

# **PRODUCTIVE INSTRUCTIONAL MEDIA: THE BASICS FOR EFFECTIVE CURRICULUM IMPLEMENTATION OF OCCUPATIONAL COURSES**

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## **Abstract**

*This paper studied productive instructional materials as the basics for teaching and learning occupational courses. The study looked into the meaning of occupational courses and the various types such as Auto Body Repair and spray painting. It described curriculum implementation in relation with the teaching and learning of occupational courses, as the process of putting the officially planned curriculum into practice. The concepts of instructional materials and productive instructional materials were explained and productive instructional material seen as the consumable and non-consumable materials used for teaching and learning occupational courses. The various categories and types of productive instructional materials were highlighted as well as the characteristics that differentiates them. The study justified productive instructional materials to be the essentials, the fundamentals and the basics for teaching and learning occupational courses. The conclusions were made. The paper among others recommended that technical and vocational teachers should be conversant with various types of productive instructional materials to enable them apply the devices in teaching occupational courses.*

The development of occupational skills and competencies in learners require effective use of skill-oriented instructional media and other relevant facilities in an enabling teaching and learning environment. Such occupational skills can be developed through effective selection and utilization of appropriate productive instructional media in the classroom, workshop or laboratory of technical vocational and other technology-oriented institutions where the development of practical skills in learners is the main focus of instruction.

These instructional media or facilities are the unique teaching and learning essentials that facilitate the learning and acquisition of occupational skills for work. They are the basic inevitable, the fundamentals and the essential materials for development of practical skills in learners in the workshop of technical vocational institutions. Without these inevitable materials, there will be no meaningful teaching and learning of occupational courses or effective implementation of the curriculum. They have positive impact on instruction process of educational institutions (Osu, Elopebe&Udo, 2015).

Occupational courses are referred to as the technical vocational subjects that are studied in technical vocational institutions to enable individuals to earn their living. They are courses, trades or entrepreneurship subjects such as Auto Body Repair and Spray Painting, Welding and Fabrication Engineering Craft Practice, Electrical Installation and Maintenance Work, Block-Laying, Brick Laying and

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concrete work among others studied in Technical Colleges (Federal Republic of Nigeria FRN, 2014). Trades as used here are occupations that require manual or mechanical skills. They can also be described as crafts or work in which one engages in order to earn his living. To achieve the objectives of these courses, the curriculum should be effectively implemented.

Curriculum implementation can be defined as the process of putting the planned curriculum into practice in the classroom, workshop or laboratory. It is the execution or practicalization of the curriculum document by the classroom teacher. According to Obanya (2016), curriculum implementation is day to day activities which school management and the classroom teacher undertake in the pursuit of the objectives of any given curriculum. In curriculum implementation, the teacher is the implementer while the learner is the receiver. Both the teacher and the learner have significant role to play in curriculum implementation.

Curriculum implementation is the medium through which the course contents are exposed to learners. Effective implementation of the curriculum of occupational courses requires effective selection and utilization of productive instructional media in teaching and learning process.

Productive instructional media are all the technical-oriented devices and consumables used for teaching and learning technical vocational courses. They are the instruments, tools and consumable training materials without which occupational courses can be taught effectively. These materials are absolute essentials in the workshop of training institutions for development of practical skills in learners. No meaningful practical activities can take place without productive instructional media. They are therefore the basic requirement for teaching and learning occupational courses. For effectiveness, they should be made available in the workshop of training institutions for instructional purposes.

### **Meaning of Occupational Courses**

Before we delve into the meaning of occupational course, let us first of all look at the meaning of occupation briefly. An occupation can be referred to as a productive activity, a service, craft or a trade for which one is regularly paid. It is a vocation, ones employment or a job through which an individual earns a living.

From this perspective, occupational courses are training or learning programmes in technical vocational institutions which qualifies an individual for work or paid for employment. They are also described as series of lessons, or lectures on a particular subject (Hornby, 2010). Occupational courses are seen as areas of knowledge or subjects studied in an educational institution as in Technical Colleges. They are therefore series of subjects constituting technical education curriculum. To be precise, occupational courses are the trades, crafts or entrepreneurship subjects studied in Technical Colleges. Such courses include Auto Body Repair and Spray Painting, Radio, Television and Electronic Servicing, Painting and Decorating, Carpentry and Joinery and so on (FRN, 2014). These are examples of occupational courses studied in training institutions such as Technical Colleges. They are the courses for work and workers through which individuals earn their living either as entrepreneurs or in paid employment. This purpose can only be achieved when the curriculum of occupational is well implemented.

## **Curriculum Implementation of Occupational Courses**

Curriculum implementation can be defined as the process of putting the planned curriculum of occupational course in effect, into action, into practice or into operation. This definition implies that curriculum implementation is the practicalization of the officially planned curriculum in the classroom, workshop, laboratory of educational institutions or any enabling environment where formal teaching and learning can take place. Rock, Iwuamadi and Ajeka (2015) defined curriculum implementation as the process of putting into practice the officially prescribed course of study. This description according to Izuagba, Obiefuna and Anyanwu (2012), Ezeahurukwe (2018) means putting into practice the officially planned courses, courses of study, syllabi and subjects.

