Inadequate	1.74	1.14	Inadequate
7	Helping students to develop self confidence	1.59	0.67	Inadequate	1.52	0.89	Inadequate
8	Developing divergent skills in students	1.43	0.83	Inadequate	1.58	0.77	Inadequate
9	Use of instructional materials	2.00	0.96	Inadequate	2.14	0.82	Inadequate
10	Monitoring and evaluation of Students’ activities	2.06	0.83	Inadequate	1.68	0.54	Inadequate
Grand Mean		2.06			2.10		

Table 1 above reveals that all the items relating to teachers’ qualities considered vital for qualitative instructional delivery in TVET are inadequate. This implies that teachers who teach in Colleges of Education do not have adequate research experience, in-service training, basic teaching and saleable skills. The teachers do not sufficiently attend seminars, workshops, conferences or in-service training. No doubt the quality of teachers has very serious impact on instructional delivery. Hence Adegoke (2002) stated that teachers need to be adequately qualified

for the job of impacting knowledge in TVET. According to Adegoke, quality focuses on the qualification, experiences, competencies, capacities and acquisition of desirable skills to carry out certain tasks. However the continuous shortage of qualified TVET teachers is a major factor affecting the development of quality of TVET in Nigeria. As a result of inadequate qualified personnel, most of the equipment and machines in some TVET institutions are easily abandoned because they lack competent hands to operate them. So the need for qualified technical manpower in the present stage of development is very important as Nigeria strives to combat economic down turn. Hence quality cannot be guaranteed when the quality and quantity of personnel are inadequate to meet the desired expectations.

Research Question 2: What are the infrastructural facilities considered vital for qualitative instructional delivery in TVET?

Table 2: Mean responses on infrastructural facilities considered vital for qualitative instructional delivery in TVET

S/N	Item Statement	Federal N=138			College N=43		
		Mean	SD	Decision	Mean	SD	Decision
1	Functional library with modern textbooks	2.70	0.60	Adequate	2.56	1.05	Adequate
2	Workshops, classrooms, and laboratories	2.42	0.55	Inadequate	1.98	0.84	Inadequate
3	Instructional packages such as computers, projectors, CD	1.38	2.18	Inadequate	2.00	0.66	Inadequate
4	Tools, consumable materials and equipment	2.26	0.40	Inadequate	2.15	0.68	Inadequate
5	Power supply	1.89	0.70	Inadequate	2.08	0.55	Inadequate
6	Educational software, video tapes, recorders	2.30	0.82	Inadequate	2.22	0.77	Inadequate
7	Recreational facilities	1.84	0.63	Inadequate	1.68	0.88	Inadequate
8	Conducive staff offices	2.30	0.65	Inadequate	2.18	0.86	Inadequate
9	Consumable materials	2.42	0.77	Inadequate	2.06	0.54	Inadequate
Grand Mean		2.26		2.10			

Results in table 2 above revealed that most infrastructural facilities needed for qualitative instructional delivery are grossly inadequate. Such facilities include workshops, classrooms, instructional packages, tools, materials, equipment, conducive staff offices, educational software and recreational facilities. Electricity which is very vital in TVET instruction is very inadequate in supply. With all these inadequacies, quality instruction may not be delivered to the students

effectively. However the respondents agreed that a functional library with modern textbooks exist. These findings are in line with the studies of Umar and Ma’aji (2010) as well as Umunadi (2011) who affirmed that non availability or poor state of workshop facilities, tools and equipment in TVET institutions have forced the institutions to perform below expected standard. Supporting this view, Osakinle et al (2010) observed that teachers in Nigeria mainly deliver lesson through verbal instruction due to non-availability of teaching and learning materials while the students serve as passive listeners. Therefore, adequate facilities in terms of space, materials, tools and equipment should be provided by stakeholders to enhance instructional delivery in TVET in Nigeria.

Research Question 3: What are the teaching methods considered vital for qualitative instructional delivery in TVET?

Table 3: Mean responses on teaching methods considered vital for qualitative instructional delivery in TVET

S/N	Item Statement	Federal College			State College		
		Mean	SD	Decision	Mean	SD	Decision
1	Use of project based method	3.42	0.42	Adequate	3.10	0.54	Adequate
2	Use of multimedia(computer based method)	2.37	0.35	Inadequate	2.26	0.66	Inadequate
3	Field trips	1.38	0.68	Inadequate	1.45	0.64	Inadequate
4	Dramatization of instruction	2.00	0.29	Inadequate	1.48	0.44	Inadequate
5	Individualized instruction	1.35	0.43	Inadequate	1.20	0.58	Inadequate
6	Experimental method	2.16	0.63	Inadequate	2.00	0.55	Inadequate
7	Discussion method (Brain Storming)	2.45	0.82	Inadequate	2.40	0.84	Inadequate
8	Lecture method	3.60	0.77	Adequate	3.55	0.67	Adequate
9	Seminars	2.02	0.68	Inadequate	2.36	0.72	Inadequate
Grand Mean		2.31			2.20		

