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Keywords: instructional resource, management, implementation, vocational education programme, secondary schools.

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Instructional Resource Management for the Implementation of Vocational Education Programme in Secondary Schools in Nigeria

Dr. Angela A. Oragwu [α] & Dr. Akachukwu I. Nwabueze [σ]

Abstract- This study investigated instructional resource management for the implementation of a vocational education programme in secondary schools in Nigeria. This study was a descriptive survey design. The population comprised all the 224 public senior secondary schools in Abia State constituting 2,457 teachers handling vocational subjects. They included 1,400 male teachers and 1,057 female teachers; as well as 1,557 teachers in rural areas and 900 teachers in urban areas. A sample size of 450 teachers was drawn using a stratified random sampling technique, representing 18.3% of the population. They included 250 male and 200 female teachers; 300 from rural areas and 150 from urban areas. Instructional Resource Management for the Implementation of Vocational Education Programme Questionnaire (IRMIVEQ) was designed by the researchers. The instrument was validated experts in the field of Education and reliability tested with a test-retest method. Pearson's product moment correlation was used to calculate the two separate scores, which yielded an index of 0.75. Mean scores and standard deviation were used in answering the research questions. To test the hypotheses, z-test was used. The findings revealed among others that, the extent to which available instructional resources are utized in the delivery of vocational subjects in secondary schools in Rivers State was low. The use of magnetic boards for teaching and transmission of knowledge to students and projectors for instructional purposes/knowledge transfer were very low. Based on the findings, recommendations were made.

Keywords: instructional resource, management, implementation, vocational education programme, secondary schools.

I. Introduction

Education could be defined and regarded as a source of investment in instructional resources and human development as well as the resources allocated from Public funds and other sectors of the society to the education system for societal development. Nwabueze (2011) sees education as the industry that produces human resources needed for the socio-economic, political and cultural development of any given society. As a powerful instrument of change, education possesses the potentials for positive developments in peoples' lives and the environment. Societal values, norms, culture, needs, and aspirations of the people are transferred and inculcated through education and training (Nwabueze, 2016 in Oragwu & Nwabueze, 2018). It is in this regard that, government at all levels has committed large amount of resources into the education sector to ensure that it is made accessible to its citizens. The educational institution involves the development of human knowledge, technical skills, character and ideas for national building. Based on the paramount importance of education in our society, there is a need to ensure its quality and standard through resource provision, utilization and maintenance. However, the success of any educational system depends on the availability, utilization, and management culture of all educational resources.

Resources include human, material, capital and time, which can be used to accomplish a goal. Educational resource is a source from which institutional benefits are enhanced and established. Resources are instructional materials, energy, services, staff, knowledge, time or other assets that are transformed to promote educational benefits in the lives of people and society at large.

Educational resources may include both human, material, finance and time resources. The human resources are the teachers and laboratory scientists. Material resources include school facilities, instructional materials/aides and environment. A material resource refers to the totality of non-human resources that are available for the attainment of organizational goals (Adeyanju, 2010). Finance involves the allocation of assets and liabilities over time, under conditions of certainty and uncertainty. It is the science of money management for organizational development. It is a broad term that describes the study of how the available fund is utilized in an institution and the actual process of acquiring needed funds for the growth of such institution. Time shapes all events happening around the globe. Every activity that takes place in life involves time planning and its management. Some activities in educational institutions are not properly taken care of due to improper time planning and management. In this regard, Ebong (2011) defines time as an economic phenomenon that cuts across all disciplines and occurs in every sphere of life. Ekundayo, Konwea, and Yusuf

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(2010) see time as the quality of nature, which keeps events from happening all at once. Time is an educational resource that is naturally scarce, limited in supply but limitless in demand (Lucas & David, 2008; Adedeji, 2009; Nwabueze & Nwokedi, 2016). This implies that time is constant and should be adequately planned and managed to achieve educational set goals at a given period (Nwabueze, Edikpa & Chukwuma, 2018). Availability, utilization, and maintenance of these resources in schools aid the achievement of educational goals and objectives.

Instructional resource according to Olele and Nwabueze (2015) has been observed as a potent factor in quantitative education delivery, and they include: instructional materials (such as textbooks, audio-visual, software and hardware devices), and facilities such as classrooms, tables, chairs, chalkboards, shelves on which instruments for practicals are properly kept, etc. A material resource refers to the totality of non-human resources that are applied in teaching, sporting activities and laboratory experiments for the attainment of organizational goals (Adeyanju, 2010). These material resources are referred to as the infrastructural facilities and finance available for use by the human resource within the organization. To a great extent, instructional resources could equally determine the level of success or failure of an organization or institution through the appropriate use of the human agents and material facilities. However, the quality of these resources determines the success or failure of educational programmes (Adeyanju, 2010). Also, instructional resources are types of educational materials that are in the public domain or introduced with an open license. According to Nwabueze, Edikpa and Nwokedi (2018), the instructional tools for capacity building among staff and students are flash drives, photocopying machines, desktop computers/laptops, printers, scanners, and CD-ROMs. Instructional resources range from textbooks in curricula, syllabi, lecture notes, assignments, tests, projects, audio, video, animation, etc. needed for quality instruction in educational institutions. They are teaching and learning materials that are freely available for everyone to use, either for instructors or students.