In occupational courses like other disciplines, the actual engagement of learners with the planned and organized learning opportunities is curriculum implementation. That is, the actual execution of the contents of curriculum document. In relation with occupational courses, curriculum implementation is the processing stage, the execution stage or the actual use of the prescribed curriculum document in the classroom, technical workshop or laboratory. It involves teaching the learners to acquire knowledge, practical skills or desirable work habits and attitudes. In curriculum implementation, the planned and organized curriculum is brought in close contact with the learner by the technical teacher. The teacher is the implementation while the learner is the immediate beneficiary of the curriculum. This shows that the implementation exercise of occupational courses lies in the hands of the technical teachers who interpret and make it useful to the learners. As observed by Lawal (2011), the teacher is the curriculum implementer who disseminates and translates the contents to the learner.

The major role of the technical teacher is to impart knowledge practical skills and competencies to learners. He facilitates learning using appropriate instructional methods and supportive productive instructional media to ensure that learning takes place. It is important to note here that no meaningful teaching and learning can take place no matter how the teacher tries to deliver his lessons without the use of appropriate productive instructional media.

As we have different instructional methods so we have various categories and types of instructional media. This includes those suitable for teaching and learning occupational course in technical vocational institutions. They are the basics for teaching and learning practical skills. Before we go into productive instructional media, let us discuss the concepts of instructional materials.

### **What is Instructional Materials?**

The term instructional material has two key words – instructional and material. In the first instance, instructional means that which teach people something in order to acquire knowledge, skills and competencies. Material in the second instance implies physical things, objects or devices that are needed to carry out an activity (Hornby, 2010). Materials can also be described as specimen, models, prints, texts or samples used for a study or matter which can be manipulated or shaped for making, constructing, demonstrating or illustrating or something.

Based on these descriptions, instructional materials are the materials or media used to carryout teaching and learning activities in order to facilitate learning. These are the devices that help to bring about learning to make it easier, possible and

clear. In teaching and learning situation, there is communication and interaction between the teacher and the learner. For effective communication to occur, there is also every need for the teacher to pass information through the medium called instructional materials. The essence of instructional materials in teaching and learning situations is therefore to facilitate learning.

Instructional materials also called instructional media are referred to as the alternative channel of communication for effective teaching and learning. They are described as the channel, medium, avenue, track or the means through which instructional information is compressed and conveyed clearly to learners. Instructional media represent those alternative channels of communication which we can use to compress and present information in a more vivid form to learners (Dike, 2006). They provide a wide range of alternative avenues through which the same unit of instruction can be presented to an audience. Any materials that can be manipulated, demonstrated, illustrated, seen, heard, touched, simulated, viewed, feeled, smelled are regarded as instructional materials (Osam, 2018). Typical examples are different categories and types of charts, graphics, still life pictures, motion pictures, audios, visuals, two and three dimensional objects, realia or life objects among others.

In technical and vocational education, the examples are hand tools, machine tools, instruments, devices, models, mockups, specimen, portable power tools, consumable training materials and others. These materials are used for demonstration, construction of articles, illustrations, and building or production purposes. Instructional materials can be used alone or in combination of two or more materials. The combination of two or more instructional media is called multi-media (Iwu&Chimezie, 2006).

Instructional materials are used across all the subjects, courses or disciplines. They have strong relationship with the curriculum as they are important means of translating and interpreting curriculum practically a the classroom level (Osam, 2015).

In technical vocational education, Olaitan called it productive instructional materials.

### **Productive Instructional Materials**

Productive instructional material is a general name given to consumable and non-consumable materials used for teaching and learning occupational courses. They are referred to as all the practical skills development resources that facilitate the process of teaching, learning and evaluation of vocational technical skills (Duru, 2006). As the name is applied, they describes the electronic systems, devices, tools, equipment, instruments, technologies and other community resources materials that could be utilized for directing and controlling vocational technical operations and reinforcing the teaching of specific skills and competencies for work. The examples of these materials also include hand tools, machine tools, portable power tools, instruments, electronic gadgets apparatus and devices through which occupational knowledge and practical skills are developed in learners. Others are instructional media including hardwares and softwares developed, improvised, acquired or simulated in the classroom or laboratory to assist the technical vocational teachers to transmit organized knowledge, attitudes, practical skills and work habits to learners within instructional situation directed towards teaching and development of technical skills (Osam, 2015).

