

## EVALUATION OF THE IMPLEMENTATION OF THE NATIONAL CURRICULUM FOR BASIC SCIENCE IN RIVERS STATE

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### ABSTRACT

*This study focused on the evaluation of the implementation of the national curriculum for basic science in the junior secondary schools in Rivers State. Evaluation are descriptive survey design were adopted for the study. Three research questions are three corresponding hypotheses guided the study. The population comprised 10,628 head-teachers and teachers in the junior secondary schools in Rivers State. The multi stage sampling procedures was used to draw head-teachers and teachers from the 23 local government areas of the State, while the simple random sampling techniques was used to select 600 respondents (head-teachers and teachers) as the sample size of the study. The instruments used for data collection were tittle Basic Science-Implementation Evaluation Questionnaire for Head Teachers (BSI EQHT<sub>s</sub>) and Basic Science Questionnaire for Teachers (BSIEQT<sub>s</sub>) respectively. The reliabilities of the instruments are 0.80 while these of sub-scales are 0.88 for BSIEQHT and 0.71 for BSIEQT using Rulom statistics tools. Face and validity were used in this study. Mean ( $\bar{x}$ ) and standard deviation were used to answer the research question while t-test was used to test the hypothesis at 5% probability level. The results obtained showed that (i) no significant differences between the head-teachers and teachers mean responses on the implementation of Basic Science Curriculum in Rivers State (ii) Availability of instructional materials/facilities showed significant difference in the mean ( $\bar{x}$ ) responses of male and female teachers. Therefore, recommendations for more provision of Basic Science teachers in Rivers State. Finally, more provision of Basic Science materials facilities and the inclusion of head teachers and teachers in the implementation process among others.*

### INTRODUCTION

Basic science is one of the subjects taught in the Junior secondary School levels in Nigeria. This subject forms the foundations upon which other science subjects operate. It is also called Pure science or fundamental science because it seeks to explore and explain the underlying principles and mechanisms to build foundation of knowledge in improving our quality of life. This conception came on board when it was discovered that integrated science as the first course of studying science subject was not meeting up their society's demand and national expectations in scientific advancement. This review of integrated science curriculum in scope and contents gave birth to Basic Science. In line with the reform, they restricted the national curriculum for Basic Science to include the following topics: Environmental education, drugs abuse education, population and family life education, sexually transmitted infection, climate change, foods and drug safety education, disaster risk reduction education, consumer education, safety and security education as well as entrepreneurship. Again, it was stated that children between the ages of five (5) and eleven (11) years should be education in knowledge, skills and attitudes that are expressed in series of attainment together. Consequently, the reform of basic science curriculum was first introduced in schools in September, 2008 (FME, 2014).

The task of drawing Basic Science curriculum in 2007 was assigned to Nigerian Educational Research and Development Council (NERDC) (Science Teachers Association of Nigeria; 2014). Therefore, students who wish to study sciences (e.g., medicine, nursing, pharmacy, forestry, fisheries, engineering and other vocation courses like technical education) among others take advantage of Basic Science at the lower levels of education.

Basic science is defined as the scientific disciplines of mathematics, physics, chemistry and biology. It is the combination of the three basic sciences (Physics, Chemistry and Biology) at the

Junior secondary school levels. They are called Basic Science because they provide a fundamental understanding of natural phenomena and the process by which natural resources are transformed.

To Agbo (2008) and Baikie (2010) as cited in NERDC (2013) states that Basic Science is the bedrock to advance studies in science related subjects.

More interestingly, National Policy on Education (2013) and Bajah (2013) state the cardinal objectives of Basic Science to include:

- i. Develop learners' interest in science
- ii. Gain full knowledge in a field of study
- iii. Prepare learners to acquire basic laboratory knowledge and skills
- iv. Apply their scientific knowledge and skills to meet societal needs
- v. To take care of the various career opportunities offered by science subjects
- vi. Become more prepared for further studies in science.

Furthermore, the expanded programme in the integrated Science curriculum both in scope and contents give rise to Basic Science curriculum. Basic science exposes students to various disciplines that can spark up their interest and curiosity in science related subjects. Thus, provide students with solid foundation of knowledge that can help them pursue their studies, research and discovery.

