

## Challenges Encountered by Teachers Teaching Basic Technology in Ovia North East Local Government Area of Edo State, Nigeria

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### Abstract

*The study examined challenges of teaching Basic Technology in Ovia Northeast Local Government Area of Edo State, Nigeria. A total of 20 teachers were selected from 10 schools both in Urban and Rural locations, both male and female teachers were selected randomly. A questionnaire was used for data collection. The data was analyzed using mean and standard deviation. 3 research questions were raised to guide the study. Some of the findings revealed that there is low level of E-learning facilities in public secondary schools in Ovia Northeast Local Government Area of Edo State, though teachers in rural areas are academically qualified to teach the subject but they lack social amenities. Based on the findings the researcher recommended that all students and teachers in public secondary schools in Ovia should be encouraged to own a laptop or a tablet and that the Government should provide social amenities, like electricity in the rural areas in all the Local Government Areas of Edo State.*

**KEYWORDS:** Challenges, Teaching, Basic Technology, Basic amenities

### Background to the Study

Education is the process by which the society assists individuals to learn about the past, the present and contribute meaningfully to the development of the society. Basic Technology is a

component of pre-vocational education and is one of the compulsory subjects taught in junior secondary schools in Nigeria. The main purpose of Basic Technology at this level is to make the young learners create change in their learning environment. Basic Technology is taught in the Junior Secondary School with the incorporation of many subjects such as, woodwork, metal work, electrical/electronics, mechanics, technical drawings and local crafts to mention but a few to enable students of that school age to be abreast with basic skills for useful living in the society.

The objectives of Basic Technology are:

- 1) To provide pre-vocational orientation for further training in technology.
- 2) To provide basic technological literacy for everyday living.
- 3) To stimulate creativity and innovation (Federal Republic of Nigeria, 2010)

Technical, Vocational Education and Training (TVET) is understood as comprising education, training and skills development relating to wide range of occupational field, production and services. TVET, as part of lifelong learning, can take place at secondary, post- secondary and tertiary levels and its also includes work-based learning, continuing training and professional development which may lead to qualifications. TVET also includes a wide range of skills development, opportunities tuned to national and local contexts. the development of literacy and numeracy skills transversal skills and citizenship skills are integral components of TVET UNESCO (2015).

The objectives of Basic Technology are impressive, but there are certain challenges that can inhibits the proper achievement of these objectives such as teaching facilities and materials that enhance students' academic performance such as school buildings which includes; classrooms, libraries, workshops, laboratories and so on. The classroom provides a safe space for learning, other materials like white boards, good sitting arrangement, good ventilation are provided in the classroom to enhance students' academic performance; workshop and laboratories are vital for the teaching and learning of basic Technology. Students of Basic Technology are exposed to the use of tools and equipment in laboratories and workshops. Library enables the teachers to consult materials, it is also an avenue for the students to have access to textbooks. Library helps to broaden the knowledge of teachers and students. Okwelle (2010) sees infrastructure as the facilities available for instruction which has a strong influence on student's academic performance. It is common knowledge that what is physically touched can easily be remembered. therefore, there is the need to teach students of Basic Technology with tools and equipment in the workshop rather than teaching

them in abstract School facilities, which may have great impact on academic performance of students also utilizing inadequate facilities may yield poor performance among students.