In technical vocational education, productive instructional materials are the fundamental, inevitable and prerequisite devices for development of occupational skills. They are called productive instructional materials because they are used for production of observable job outcomes. They are also used for demonstration, illustration construction and in production work and services. Apart from their role as instructional materials for teaching and learning, these materials have the capacity and power for producing articles for satisfying human wants, rendering services and creating utilities. Above all, they facilitate the development of skilled human resources.

The development of diverse practical skills and competencies in learners are the roles of productive instructional materials. This unique role calls for the availability of productive instructional materials in the workshop of training institutions for effective instructional purposes. This forms the basis for discussing different categories and types of productive instructional materials used for teaching and learning occupational courses.

### **Types of Productive Instructional Materials**

Different categories and types of productive instructional materials for teaching occupational courses are discussed as follows:

#### **Instructional hand tools and machine tools**

Instructional hand tools and machine tools are not text materials, semi texts or graphic materials, but all the production work devices (Obiefuna&Emenyonu, 2012). They are hand tools, machine tools, light or heavy instruments, mechanical or electronic devices used for performing technical operations in teaching and learning occupational courses. Others are tools and equipment and physical plants such as machines, tools, industrial laboratory equipment and consumable materials (Chukwu, 2015). These tools are the prerequisite requirements for effective teaching and learning necessary for development of technical skills and competencies in learners. Considering their important, Alade and Akilo (2011) maintained that the survival of education in any nation depends to a large extent on the availability and products use of these resources. They are not text materials, semi-texts or graphic materials (Obiefuna, Emenyonu, 2012).

#### **Hand Tools**

Hand tools according to the New Webster's Comprehensive Dictionary are anything that can be held in the hand or hands which assists on individual to do manual work. They are hand held devices that aid in accomplishment of a task. Simple mechanisms or implements such as chisels, hammers, screw drivers used for shaping, fixing or for doing other practical activities are called hand tools (New Webster's Comprehensive Dictionary, 2004). Tools are seen as instruments or devices that can be handled easily while carrying out technical operations as well as instructional activities in the classroom, workshop or laboratory. Precisely, hand tools are productive instructional materials used for transmitting knowledge to learners to enable them acquire practical skills. This can be achieved through demonstration, illustration, and through practical exercises in specific activities carried out in the workshop or laboratory practices.

Hand tools are classified as manual and portable power tools. While manual hand tools are not powered by electricity, portable power tools are powered or operated with electricity. Apart from the descriptions already made, hand are also known by certain characteristics.

### **Characteristics of Hand Tools**

The characteristics of hand tools are not limited to the following:

- Hand tools are usually light and convenient to use.
- They are simple and commonly made of wood, metal, plastic or in their combinations.
- Technically hand tools are easy to move from one place to another, and usually taken to the job to be done.
- The damaged or worn-out part can be easily maintained or replaced.
- The spare parts are readily available in the market.
- Hand tools may be light, small, big or large depending on the type.
- They can be used with or without supporting devices such as work bench, bench vice and other supporting appliances.
- While some hand tools are manually operated without electricity others are operated with electricity.

Different areas of specializations have their hand tools. Generally, typical types of instructional hand tools are different types of hammer, saw, trowel, screw driver, spirit level, chisel, plane, rule, gouge, mallet, spanner, tester among others.

Having known the types and characteristics of hand tools, it is pertinent to state that effective implementation of the curriculum of occupational courses is function of hand tools. Supporting this, Obiefuna and Emenyonu (2011) opined that implementation takes place as learners, acquires the intended learning experiences, knowledge and skills using these tools.

### **Machine Tools**

Machine tools are power driven tools partly or wholly automatic in action as surface planer, circular saw bench, lathe machine, power hacks saw used for constructions or instructional purposes. They are also described as apparatus, instruments or mechanical devices used in performing operations necessary in the practice of a vocation or profession. Machine tools are the portable, heavy, mechanical, electrical or electronic devices used for practical operations in the workshop or laboratory.

Distinguishing machine tools from hand tools, Olaitan explained that machine tools are more sophisticated, complex and heavier than hand tools. While machine tools are complex and heavier than hand tools, hand tools are simple, smaller and lighter in weight. Most machine tools are mounted in positions on the floor, bench or any suitable platform. To use machine tools, work is taken to them and most of them are powered by electricity. The use of machine tools, for production and instructional purposes requires specialized skills. Typical examples of machine tools in different fields of specialization are circular saw in woodwork, lathe machine in metal work among others. Machine tools also have their characteristics.

### **Characteristics of Machine Tools**

- They are heavy, complex and sophisticated

- The handling and operation of machine tools requires specialized skills
- Most machine tools are permanently mounted in position
- The servicing of machine tools requires technical know-how or skills
- Machine tool are durable, therefore lasts long if handled carefully and maintained well
- Most machine tools are electrically operated
- Generally, work is taken to machine tools since they are mounted in position

### **Productive Instructional Materials across Occupational Courses**

Different trades or entrepreneurship subjects have specific productive instructional materials for teaching and learning activities. These materials are discussed in relation with different areas of specialization as listed under trade and entrepreneurship subjects in FRN (2014). They include:

**Carpentry and Joinery:** Different types of saw, cramp, hammer, plane, chisel, measuring tape, surface planer, sander, circular saw, band saw, etc are some of the hand and machine tools of this trade. They are the essential equipment used for development of occupational skills in learners. Specifically, they are used for demonstration, illustration, construction and any other practical activity to satisfy the demands of teaching and learning.