Instructional resources are educational inputs that aid the teaching and learning of any subject in the school curriculum. Wales (1975) thought that adequate application of instructional resources in the school system makes teaching and learning clearer, and creates more understanding to the students. Savoury (1958) added that a well-planned and imaginative use of visual aids in lessons would supplement the inadequacy of recent books in school libraries, and as well arouse students' interest in the course under study by giving them something practical to see and do. Savoury suggested a catalogue of useful visual aids that are good for teaching vocational subjects such as pictures, postcards, diagrams, maps, filmstrips, and models; and the application of these aids in teaching makes the lesson more motivating and attractive to them. Also, the applications of these aids in the teaching of vocational subjects make lesson more practical and real, and as well help students in grounding their thoughts and feelings. However, these aids are used as alternatives, where the teacher may find it difficult to show students the real objects.

Dale (1969) defines instructional materials as those alternative channels of communication which a classroom teacher and students under conventional and distance system can use to concretize a concept during the teaching and learning. Consequently, through instructional resources, students can visualize concepts that would otherwise have been abstract. Dales (1969) posits that instructional resources provide concrete experiences, which assist learners to apply previous learning experience in a new situation. Instructional materials function as tools that facilitate learning and the acquisition, retention, and usability of abstract symbols. It also serves as a tool for acquiring new ideas, experiences, knowledge, skills, and values which ultimately make the learner change his behavior. The use of instructional resources assists the teachers to perform their functions as facilitators or managers of academic instructions, especially vocational subjects.

Vocational education is that education that prepares students to acquire skills which enable them to be engaged in the world of work as employer or employee. The Federal Republic of Nigeria (FRN, 2014, p.29) defined vocational education as the study of technology and related sciences needed to prepare students for practical skills, attitudes, understanding, and knowledge relating to occupation in various sectors of economic and social life.

Implementation of vocational education at the secondary school level will help to prepare the individual for gainful employment as semi-skilled or skilled workers in a recognized occupation. Through the programme, the three domain of learning is taken care of, that is the affective, psychomotor and cognitive domains of the individual in readiness for entry into the world of work. It has become imperative that implementation of vocational education will help curb the menace of unemployment in our society; where skills are readily acquired, the graduates will not only seek for employment but also become an employer of labor. Invariably, this will make the youth to attain economic or financial freedom.

The acquisition of skills through the implementation of vocational education strengthens good entrepreneurship education both at the secondary and tertiary level. Today, the most and widely emphasized objective of this programme is to curb the menace of unemployment mostly among the youths by

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producing skilled and semi-skilled human resource agents (Oragwu & Nwabueze, 2018). But, how prepared is the Nigeria government in the implementation of this subject area at the secondary school level? The attractiveness of vocational education should be promoted at the secondary school level by the stakeholders (school heads, teachers, and government), ensuring that students understand what they stand to achieve at the end of the day.

Vocational education programme can be organized in such a way that there becomes a link between the school and the labor market, bearing in mind that education prepares the participants to earn a living or as a stepping stone to enhance knowledge improvement in a tertiary institution. It is an integral part of national development, and as such, strategies should be employed to ensure its smooth implementation, because of its impact on productivity and economic growth (Oragwu, 2014). With vocational education in secondary schools, graduates are expected to acquire relevant knowledge and skills needed for poverty eradication, job creation and wealth generation; and in the process, strengthen the foundation for ethical, moral, and civic values acquired (Igwe & Oragwu, 2014). Vocational education, if adequately re-assessed in terms of its implementation, supervision of instructional resources, quality of staff, the method of instructional delivery, and provision of facilities, qualitative education would be realized. Hence, those teaching the subjects have to be proactive in other to attract more students in vocational education programmes in secondary schools.

II. Concept of Resources

In economics, resources refer to the human effort in the production of goods and rendering of services. A resource is something an organization or a person has and can use it to create wealth for individual growth and institutional development. Similarly, Ekundayo in Babalola and Ayeni (2009) posits that resources imply the money, man and material available in the realization of organizational goals. The extent of provision and utilization of these resources may seriously influence the performance of such an organization. Resources are human and material things that can be utilized to achieve an objective or goal of the organization or institution; it is in various categories (human, material, money, and time).

