

## Improving the Quality of Vocational Education to Meet 21<sup>st</sup> Century Development Challenges in Rivers State

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### Abstract

The study looked into how to raise the caliber of vocational education in Rivers State to meet development problems of the twenty-first century. The study was led by two research questions and two hypotheses. The research used a descriptive survey approach. Vocational, technical, and Home Economics teachers from vocational schools in Rivers State made up the study's population. A sample size of 232 was determined using the practical sampling technique. A 32-item questionnaire created by the researcher with the title Improving the Quality of Vocational Education to Meet 21<sup>st</sup> Century Development Challenges (IQVEMCDCQ) served as the data gathering tool. The z-test, mean, and standard deviation were employed to analyze the data. Findings showed that overcoming the difficulties of the 21<sup>st</sup> century in Rivers State, Nigeria, depended heavily on preserving school facilities and raising teacher quality. It was determined that in order for Rivers State's vocational education to face the difficulties of 21<sup>st</sup>-century development, school infrastructure must be maintained and manpower levels must be raised. Government must fulfill its obligation to provide necessary and high-quality facilities in vocational schools in Rivers State, and school administrators must be accountable.

**Keywords:** Challenges, Development, Education, Improvement, Quality, Vocational Education, 21<sup>st</sup> Century.

### Introduction

Vocational education over the years, in the developed society, has remained one key factor in meeting 21<sup>st</sup> century development challenges. In the developed society, it has contributed to the alleviation of poverty, robust economy, reduction of unemployment and the promotion of food security among others. However, over the years, in Rivers State, the quality of vocational education has constantly deteriorating and lacking in contribution and in meeting 21<sup>st</sup> century development challenges such as poverty, hunger, inequity, unemployment and others due to the quality of manpower and instructional materials. The state of physical facilities in vocational schools in Rivers State is alarming, as everywhere, there are dilapidated classrooms, library and laboratories that cannot meet 21<sup>st</sup> century development challenges. There is a need to improve on the quality of vocational education in Rivers State. One of the ways of improving the quality of vocational education in Rivers State is by providing quality instructional facilities and making sure that available facilities are in good working condition. This will require reactive and proactive maintenance such as preventive and corrective maintenance. Another way of improving vocational education in Rivers State is by improving the quality of teachers. This will also require retraining of available teachers and the recruitment of qualified teachers.

It is however the duty of School heads to make sure that school plants are maintained and in good working condition. School heads has the responsibility of making sure that vocational education teachers are retrained and qualified ones employed to meet 21<sup>st</sup> century development challenges. Improving the quality of school plants and teachers in vocational schools in Rivers State will increase the chances of meeting 21<sup>st</sup> century development challenges such as unemployment, Quality education, sustainable livelihood, food security, and others.

### Statement of the Problem

One of the important tasks of school authorities in vocational schools is maintaining the quality of vocational education to meet 21<sup>st</sup> century development challenges. However, in many of the vocational schools in Rivers State, it seems as if the culture of maintaining the quality of vocational education is lacking.

In spite of the fact that the policy on education has been modified a number of times to accommodate changing trends in the system of education in the global world and in the immediate Nigerian environment, the school system has continued to degenerate; and to produce graduates who appear unemployable or confused in the work environment, and are often classified as unemployable by employers of labour. To solve this problem, the curriculum of education at virtually all levels has been modified and expanded to include more vocational subjects to ensure that school system products are functional upon graduation in any work environment.

However, there is a great concern expressed by parents and employers of labour as to the quality of vocational education provided in schools. This problem is further compounded by the short supply of qualified vocational education teachers with relevant vocational skills and the dearth of facilities required for vocational education, especially in public schools; hence, the need to improve the quality of vocational education in Rivers State to meet 21<sup>st</sup> century development challenges.

### Aims and Objective of the Study

The study investigated improving the quality of vocational education to meet 21<sup>st</sup> century development challenges in Rivers State. Specifically, the study sought to:

1. Examine the state of vocational education in meeting 21<sup>st</sup> century development challenges in Rivers State.
2. Find out ways improving the quality of vocational education will meet 21<sup>st</sup> century development challenges in Rivers State.