**Welding and Fabrication Engineering Craft Practice:** The tools and machine-tools of this trade include steal rule, tape, hacksaw, caliper, tongs. Others are furnace, power hacksaw, welding transformer, gas welding cylinder and so on.

**Mechanical Engineering Craft Practice:** Some of the instructional hand and machine tools found here are different types of steel rule, caliper, file, hacksaw, power hacksaw, lathe machine, milling and so on. These machines enable learners to acquire the intended mechanical skills and competencies.

**Electrical Installation and Maintenance Work:** The instructional tools used here include steel tapes, pliers, metres, hammers, chisels, screw drivers, wiring boards and others.

**Block Laying, Brick Laying and Concrete Work:** Trowel, spirit level, builder's square, measuring tape, sledge hammer, concrete vibrators, concrete mixer, wheel barrow, block molding machine etc are some of the instructional tools applicable in this field.

**Technical Drawing:** This category comprises the instruments used for technical drawing, mechanical drawing, building drawing and trade drawing. The examples are drawing board, t-square, sets square, protractor, flexible curve, french curve, celo tape, pair of compasses, pair of divider and others. These instruments are used for demonstration, illustration, and construction and drawing practices in lesson presentation.

For instructional tools to be functional, they are used in conjunction with consumable training materials. Consumable materials are as important as the instructional hand and machine tools.

According to FRN (2014), the learning of these courses among others provides entrepreneurial, technical and vocational job-specific skills for self-reliance, and for agricultural, industrial, commercial and economic development. The achievement of this laudable objective is a function of effective curriculum implementation. This involves the interaction of the teacher, the learner and the materials to attain the goals of the planned curriculum (Uzoka& Ede, 2016).

### **Consumable Training Materials**

Consumable training materials are the materials that are utilized or fed into the tools as components of the production of observable job outcomes. Consumable training materials are the inputs that keep the hand tools and machine tools functional or working. Nothing goes in well equipped workshop without consumable training materials. They are therefore, the prerequisite or the basic materials for effective workshop practice. While the hand and machine serve as the hardware materials, the consumables serve as the softwares. They are seen as a system which cooperatively work together to achieve a common instructional purpose.

Different occupational courses in technical vocational education have different consumable raining materials. In carpentry and journey for example, the consumable materials for instructional purpose are planks, nails, glue, sand papers, ply woods among others. Welding and fabrication require metals of different shapes and sizes, electrodes, soda, emery cloths, paints and so on.

Electrical operations require the consumable materials such as cables, metal and plastic clips, masking tapes, nails, screw nails, wooden blocks, switches, sockets and other electrical fittings.

Block laying, bricklaying and concrete work have cements, lime, sand, gravel, bricks, block and others as their consumables.

### **Characteristics of Consumable Training Materials**

Generally, consumable training materials have certain characteristics by which they are known. Few of them are as follows:

- Consumable training materials are perishable
- They can be used up
- The use of consumable materials requires specialized and professional skills
- The need for consumable materials is recurrent

Consumable training materials are absolute essentials for development of practical skills in learners. They are the basics for effective teaching and learning of occupational courses.

### **Productive Instructional Materials: The Basics for Effective Teaching and Learning of Occupational Courses**

It is inaccurate to think that students in technical vocational institutions can only learn or acquire knowledge and job skills by establishing training institutions and employing technical teachers without providing the input materials without which occupational skills and knowledge can be developed in learners (Duru, 2021). Input materials as used here are the instructional resources used for effective teaching and learning. For learning to take place there must be interaction between the learner and the learning resources such as hand tools, machine tools and consumable training

materials (Duru, 2021). The learning resources are the productive instructional materials.

The learning of occupational courses involves manipulative activities and the use of wide range of hand tools, machine tools, devices, instruments and consumable materials to make teaching and learning effective. Without these instructional resources, the development of practical skilled manpower of the economy will be a mirage, an illusion and unattainable.

The achievement of the objectives of technical education in Nigeria is a function of adequate use of productive instructional materials. Buttressing this point, Obi, Nwachukwu and Obi (2021) outlined strategic areas Technical and Vocational Education and Training (TVET) institutions should be assisted for effective teaching and learning of occupational skills. These areas include but not limited to the provision of:

- Efficient workshops and laboratories
- Adequate tools and equipment and other instructional media both audio and audio-visuals
- Standard infrastructural facilities and devices
- Improved and efficient power supply among other infrastructural facilities and financial resources.