Curriculum is defined as the system of the body of materials and an organized plan put together to modify the behaviour of a person in his/her environment with the aim to make the persons develop the full potentials so as to function effectively in the society (Ivowi, 2009). Similarly, Ojedele (2017) defined curriculum as the planned interaction of pupils with instructional contents, materials, resources and process for evaluating the attainment of educational objectives. In furtherance, the author sees curriculum as the aggregate of courses of study in a given learning environment. In a like manner, Amadi, et al (2016) stated that curriculum is the outline of the skills, performances, attitudes and values learners are expected to learn from schooling. It includes statement of desired learning outcomes, description of materials and the planned sequence that will be used to help learners attain anticipated outcomes. Based on the foregoing, curriculum is the instructional document which the school uses in educating young people. It is the systematic and planned attempts made by the schools to change the behaviours of members of the society in which it situates.

Generally, when a programme is assessed or evaluated, some data relating to such programmes are collected, analyzed and interpreted so that decisions regarding the programme can be made. These decisions may lead to programme improvement, programme replanning and personnel improvement among others. As a matter of utmost impotency for Basic Science programme to stand the test of time, two things must be considered and they are curriculum implementation and curriculum evaluation. Based on the foregoing, curriculum implementation is often accessed through curriculum evaluation because it is the process of evaluation that exposes comprehensively the worth and true picture of what happens to the curriculum at its implementation stage. This shows that if the evaluation process is faulty, many impediments to the implementation of the curriculum would not be fully discovered (Aguokagbuo, 2014).

To Ali, (2013), curriculum implementation is that aspect of curriculum that concerns the nature and scope of classroom teachers and evaluation of learning achieved by students after instruction. Furthermore, the author postulated that the process of curriculum implementation entails interaction between curriculum planners, the teachers, the learners and the learning environment. In furtherance, the author maintained that the teachers are the key players in the implementation process. This is because what they do in the classrooms determine whether or not the set goals are achieved.

The history of evaluation is as old as mankind on planet Earth (Dike, 1998). To the author, it is an integral part of the instructional programme. This is because it plays a vital role in teaching and learning and provides information on the basis of which educational decisions are taken for better results.

The term evaluation had been defined in different ways by various people depending on their inclination. Some experts use the word evaluation interchangeably with measurement, test, appraisal and assessment. To Mehrens and Lehmann as cited in Onunkwo (2002), evaluation is the process of delineating, obtaining and providing useful information for judging decision alternatives. Nkwoacha (2009) stated that evaluation is the use of specified criteria to judge, ascribe quality, value or worth or behaviour or attributes of an object. Interestingly, Asuru (2015) in general parlance observed that evaluation is the systematic process of passing value judgement as to the worth of a thing, object or programme. It describes quantitatively the worth of a thing based on measurement data. In an inciting manner, the author stated that in a school setting, evaluation is the systematic process of determining the extent to which instructional objectives are achieved by the pupils. Asuk and West (2021) defined evaluation as the process of examining a programme or process to determine what is working, what is not and why. It is also the process of collecting data in a programme to determine its value or worth with the aim of deciding whether to adopt, reject or revise the programme.

There are many evaluation models used for evaluating educational programmes and some of them are: Tyler's objective centred model, Daniel Studdlebeam's CIPP model), Malcom provus discrepancy evaluation model to mention but these. The present study employed the Tyler's objective centred model (i.e. goal-attainment) model of evaluation. Tyler is the proponent of goal attainment evaluation model (Dike, 2016). The Ralph Tyler evaluation approach is focused on detecting the extent to which programme's objectives (Basic Science curriculum) had been implemented. Here, the results of the programme (implementation of Basic Science curriculum) are assessed only in relation to the curriculum implementation.

In line with the foregoing, evaluation is the process of finding out the strengths and weakness of a programme (educational programme) with a view to terminate, continue or modify the programme. i.e the implementation of National Curriculum for Basic Education). The importance of Basic education to the scientific and technological development in the modern world cannot be over emphasized. It rekindles the zeal for students to offer science subjects. This is because it exposes the background to all related science subjects.

### **Statement of the Problem**

One of the major goals of science education is to produce scientists for national development (FRN, 2014). Basic science provides a framework around which other separate sciences operate to push the society to advanced level. The young coming generations are supposed to develop interest and love for the subject and seriously pursue and adapt the requisite skills required for the nation's technological advancement. This can only be achieved by having sound basic knowledge in science and skills.

In recent times, the federal government of Nigeria had invested huge sum of money to promote science education programme from the grassroots but it does not pay off. This is because the performances of students in science subjects are drastically dropping on regular basis.