### Research Questions

The following research questions guided the study:

1. What is the state of vocational education in meeting 21<sup>st</sup> century development challenges in Rivers State?
2. What are the ways of improving the quality of vocational education to meet 21<sup>st</sup> century development challenges in Rivers State?

### Research Hypotheses

The following research hypotheses were tested at 0.05 level of significance:

1. There is no significant difference between the mean scores of male and female principals on the state of vocational education in meeting 21<sup>st</sup> century development challenges in Rivers State.

2. There is no significant difference between experienced and less experienced teachers on the ways of improving the quality of vocational education to meet 21<sup>st</sup> century development challenges in Rivers State.

## Literature

### The State of Vocational Education in Rivers State

The state of vocational education in Rivers State dates back to antiquity. It started first as home apprenticeship within the family circle with a very high standard. It was also very practical and combines theory, experience, and practice to prepare learners/students for job in areas such as technicians, trade, artistry and others (Jindu, 2017). It helps people to make great impact on human resource development and the quality of economic growth and provide workers with the required skills to support developing economy and meet global demands (Jacob, 2016).

Nevertheless, at this time in Rivers State, vocational education was according to Ile (2012) a specialised and gender sensitive education. The mother taught the daughters cooking skill while the father taught the son hunting and fishing skills. These skills were carefully developed, carefully taught, practically learnt, and guided with moral certitude and probity (Ile, 2012). The skills cut across accelerating viable labour force into diverse occupations such as hunting, clay pot production, dressmaking, moulding, and agriculture (farming practices), carpentry, cooking, fishing, hair-making, and building construction and others (Ile, 2012). According to Jacob (2016) this had continued until the time of industrial revolution, colonization and amalgamation when vocational education, changed from 'on-the-job education' to 'off-the-job education'.

Of-the-Job education is the education that increases unemployment, insecurity, crime and the craze for white-collar jobs due to shift in perception and understanding. The shift in perception, in the recent past, in Rivers State has affected cultural reproduction and practical knowledge. Hence, vocational education is today seen as the education for the poor, academically incompetent, handicapped and drop out children. This perception says Johnson (2018) has affected the overall quality of vocational schools in Rivers State. It has affected teachers' quality, students learning, administrative duties, and economic development in Rivers State.

In his rating, Ekulo (2015) maintained that the quality of vocational education in Rivers State is below average and does not give room for effective development due to the quality of teachers, state of physical facilities and attitude of management. Hence, everywhere there are dilapidated infrastructures, obsolete equipments, and dearth instructional materials that does not promote sustainable development nor support the achievement of global needs. All those have greatly affected the overall performance and contribution of vocational institutions in meeting 21<sup>st</sup> century development challenges. Therefore, to meet 21<sup>st</sup> century development challenges, there is a great and urgent need to improve on the quality of vocational education in Rivers State.

### Ways of improving the quality of vocational education to meet 21<sup>st</sup> century development challenges in Rivers State

#### Provision of qualified teachers

To improve the quality of vocational education in Rivers State, adequate supply of qualified teachers' is inevitable. Quality and qualified teachers will help in enriching the curriculum content for vocational studies. It will help in the implementation of curriculum and goal achievement as well as impact on the effectiveness of vocational education programmes listed in FRN (2014) as

1. Adire, Aso-oke, Akwaete, Gwado (local blanket), mat, drums
2. Welding, sheet metal work, Motor vehicle repairs (auto- mechanical, panel beating, auto-electrical, vulcanizing)
3. Electric wiring: domestic and industrial, construction (plumbing, painting, bricklaying)
4. Catering, Performance Arts (dance, drama, film production, media)
5. Hairdressing and beauty, Art, Agriculture, fashion design, Sport and others (p.58)

Further, the provision of qualified teachers to vocational schools according to Sampson (2016) will affect positively on the instructional methods, students' performance, and administrative duties. It will also improve performance overtime, provide development, transformational framework for training and for defining gap between what is happening, and what should happen. The provision of qualified teachers will help vocational schools in building resilient, quality culture and values such as dedication, resourcefulness, discipline, professionalism, and in meeting 21<sup>st</sup> century development challenges.