Onuka (2009) defines resources as any means by which production and services are made available for the benefit of organizational clients or the profitability of the organization itself depending on whether it is a profit-oriented or a social service provider. Resources are stocks or supplies of money, materials, staff and other assets that can be drawn on by a person or an organization to function efficiently and effectively. However, an environment becomes a resource, only when human values are attached to it, as the environment must be able to satisfy human wants before it can be called 'a resource'. Bhatt in Eke (2008) opines that children learn better when they can actively explore and dominate their environment. Students are given the responsibility to make a meaningful choice about what is to be learnt. Above all, they learn when they interact informally with their teachers and with one another. The interaction emphasizes the strong influence of an environment and educational resources on the academic achievements of students.

According to Nwabueze (2016), an educational resource is a source from which institutional benefits are enhanced; and they include instructional materials, energy, services, staff, knowledge, or other assets that are transformed to achieve educational profits in the society. However, Nwabueze classified resources as physical (school environment buildings, space, etc.), human (academic and non-academic staff), material (all equipment or teaching aids, etc.), time and finance along with programmes offered in the institutions of learning. They are necessary for the support and improvement of education at all levels.

III. The Concept of Vocational Education

The former 6-3-3-4 education system in Nigeria and the current Universal Basic Education (UBE) programme also, laid emphases on vocational education, because of the importance the system attaches to employment opportunities and acquisitions of practical skills for productivity. The Federal Republic of Nigeria (2014) in National Policy on Education clearly explained the various ways vocational education can provide occupational status through Business Education, Distributive Education, Home Economics Education, Health Education, and Agricultural Education.

Vocational education prepares students for occupational positions in public and private industrial endeavors (Igwe & Oragwu, 2014). The areas of specialization in business education are bookkeeping (Accounting), secretarial practice (shorthand, typing and the use of the computer). Agricultural education also prepares students for vocational positions in private and public agricultural establishments. The areas of specialization are crop science, livestock production, and Agricultural mechanization. Others include education in carpentry, entrepreneurship/trade, bread making, technical subject areas, tailoring, cake baking, among others. However, at the secondary school level, these education programmes are designed to provide basic knowledge and skills that cut across the areas of specialization in the two fields of these vocational subjects.

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IV. Theoretical Framework

This study is guided by the theory of educational resource propounded by Coombs in 1968. Coombs was born in Kalamunda, Western Australia in Australia. The theory explains that, whenever there is input, there must be output. He sees educational resources as the real input through which educational outputs are processed and produced. He sees education as an open system that exists in a dynamic and interactive relationship with the environments. The teachers do the input work while the learners do the output using adequate instructional resources. The output on the part of the learners is determined by the effective teaching by vocational subject teachers. That is to say, quality teaching gives quality output. If the teaching is productive, the output will be positive, but if the teaching is unproductive, there will be poor output.

Since secondary education is an open system that extracts their vital ingredients from the society through society's young population, the needed educational resources help to transform clients through its various educational programmes into better-educated persons for use by the society. Therefore, secondary education institution as a system is subject to input, process, and output. Adequate provision of educational staff and instructional resources is an input process geared towards effective teaching and learning (process) for a qualitative output or productivity.

V. Statement of the Problem

Nigeria considers vocational education as a means of empowering youths through education to acquire knowledge and skills needed for occupational advancement in other to make them self-reliant. This national quest for vocational education programme aimed at empowering the young ones and equipping them to be independent and self-reserved is very critical, particularly in recent times when there is a propensity for youth restiveness in the country and many states where reports of kidnapping, anti-social behaviors and other types of social vices among youths have become a regular occurrence. A situation where anti-social behaviors among youths become the order of the day, security services appear not to be able to protect the lives and property of the citizenry. The teaming youths consequently, may be compelled to be the instruments of social vices including cultism and militancy as the case may be.

However, one of the cardinal benefits associated with the introduction of vocational skills into secondary schools is the reduction of the number of school leavers without employable skills. The acquisition of these skills seems to have some inherent constraints in secondary schools due to improper provision, utilization, and maintenance of instructional resources as well as the implementation of the programme. In consequence, those deficiencies in the appropriate skills eventually become social and economic liabilities resulting in unemployment, poverty and youth restiveness. This issue has been a source of concern to both public and private sector operators. This study, therefore, investigates instructional resource management for the implementation of vocational education in secondary schools in Abia State, Nigeria.