Consequently, this prompted the researcher to evaluate the extent to which the National curriculum for Basic science in Rivers State is implemented. This is because the poor performances of students in Basic science could be attributed to poor implementation of the curriculum.

### **Significance of the Study**

This study will offer useful and relevant information to the teachers to enable them cover the objectives of the instruction as this will enhance the implementation of Basic Science programme. Again, the results will enable the government to ensure adequate funding in the educational sector to provide opportunity for the implementation of the educational programme. To the students the findings will go a long way to provide information on the extent that they are attaining the aim and objectives of Basic Science curriculum.

To the government, parents and educational administrators, the results will inform them on the need to provide Basic science materials to the schools. Finally, the results of the study will serve as reference materials for future researchers.

### **Scope of the Study**

The study was delimited to the Junior secondary school students in Rivers State. Specifically, those students offering Basic Science subject.

### **Aim and Objectives**

The aim and objectives of this study is to evaluate the implementation of the National curriculum for Basic Science in Rivers State Junior Secondary schools. Specifically, the study seeks to:

1. Determine the extent the implementation of National curriculum for Basic science effectively carried in Rivers State Junior secondary schools based on school heads and teachers.
2. Find out the extent the availability of instructional materials/facilities influence the implementation of National curriculum for Basic science in Rivers State Junior Secondary schools based on gender.
3. Examine the extent the utilization of available materials/facilities influence the implementation of National curriculum for Basic Science in Rivers State Junior Secondary schools based on gender.

### **Research Questions**

The following research questions guided the study:

1. To what extent do the implementation of the National curriculum for Basic science effectively carried out in Rivers State Junior secondary schools based on school heads and teachers?
2. To what extent do the availability of instructional materials/facilities influence the implementation of National curriculum for Basic science in Rivers State Junior secondary schools based on gender?
3. To what extent do the utilization of available materials/facilities influence implementation of National curriculum for Basic science in Rivers State Junior secondary schools based on gender?

### **Hypotheses**

The following null hypotheses were formulated to guide the study:

1. There is no significant influence in the mean response of head of schools and teachers on the implementation of Basic science curriculum in Rivers State Junior Secondary schools.
2. Availability of instructional materials/facilities do not significantly influence the implementation of Basic science curriculum in Rivers state Junior secondary schools based on gender.
3. Utilization of available materials/facilities do not significantly influence the implementation of Basic science curriculum in Rivers Junior secondary schools based on gender.

### **Review of Related Literature**

The literature of the study was reviewed under the following sub-headings, conceptual, theoretical, empirical and summary of literature review.

### **CONCEPTUAL REVIEW EVALUATION**

The concept of evaluation has been defined by various scholars in different ways. Evaluation is the systematic collection and interpretation of evidence leading as part of the process to a judgement value with a view of action. Asuru (2015) observed that in general parlance, evaluation is the systematic process of passing value judgment as to the worth of a thing, object or programme and

it quantitatively describe the worth of a thing based on measurement date. To Chikwe (2017), evaluation connotes the process of making value judgement or taking decision about events, objects or their characteristics. Evaluation is needed to pass value judgement either in schools, companies, society to mention but these.

### Concept of Basic Science

Basic science is the beginning of studying science from the scratch or from its rudiments. The idea of Basic science came on board when the existing integrated science was not meeting up societal and national expectation in scientific advancement. The introduction of Basic Science in schools brought about the review of the integrated science curriculum to include: environmental education, drug abuse education to mention but these. The restructured rational curriculum for basic science specifies that children between the ages of five and eleven years should be educated in knowledge, skills and attitudes etc.

### Curriculum Evaluation

This is the process of constantly reviewing the curriculum to take into account the new assessment procedures, Local initiatives as well as incorporating the technological changes among others. Curriculum evaluation needs to be carried out in different stages to obtain the desire results. To Madu (2016), the purpose for comprehensive curriculum or programme evaluation should include: Informing the learners of their achievement and further motivate them to learn. This is because pupils come to know their strength and weakness, Familiarizing teachers in their learning problems. Educational programme is to gain specific information or knowledge about the various aspect of the programme evaluated. Again, Okoro (2020) Maintained that programme evaluation helps to ensure that funds are not wasted in the provision of education that is no longer relevant. Hence, institution may continue to offer programmes that are not needed in the society globally. Among the purpose of curriculum evaluation is to identify the relevant context area of the curriculum or programme and determine the quality of the outcome through the quality and relevance of the component of the process.

