ASSESSMENT OF THE AVAILABILITY AND UTILIZATION OF PHYSICAL EDUCATIONAL FACILITIES ON TEACHERS’ EFFECTIVENESS IN PUBLIC SENIOR SECONDARY SCHOOLS IN RIVERS STATE

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Abstract
This study investigated the assessment of the availability and utilization of physical educational facilities on teachers’ effectiveness in public senior secondary schools in Rivers State. The study adopted the correlational study design. The study was carried out in Rivers State. The population of the study was comprised of 7514 male and female teachers in sampled public schools. Due to the small sample size of the population, censor sampling was adopted. Hence, the entire population was used. A self-structured instrument was used titled: Assessment of Availability and Utilization of Physical Educational Facilities on Teachers’ Effectiveness (AAUPEFTE). The instrument was validated by the expert judgment of three lecturers in measurement and evaluation from the Rivers State University, Port Harcourt. The experts assessed the instrument in terms of content, suitability of language, and appropriateness. Their corrections and modifications were incorporated before the distribution of the instrument. The reliability of the instrument was established using the test re-test method. A reliability co-efficient of 0.82 was obtained, which showed that the instrument was reliable. A mean and standard deviation were used in answering the research questions, while z-test statistics were used to test the hypotheses at a 0.05 level of significance. It was revealed that the provision of school facilities should be proportional to the increase in school population; qualitative educational facilities should be provided; there should be monitoring of facilities by school heads and teachers to ensure durability; and schools should have regular power supply so there will be adequate lighting and facilities that require electricity can be used. The study’s conclusion was that the availability and use of educational resources must go hand in hand for teaching and learning to work well.

Keywords: Assessment, Availability, Utilization, Educational resources, Teacher effectiveness.
**Introduction**

Education is the most important asset any individual can have and a vital instrument for the economic development of any nation. In its National Policy on Education (2013), the Federal Republic of Nigeria stated that education is functionally and practically relevant, geared toward the acquisition of appropriate skills and the development of competence. It helps the individual to achieve life goals and contribute to the development of society. It noted the importance of the national educational goal, which is the acquisition of appropriate skills and mental development. Education also aids in physical and social abilities and competence as an instrument for individual and national development. The development of these skilled-oriented and competent individuals in our educational sector has raised concerns about the available educational resources for their training. Their level of preparedness is important as future pillars for national development. According to the national policy on education (2013), secondary education is the education children receive after primary education and before the tertiary stage. Secondary education is the third tier of the education system in Nigeria. It occupies a strategic position in the Nigerian educational system because it is a process of preparing the students for useful living within society and for higher education. These big goals of secondary education make it important to have and use the facilities for this type of education.

Over the years, the Nigerian education system has been under intense criticism for not being functional. The products of secondary education possess certificates that qualify them for admission into higher institutions but do not equip them with skills to make them self-reliant or fit into the labor market. It has been observed recently that secondary school leavers find it difficult to secure employment. They are not prepared as finished products for the labor market; consequently, they roam about the streets in search of non-existing jobs. Secondary education has failed to provide life skills that make the recipients employable or self-reliant. This poses a problem not just for the socio-economic stability of the country but also for the well-being of the students. This scenario has led some youths to resort to negative means of livelihood such as cultism, robbery, kidnapping, rape, killing, vandalization of pipe lines, drug abuse, and, currently, ritual killings (Ilueme 2018). The availability and effective utilization of physical resources in schools aids the achievement of educational objectives and goals. These resources have been observed as a potent factor in qualitative education delivery, and they could equally determine the level of success or failure of the educational institution. This is due to the quality of the resources, which could either render the students redundant or effective, as the case may be based on availability and utilization or vice-versa (Dambo & Kayii, 2022; Edem, 2018). Hence, the need for an assessment of the availability and utilization of physical educational facilities on teachers’ effectiveness in public senior secondary schools in Rivers State.