VI. Purpose of the Study

The purpose of this study is to investigate instructional resource management for the implementation of vocational education programme in secondary schools in Abia State, Nigeria. Specifically, the objectives of the study include to:

1. Determine the instructional resources needed for the implementation of a vocational education programme in secondary schools;
2. Find out the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools;
3. Assess the extent to which the available instructional resources are used in the delivery of vocational subjects in secondary schools;
4. Find out the challenges inhibiting the adequate utilization of available instructional resources for the delivery of vocational education subjects in secondary schools; and.

a) *Research Questions*

The following research questions have been posed to guide this study.

1. What are the instructional resources needed for the implementation of a vocational education programme in secondary schools?
2. What are the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools?
3. What is the extent to which the available instructional resources are used in the delivery of vocational subjects in secondary schools?
4. What are the challenges inhibiting adequate utilization of available instructional resources for the delivery of vocational education subjects in secondary schools?

b) *Hypotheses*

1. There is no significant difference between the mean score ratings of teachers in rural and urban areas on the challenges inhibiting adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools.

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2. There is no significant difference between the mean score ratings of male and female teachers on the extent to which available instructional resources are used in the delivery of vocational subjects in secondary schools.

VII. Methodology

This study was a descriptive survey design. The population comprised all the 224 public senior secondary schools in Abia State, Nigeria constituting 2,457 teachers handling vocational subjects. They included 1,400 male teachers and 1,057 female teachers as well as 1,557 teachers in rural areas and 900 teachers in urban areas. A sample size of 450 teachers was drawn using a stratified random sampling technique, and this represented 18.3% of the population. These included 250 male and 200 female teachers; 300 from rural areas and 150 from urban areas. A questionnaire titled 'Instructional Resource Management for the Implementation of Vocational Education Questionnaire (IRMIVEQ)' designed by the researchers was validated by experts in the Faculty of Education in the University of Nigeria. The reliability was with a test-retest method, and calculated using Pearson's product moment correlation on two separate scores, which yielded an index of 0.75. All the 450 copies of instrument administered to respondents were filled and returned for data analysis. In analyzing the data, a criterion mean of 2.50 was obtained to accept or reject the responses from respondents. However, any mean score within and above 2.50 is agreed upon otherwise, rejected. However, mean scores and standard deviation were used to answer the research questions, while z-test was used to test the hypotheses at 0.05 alpha significant level. Also, the benchmark for accepting and rejecting any null hypotheses is ±1.960 (critical value). Any z-calculated score below the critical value is retained otherwise, rejected.

VIII. Results

a) Research Question One

What are the instructional resources needed for the implementation of a vocational education programme in secondary schools?

Table 1: Mean scores of respondents on the instructional resources needed for the implementation of a vocational education programme in secondary schools

S/N.	Instructional resources needed for the implementation of a vocational education programme include:	Male		Female		Decision
		Mean	St. D	Mean	St. D	
1	Classroom structures	3.24	0.27	3.14	0.31	Agreed
2	Workshops/workshop equipments	3.09	0.33	3.03	0.36	Agreed
3	Libraries	3.15	0.31	3.05	0.35	Agreed
4	Textbooks	3.17	0.30	3.13	0.32	Agreed
5	Magnetic white boards	2.98	0.39	2.92	0.42	Agreed
6	Flash drives	3.03	0.36	3.01	0.37	Agreed
7	Photocopying machines	3.00	0.38	2.97	0.39	Agreed
8	Desktop Computers	3.27	0.26	3.23	0.27	Agreed
9	Printers/scanners	3.19	0.28	3.23	0.27	Agreed
10	Wall charts	2.99	0.39	3.01	0.37	Agreed
11	CD-ROMs	3.11	0.32	3.07	0.35	Agreed
12	Projectors	3.21	0.28	3.24	0.27	Agreed
13	Laptops	3.38	0.24	3.32	0.25	Agreed
14	Laboratories	3.28	0.26	3.22	0.28	Agreed
15	Laboratory apparatuses/tools	3.30	0.26	3.34	0.25	Agreed
	Aggregate Mean	3.16	0.31	3.13	0.32	Agreed