They maintained that these resources are the fundamental requirements and prerequisite that should be provided for effective teaching and learning. Although the budget allocation to education in Nigeria from 2015-2020 dropped from 10.75% to 6.9%. For effective implementation of occupational education programme, these outlined prerequisite should be made available, their cost not withstanding. They are absolute essentials. For effectiveness, the provision should not be prevented by anything or by anyone.

The study of occupational courses is practical and mastery-oriented. It demands technical teachers to deliver their lessons in well equipped workshop, laboratory and enabling environment which should be a replica of the industry where the learner will subsequently work on graduation. The achievement of this laudable principle of vocational education requires effective ergonomic approach to instruction. That is, a good system design that encourage effective utilization of appropriate non-consumable and consumable training materials necessary for effective development of practical skills and competencies in learners.

Realizing that technical education is a viable means of preparing learners for the world of work, productive instructional materials is therefore a necessity and an inevitable tool in the hands of technical teachers without which the curriculum of occupational courses will be implemented effectively. Stressing the importance of productive instructional materials, the federal government imported technical equipment to post primary institutions in Nigeria for the teaching Introductory Technology now known as Basic Technology at the inception of 6:3:3:4 system of education. This effort shows that productive instructional materials are the prerequisite a necessity and absolute essential for any technical education programme. It also shows that effective teaching and learning of occupational courses and workshop practice can only be achieved by the use of productive instructional materials, nothing else.

Productive instructional materials facilitate the development of vocational technical skills in learners. When these materials are lacking or not available, no

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meaningful practices can be carried out no matter the nature of the workshop, the quality and number of technical teachers employed. In other words, nothing goes in any technical workshop without productive instructional materials.

It has been observed by many writers that instructional resources for productive instructional materials without which occupational skills can be developed in learners in most sub-Saharan countries are either lacking or grossly inadequate in most training institutions (Duru 2004, Hoop 2010, Ologa & Shittu, 2011). Sub-Saharan Africa according to Nwokocha (2018) is all the African countries within the South of Saharan desert. It points to the African continent with the exception of North Africa that is pre-dominantly Arabic republics, he maintained. In many training institutions, an attempt to teach occupational skills often fails for lack of productive instruction materials. Many workshops and laboratories of training institutions are lying idle today for lack of productive training materials needed to keep the workshop operational. This could pose the greatest handicap to both the teacher and the learner. In all, this situation is unacceptable and amounts to deceit to the learner who may graduate with out acquiring the practical skills needed to function well in paid or self employment.

It is therefore the view of the author that productive instructional materials are as important as the occupational courses and should be made available for effective teaching and learning. Experience has shown that despite the lip service paid to technical education by the government, much has not been done in the provision of productive instructional materials in technical institutions. For effectiveness the provision of these materials should not be neglected. It is a must for an effective workshop practice, and the basics for effective teaching and learning of occupational courses.

### **Conclusions**

Occupational courses among others are described as trades, crafts or entrepreneurship subjects such as Auto Body Repair and Spray Painting, and Radio and Television and Electronic Servicing. These courses are practical skills-oriented and the achievement of their curriculum objectives depends to a great extent on effective curriculum implementation. Curriculum implementation of occupational courses is seen as the processing stage the execution stage or the actual use of the prescribed curriculum document in the classroom, workshop or laboratory. This involves teaching learners to acquire knowledge, occupational skills and work habits. The achievement of this purpose calls for the use of instructional materials in teaching and learning process.

Instructional materials have been described as the alternative channel of communication for effective teaching and learning. It is the medium, avenue, track or the means through which information is compressed and conveyed clearly to learners. In teaching and learning occupational courses, instructional materials are called productive instructional materials. They are termed productive materials because they are used for the production of observable job outcomes and development of occupational skills in learners. Productive instructional material is the general name given to consumable and non-consumable materials used for teaching and learning occupational courses. These materials run across all the technical vocational education areas or entrepreneurship subjects.

Different categories and types of productive instructional materials such as hand tools, machine tools, consumable training materials, and the characteristics which differentiates them, and as applicable in different occupational areas were treated here. While hand tools, machine tools, technical drawing instruments and other instructional devices serve as hard wares, consumable training materials such as wood, glue, nail, sand paper, etc in carpentry and joinery and as the consumables have in other occupational trades serve as soft wares.

It is wrong to think that students in technical vocational institutions can learn and acquire practical skills without providing the input materials or instructional resources necessary for effective teaching and learning. Input materials are the productive instructional materials without which occupational skills can be developed in learners. These materials are absolute essentials for practical skills development. They are the prerequisite materials, the fundamentals and the basics for effective teaching and learning of occupational courses.