The availability of instructional resources promotes effective teaching and learning activities in schools, while non-availability may affect the academic performance of the learners negatively. The success of any system is a function of the available resources to run it. Teaching facilities help stimulate the interest of the students. Whenever these facilities and equipment are judiciously used, they generate great students’ interest in the learning system and also enhance the retention of ideas. Longman, as cited in Jessa (2017), explains availability as something that is able to be used or can easily be found and used. That is to say, they are those resources that are committable or usable upon demand to perform their designated task or required function. Oyeniyi (2010) maintained that instructional resources have been positively linked with educational efficiency, students' academic performance, and their capabilities when they leave school. Owoeyi (2011) explains that the availability of
school facilities is a potent factor in quantitative education. The importance of the provision of instructional facilities for teaching and learning in the education sector cannot be over-emphasized. These facilities play an important role in the actualization of the educational goals and objectives by satisfying the physical and emotional needs of staff and students of the school (Squelch in Ojiri 2017). According to Oyeniyi (2010), the fact that secondary schools in Rivers State have educational facilities does not mean that they are being used well.

Onukan (2008) defined resources as any means by which production and service are provided for the benefit of an organization's clients or the profitability of the organization itself, depending on whether it is profit-oriented or a social service provider. This can be money, materials, staff, time, or physical resources.

Nwabueze (2016) opined that educational resources are a source from which institutional benefits are produced; and they include instructional materials, energy, service, staff, knowledge, or other assets that are transformed to produce educational benefits to society. As opined by Asiabaka as cited in Ojiri (2017), educational resources are the physical resources provided for teachers and students to optimize their productivity in the teaching and learning process. In other words, they are the entire physical infrastructural facilities found in schools for the purpose of enhancing teaching and learning. These facilities play an important role in the actualization of educational goals and objectives. Therefore, no educational objective can be achieved without adequate provision of school facilities in schools (Ojiri 2017). Nwabueze classified educational resources as physical (building, space, and so on), human (academic and non-academic staff), material (all equipment or teaching aids, and so on), time, and financial resources along with programs offered in the institutions of learning. These are very necessary for the improvement of education at all levels. Also, Castaldi, who was quoted in Ojri (2017), said that educational facilities are those that make it possible for skilled teachers to teach more effectively than when they are not available.

Amie-Ogan, Nwile, and Elenwo, (2021) gave a comprehensive list of school facilities. According to them, school facilities consist of all buildings for academic and non-academic activities; equipment for academic and non-academic functions; areas for sports and games; and landscapes, farms, and gardens, including trees, roads, and paths. Other amenities include furniture and restrooms; lighting; acoustics; storage and packing areas; security; transportation; information and communications technology (ICT); clearing materials; food services; and special facilities for the physically challenged. According to Lawanson and Gede (2011), school facilities are all that is needed for an effective teaching and learning process to take place. They enable the teacher to do his work very well and help the learner learn effectively.

Teacher effectiveness has to do with the characteristics and skills of an effective teacher. Teachers’ effectiveness is specific teacher behavior that improves the quality of teaching for all students and contributes to students’ academic achievement. Some scholars define teacher effectiveness in terms of students’ achievement, while others focus on high performance ratings from supervisors. Still others rely on comments from students, administrators, and other interested stakeholders (Strong as cited in Jaja 2017). Nwagbara, in Adiele, Liegha, and Abraham (2010), opined that teacher effectiveness has two performance appraisal areas. The two performance appraisals are the teacher’s personal characteristics and the teacher’s performance effectiveness. These scholars identify the teacher as a man of two closely related professions; the first being a subject specialist, while the second is an educator. As a subject specialist, the teacher should have a genuine professional interest in the teaching and learning
of his subject. Similarly, as an educator, the teacher should be conversant with the skill of teaching his subject, making abundant and relevant use of instructional materials. Adiele, Leigba, and Abraham (2010) identified the vital qualities of an effective teacher as being self-disciplined, being creative, having foresight, being ruled by wisdom, as well as being a master of his subject. He should also have subject mastery. This helps the teacher to teach facts and principles that are correct and relevant. When a teacher is ineffective in the classroom, students' academic performance suffers. Stressing the effectiveness of teachers Kpee (2013) said that in any school setting where a teacher's behavior conforms to the needed disposition, the behavior appears natural, normal, and pleasant, and the teacher tends to be doing what they ought to be doing without being coerced. The teacher is always open and forthcoming, with a minimum strain or expenditure of psychic energy. They perform assessment duties with commitment and contentment and confess that they are satisfied with the work and job schedule. Such a teacher is effective or satisfied. For the same teacher, the work environment does not pose any conflict to them, and they work as freely as possible to ensure that they meet the schedule without being persuaded to do so. He came to the conclusion that teachers are effective when they choose to meet the role expectations of the organization. An effective teacher is one who is intellectually challenging, monitors students, sets high standards, and encourages self-initiated learning (Darling-Hammond 2010). Strong, Wand, and Grant, as cited in Aina, Olanipekun, and Garuba (2015), opined that effective teachers are very important for students' learning. When a teacher is ineffective in the classroom, students' academic performance suffers. It's important to pay attention to how well teachers do their jobs, which is another reason why schools need to hire more professional teachers. To understand who an effective teacher is, one must have knowledge of what effective teaching is.