School environment is the place where formal teaching and learning takes place. It is designed to provide for efficient and effective learning. It comprises of the work environment that is: the school atmosphere, quality and style of buildings and the general ethos that pervade the school environment. And technical environment which constitute the physical aspect of the environment comprising of school location and school facilities. Adequate facilities in the classroom/school enhance the comfort, safety of students and teachers, thereby increasing their performances. The classroom provides a safe space for learning. Other materials like white boards, good sitting arrangement, good ventilation is provided in the classroom to enhance students' academic performance. Workshop and laboratories are vital for the teaching and learning of Basic Technology. Students of Basic Technology are exposed to the use of tools and equipment in laboratories and workshops. Library enables the teachers to consult materials, and an avenue for the students to have access to textbooks. Library helps to broaden the knowledge of teachers and students. Equipment and tools simulate students' senses and generate greater interest in the learning system and assist in the retention of knowledge. Nigeria as a country cannot meet the objectives of Basic Technology without teaching facilities and equipment. Olajide S, O, Olanipekun B.V and Obafunmilay A O. (2021) noted that school facilities are crucial to students' academic performance in Basic Science and Technology. Umunadi (2011) noted that lack of facilities and equipment was a significant problem in the Nigerian Education system. He reported that schools are being starved of equipment and facilities. Equipment such as hand tools, power tools are necessary for students' practice. It is common knowledge that what is physically touched can easily be remembered. In Okeojom and others (2016), the authors recommended that the status of Basic technology in Cross Rivers State junior secondary schools, Nigeria. Therefore, there is the need to teach students of Basic Technology with tools and equipment in the workshop rather than teaching them in abstract. The following are some of the challenges that could be faced, and they include:

1. School Environment challenge, 2. Teachers factor Challenge and
3. ICTs related Challenge

**School Environment:** School environment challenge is mainly the absence of a conducive learning environment which is clean, noise free and have all school facilities, laboratories, tools and equipment that are used for teaching and learning. School environment refers to the materials

resources available to the students and teachers in the school that aids the learning process. Such as classrooms, the libraries, and the laboratories (for sciences) are the three major areas of facilities identified in the school environment (Onyeji, 2019). School facilities play a major role in the actualization of educational goals and objectives by satisfying the physical and emotional needs of the teachers and students of the school. Facilities support academic performance of students, many schools are inadequately provided with the necessary infrastructure. Cases exist where students learn under trees while some others are taught in booths made of palm fronds, still others learn in classrooms where chairs, tables and chalks are grossly inadequate. Physical facilities play a significant role for learners, especially for the children who are just entering the school for the first time. Therefore, the school buildings need to be interesting and attractive influence on the performance of the child towards school. The school building creates its own value to the child by virtue of its appearance, design and general environment in which the school is set (Nwadiani, 2012).

Schools are built for the purpose of teaching and learning. Human and material resources are deployed for this purpose. School facilities are material resources are made available for teachers and students to optimize their productivity in the educational process. The realization that the transfer of knowledge does not take place in the walls of the classroom from the teacher to the students but rather that learning takes place through discovery, exploration, interaction with the internal and external environment has necessitated the creative and innovative development of teaching and learning facilities that reflect these changes. Schools are built to serve socio-economic and political needs of the ever-changing society. Asiabaka (2008) stated that physical facilities are essential resources that are required for the effective operation and maintenance of standard in the classroom/schools. These facilities include the size of the building, furniture, equipment, personnel resources, laboratories, workshops, and other instructional aides. When these categories of school facilities are adequately provided, the classroom activities become effective and efficient. Adequate facilities in the classroom/school enhance the comfort, safety of students and teachers, thereby increasing their performances.

School Facilities and Instructional equipment are expected to be adequately available and sufficient. According to Okorie (2014), equipped environment will expose students to the tools /equipment in such a way that will would them to acquire skills and knowledge that are relevant. Nigeria as a country cannot meet the objectives of Basic Technology without teaching facilities and

equipment. Umunadi (2011) revealed that shortage of facilities and equipment was a major problem in the Nigerian Education system. He said that schools are being starved of equipment and facilities. Equipment such as hand tools, power tools, and consumable materials are necessary for students' practice. School facilities are very important as they make teaching and learning to be less stressful and burdensome. Bolarinwa (2016) carried out a study on availability of instructional resources and its influence on the teaching and performance of students, without functioning workshop, tools, equipment and laboratory the teacher is handicapped and cannot go far in his teaching. Uzongulu (2013) stated that to give training and impart the required skills to students, Workshop, equipment, tools must be utilized. Uzongulu(2013) also pointed out that shortage of facilities and consumables with which to carry out effective practical works in the school workshop is among the factors militating against effective Technical Vocational Education and Training programmes in Nigeria. (Ekundayo, 2015). Baird (2010) revealed in his study that information about arts, craft, music, dance, and culture are found in the school library. He added that knowledge of both general and specific information from books and also provide explanations about different aspects of knowledge and satisfy students' interest in life. He also said that the school library is very important for all staff and students in all discipline and to improve their academic pursuit. That is using materials from the library will help teachers prepare their lessons better. It may also encourage teachers to give students project work that can make students go to the library and find out information for their form work which will encourage them to study, learn and achieve better results as well as give them the confidence to start looking for information on their own.