### **Rational and Systematic Analysis**

Rational and systematic analysis in vocational education is necessary in meeting 21<sup>st</sup> century development challenges in Rivers State. It improves according to Okam (2016) organizational effectiveness and facilitates the achievement of organizational goals and objectives. One of such analysis for the improvement of vocational education in Rivers State is the SWOT ANALYSIS. Swot analysis identifies the education system internal strength and weakness as well as opportunities and threats that affect desired imminent outcomes of education, metamorphosing into what Ololube (2017) and Ololube (2018) refers to as feedback process.

The feedback procedure addresses There are four types of strategies: strategic analysis, formulation, implementation, and control. The educational system's current state is assessed through strategic analysis, which also analyzes the resources, skills, and assets that constitute its strengths, weaknesses, difficulties, and obstacles (SWOT). Therefore, strategic formulation concentrates on the desired state of the educational system. It entails establishing strategic objectives, finding strategic options, assessing them, and selecting the approach that will help the educational sector perform at its best over the long term. Strategic implementation also concentrated on converting the educational system into workable policy. Lastly, monitoring the implementation is a part of strategic control.

### **Recruitment of qualified teachers**

To improve the quality of vocational education teachers, there is the need to improve the process for recruitment and selection of teachers. The essence is to increase performance and eliminate redundancy problems. The process, according to Armstrong (2001) in Philip (2018) involves, taking much care in matching people to the requirement of the organization as a whole and to the particular need of the job. According to Sampson (2018) the process of recruitment and selection of teachers requires defining goals, defining the vacancy, defining the job and defining the person. This for Jindu (2017) requires interviewing, aptitude test, bio data questionnaire, and outsourcing. Outsourcing according to Alan (2011) is a strategy that ensures people are sought according to (1) number and required staff. (2) Appropriate abilities and experience to perform the job with minimal training. 3) Clear answers to questions such as there is a job to be filled. What tasks and responsibilities are involved? What qualities, skills, or experiences are required to perform the tasks? What process will best identify these criteria?

## **Training and re-training of teachers**

Training and retraining of manpower in every institution of the world is one inevitable factor that facilitates organizational development and prepare workers for work. It helps staff acquire requisite skills for the present job as well as build capacity in technical, human, and conceptual line. It also broadens workers' knowledge for effective functioning and development of the individual and organization hence, Samson (2016) describe it as that which improves employees' competence and organizational development.

However, in vocational education, according to Jindu (2017) training and retraining of vocational education teachers is critical and beneficial to staff and students in meeting 21<sup>st</sup> century development challenges in Rivers State. It improves the quality of vocational education and provides solution to the social and natural problems that impinge on human well-being globally (Jacob, 2016). Therefore, in view of the above, improving teachers' capacity through effective training and re-training in meeting 21<sup>st</sup> century development challenges is imperative.

## **Provision of Adequate and qualitative Facilities**

Physical facilities such as school farm, buildings, classroom, hostels, laboratories, books, and libraries, books, and school vehicles and others in every institutions of learning occupy prominent position in the achievement of goals especially in meeting 21<sup>st</sup> century development challenges in Rivers State. The adequacy of these facilities in achieving global demand cannot be undermined hence, Ile (2018); define school facilities as tools for cultural reproduction and skill acquisition that facilitate teaching, learning, and administrative duties. In the same vein, Fasina (2005) cited in Nwankwoala (2018) maintain that the provision of adequate school plants has a lasting effect on the performance and psychological stability of the teacher and students. According to Odum (2013), provision of adequate and up-to-date facilities in technical and vocational schools enhances performance and motivates teachers in their work. It also affects the school and the choice of parents in terms of student enrolment.

## **Maintenance of instructional facilities**

Timely maintenance of dilapidated and available instructional facilities is of great importance in every institutions of learning. It will facilitate the achievement of 21<sup>st</sup> century development challenges. According to Fasina in Nwankwoala (2018), dilapidated school buildings are unsuitable for modern and functional education. Its effect is the production of mediocre, poor students' achievement and performance. It will not increase the chances of meeting 21<sup>st</sup> century development challenges in Rivers state. According to Philip (2018), maintenance of school facilities will improve the quality of vocational education by improving the rate of utilization for prolonged operational life and cost reduction among others.