Ko, Sammons, and Bakkum (2016) mentioned some attributes of effective teaching as good subject knowledge, good questioning skills, emphasis on instruction, balance of grouping strategies, clear objectives, good time management, appropriate range of teaching assessment techniques, effective planning, good classroom arrangement, and effective use of adults in the classroom.

Utilization of educational physical facilities is the actual use of instructional materials, and certain factors have to be considered when using instructional materials. The utilization of educational facilities has always been a sensitive issue. To ensure positive results in teaching and learning, the availability and utilization of educational resources should work together. Utilization of educational resources is the actual use of educational facilities provided to achieve educational goals. Ebong, as cited in Ojiri (2017). Akinolu (2012) stressed that facilities utilization is the practice of using school facilities such as classrooms, staffrooms, libraries, laboratories, school halls, lavatories, pitches, courts, and computer rooms for as many purposes as possible to bring about quality teaching and learning in the education system. Also, in their own opinion, Musibau and Oluwarotimi (2011) highlighted that optimal utilization of facilities connotes the practice of using a school facility, for example, a building, for as many purposes as possible, thereby reducing the number of buildings as well as the total cost of providing buildings in the school. According to Akinsolu (2012), facility utilization is the practice of using educational facilities such as classrooms, staffrooms, libraries, laboratories, school halls, lavatories, computer rooms, and pitch or court for as many purposes as possible to bring about quality teaching and learning in the educational system. The utilization of school facilities depends majorly on their availability and the teachers' ability to operate or use the facilities. When educational facilities aren't there or
aren't used well, teaching and learning aren't as effective. This makes it hard or impossible to reach the educational goal.

Levels of utilization of educational facilities are capacity usage, rate of usage, and time of usage. "Capacity usage" is the extent to which the productive capacity of the plants has been used for the generation of goods and services. For example, if the number of students is below the stipulated number of students, the facility is underutilized. If the stipulated number of students occupies them, then they are optimally used. If more than the stipulated number of students occupy the hall, it is over utilized. An ideal classroom design is determined by average space. The rate of usage is an important indication of the utilization of educational facilities in terms of facility utilization. Facilities are over-utilized when they are overstretched. If the rate of their usage is high, it is an indication that they are being used above their normal capacity. When they are underutilized, on the other hand, it is an indication that the facilities are not optimally used. Facilities are said to be optimally used when they are used to their full capacity. Time usage is another important factor in the capacity usage of educational facilities. If a school facility is used continually round the clock for days, thus exceeding the stipulated number of hours it is meant to work at a stretch, it is said to be over utilized. If it's below the set time, it's underused, and if it's within the set time, it's used to its fullest potential (Martica, 2013).

Muirillo and Romina (2012) have opined that many scholars, researchers, administrators, and educational planners have confirmed that school facilities in Nigerian schools are inadequate and few are available while some are over utilized due to an unprecedented increase in school enrolment. Owuamanam, as cited in Mohammed, Mohammed and Abdullahi (2013), noted that school facilities are grossly inadequate to match the student population and the available resources are poorly maintained. Also, the negligence in the maintenance of school facilities has many negative consequences. Muirillo and Romina (2012) explain that even when a large amount of money is invested in school facilities, it ends up wasted when school buildings and equipment are left to deteriorate without maintenance.

Abulkareem (2012) added that facilities tend to depreciate as soon as they are provided and put into use. Therefore, there is a need for maintenance through repair and servicing of components in order to restore their physical condition and sustain their working capacity. Maintenance enhances performance, durability, and prevents wastage. The provision of inferior educational facilities greatly impacts on the availability and durability of educational facilities.