Table 3 revealed that TVET teachers only use project and lecture methods adequately but failed to use other teaching methods such as field trips, multimedia, drama, experiment, individualized , seminars and discussion (brain storming) methods adequately. Notably, today’s economy is full of sophistication with a lot of competition among job seekers all over the world. This calls for new approaches in instructional delivery so as to equip students with current skills for the job market. These findings are in line with those of Shiyan (2010) as well as Alddiqi and Mishra

(2010) who advocated for proper selection of teaching methods and new approaches by TVET teachers so as to broaden students’ horizon and develop critical and creative thinking among them. Similarly, Kennedy (2011) advocates for proper selection of teaching methods for a particular classroom situation to enable the teachers accomplish specific goals in their subject areas. Therefore, for TVET instructional delivery to be improved in Nigeria, the teachers need to learn new methods of imparting the necessary knowledge and skills in the students to enable them survive in the face of global economic crisis.

Hypotheses Testing

Hypothesis 1: There is no significant difference in the mean responses of lecturers from Federal and State Colleges of Education in Anambra State, Nigeria on teachers’ quality considered vital for qualitative instructional delivery in TVET.

Table 4: Summary of z-test of significance between lecturers in Federal and State Colleges of Education regarding teachers’ qualities considered vital for qualitative instructional delivery in TVET.

Group	N	Mean	SD	DF	Z-cal	Z-crit	Decision
Federal College of Education	138	2.06	1.06	179	0.56	1.96	Not Significant
State College of Education	43	1.97	0.88				

N=181, df=179, P<0.05 * Accept

The result in table 4 showed that the calculated z-value (0.56) is less than the critical z-value (1.960) at 0.05 level of significance. Therefore the null hypothesis was accepted indicating that there was no significant difference between the mean responses of lecturers of both Colleges on the teachers’ qualities considered vital for qualitative instructional delivery.

Hypothesis 2: There is no significant difference in the mean responses of lecturers from Federal and State Colleges of Education in Anambra State, Nigeria on infrastructural facilities considered vital for qualitative instructional delivery in TVET.

Table 5: Summary of z-test of significance between lecturers in Federal and State Colleges of Education regarding infrastructural facilities considered vital for qualitative instructional delivery in TVET in Anambra State, Nigeria.

Group	N	Mean	SD	DF	Z-cal	Z-crit	Decision
Federal College of Education	138	2.26	1.04				
				179	0.89	1.960	Not Significant
State College of Education	43	2.10	1.00				

N=181, df=179, P<0.05 * Accept

Table 5 showed that the calculated z-value (0.89) is less than the critical z-value (1.960) at 0.05 level of significance. The null hypothesis was therefore accepted indicating that there was no significant difference between the mean responses of lecturers of both Colleges on the infrastructural facilities considered vital for qualitative instructional delivery.

Hypothesis 3 Significant difference does not exist in the mean responses of lecturers from Federal and State Colleges of Education in Anambra State, Nigeria on teaching methods considered vital for qualitative instructional delivery in TVET in Anambra State, Nigeria.

Table 6: Summary of z-test of significance between lecturers in Federal and State Colleges of Education regarding teaching methods considered vital for qualitative instructional delivery in TVET.

Group	N	Mean	SD	DF	Z-cal	Z-crit	Decision
Federal College of Education	138	2.31	0.68				
				179	0.92	1.96	Not Significant
State College of Education	43	2.20	0.72				

N=181, df=179, P<0.05 * Accept

The result in table 6 showed that the calculated z-value (0.92) is less than the critical z-value (1.960) at 0.05 level of significance. Therefore the null hypothesis was accepted. This implies that there was no significant difference between the mean responses of lecturers of both Colleges on the teaching methods considered vital for qualitative instructional delivery in TVET in Anambra State, Nigeria.

Conclusion and Recommendation

From the foregoing, the need for qualitative instructional delivery in TVET cannot be overemphasized as the performance indicators of the programme will leave so much to be attended to, in answering questions of quality output. Since TVET is paramount in economic development of a nation, all stakeholders and institutions should put up concerted effort in ensuring quality in the programme. In order to create a TVET programme that can create an impact on the nation's economy, quality must be created and imbedded in TVET through the use of teaching methods, adequate facilities, conducive learning environment and quality teachers. TVET has a major role to play in reducing unemployment and security challenges thereby enhance economic growth in Nigeria. Based on the findings of this study, the following recommendations were made:

1. Government and Stakeholders should continue to provide adequate facilities, tools and equipment so as to create conducive learning environment for both staff and students.
2. Government should regularly maintain available facilities for optimum performance
3. Use of modern technology in teaching should be enforced by regulatory agencies such as NBTE.
4. Government and her agencies should engage in training and retraining of TVET teachers periodically through seminars, workshops and conferences on the use of modern teaching methods to enhance their performance.
5. Government should strengthen monitoring and evaluation systems to provide information systematically on the cost effectiveness of alternative training initiatives in TVET.
6. Government should set up production units and skill acquisition centers in all TVET institutions

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