

## CHAPTER ONE

### INTRODUCTION

#### **Background to the Study**

Educational resources, be it human or material, play vital role in both the education system and instructional delivery in the classroom. They are also included as the most important machineries useful for promoting the effectiveness of teaching and learning in secondary schools. Educational resources have great significance in promoting administrative processes and likewise students' academic achievements. For instance, teaching and learning cannot be very effective without the teacher making use of some educational resources during classroom presentations. The level of teachers' job performance and their success in teaching various subjects in secondary schools is greatly dependent on the degree and extent of availability and utilization of up-to-date education resources which revolve around facilities, equipment and supplies like the physical plants, printed and non-printed materials. This is to say that both instructional and educational objectives of secondary education level cannot be attained without the utilization of educational resources in the process of teaching.

The Federal Republic of Nigeria (FRN, 2013), stated the goals of secondary education in the National Policy on Education (NPE) document. These goals, as stipulated, include to:

- i. provide holders of the basic education certificate and junior Arabic and Islamic studies certificate with opportunity for education of a higher level, irrespective of gender, social status, religious or ethnic background;
- ii. offer diversified curriculum to cater for the differences in talents, disposition, opportunities and future roles;
- iii. provide trained manpower in the applied sciences, technology and commerce at sub-professional grades;

- iv. provide entrepreneurial, technical and vocational job-specific skills for self-reliance, and for agricultural, industrial, commercial and economic development;
- v. develop and promote Nigerian languages, art and culture in the context of worlds' cultural heritage;
- vi. inspire students with a desire for self-improvement and achievement of excellence;
- vii. foster patriotism, national unity and security education with emphasis on the common ties in spite of our diversity; and
- viii. raise morally upright and well-adjusted individuals who can think independently and rationally, respect the views and feelings of others and appreciate the dignity of labour.

Achievement of these goals will not be possible if educational resources are not available and properly utilized in the secondary schools. Researchers and stakeholders in the education sector like Olulube (2006), Ugwuanyi (2013), Wanjiku (2013) and others have come to the terms and realization that material resources are very crucial for all round development of individual competences within the school environment. Researchers like Emetarom (2003), and Kola (2007) have revealed that educational resources are potent tools which could be used to effectively communicate teaching concepts of engineering and technical subjects in most public schools in Nigeria. Coker and Coker cited in Shehu and Mohammed (2014) are also of the view that effective teaching and human development require that students be offered the best possible chances to learn, regardless of the nature of their individual preferences. The importance and benefits of educational resources to teachers' job performance in the school environment cannot therefore, be over-emphasized.

Educational resources are the driving forces which aids teacher job performance as pointed out by Wanjiku (2013) and Ugwuanyi (2013). Teachers' job performance in the secondary education system in Anambra State cannot be effective without the availability and utilization of educational resources. This is so because, educational resources form the hub around which effective teaching, leading to realization of positive outcomes in secondary

education revolves. The extent to which they are available, determines how teachers will utilize them in school for their utmost performance (Wanjiku, 2013).

Educational resources are important ingredients for achieving not only quality education but for promoting teachers' high commitment, efficiency and productivity. Therefore, availability and utilization of educational resources could be useful for teacher job performance as identified in the studies of Valdez (2006), Kyara (2013), Nyange (2013), Owate and Iroha (2013) and Wanjiku (2013). For these studies, educational resources share close relationships with teacher job performance, satisfaction and students' academic performance and achievements. Resources, according to Ogbodo in Dodo, Ajiki and Abimiku (2010), are the human elements and materials that facilitate teaching and learning of various subjects in secondary schools. To them, these include; teachers, staff rooms, administrative buildings, accommodations, laboratories, workshops, teaching aids and devices such as modern educational hardware and software in form of magnetic tapes and films. Miller and Spoolman (2011) defined an educational resource as a source, material, substance or supply from which teaching and learning benefits are produced. Educational resources could be materials, non materials, or other assets that are transformed to produce benefit and in the process may be consumed or made unavailable. They can be broadly grouped into two as human and material resources (Miller & Spoolman, 2011).

Offorma (2005) on the other hand, saw material resources of all sorts as any material that facilitates teaching and learning activities and consequently the attainment of the lesson objectives. Their relevance in the secondary school system cannot be over emphasized. Anything a teacher uses to achieve instructional objectives is called a resource. Ehiamelator in Dodo, Ajiki and Abimiku (2010) also defined material resources as operational inputs of instructional programme. That is to say, they are inputs which aid the teacher to achieve some level of instructional efficiency and effectiveness. The Federal Ministry of Education (FME, 2000), identified these school material resources to include the classrooms, libraries, laboratories,

books, workshops, school buildings, playfields, school farms, gardens, electrical fixtures, the school environment, toilet facilities and portable water .The human resources are also part of educational resources. According to FME (2000) and Nwaham (2011), the human resources are human beings which include teachers, non-teaching staff, school administrators and students among others. They are important machineries in the teaching and learning activities. Both the human and material resources work together to achieve education goals. But the present study dwelt only on the material resources. The material resources are grouped in the present study as: school physical plant resources, printed and non-printed resources.