Wils and Ingram (2011) noted that in many poor countries, resources per student are low, meaning there are too few teachers, too few classrooms, and too few teaching and learning materials. While the number of students has increased rapidly, the supply of public educational facilities like classrooms and teaching and learning materials has also fallen behind. Schilling & Tamol (2013) affirmed that the quality of public schools can directly impact students’ achievement, behaviors, and attitudes. At the same time, the quality of school facilities affects teachers’ attitudes, behaviors, and retention. Furthermore, electrification of schools is beneficial to schools because it gives lighting and access to information and communication technology (ICT). It improves students’ and staff’s retention rates and students’ completion and graduation rates. Sometimes substandard facilities are supplied, but they do not last long, so students don’t get to use them for a long time before they are out of use.
Availability and utilization of instructional resources promote effective teaching and learning activities in schools, while non-availability may affect the academic performance of the learners negatively. The success of any system is a function of the available resources to run it. Teaching facilities help stimulate the interest of the students. Whenever these facilities and equipment are judiciously used, they generate great students’ interest in the learning system and also enhance the retention of ideas. Oweye and Yara (2010) maintained that instructional resources have been positively linked with educational efficiency, students’ academic performance, and their capabilities when they leave school. Owoeye (2011) explains that the availability of school facilities is a potent factor in quantitative education. The importance of the provision of instructional facilities for teaching and learning in the education sector cannot be over-emphasized. Adesina in Ojiri (2017) posited that the quality of education our children get bears direct relevance to the availability or lack of physical resources and the overall atmosphere where learning takes place. These facilities play an important role in the actualization of the educational goals and objectives by satisfying the physical and emotional needs of staff and students of the school (Squelch as cited in Ojiri 2017). Notably, the fact that secondary schools in Rivers State have educational facilities does not mean that they are being used well (Amie-Ogan, Nwile, and Elenwo, 2021; Nwamae and Kayii, 2018; Oyeniyi, 2010).

A well planned lesson/instruction note, according to Solomon and Freeze cited in Romiana (2012), delivered through the use of instructional materials can result in the acquisition of knowledge and/or the mastery of a skill that was previously unknown before the lesson. Some other considerations to ensure the efficiency of an instructional material, according to Edem (2018), are as follows:

(a) **Personal involvement of the teacher**

The teacher, as a facilitator of learning, must show his personal involvement in what the learner is doing or studying.

i. must be relevant to the course work

ii. The teacher must relate the instruction to the class, i.e., show its bearing to the classroom lesson, i.e., from general to specific.

iii. Learner preparedness

iv. The minds of the students should be stimulated about what they are going to learn, i.e., the teacher should create the right environment for teaching and learning to take place.

v. Lesson preparation information

vi. The students should be alert on what to work for in the instruction being taught.

vii. Consideration of ergonomics

viii. The instructional materials should be placed at a distance, angle, and height that will allow the students to see them clearly without undue strain on any part of their bodies.

ix. Lesson evaluation and summary

Evaluation should come at the end of every lesson so that the teacher is able to classify some difficult points. Students should feel free to ask their questions anytime they want. So, there is a need for instruction to be made realistic and relevant to the culture of the learners as it will enhance the transfer of learning.

**Statement of the Problem**

The practical relevance of the subjects presupposes that the teaching aids, instructional materials, and every other school physical facility should be as close to reality as possible. Teaching has been arbitrarily done without relevant instructional materials and other school
physical facilities. They overlook and undermine the overwhelming importance of the teaching and learning process. The days when teachers only used the chalkboard lecture method of teaching and learning are over, according to (Romiana, 2012). The combination of visual and oral presentation makes a deeper impression on the students. There is a need to provide basic formal educational instructional materials in secondary schools. In public secondary schools in Rivers State, the lack of school facilities and how they are used to teach in terms of how effective and appropriate the materials are have remained major problems and topics of interest.

It has been observed that there is a lack of teachers’ effectiveness in secondary schools because of the teachers’ inability to put across ideas clearly to the students as a result of the non-availability of the instructional materials and other school physical facilities. Therefore, this study assesses the availability and utilization of physical educational facilities on teachers’ effectiveness in public senior secondary schools in Rivers State.

**Purpose of the Study**

The main purpose of this study is to assess the availability and utilization of physical educational facilities on teachers’ effectiveness in public senior secondary schools of Rivers State. Specifically, the study sought to achieve the following objectives.