In the light of the foregoing, Madu (2016) in Amadi et al, (2016) summarizes some of the roles and uses of curriculum evaluation to include:

1. **Teachers accountability:** It helps to asses teachers performance on the job of teaching and guidance of learners
2. **Quality Control:** Evaluation improves the effectiveness and efficiency of teaching methods, strategies, learning activities and learning environment
3. **Quality Assurance:** Evaluation results are used in reporting learner's program to parents, learners themselves and educational stakeholders in the sector.
4. **Pupil Motivation:** Result of evaluation is a strong motivation to learners as they are encouraged to perform better.
5. **Research Functions:** Evaluation result helps to establish relationship between learning, training as well as the transfer of learning/training to the job

### Theoretical Review

Evaluation theories as stated by Miller (2011) in Asuru (2017) are intended to provide evaluator with the bases for making myriads of decision that are part of designing and conducting an evaluation. Weiss was one of the proponents of programme evaluation theory (Weiss (1972) cited in Moses (2020). This theory explains how the programme works, functions or implemented. In relation to this study therefore, the theory explains how the national curriculum for the Basic Science subject is implemented in schools.

Another theory used was the decision-making model propound by Mervin Alkin (1970) cited in Asuk (2020). Hence, the author called this model a decision making model because the author sees evaluation as a decision making. To this end, evaluation model is the process of using

different evaluation metrics to understand a machine learning model's performance as well as its strengths and weakness.

Consequently, this model relates to the study because evaluation of programme implementation determine the extent to which implemented programme meets the description formulated in the programme planning decision. Therefore, the implementation is evaluated to determine the extent to which what is obtain is in congruency wit ideals. Thus, the model is related to the study because it explains the importance of implementation of National curriculum for Basic Science. To the author, the implementation of the National Curriculum will enhance the achievement of the desired objectives of Basic Science

### **Empirical Review**

The following empirical review were carried out to give indebt knowledge about the study

#### **i. Implementation of the Basic Science Objectives**

Odili et al, (2015) examined teachers involvement in implementing the basic science curriculum in primary schools in Warri South Local Government Area of Delta State. The study is a descriptive survey design, with a population of 52 head teachers and 62 basic science teachers and 26 teachers as the sample size of the study. The result of the study showed that teachers are not involved in implementation of the curriculum. This is because there is no significant difference in the mean scores of respondents on the level of implementation of National Curriculum for Basic Science in Rivers State.

#### **ii. Availability of Instructional Materials/Facilities**

The provision of instructional materials/Facilities to school will enhance effective learning and improve students academic performance. Olufumilaun (2014) carried out a study to examine the availability and utilization of instructional materials in Ogun State, Nigeria. Descriptive research design was adopted for the study, from a population of 1,452 adult learners and instructors. A sample of 726 Participants were selected using proportionate random sampling technique.

A questionnaire titled Availability and utilization of Instructional Materials scale (AUIMS) was used for data collection and  $r=0.86$ . Five research question were raised and answered. The results showed that lack of availability and utilization of instructional materials seriously affect instructional delivery.

#### **iii. Utilization of available materials and facilities**

A study carried out by Adeyemi and Olaleye in Sambo et al (2014) evaluated students' involvement in the production of instructional materials and their academic performance in Basic Science and Technology. A Pretest-post control group using Quasi-Experimental design was used. Intact class of 120 SSII students was used. A sample of 60 student consisting the experimental groups were taught using produced model while the control group of 60 students used already prepared pieces of bones. Data collected using Basic Science Achievement Test for Instructional Materials (BSATIM) were analysed using ANOVA. The results show a significance difference exist between those taught with produced models and these taught with already prepared bones and the direction of the significance (the mean achievements) was determine using Scheffe test. The results showed that students involvement in the production of Instructional materials performed better in science courses.

### **Summary of Literature Reviewed**

The related Literature were reviewed under the following Sub-headings: Conceptual review, Theoretical review and Empirical reviews.

In the Conceptual review, some basic concepts in Basic Science were highlighted such as National Policy on Education, Curriculum implementation, evaluation among others. On the theoretical review, two theories were reviewed namely: Weiss evaluation theory and Mervin

Alkin Decision making model respectively. These theories are linked to the study because they explain how National Curriculum for Basis Science is implemented and the various component of the implementation process.