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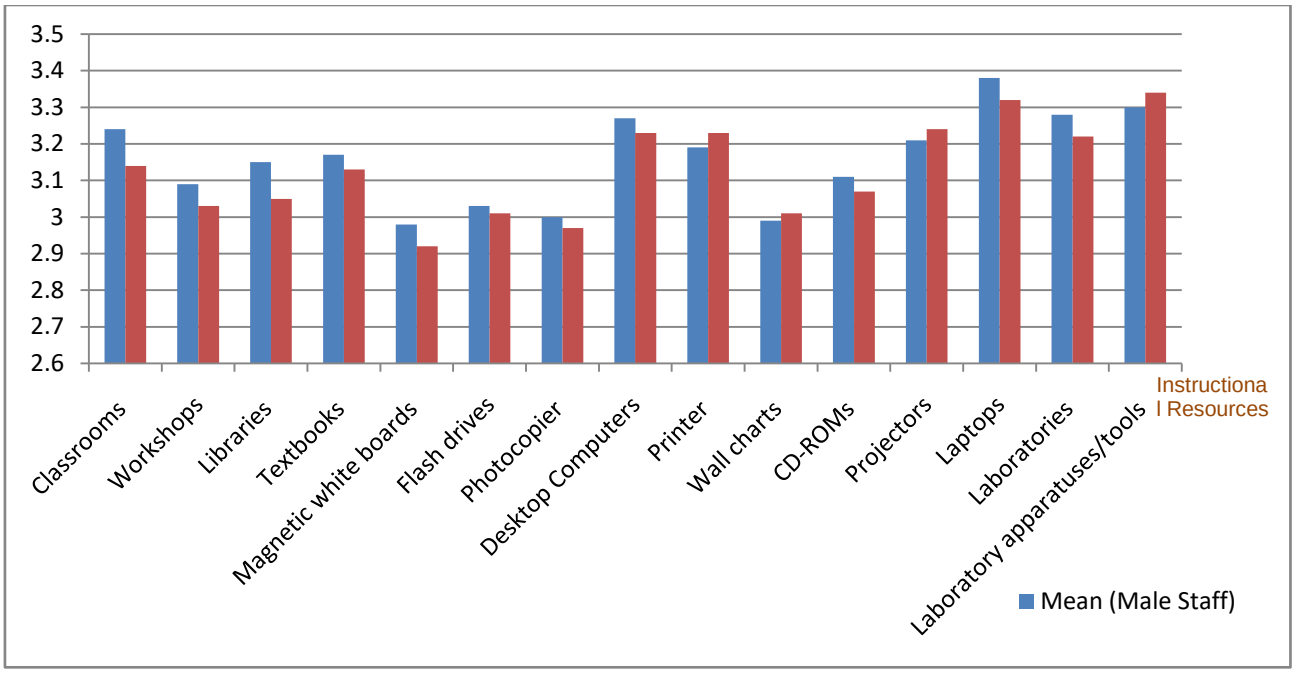

Figure 1: Bar Chart Representation of the Mean Response of Staff on Instructional Resources Needed for the Implementation of Vocational Education Programme

Data in Table 1 and Figure 1 present the mean scores and standard deviation on the instructional resources needed for the implementation of a vocational education programme in secondary schools in Abia State. Both male and female respondents all agreed on the items in the table with high mean scores above the mean criterion of 2.50. The aggregate mean of 3.16 for male and 3.13 for female respondents showed that they agreed on the items in the table. Therefore, the instructional resources needed for the implementation of vocational education programme in secondary schools in Abia State include: classroom structures, workshops, workshop equipments, libraries, textbooks, magnetic boards, flash drives, desktop computers, photocopying machines, printers/scanners, wall charts, projectors, laptops, laboratories, and laboratory apparatuses/tools.

b) Research Question Two

What are the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools?

Table 2: Mean scores of teachers in urban and rural areas on the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools

S/N.	Challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme include:	Rural		Urban		Decision
		Mean	St. D	Mean	St. D	
16	Improper planning for instructional resource procurement in schools for vocational subjects	3.31	0.20	3.27	0.22	Agreed
17	Inadequate funds to provide the instructional resources needed in schools by school administrators	3.39	0.17	3.31	0.20	Agreed
18	Poor involvement of government in the provision of the needed instructional resources for the implementation of vocational programme in secondary schools	3.55	0.11	3.45	0.14	Agreed
19	Poor allocation of vocational subjects' instructional resources to schools by the Ministry of Education	3.11	0.34	3.07	0.36	Agreed
20	Politics in the allocation of instructional resources in the country	3.21	0.27	3.15	0.32	Agreed
	Aggregate Mean	3.31	0.22	3.25	0.25	Agreed

Data in Table 2 present the mean scores and standard deviation of teachers in urban and rural areas on the challenges inhibiting the adequacy of instructional resources provision for the implementation of vocational education programme in secondary schools in Abia State, Nigeria. Both male and female

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respondents all agreed on the items in the table with high mean scores above the mean criterion of 2.50. The aggregate mean of 3.31 and 3.25 for teachers in rural and urban areas respectively, showed that they agreed on the items in the table. Therefore, the challenges inhibiting the adequacy of instructional resources provision for the implementation of vocational education programme in secondary schools in Abia State, Nigeria include: improper planning for instructional resource procurement in schools for vocational subjects, inadequate funds to provide the instructional resources needed in schools by school administrators, and low involvement of government in the provision of needed instructional resources for the implementation of vocational programme in secondary schools.

c) Research Question Three

What is the extent to which the available instructional resources are used in the delivery of vocational subjects in secondary schools?