1. To assess the extent availability of physical educational facilities affect teachers’ effectiveness in public senior secondary schools in Rivers State.
2. To find out the extent utilization of physical educational facilities affect teachers’ effectiveness in public senior secondary schools in Rivers State.

**Research Questions**

The following research question were raised to guide the study

1. To what extent does availability of physical educational facilities affect teachers’ effectiveness in public senior secondary schools in Rivers State?
2. To what extent does utilization of physical educational facilities affect teachers’ effectiveness in public senior secondary schools in Rivers State?

**Hypotheses**

The following null hypotheses were formulated to guide the study

1. There is no significant difference between the mean response of the male and female teachers on the extent to which availability of physical educational facilities affect the teacher’s effectiveness in public senior secondary schools in Rivers State.
2. There is no significant difference between the mean response of the male and female teachers on the extent to which utilization of physical educational facilities affect teacher’s effectiveness in public senior secondary schools in Rivers State.

**Methodology**

The study adopted the correlational research design. The study was carried out in Rivers State. The study was also limited to all the public senior secondary schools in the Port Harcourt metropolis, based on the fact that the researcher was certain of the extent to which the availability of physical educational facilities affected teachers’ effectiveness in public senior secondary schools in Rivers State. The population of the study was 7514, comprising 2255 male teachers and 5259 female teachers. The sample size of the study was 400 male and female teachers. The sampling technique used was simple random sampling. A self-structured questionnaire was used for data collection. The sample size of the study was 400 male and female teachers. The sampling technique used was simple random sampling. A self-
structured questionnaire was used for data collection. A research-designed questionnaire containing 10 items was used for data collection. The instrument for data collection was titled Assessment of Availability and Utilization of Physical Educational Facilities on Teachers’ Effectiveness (AAUPEFTEQ). The items on the instrument were structured on a 4-point rating scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE). The instrument was validated by the expert judgment of three lecturers in measurement and evaluation from the Rivers State University, Port Harcourt. The experts assessed the instrument in terms of content and face validity. There were corrections and modifications incorporated before distribution. The reliability index was established using the test re-test method. A reliability coefficient of 0.82 was obtained, which shows the instrument was reliable. 7510 copies of the instrument were used for analysis. The mean and standard deviation were used in answering the research questions, while the hypotheses were tested using z-test statistics at a 0.05 level of significance. Items with mean scores of 2.50 and above were regarded as "High Extent," while items with mean scores below 2.50 were regarded as "Low Extent."

Results

Research Question 1: What is the extent to which availability of physical educational facilities affect teachers’ effectiveness in public senior secondary schools in Rivers State?

Table 4.1: Mean and standard deviation analysis on extent to which availability of physical educational facilities affect teachers’ effectiveness in public senior secondary schools in Rivers State.

<table>
<thead>
<tr>
<th>S/No</th>
<th>Questionnaire Items</th>
<th>Male Teachers = 150</th>
<th>Female Teachers =250</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean $\bar{x}$</td>
<td>SD</td>
</tr>
<tr>
<td>1.</td>
<td>Availability of white and black board for teaching and learning make teaching and learning more effective.</td>
<td>2.89 0.85</td>
<td>High Extent</td>
</tr>
<tr>
<td>2.</td>
<td>Provision of school library equipped with books enhance teachers effectiveness in teaching and learning</td>
<td>2.86 0.83</td>
<td>High Extent</td>
</tr>
<tr>
<td>3.</td>
<td>Provision of science laboratory enhances teachers’ effectiveness in teaching and learning.</td>
<td>2.78 0.83</td>
<td>High Extent</td>
</tr>
<tr>
<td>4.</td>
<td>Government provide desks for students which enhance their learning thereby improving teachers effectiveness</td>
<td>2.83 0.84</td>
<td>High Extent</td>
</tr>
<tr>
<td>5.</td>
<td>Dilapidated structures in school affect teachers effectiveness</td>
<td>2.86 0.84</td>
<td>High Extent</td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total</strong></td>
<td><strong>2.84 0.84</strong></td>
<td><strong>2.88 0.85</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2022
The analysis in Table 1 above revealed that the respondents agreed on the view that availability of white and black board for teaching and learning make teaching and learning more effective. The analysis still indicated that the respondents accepted on the point that provision of school library equipped with books enhance teachers’ effectiveness in teaching and learning. It was also observed in the study that the respondents accepted the fact that provision of science laboratory enhances teachers’ effectiveness in teaching and learning. The study still showed that the respondents agreed on the view that government provides desks for students which enhance their learning thereby improving teachers’ effectiveness. The analysis also revealed that the respondents agreed on the view that dilapidated structures in school affect the teaching and learning in public senior secondary school.