Finally, on the empirical review, related literature on the Basic Science Curriculum were highlighted. Consequently, all reviewed works were outside the Rivers State Junior Secondary Schools. Hence, the author sees the gap in Rivers State and to fill the gap necessitated the study.

## Methods

The study adopted evaluation and descriptive research designs. This is because it is a non-experimental study and does not require the manipulation of the variables involve in the study. The area of the study is Rivers State with a population of 10,628 respondent comprising Junior Secondary School Three (JSS3) head teachers and teachers respectively. The multistage sampling technique was adopted for the study after which the sampling techniques was not used to select head teachers, female and male teachers (i.e. 600 respondents) as the sample size. The instrument for data collect was self-designed questionnaire titled "Basic Science Implementation Evaluation Questionnaire were structured using the modified 4-points Like Scale of very High Extent (VHE) High Extent (HE), Low Extent (LE) and Very Low Extent (VLE). Faced and contents Validities were used in this study. Experts in Basic Science Subject, Measurement and Evaluation vetted the items on the instrument and considered fit for the study. In the internal Consistency of the instrument, the Rulon statistical formulae was used in the two administrations which gives a reliability coefficient of 0.78 (i.e. 78%). Data used in this study were collected from the administered instruments to the respondents (head of schools and teachers) in the study area. Mean and standard deviation were used t answer the research questions while independent t-test was used to test the null hypotheses at 5% probability level.

## Results

**Research Question One:** To what extent do the implementation of the National Curriculum for Basic Science effectively carried out in Rivers State Junior Secondary Schools based on School heads and Teachers?

**Hypothesis One:** There is no significant influence in the mean response of heads of schools and teachers on the implementation of Basic Science Curriculum in Rivers State Junior Secondary Schools.

**Table 1:** Showing the t-test analysis of significant influence in the men responses of Heads of Schools and Teachers on the implementation of Basic Science Curriculum in Rivers State.

| Variables       | No  | X    | SD   | DF  | T     | P-Value | Decision |
|-----------------|-----|------|------|-----|-------|---------|----------|
| School heads    | 250 | 4.20 | 0.63 | 598 | 0.721 | 0.086   | Accept   |
| School Teachers | 350 | 4.75 | 0.86 |     |       |         |          |

**\*sig @ 5% probability level, DF=598**

In table1 above, the results showed that the mean responses of School heads was 4.20 with a standard deviation 0.63 while the mean response of teachers was 4.75 respectively. Using the t-test analysis, the result showed t-calculated value 0.721 and P-value of 0.72 which is greater than the chosen alpha 0.05 level of significance. Therefore, the null hypothesis was accepted. This implies that there is no significant influence in the mean response of school heads and teachers on the implementation of basic science curriculum in Rivers State.

**Research Question Two:** To what extent do the availability of instructional materials/Facilities influence the implementation of National Curriculum for Basic Science in Rivers State Junior Secondary Schools based on gender?

**Hypothesis Two:** Availability of instructional materials/facilities do not significantly influence the implementation of Basic Science Curriculum in Rivers State Junior Secondary Schools based on gender.

**Table 2:** Showing the t-test analysis of significant influence in the mean responses of male and female teaches on the implementation of Basic Science Curriculum in Rivers State.

| Variables       | No  | X    | SD   | DF  | T     | P-Value | Decision |
|-----------------|-----|------|------|-----|-------|---------|----------|
| Male teachers   | 286 | 3.80 | 0.86 |     |       |         |          |
|                 |     |      |      | 598 | 0.741 | 0.044   | Reject   |
| Female Teachers | 314 | 4.20 | 0.88 |     |       |         |          |

**\*sig @ 5% probability level, DF=598**

The table 2 above showed the mean response of male and female teachers as 3.80 and 4.20 with associated standard deviation of 0.86 and 0.88 respectively. Subjecting the result to t-test analysis, it shows that t-value of 0.741 and the P-value 0.044 which is less than 0.05 level of significance. This shows that the null hypothesis is rejected while the alternate hypothesis was accepted. The implication of the foregoing is that the responses of male and female teachers significantly influence the implementation of National Curriculum for Basic Science in River State.

**Research Question Three:** To what extent do the utilization of available materials/facilities influence the implementation of National Curriculum for Basic Science in Rivers State Junior Secondary School based on gender?

**Hypothesis Three:** Utilization of available materials/facilities do not significantly influence the implementation of Basic Science Curriculum in Rivers State Junior secondary schools based on gender.