**Teachers Related Challenge:** Teachers related challenge are problems related to availability of qualified teachers, staying up to date with learning technology, salary issues, effective classroom management. Good teachers are expected to utilize appropriate method to teach. Providing enough workshop equipment helps the teachers in making basic technology lessons more interesting to the students and makes them to participate in the learning process. In the rural areas most teachers teaching basic technology are constrained with access to good teaching /learning materials. Worthy of note is the schoolworkshop.

The school workshops offer chances for practical training of students in the acquisition of skills in different trade areas. The FRN (2014) in her national policy on education stated that the goals of Technical and Vocational Education shall be to provide trained manpower in the applied sciences, technology and business particularly at the craft, advanced craft and technical levels,

provide technical knowledge and vocational skills necessary for agricultural, commercial and economic development, to give training and impart the necessary skills to individuals who shall be self-reliant economically. This is in line with Uwameiye (2010) who stated that pre-vocational education goes beyond general education and leisure to provide opportunities for the acquisition of skills or gainful employment.

**ICT Related Challenge:** ICT related challenge in the effective teaching and learning of basic technology. This involves the availability of digital facilities in the teaching and learning. Poor computer literacy level of teachers and students, dearth of ICTs personnel to assist, inadequate infrastructures and lack of fund to procure and manage the basic ICT tools. These and others often, are major challenges in the utilization of basic ICTs in schools,

### **Purpose of the Study**

The purpose of this study is to find out the challenges faced by Basic Technology teachers in Ovia North East local Government Area.

### **Research Questions**

1. What are the school environment related challenges of teaching Basic technology in Ovia North Local Government Area?
2. What are the teacher related challenges of teaching Basic technology in Ovia North Local Government Area?
3. What are the Information communication technology related challenges of technology Basic technology?.

### **Population for the Study**

The population for the study consisted of the 20 teachers teaching Basic Technology selected from 10 schools located in both urban and rural areas of Ovia North East Local Government Area of Edo State.

### **Method of Study**

The 20 teachers from both urban and rural locations were used and they were selected through simple random sampling utilizing the balloting technique. The instrument for data collection was developed by the researcher a questionnaire titled challenges of teaching Basic technology

Questionnaire (CTBTQ). The questionnaire covered the three areas of the study; school environment, teacher and Information communication technology related challenges.

The data that were collected and were analyzed using mean and standard deviation, any mean of 2.50 and above was taken as agree while any mean less than 2.50 was taken as disagree.

### Presentation of Results

**Research Question 1;** What are the school environment related challenges of teaching Basic technology in Ovia Northeast Local Government Area?

**Table 1: Mean and Standard deviation of school environment related challenges of teaching Basic technology Ovia Local Government Area**

S\N	Needs	SA (4)	A (3)	D (2)	SD (1)	N	X	SD	Decision
1	Lack of Amenities in schools have made the teaching of Basic technology difficult	1	18	0	11	20	3.10	0.30	Agree
2	Lack of conducive environment has made it difficult for teacher to teach practical in schools	1	19	0	0	20	3.05	0.22	Agree
3	Schools in rural locations do not have access to technological facilities	12	2	2	3	20	3.35	1.02	Agree
4	Schools in rural areas do not have basic amenities	11	8	1	0	20	3.50	0.61	Agree

Table 1 indicates that respondents mean in the four items on school environment related challenges were 3.10,3.05,3.35 and 3.50. All these are above 2.5 indicating they agree that the schools lack basic amenities, lack of conducive environment have made it difficult to teach practical in schools, teachers in rural areas do not have access to technological facilities and schools in rural areas do not have basic amenities.