### **Recommendations**

It is recommended that:

1. Technical and vocational teachers should be conversant with different types of productive instructional materials. This will enable them to apply them effectively in teaching of occupational skills. Such materials are hand tools, machine tools and consumable materials.
2. Government should provide productive instructional materials in technical vocational institutions. This will enhance effective workshop practice necessary for development of practical skills in learners.
3. More emphasis should be laid on workshop and laboratory practices in technical vocational institutions. This will enable technical teachers and students to be more involved in practical activities which lead to acquisition of occupational skills and work habits.

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# **OFFICE TECHNOLOGY AND MANAGEMENT EDUCATION (OTM) AND NATIONAL DEVELOPMENT: ISSUES AND CHALLENGES**

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## **Abstract**

*Education is the bedrock and instrument for economic and social transformation, technological and economic sustainability of any nation. This study examined the ways office technology and management has contributed towards national development, and the challenges of office technology and management education in socio-economic and technological development of Nigeria. The study was carried out in Abia state polytechnic, Aba. Two research questions guided the study. The entire population of 13 office educators and 107 HNDI and II students of OTM department were studied. The study adopted descriptive survey design. Questionnaire was the major instrument for data collection. The reliability of the instrument was established by test-retest method, using Pearson Product Moment Correlation and a correlation coefficient of 0.81 was obtained. Mean and standard deviation were used to answer the research question. The study revealed among others that OTM education plays an important role in socio-economic and technological development of the nation. It was concluded that though OTM education is plagued with myriads of challenges, adherence to quality in its education will no doubt equip its recipients with functional and valuable skills, culture and knowledge which will enable them to be self-reliant and thus contribute to sustainable development in Nigeria. The study recommends among others that the management of higher institutions offering OTM should be sincere and committed to ensuring quality in their programme by avoiding window dressing for accreditation.*

**Keywords:** Office Technology and Management, Education, National development, Challenges

The contemporary world today is undergoing major global transformation that is affecting all facets of human endeavors. Education has been identified as the major strategic instrument for technological, economic and social transformation. Though the most complex of all human endeavors, Education has always focused on human capital development required for both the present and future challenges (Dike, 2009). Education is a variable tool for national development which is geared towards

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the system producing the right type of manpower in the right quality and quantity for nation building (Ovbiagele, 2015). In other words, all students irrespective of race, cultural background, social economic status or geographical location must be adequately educated to cope with the phenomenal advancement across the globe; hence contribute to national development through utilitarian programme such as office technology and management education.

Etebu, Ohajianya & Nwokanma (2017) noted that education is the greatest investment a nation can make for the development of its economic, sociological and human resources; education provides its recipients with the necessary knowledge and skills to win a nation's state and to export brains. To Okoye (2002) an educated man is the gentleman, who is socially, morally, intellectually and physically useful to the society. Education develops manpower which is very important in sustaining developments as development of manpower is a good source of managing natural resources, money, projects and industries for sustainable.

Sustainable development of any nation depends largely on the successful performance of education; hence, development must be conceived as a multi dimensional process involving major changes in social structures, positive attitudes, and reduction of inequality, eradications of poverty and the acceleration of economic growth (Nwobi, 2007). National development could be referred to as a process of integrating all sectors of the economy into development for increased production, modernization of technology, improve standard of living and industrialization (Ofe, 2005).

Office technology and management education is one of the optional education areas provided by business education program in Nigerian tertiary institutions (Kingdom & Maekea, 2013). Office technology and management is a practical oriented programme that is geared towards the development of skills, competencies and attributes that are necessary for efficiency of the economy. It is an educational programme that equips its recipients with functional skills and knowledge that empowers them to contribute meaningfully in their respective endeavours in the business environment. With the coming of Information and Communication Technologies (ICTs) into the education scenario, office technology and management education has become the turning point for the use of information technologies across the globe. Its scope now covers a wider horizon of clusters of business and technological expositions to support the growth and development of individuals and nations (Isiyaku, 2020).

The Federal Government of Nigeria in 2007 having recognized the important role of skill oriented education saw the need to integrate information technologies into office technology and management education program (Edokpolor & Chukwu, 2017; Ekpeyong & Nwabuisi, 2003). The National Policy on Education Document in Nigeria attaches great importance to vocational education which OTME is part of because it is one of the prime movers for achieving the desired technological and economic development (Ovbiagele, 2015). Office education is the aspect of business education that involves in addition to general education the study of technology and the acquisition of practical skills, attitude, understanding and knowledge relating to occupations on various sectors of the economic and social life of Nigerians.

Tlbury & Ryan (2011) noted that one of the most visible trends of office technology and management education is the continuous adjustment of the programs area of activities with the purpose of tackling issues and challenges of global

responsibility and sustainability; hence, the inclusion of new information and communication technology and entrepreneurial modules into its existing programs in order to make office technology and management program skill oriented. At the moment, in the department of office technology and management program run by some institutions in Nigeria, particularly in polytechnics, introduction to business and small scale business management are taught along with entrepreneurial development and information and communication technology courses. All these are aimed towards the acquisition of practical skills and office competencies for self-actualization and national development. The aim of this study therefore, is to examine the contributions of office technology and management education to national development.