**Table Three:** Showing the t-test analysis of significant influence in the mean response of Male and Female teachers on the utilization of available materials/facilities for the implementation of Basic Science Curriculum in River State.

| Variables                   | No  | X    | SD   | DF  | T     | P-Value | Decision |
|-----------------------------|-----|------|------|-----|-------|---------|----------|
| Male Teachers Utilization   | 324 | 4.30 | 0.87 |     |       |         |          |
|                             |     |      |      | 598 | 0.418 | 0.039   | Rejected |
| Female Teachers Utilization | 276 | 3.82 | 0.72 |     |       |         |          |

**\*sig @ 5% probability level, DF=598**

The results in table 3 showed table the mean responses of Male and Female teachers on the teachers on the utilization of available materials/facilities are 4.30 and 3.82 with associated standard deviations 0.87 and 0.72 respectively, When Subjecting the result to t-test analysis, the result showed that the t-calculated value 0.418 and P-Value of 0.039. Since the P-value of 0.039 is less than the chosen alpha level of 0.05, the null hypothesis is rejected. This implies that the utilization of available materials/facilities significantly influence the implementation of Basic Science Curriculum in Rivers State junior Secondary Schools.

### Discussion of Findings

The finding presented in table 1, shows that the null hypothesis was accepted. It is an indication that the mean response of head teacher and teachers do not significantly influence the implementation of Basic Science Curriculum in Rivers State junior Secondary Schools. This result agreed with the finding of Odili et al (2015) who examined the head teachers and teachers' involvement in implementing the Basic Science Curriculum in primary Schools in Warri South Local Government Area of Delta State. The results showed that there is no significant difference between the head teachers and teachers in the implementation of Basic Science Curriculum in Warri-south



primary schools in Delta State. This showed that head teachers and teachers responses are not considered in the curriculum implementation, which the results of the present study identified.

In similar vein, the result in table 2 showed that the null hypothesis was rejected while the alternate hypothesis was accepted. It showed that the mean responses of Male and Female Teachers on the availability of Instructional materials/facilities significantly influence the implementation of National Curriculum for Basic Science in Junior Secondary Schools in Rivers States. The findings of this study is in line with the finding of Olufumilayo (2014) who carried out a study to examine the availability and Utilization of Instructional materials in Ogun State. The results showed that lack of availability and utilization of Infrastructural materials seriously affect instructional delivery which agreed with the results of the present study. It is an indication that lack of availability of infrastructural material/facilities influence the implementation of National Curriculum for Basis Science in Rivers States.

Finally, the results of table 3 showed the male and female teachers' response on the Utilization of available infrastructural material/facilities that affects the implementation of National Curriculum for Basic Science in Rivers State Junior Secondary Schools.

The results of this finding agreed with that of Olakye in Sambo et al (2014) who evaluated students' involvement in the production of instructional materials performed better in Basic Science and Technology. This result showed that the student involvement in the production of infrastructural material and their academic performance better in Science Subjects. Therefore, the result of this present affirm to this findings.

### **Educational Implications**

This study has educational implications to the following groups of people:

- i. Author and Designer for Basic Science Curriculum
- ii. Basic Science Teachers of Junior Secondary Schools
- iii. Junior Secondary School Students
- iv. The examiners of JSCE Basic Science
- v. State Ministry of Education among others

### **CONCLUSION**

Based on the result of the finding, the following conclusion are made:

- i. That there is no significant influence ( $P < .05$ ) between the mean response of head of Schools and teachers on the implementation of Basics Science Curriculum in Rivers State Junior Secondary Schools
- ii. That availability of instructional materials/facilities significantly influence ( $P < .05$ ) between the mean response of male and female teachers in the implementation of Basic Science Curriculum in Rivers State Junior Secondary School
- iii. That Utilization of available material/facilities significantly influence ( $P < .05$ ) between the mean response of male and female teachers in the implementation of Basic Science Curriculum in Rivers State Junior Secondary School

### **RECOMMENDATIONS**

The followings are recommended based on the result of the findings:

- i. The head of Schools and teachers should be adequately involved in the planning and implementation of the Curriculum
- ii. The Governments, NGOs, among others should provide schools with instructional materials/facilities to enhancing teaching, learning and the implementation of schools Curricular
- iii. Teachers should be encouraged to maximise the utilization of available materials in schools to enhance effective productivity and curriculum implementation in schools

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