Table 3: Mean scores of male and female respondents on the extent to which the available instructional resources are used in the delivery of vocational subjects in secondary schools

S/N.	Extent to which the available instructional resources are used in the delivery of vocational subjects include:	Male		Female		Decision
		Mean	St. D	Mean	St. D	
21	Using classrooms for teaching and learning of vocational subjects	3.04	0.35	3.00	0.38	Great Extent
22	Using workshops for clarification of concepts on vocational subjects regularly	2.75	0.33	2.65	0.36	Moderate Extent
23	Libraries for knowledge building among staff and students on vocational concepts	3.00	0.38	3.02	0.37	Great Extent
24	Magnetic white boards for teaching and transmission of knowledge to students	1.97	0.39	1.93	0.40	Very Low Extent
25	Using vocational subjects' textbooks for knowledge creation and skill acquisition	3.08	0.33	3.02	0.37	Great Extent
26	Flash drives for storing and retrieval of needed information on vocational studies	2.03	0.86	2.01	0.87	Low Extents
27	Photocopying machines for production of teaching and learning materials	2.00	0.68	1.98	0.69	Low Extent
28	Desktop computers/laptops for the transfer of technological and innovative ideas	2.27	0.56	2.23	0.57	Low Extent
29	Printers for the production of educational materials needed in teaching and learning	2.19	0.59	2.23	0.57	Low Extent
30	Projectors for instructional purposes/ knowledge transfer	1.09	0.84	1.01	0.87	Very low Extent
31	Scanners for duplication of instructional materials	2.30	0.55	2.32	0.54	Low Extent
32	CD-ROMs for storing and retrieving educational data/information	2.25	0.56	2.24	0.57	Low Extent
33	Laboratory apparatuses/tools for clarification technological ideas	2.69	0.35	2.72	0.34	Moderate Extent
	Aggregate Mean	2.36	0.52	2.34	0.53	Low

N/B: Great Extent = 3.00 – 4.00; Moderate Extent = 2.5-2.99; Low Extent = 1.5-2.49; Very Low Extent = 0.01-1.49

Data in Table 3 present the mean scores and standard deviation on the extent to which available instructional resources are used in the delivery of vocational subjects in secondary schools in Abia State, Nigeria. Both male and female respondents accepted items 21, 23 and 25 to a great extent. They agreed on items 22 and 33 moderately. Their responses on items 26, 27, 28, 29 and 32 are low, and items 24 and 30 are very low. The aggregate mean of 2.36 for male and 2.34 for female respondents showed that the extent to which available instructional resources are used in the delivery of vocational subjects in secondary schools in Abia State, Nigeria is low. Though, they use classrooms for teaching and learning, libraries for knowledge building among staff and students on vocational concepts, and subjects' textbooks for knowledge creation and skill acquisition to a great extent. They use workshops for clarification of concepts on vocational subjects, and laboratory apparatuses/tools for clarification technological ideas to a moderate extent. They use magnetic boards for teaching and transmission of knowledge to students, and projectors for instructional purposes/ knowledge transfer to a very low extent.

d) Research Question Four

What are the challenges inhibiting adequate utilization of available instructional resources for the delivery of vocational education subjects in secondary schools?

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Table 4: Mean scores of respondents on the challenges inhibiting the adequate utilization of available instructional resources for the delivery of vocational education subjects in secondary schools

S/N.	Challenges inhibiting adequate utilisation of available instructional resources for the delivery of vocational education subjects include:	Urban schools		Rural Schools		Decision
		Mean	St. D	Mean	St. D	
26	Poor funding to maintain the available instructional resources for the delivery of vocational education subjects	3.68	0.10	3.73	0.09	Agreed
27	Lack of enabling environment for quality teaching and learning vocational subjects	2.92	0.39	3.12	0.35	Agreed
28	Inability of some vocational teachers to handle the available instructional resources during teaching	3.42	0.15	3.36	0.16	Agreed
29	Lack of technical r maintenance of these vocational subjects' instructional resources	3.28	0.22	3.06	0.36	Agreed
30	Diversion of some instructional resources meant for vocational programmes into private use	2.98	0.38	2.75	0.43	Agreed
31	Lack of skills among some vocational staff to use new technological devices for knowledge building	3.38	0.17	3.56	0.11	Agreed
32	Unstable electricity supply to use and maintain the instructional materials meant for vocational education programmes	2.86	0.41	3.75	0.09	Agreed
	Aggregate Mean	3.22	0.26	3.33	0.23	Agreed