### **Statement of Problem**

In spite of all the benefits offered by office technology and management education, the programme continually suffer from poor curriculum content, non-functional libraries, poor infrastructure, poor government appreciation, lack of adequate qualified and committed personnel, lack of adequate funds, poor planning and implementation among others (Nzekwe, 2010). The Nigerian government, public organizations and private bodies having made several efforts to tackle the problems of the nation which is characterized with abject poverty, poor standard of living, unemployment among others. Office technology and management education which is an aspect of business education has it as one its objectives to help alleviate these problems by producing the right caliber of workforce for both gender with business, information technologies and entrepreneurial abilities and competencies for various positions in various sectors for national development.

### **Research Questions**

The following research questions guided the study:

1. In what ways could office technology and management education contribute towards national development?
2. What are the challenges faced by office technology and management education in contributing to national development in Nigeria?

### **Literature Review**

Office technology and management has contributed immensely towards national development. Sokyey, Wetnwan & Bewaran (2018) in their work noted that office technology and management has improved the economic growth and development of the nation through the development of small, medium and large scale business based on creativity and innovation. Ikelegbe (2016), Duruaku & Njoku (2013) and Bello (2015) identified job creation and provision of employment, developing entrepreneurial capacity and stimulating indigenous entrepreneurs, reducing urban drift and enhance social status of citizenry by increasing business activities in the rural areas, improving the standard of living among others. Well trained graduates of office technology and management program will be employers of labour.

Office technology and management program is a gateway to real growth and development of Nigeria as a nation. If given serious attention office technology and management program will produce graduates who will be self-employed and in turn

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produce goods that are of export quality thereby increasing the nation's foreign earnings. Office technology and management program is expected to provide occupational skills for its recipients in business or office related occupations either as employees or self-employed (Aina, 2019)

Office technology and management education being a part of business education strives to achieve the three inter-related domains of the taxonomy of education objectives namely: cognitive, psycho-motor and effective domains. These domains according to Nzekwe (2010) develop individuals intellect, enable individuals acquire vocational skills and work habit. The goals and objectives of the programme include; provision of manpower who posses the requisite knowledge and skills for harnessing other resources and bringing them into corporate relationship, turning the right caliber of workforce in the business and entrepreneurial ability as well as information and technology competencies for positions in various sectors of the economy, educating individuals for and about business, provide desired sound growth for the firm and its profits. (Nzekwe, 2010).

Office technology and management program emphasizes on job competencies, career preparation and work adjustment. Its objectives as specified in the curriculum and course specification for both National and Higher National Diploma include to equip students with effective work competence in order to fit properly into the office of any organization and perform professionally the function of a secretary which include relating the functions of the office to whole organization, showing personal qualities and attributes conducive to tolerance and co-existence with the work group.

The contributions of office technology and management education to national development include among others equipping young trainees with the technical know-how and requisite skills that ultimately enables them understand the increasing complexities of new-age technologies and the need to acquire skills necessary for the management of the nations abundant human and natural resources. Ozngbe (2009) noted that the functions of office technology and management that may lay lead to national development include: self employment, technological improvement, high standard of living, self reliance, consumer economic efficiency, and manpower skill development.

Notwithstanding the introduction of information and communication technologies and entrepreneurial modules into office technology and management program, government has failed to provide adequate facilities for the optimal teaching and learning experience in office technology and management education (Edokpolor & Chukwu, 2017; Isiyaku, Ayuba & Abdulkadir, 2018). Despite office technology and management's prospect of contributing to national development, it has been relegated to the background as the overall funding of office technology and management program has been grossly inadequate causing adverse effects on the quality of office technology and management education (Ekpenyong & Nwabuisi 2003; Isiyaku, 2020)

Sokeyes et al (2018) identified irregular review of curriculum, window dressing for accreditation, lack of adequate supervision, inadequate physical

facilities, ineffective evaluation and assessment system, inadequate funding, inadequate and unqualified personnel, corruption and mismanagement of funds as the major challenges affecting office technology and management program. There is societal belief that office technology and management program is meant for dropouts hence, there is negative public attitude toward office technology and management program.

In agreement to Sokeyes et al, Nzekwe (2010) noted that poor curriculum content, non-functional libraries, poor infrastructure, poor government appreciation, lack of adequate qualified and committed personnel, lack of adequate funds, poor planning and implementation as some of the challenges militating against office technology and management education.

### **Methodology**

Descriptive survey design was adopted for the study. The study was conducted at Abia state polytechnic Aba. The population of the study consisted of 120 respondents made up of 13 office technology and management educators, 60 HNDII and 57 HNDI students from the department of office technology and management, Abia state polytechnic Aba. The total population was used. Thus there was no sampling. Questionnaire was the major instrument for data collection. The questionnaire was structured on a five point rating scale of Strongly Agree – 5, Agree – 4, Undecided – 3, Disagree – 2, Strongly Disagree – 1. The instrument was validated by two experts in the field of office technology and management. Test-retest method was used to ascertain the reliability of the instrument. A reliability coefficient value of .81 was obtained using Pearson product moment correlation coefficient. Data collected were analyzed using mean and standard deviation. For decision making, mean scores of 3.00 and above were considered as agreed, while the mean scores below 3.00 were considered as disagreed.