**Research Question 2:** What are the teacher's related challenges of teaching Basic technology in Ovia North Local Government Area?



**Table 2: Mean and Standard Deviation of Teachers' Related Challenges for the teaching of basic technology in ovia northeast**

5	Teachers in urban location have the relevant qualifications	12	2	5	3	20	3.25	1.02	Agree
6	It is possible for teachers without relevant qualification to teach Basic technology effectively in rural areas of Ovia North East	1	6	2	11	20	2.85	1.04	Agree
7	Teachers in rural location can access technological essential services for the teaching of Basic technology in Ovia North East.	1	5	14	0	20	2.00	0.59	Disagree
8	The teachers teaching Basic technology need continuous training	5	14	0	1	20	3.15	0.67	Agree

Table2 indicates that the means teachers in rural areas have relevant qualifications(3.25), and that it is possible to teach Technology without relevant qualification(2.85), and that teachers in rural areas cannot access essential amenities(2.00) and that teachers in rural areas need continuous training(3.15)

**Research Question 3;**What is the I CT related challenges of teaching Basic technology in Ovia North Local Government Area?

**Table 3: Means and standard deviation of ICT related challenges for the teaching of Basic technology in Ovia N.Local Government Area.**

9	ICT Educational facilities are always available to teach Basic technology in Ovia Northeast	0	4	14	2	20	2.10	0.53	Disagree
10	Teachers in rural locations can access ICT services for the teaching of Basic technology in Ovia North east .	1	5	14	0	20	2.35	0.59	Disagree
11	The teaching of Basic technology during can be easier if technological facilities are available	5	14	0	1	20	3.15	0.67	Agree
12	ICT facilites are not important for the teaching of Basic technology	1	5	2	11	20	1.86	1.05	Disagree

Table 3 states that, ICT educational facilities are not always available (2.10), Teachers in rural areas can't access ICT facilities (2.35), and teaching of basic technology can be made easier if



technological facilities are available (3.15) While ICT is very important in the teaching of basic technology (1.86).

### **Discussion:**

The findings from the research question 1 reveals that the respondents accept that Basic Technology teachers need tools to impact on the learners, The respondents agree that Basic Technology teachers do not teach practicals because of lack of conducive environment. The respondents agree that lack of amenities make the teaching of Basic Technology difficult and teachers in rural location lack social amenities. This finding is supported by Olajide S, O, Olanipekun B.V and Obafunmilay. A O. (2021) who noted that good school environment and facilities are crucial to students' academic performance in Basic Science and Technology likewise, Umunadi (2011) noted that lack of facilities and equipment was a significant problem in the Nigerian Education system.

The findings from research question 2 showed that most teachers in rural locations do not have the necessary qualifications to teach Basic Technology, teachers in rural areas cannot access essential amenities and that teachers in rural areas need continuous training consequently agree that the teaching of Basic Technology can only be possible if technological essential services are available. This is also collaborated by the findings of Eriba and Iwanger (2018) who found out that poor motivation of teachers amongs others are the major challenges faced by teachers teaching basic technology in Nasarawa State of Nigeria.

The findings from research question 3 revealed that ICT essential services are very important for teaching Basic technology, but they are not available in schools. This supported by Uzongulu(2013) who pointed that lack and shortage of facilities and consumables with which to carry out effective practical works in the school workshop is among the factors militating against effective Technical Vocational Education and Training programmes.

### **Conclusion**

Basic technology is important in the present dispensation. Therefore the educational process must be fortified with all essential amenities for emancipation and sustainable development in the country, for no country can survive without technology.

## Recommendation

1. The government should provide facilities for schools in Ovia Northeast Local Government Area especially those in rural areas.
2. Qualified Teachers should be made to teach Basic technology subjects in Rural and Urban areas.
3. All students and teachers in public secondary schools should be encouraged to own a laptop or a tablet and that the Government should provide social amenities, like electricity in the rural areas in all the Local Government Areas of Edo State.
4. There is the need to always organized training for teachers teaching Basic technology to update their knowledge.

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