**Research Question 2:** What is the extent to which utilization of physical educational facilities affect teachers’ effectiveness in public senior secondary schools in Rivers State?

**Table 4.2: Mean and standard deviation analysis on the extent to which utilization of physical educational facilities affect teachers’ effectiveness in public senior secondary schools in Rivers State.**

<table>
<thead>
<tr>
<th>S/No</th>
<th>Questionnaire Items</th>
<th>Male Teachers = 150</th>
<th>Female Teachers = 250</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean  SD Remarks</td>
<td>Mean  SD Remarks</td>
</tr>
<tr>
<td>6.</td>
<td>Schools make use of science laboratory if being provided by the government.</td>
<td>2.86  0.84 High Extent</td>
<td>2.91  0.85 High Extent</td>
</tr>
<tr>
<td>7.</td>
<td>Students utilize the desks provided by the schools management in teaching and learning.</td>
<td>2.83  0.84 High Extent</td>
<td>2.95  0.86 High Extent</td>
</tr>
<tr>
<td>8.</td>
<td>Teachers prefer using the modern white board than the black board in teaching and learning.</td>
<td>2.97  0.86 High Extent</td>
<td>2.98  0.86 High Extent</td>
</tr>
<tr>
<td>9.</td>
<td>Teachers and students visit the school library frequently to read and make research.</td>
<td>2.94  0.86 High Extent</td>
<td>2.99  0.86 High Extent</td>
</tr>
<tr>
<td>10.</td>
<td>Teachers and students make use of school facilities if provided by the government and facilities if provided by the government and school management.</td>
<td>2.52  0.75 High Extent</td>
<td>2.50  0.77 High Extent</td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total</strong></td>
<td>2.90  0.85</td>
<td>2.97  0.86</td>
</tr>
</tbody>
</table>

**Source:** Field Survey, 2022.

The data analysis in Table 2 above indicated that the respondents accepted the point that schools make use of science laboratory if being provided by the government. The analysis also showed that the respondents agreed on the view that students utilize the desks provided by the schools management in teaching and learning. It was still noticed in the study that the respondents agreed on the fact that teachers prefer using the modern white board than the black board in teaching and learning. The analysis also revealed that the respondents accepted the view that teachers and students visit the school library frequently to read and
make research. The study indicated that the respondents disagreed on the fact that teachers and students make use of school facilities if provided by the government and school management.

Test of Hypotheses

**Hypothesis 1:** There is no significant difference in the mean ratings of the male and female teachers on the extent to which availability of physical educational facilities affect the teacher’s effectiveness in public senior secondary schools in rivers state.

**Table 3: Z-test Analysis of Difference between the Mean Ratings of Male and Female Teachers on the Extent Availability of Physical Educational Facilities Affect Teacher’s Effectiveness in Public Senior Secondary Schools in Rivers State.**

<table>
<thead>
<tr>
<th>Status</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Df</th>
<th>z-cal</th>
<th>z-crit</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Teachers</td>
<td>150</td>
<td>2.84</td>
<td>0.84</td>
<td>398</td>
<td>0.29</td>
<td>1.96</td>
<td>Accepted</td>
</tr>
<tr>
<td>Female Teachers</td>
<td>250</td>
<td>2.88</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The analysis on Table 3 revealed that the z-cal of 0.29 is less than the z-crit of 1.96. Therefore, the calculated z-ratio is not statistically significant at a 0.05 level of significance since it is smaller than the given critical value of z-ratio. So, the hypothesis 1 is thus accepted and the conclusion is that there is no significant difference in the mean ratings of the male and female teachers on the extent to which availability of physical educational facilities affect the teacher’s effectiveness in public senior secondary schools in rivers state.

**Hypothesis 2:** There is no significant difference in the mean ratings of the male and female teachers on the extent to which utilization of physical educational facilities affect teacher’s effectiveness in public senior secondary schools in rivers state.