### **Results**

**Research Question 1:** In what ways could office technology and management education contribute towards national development?

**Table 1:** Respondents mean ratings on the contributions of office technology and management education in achieving national development.

**N= 120**

<b>S/N</b>	<b>Statements Remarks</b>	<b>Mean</b>	<b>SD</b>
1	Job creation and provision of employment Agreed	4.38	.51
2	Developing human capacity Agreed	4.55	.56
3	Individual creativity Agreed	4.62	.62

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4	Improve chances of economic development Agreed	3.79	.40
5	Improve technological development Agreed	4.23	.64
6	High standard of living and self reliant Agreed	4.37	.64
7	Ecological development/equality of life Agreed	4.01	.49
8	Improve participation in the economic, social and Agreed Cultural roles in the society	4.55	.56
9	Improve socio cultural changes Agreed	3.95	.70

Data analyzed in Table 1 showed that the respondents agreed that office technology and management education contributes a lot in achieving national development in Nigeria. This was shown by their mean rating which ranged between 3.79–4.62.

**Research question 2:** What are the challenges faced by office technology and management education in contributing to national development in Nigeria?

**Table 2:** Respondents mean ratings on the challenges face by office technology and management education in contributing to national development.

N = 120

S/N	Statements Remarks	Mean	SD
1	Inadequate funding Agreed	4.98	.11
2	Window dressing of accreditation Agreed	4.61	.48
3	Inadequate physical facilities Agree	4.59	.53
4	Lack of adequate supervision Agreed	4.47	.50
5	Corruption and mismanagement of funds Agreed	4.72	.53

6	Ineffective evaluation and assessment system Agreed	4.65	.47
7	Lack of adequate and committed educators Agreed	4.95	.20
8	Irregular review of curriculum content Agreed	4.70	.44
9	Poor planning and implementation Agreed	4.47	.50

Data analyzed in Table 2 showed that the respondents agreed that all the items were among the challenges faced by office technology and management education in contributing to national development in Nigeria. This was shown by their mean rating which ranged between 4.47-4.98.

### **Discussion of Results**

The result from research question one showed that office technology and management education contributes in achieving national development through job creation and provision of employment, individual creativity, developing human capacity, move technological development, improving the standard of living, improve chances of economic development and improve participation in the economic, social and cultural roles in the society. This is in consonance with the views of Ozengbe (2009), Nzekwe (2010), and Sokyes et al (2018) that established that the functions of office technology and management education will lead to national development through self employment, technological improvement, high standard of living, self reliance, consumer economic efficiency, manpower skill development etc.,.

On the challenges limiting office technology and management education from contributing to national development, research question two revealed that inadequate funding, lack of adequate and committed educators, inadequate physical facilities, corruption and mismanagement of funds, lack of adequate supervision, window dressing of accreditation, irregular review of curriculum, and poor planning and implementation jeopardize the activities and contributions of office technology and management education to national development. This is in line with Sokeyes et al (2018) who remarked that irregular review of curriculum content, window dressing of accreditation, inadequate physical facilities, inadequate funding, corruption and mismanagement of funds, and lack of adequate supervision as the major challenges affecting the activities and contribution of office technology and management to national development.

### **Conclusion**

Although office technology and management education is vocational in nature, it does not stop at mere acquisition of skills; it is a program that is concerned with the intellectual development of individuals and the provision of conducive atmosphere for the enablement of meaningful development in all spheres of life. Office technology and management program has the prospect of contributing to

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national development of Nigeria through job creation, self reliance and human development.

Though office technology and management education is plagued with myriads of challenges, adherence to quality in its education will no doubt equip its recipients with functional and valuable skills, culture and knowledge that will enable them to be self reliant and thus contribute to sustainable development in Nigeria. It is a formidable force that would equip individuals with appropriate skills, knowledge, attitudes, and competencies that would lead to sustainable economic development. To balance development of any nation, there is a great need for office technology and management education.

### **Recommendations**

Based on the findings and conclusion, the study recommends that:

1. The management of higher institutions offering office technology and management should be sincere and committed to ensuring quality in their programme by avoiding window dressing for accreditation.
2. Only qualified office technology and management educators should be employed to teach office technology and management courses at all educational levels. Those already recruited should be compulsorily retrained especially on the use of information and communication technologies.
3. The government, other stakeholders and institutions offering office technology and management courses should join hands in providing conducive environment, infrastructural facilities, and teaching aids for effective and efficient learning process of office technology and management students.

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