Data on Table 4 show the mean scores and standard deviation of teachers in urban and rural schools on the challenges inhibiting adequate utilization of available instructional resources for the delivery of vocational education subjects in secondary schools in Abia State, Nigeria. The respondents agreed on all the items with high mean scores above the criterion mean of 2.50. The aggregate mean scores of 3.22 for teachers in urban schools and 3.33 for teachers in rural schools showed that they agreed on the items listed as the challenges inhibiting adequate utilization of available instructional resources for the delivery of vocational education subjects in secondary schools in Abia State, Nigeria. Thus, they include: inadequate funding to maintain the available instructional resources for the delivery of vocational subjects, lack of enabling environment for quality teaching and learning, inability of some teachers to handle the available instructional resources during teaching, lack of technical maintenance of the available instructional resources, diversion of some instructional resources meant for academic programmes into private use, lack of skills among some staff to use new technology devices for knowledge building, and unstable electricity supply to use and maintain the instructional materials meant for academic programmes.

e) Test of Hypotheses

i. *Hypothesis One*

There is no significant difference between the mean score ratings of teachers in rural and urban schools on the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools.

Table 5: Summary of the z-test difference between the mean score ratings of rural and urban school teachers on the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools

Location of Teachers	N	$\bar{X}$	S.D	df	z-calculated value	z-Critical value	Decision
Rural	300	3.31	0.22	448	0.621	±1.96 0	Accepted
Urban	150	3.25	0.25				

Table 5 showed the summary of the z-test difference between the mean score ratings of teachers in rural and urban schools on the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools in Abia State, Nigeria. The result shows that the z-calculated value of 0.621 is less than the Z-critical value of ±1.960 at 0.05 alpha significant levels. Hence, the null hypothesis was accepted. Therefore, there is no significant difference between the mean score ratings of teachers in rural and urban schools on the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools in Abia State, Nigeria.

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ii. *Hypothesis Two*

There is no significant difference between the mean score ratings of male and female teachers on the extent to which the available instructional resources are used in the delivery of vocational subjects in secondary schools.

Table 6: Summary of the z-test difference between the mean score ratings of male and female teachers on the extent to which the available instructional resources are used in the delivery of vocational subjects in secondary schools

Gender	N	$\bar{X}$	S.D	df	z-calculated value	z-Critical value	Decision
Male Teachers	250	2.36	0.52	448	0.99	±1.960	Accepted
Female Teachers	200	2.34	0.53				

Table 6 showed the summary of the z-test difference between the mean score ratings of male and female teachers on the extent to which the available instructional resources are used in the delivery of vocational subjects in secondary schools in Abia State, Nigeria. The result shows that the z-calculated value of 0.99 is less than the Z-critical value of ±1.960 at 0.05 alpha significant level. Hence, the null hypothesis was accepted. Therefore, there is no significant difference between the mean score ratings of male and female teachers on the extent to which the available instructional resources are used in the delivery of vocational subjects in secondary schools in Abia State, Nigeria.

IX. Discussion

The findings have it that, the instructional resources needed for the implementation of vocational education programme in secondary schools in Abia State include: classroom structures, workshops, workshop equipments, libraries, textbooks, magnetic boards, flash drives, desktop computers, photocopying machines, printers/scanners, wall charts, projectors, laptops, laboratories, and laboratory apparatuses/ tools. These results are equally represented on a bar chart. The findings are in line with Olele and Nwabueze (2015); Ikerionwu (2000); Ezegbe (1994) who referred instructional resources as objects or devices which help the teacher to make learning meaningful to the learners. They classified them into two as visual materials, made up of reading and non-reading materials and audiovisual materials comprising electrically operated and non-electrically operated concepts. Every subject depends on the use of some available resources. Instructional resources are also educational inputs, and they are of vital importance in the successful implementation of any curriculum. The purpose of instructional materials is to promote the efficiency of education by improving the quality of teaching and learning. Academic instruction is not complete until knowledge has been successfully transferred to the learners which in most cases, may not just be tied to teacher effectiveness or teaching skill, but the instructional materials used in the learning process. Also, Oragwu and Nwabueze (2018) added that the key instructional resources needed knowledge building in vocational education programmes include: classrooms, chalkboard, textbooks, libraries, computers, printers, photocopier, laboratories, workshops, agricultural farms, such as poultry farms and fish ponds.