**Table 4: Z-test Analysis of Difference between the Mean Ratings of Male and Female Teachers on the Extent Utilization of Physical Educational Facilities Affect Teacher’s Effectiveness in Public Senior Secondary Schools in Rivers State.**

<table>
<thead>
<tr>
<th>Status</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Df</th>
<th>z-cal</th>
<th>z-crit</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Teachers</td>
<td>150</td>
<td>2.90</td>
<td>0.85</td>
<td>398</td>
<td>0.24</td>
<td>1.96</td>
<td>Accepted</td>
</tr>
<tr>
<td>Female Teachers</td>
<td>250</td>
<td>2.97</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The analysis on Table 4 indicated that the z-cal of 0.24 is less than the z-crit of 1.96. Therefore, the calculated z-ratio is not statistically significant at a 0.05 level of significance since it is less than the given critical value of z-ratio. Therefore, the hypothesis 2 is thus accepted and the conclusion is that there is no significant difference in the mean ratings of the male and female teachers on the extent to which utilization of physical educational facilities affect teacher’s effectiveness in public senior secondary schools in rivers state.
Discussion of Findings

The finding of the study on research question one: what is the extent to which the availability of physical educational facilities affects teachers’ effectiveness in public senior secondary schools in Rivers State, revealed that the availability of physical educational facilities enhances teachers’ effectiveness in public senior secondary schools in Rivers State. Therefore, the corresponding hypothesis 1 is thus accepted and the conclusion is that there is no significant difference in the mean ratings of the male and female teachers on the extent to which the availability of physical educational facilities affects the teacher’s effectiveness in public senior secondary schools in Rivers state. This finding was in line with Ilueme (2018), who observed that the availability of white and black boards for teaching and learning makes teaching and learning more effective. The analysis still indicated that the respondents accepted the point that the provision of a school library equipped with books enhances teachers’ effectiveness in teaching and learning. It was also observed in the study that the respondents accepted the fact that the provision of a science laboratory enhances teachers’ effectiveness in teaching and learning. The study still showed that the respondents agreed with the view that the government provides desks for students, which enhance their learning, thereby improving teachers’ effectiveness. The analysis also revealed that the respondents agreed with the view that dilapidated structures in schools affect the teaching and learning in public senior secondary schools.

The study's finding in research question two: how much use of physical educational facilities affects teachers' effectiveness in public senior secondary schools in Rivers State reveals that teachers use physical educational facilities in public senior secondary schools in Rivers State. So, the corresponding hypothesis 2 is thus accepted and the conclusion is that there is no significant difference in the mean ratings of the male and female teachers on the extent to which utilization of physical educational facilities affects a teacher’s effectiveness in public senior secondary schools in Rivers state. This finding is in agreement with the writings of Oyeniyi (2010), who admitted that schools make use of science laboratories if they are provided by the government. The analysis also showed that the respondents agreed with the view that students utilize the desks provided by the school management in teaching and learning. It was still noticed in the study that the respondents agreed on the fact that teachers prefer using the modern white board over the black board in teaching and learning. The analysis also revealed that the respondents accepted the view that teachers and students visit the school library frequently to read and research. The study indicated that the respondents disagreed with the fact that teachers and students make use of school facilities if provided by the government and school management.

Conclusion

The assessment of the availability and utilization of physical educational facilities on teachers’ effectiveness in public senior secondary schools in Rivers State cannot be over emphasized. However, the researcher concluded that the availability of physical educational facilities enhances teachers’ effectiveness in public senior secondary schools in Rivers State and teachers utilize physical educational facilities in public senior secondary schools in Rivers State. The study also concluded that assessment of availability and utilization of instructional resources promote effective teaching and learning activities in schools, while non-availability may affect the academic performance of the learners negatively. The success of any system is a function of the available resources to run it, and teaching facilities help stimulate the interest of the students. Whenever these facilities and equipment are judiciously used, they generate great students’ interest in the learning system and also enhance the
retention of ideas. To ensure positive results in teaching and learning, the availability and utilization of educational resources must work together.

**Recommendations**

The following recommendations were proffered based on the findings of this study.

1. Government through school management should always provide physical educational facilities hence it increase teachers’ effectiveness in public senior secondary schools in Rivers State.

2. Government through ministry of education should always organize orientation and awareness training for the teachers’ on the utilization of physical educational facilities in public senior secondary schools in Rivers State.
References


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