## **Methodology**

The study looked into how to raise the caliber of vocational education in Rivers State to meet development problems of the twenty-first century. The study was led by two research questions and two hypotheses. The research used a descriptive survey approach. Vocational, technical, and Home Economics teachers from vocational schools in Rivers State made up the study's population. A sample size of 232 was determined using the practical sampling technique. A questionnaire created

by the researcher with 18 items and the title Improving the Quality of Vocational Education to Meet 21st Century Development Challenges (IQVEMCDCQ) served as the instrument for data collection. The survey was formatted using a modified Likert scale with four possible responses: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The z-test, mean, and standard deviation were employed to analyze the data. The study's instrument was approved by specialists in the department of educational management, measurement, and evaluation at Ignatius Ajuru University of Education. Through the test-retest procedure, a reliability coefficient of 0.76 was attained. At a significance level of 0.05, hypotheses were tested using the Z-test.

## Results

**Research Question One:** What is the state of vocational education in Rivers State in meeting 21<sup>st</sup> century development challenges?

**Table 1: Mean and standard deviation on state of vocational education in Rivers State**

| S/N | ITEM                                                                                                                                            | N          | MEAN | SD   |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|------|
| 1   | Vocational education involves craftsmanship in Rivers State                                                                                     | 232        | 2.12 | 0.62 |
| 2   | Vocational education prepares students for practical activities in Rivers State                                                                 | 232        | 2.30 | 0.63 |
| 3   | vocational education support developing economic growth in Rivers State                                                                         | 232        | 2.70 | 0.66 |
| 4   | Technical and vocational education teachers have the requisite skills and competence to impact the right training to make students self-reliant | 232        | 2.81 | 0.65 |
| 5   | Students are poorly equipped with requisite skills to handle jobs and be self-reliant.                                                          | 232        | 2.01 | 0.55 |
|     | <b>Grand mean</b>                                                                                                                               | <b>232</b> | 2.39 | 0.62 |

Data in Table 1 showed mean scores and standard deviation of vocational education programme. From the table, it is observed that respondents agreed on items 3 and 4 with mean scores greater than the criterion mean of 2.50.

**Research Question Two:** What are the ways of improving the quality of vocational education to meet 21<sup>st</sup> century development challenges in Rivers State?

**Table 1: Mean and standard deviation of the ways of improving the quality of vocational education to meet 21<sup>st</sup> century development challenges in Rivers State.**

| S/N | ITEM                                                                                                               | N   | MEAN | SD   |
|-----|--------------------------------------------------------------------------------------------------------------------|-----|------|------|
| 1   | Instructional materials available to teach vocational education are qualitatively adequate                         | 232 | 2.11 | 0.71 |
| 2   | Maintenance of instructional materials help in enhancing the quality of vocational education                       | 232 | 3.20 | 0.53 |
| 3   | Training and retraining of teachers facilitates the achievement of 21 <sup>st</sup> century development challenges | 232 | 3.11 | 0.55 |
| 4   | Technical and vocational schools are provided with adequate and up to date equipment and facilities                |     | 2.23 | 0.66 |

|   |                                                                                                                                                         |            |             |             |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|-------------|
| 5 | The availability of facilities helps students to develop interest and motivation on vocational and technical education                                  | 232        | 3.20        | 0.65        |
| 6 | The provision of adequate training materials/facilities enhances students' performance ,teachers work and administrative duties in vocational education | 232        | 3.25        | 0.61        |
| 7 | Improving the process of recruitment and selection of teachers enhances the quality of vocational education                                             | 232        | 2.11        | 0.76        |
|   | <b>Grand mean</b>                                                                                                                                       | <b>232</b> | <b>2.74</b> | <b>0.63</b> |

Data from Table 3 indicated the average scores and standard deviation of how well-equipped facilities affected the success of the program for vocational education. According to the table, respondents agreed on items 2, 3, and 5 and had mean scores that were higher than the 2.50 criterion mean.

**Hypothesis One:** There is no significant difference between the mean responses of teachers on the state of vocational education in Rivers.