The findings also presented that, the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools in Abia State, Nigeria include: improper planning of teaching material procurement in schools for vocational subjects, inadequate funds to provide the instructional resources needed in schools by school administrators, and low involvement of government in the provision of needed instructional resources for the implementation of vocational programme in secondary schools. Others include little or no allocation of vocational subjects' instructional resources to schools by the Ministry of Education, and politics in the allocation of the instructional resources in the country. The test of hypothesis one showed that, there is no significant difference between the mean score ratings of teachers in rural and urban schools on the challenges inhibiting the adequacy of instructional resource provision for the implementation of vocational education programme in secondary schools in Abia State, Nigeria. Nwankwo (2008) had worried that lack of modern and well-equipped laboratories, workshops as well as a shortage of power supply constitute another setback to vocational education programme implementation. The findings are in line with Ajayi's (2002) who stated that inadequate funding, lack of laboratories, lack of workshops, shortage of power supply, shortage of manpower, diversion of educational resources to private use, lack of skills and knowledge to use educational facilities, lack of judicious use of educational fund, lack of maintenance culture in the schools, government's inability to procure instructional resources to schools, poor educational planning, and politicization of educational resources may constitute the major factors that hinder adequate provision of instructional resources in secondary schools for the implementation of vocational education programmes in Nigeria.

The findings had equally disclosed that the extent to which available instructional resources are

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used in the delivery of vocational subjects in secondary schools in Abia State, Nigeria is low. Though, they use classrooms for teaching and learning, libraries for knowledge building among staff and students on vocational concepts, and textbooks for knowledge creation and skill acquisition to a great extent. They use workshops for clarification of concepts on vocational subjects, and laboratory apparatuses/tools for clarification of technological ideas moderately. They use flash drives for storing and retrieval of needed information on vocational studies, photocopying machines for production of teaching and learning materials, desktop computers/laptops for the transfer of technological and innovative ideas, printers for the production of educational materials needed in teaching and learning, scanners for duplication of instructional materials, and CD-ROMs for storing and retrieving educational data/information poorly. The use of magnetic boards for teaching and transmission of knowledge to students and projectors for instructional purposes/ knowledge transfer very poorly. Scholars such as Amaewhule (1998), Igbemu (2003), Obayi (2003), Osuala (2004) and Everett (2005) all argue that, good Vocational Education Programmes are to take cognizance of trends in the market place, economy and occupational situation to enable students to acquire employability skills by enhancing their ability to find, get and keep jobs. These authors stressed that achieving all these cannot be realized without capable teachers and enabling instructional resources. The test of hypothesis two showed that there is no significant difference between the mean score ratings of male and female teachers on the extent to which available instructional resources are utilized in the delivery of vocational subjects in secondary schools in Abia State, Nigeria. Male and female teachers agreed that instruction resources for the delivery of vocational education subjects are not readily available to be utilized in schools. Thus, availability of instructional resources added to the availability of quantity and quality of relevant teaching staff will surely augur well for the implementation of Vocational Education Programme in secondary schools.

The findings finally disclosed that the challenges inhibiting adequate utilization of available instructional resources for the delivery of vocational education subjects in secondary schools in Abia State, Nigeria include: inadequate funding to maintain the available instructional resources for the delivery of vocational subjects, lack of enabling environment for quality teaching and learning, inability of some teachers to handle the available instructional resources during teaching, lack of technical maintenance of the available instructional resources, diversion of some instructional resources meant for academic programmes into private use, lack of skills among some staff to use new technology devices for knowledge building, and unstable electricity supply to use and maintain the instructional materials meant for academic programmes. Utilization and maintenance have been the serious problems facing secondary education in the 21st century. It is difficult for institutional heads particularly, those that are public practitioners to release funds for securing the equipment. Even when funds are released, they come so late which may lead to loss of many practical classes and students' practical sessions. According to Oragwu and Nwabueze (2018), proper management of instructional resources meant for teaching and learning of vocational subjects enhances productivity.

X. Conclusion

Educational attainment and productivity depend on the quality of teaching staff and instructional resources available in the school system. Based on the findings, instructional resources adjudged to be adequate were classrooms and workshop. However, libraries, desktop computers/laptops computers, laboratories/laboratory apparatuses wall charts, flash drives, photocopiers, CD-ROMs, scanners and printers were not available in schools. It can be concluded that great efforts be made by the government in the area of vocational education to improve and enhance the availability of instructional resources required in schools for students' productivity and institutional development. The lack of necessary instructional resources in schools reduces the students' readiness to learn.

Recommendations

1. There is the need for all stakeholders including the Government and the Private sectors to contribute financially and materially in the provision of instructional resources needed for quality teaching and learning of vocational subjects in secondary schools.
2. Most of the instructional resources needed for the delivery of vocational studies require a power supply to be operational; therefore, government and its agencies should consider it as a matter of urgent necessity to resuscitate the power supply in Nigeria.
3. School Heads, Principals and officials of the Ministry of Education should ensure regular supervision to enhance the effective use of instructional materials in teaching and learning of vocational subjects in secondary schools in Nigeria.

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