**Table 3: Analysis of the mean responses of teachers on the state of Vocational Education**

| Variables                      | N   | X    | SD   | Df  | Cal.z-value | Crit.z-value |
|--------------------------------|-----|------|------|-----|-------------|--------------|
| <b>Decision</b>                |     |      |      |     |             |              |
| Human Resources                | 232 | 2.39 | 0.62 | 230 | 0.2261.     | 96           |
| <b>Ho<sub>1</sub> Accepted</b> |     |      |      |     |             |              |
| Effective Vocational Education | 232 | 2.36 | 0.59 |     |             |              |

Field Survey, (2019)

Table 3 above, showed that z-calculated value is 0.226 while the z-critical value is 1.96. Since the z-calculated value of 0.226 is less than the z-critical value of 1.96 at 0.05 level of significant and 230 degree of freedom, the null hypothesis is accepted. This therefore means that there is no significant difference in the mean responses of teachers on the state of vocational education in Rivers State, Nigeria.

**Hypothesis Three:** There is no significant difference between the mean scores of teachers on the ways adequate provision and maintenance of facilities helps to meet 21<sup>st</sup> century development challenges in Rivers State

**Table 4: Analysis of the mean responses of teachers on the provision of Vocational Education facilities.**

| Variables       | N | X | SD | Df | Cal. z-value | Crit. z-value |
|-----------------|---|---|----|----|--------------|---------------|
| <b>Decision</b> |   |   |    |    |              |               |

Adequate Facilities 232 2.74 0.63 230 0.216 1.96

Ho<sub>3</sub> Accepted

Effective Vocational Education 232 2.65 0.62

Field survey, (2019)

The null hypothesis is accepted at z computed value of 0.216, which is less than the critical value of 1.96, at 230 degrees of freedom, and 0.05 level of significance. Inferring from the mean comments of teachers on the availability of facilities for vocational education in Rivers State, Nigeria, there is no discernible difference.

### Discussion of Findings

Hypothesis one revealed the state of vocational education in Rivers State. It showed how vocational education involve craftsmanship, prepares and equip students' practical activities, and skills for self-reliant. Respondents have agreed that vocational education is key in meeting 21<sup>st</sup> development challenges in Rivers State.

Hypothesis two: The study also showed that adequate supply and retraining of vocational education teachers is key in meeting 21<sup>st</sup> century development challenges in Rivers State. Hence, vocational education requires human resources to drive and implement government policies and programs in order to achieve global demand. Respondents to this effect were in unison that human resources are vital to the effectiveness of vocational education in Rivers State. Gabriel (2015) noted that human resources are paramount in improving the curriculum for vocational and technical education and in preparing students for a paradigm shift in vocational studies.

However, there is need for total overhauling of vocational and technical education curricula in Rivers State specifically and Nigeria generally since Vocational education brings about the efficiency and the development of human resources in the art and science of job creation, economic development, and skill acquisition to power the socio-economic values of Nation towards its greater height. Therefore, to ensure consistent improvement in the quality of human resource output, improving the process of recruitment and selection is necessary as well as training of academic staff.

The study also showed that the Provision of quality facilities and maintenance has significant impact on the effectiveness of vocational education in Rivers State. It is however most surprising to know that in vocational schools in Rivers State, the available facilities as at today are obsolete and quantitatively inadequate despite the connection between adequate facilities and effective vocational education in meeting 21<sup>st</sup> century development challenges in Rivers State as revealed by the study. The study concludes that to achieve global demand in vocational schools in Rivers State, provision of adequate facilities is necessary.

### Conclusions

A tradition that prioritized academic studies above skill-based courses was passed down to Nigeria from the British government; this has stymied the successful growth of vocational education. Nigeria must make sure that the quality of vocational education is raised in a sufficient manner if she is to meet the socioeconomic changes that are now occurring in this century. The curricula of vocational education institutions should be in line with the needs of the labor market in order to give young people the skills they need to find good jobs. To meet the difficulties of 21st-century growth in Rivers State, the entire vocational education system.

## Recommendations

1. There should be great emphasis on experience, skill and practical activities
2. Motor sensory skills activities should be encouraged
3. Qualified vocational education teachers should be supplied to vocational schools to meet 21st century development challenges in Rivers state
4. Regular competency training should be provided for teachers to meet 21st century development challenges in Rivers State
5. Recruitment and selection processes of teachers should be improved to meet 21st century development challenges in Rivers state
6. Adequate supply and maintenance of vocational education facilities should be encouraged

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