School physical plants resources refer to all the physical properties of a school, consisting of the site, grounds, buildings, and the various facilities and equipment within the school grounds and inside the school buildings (Macalino, 2014). They are further described as the site, buildings, equipment and all the essential structures, permanent and semi-permanent as well as such machines and laboratory equipment, the blackboard, chalkboard needed for effective teaching and learning.

Printed resources in secondary schools, according to Nzeneri (2010), are instructional materials that include pen, black and white or coloured prints like pamphlets, workbooks, study materials, brochures, mimographs, periodicals, newspapers, dictionaries, teachers' manuals and guides, textbooks, notebooks, diagrams, flash cards, charts, cartoons, posters, pictures, journals, notes of lesson, lesson plans, schemes of work, curriculum syllabi, downloaded materials from the internet and graphs.

Non-printed resources are those durable materials that include real objects, hard wares, equipment and high-technology/digital materials that provide educational information and act as excellent tools for instructional delivery. These resources may equally appeal to all the five senses of sight, hearing, touching, tasting and smelling. Many of these non-printed machineries, apart from the real objects, operate with electricity or batteries (Nzeneri, 2010). In addition, the amount of material resources found within the school environment determine teachers' attitude

or behaviour, level of work, competency, commitment, dedication, effort, self efficacy and productivity, which are important components of teacher job performance. The view that extent of availability and utilization of material resources could improve the quality of learning in and out of the school through teacher job performance has been reinforced by Mukwa, Wendt and Hills, cited in Andambi and Kariuki (2013). These scholars observe that if material resources are adequately and extensively available, selected and carefully utilized, learning retention is made longer; learning becomes more interesting, effective and meaningful. This means that for any subject taught in the secondary schools, relevant learning resources (materials) are necessary for teaching in order to achieve the instructional objectives as indicated by the Federal Ministry of Education (2000) .

The availability and utilization of adequate school buildings, classrooms, chairs, desks and other facilities as asserted by Frankie-Dolor (2002) are necessary for the attainment of educational objectives. This was corroborated by Adeboyeje, cited in Akinsolu (2012) through his definition of physical facilities as the essential materials that must be put in place and into consideration for the objectives of the school system to be accomplished. The extent of availability and utilization of these facilities determines the quality of instruction and performance of both teachers and students in the school (Adeboyeje, 2010).

Availability, as defined by Qadir and Quadri (2016), means enabling access to authorized information or resources to those who need them. It is the ability to make information and related physical resources accessible as needed, when they are needed, and where they are needed. Availability is the capability of an education system or its authorities to make resources available, including all the logical and physical resources reachable and accessible wherever and whenever they are needed.

Utilization, according to Ugwuanyi (2013), simply represents the actual patronage of the school facilities, equipment and supplies by the teacher in teaching. Hornby (2012) cited in Ugwuanyi (2013) explained utilization as to make use of available services at the individual's

disposal. It further means that something is equal to or fully sufficient for a specified or implied requirement. It also means how resources are used to get good results (Okoth, 2011). When resources are sufficiently available in school, teachers get the satisfaction they need in utilizing them in teaching and learning and their best performance in using the resources in the classroom is guaranteed. Of all the pre-requisites for effective management of an organization as asserted by Frankie-Dolor (2002), the most vital is the human resources that should be accorded with sufficient materials to utilize.

The success of any type of organization, be it social, political, religious, economic or education, depends to a large extent on the human beings that make up the organization. Human beings just like the teachers in the secondary schools take decisions, provide the knowledge, energy and the cooperation through which organizational (school) objectives are achieved. For teachers to take decisions that will impact on their performance and accomplish school objectives rely so much on the extent to which resources are available and effectively utilized. In the case of supporting teachers through provision of physical plant, printed and non-printed resources for teacher job performance, its importance, need and relevance towards the success of every educational programme cannot be overemphasized. Teachers need them in order to boost their hidden potentials, competences, performance and satisfaction. Adequate and quality facilities as opined by Ogunsaju (2000) must be employed and put in place in the system for developing the human resources like the teachers in order to ensure school effectiveness. Ogunsaju further stressed that the situation whereby teachers are made to teach students without the proper use of resources should be discouraged and the need to support teachers with relevant teaching resources should be intensified. Conversely, the extent and amount of resource availability and utilization in most cases may differ as a result of school type and location.

A place is urban or rural by policy which is usually determined by the government. In this study, urban secondary schools are those secondary schools within Anambra State that are located in areas that have been designated as urban areas and known for high level of development. Rural

secondary schools are those secondary schools within Anambra State that are geographically located in areas designated as rural areas (Igbofocus, 2011; Department of Planning, Research and Statistics (PRS) of the Anambra State Post Primary Schools Service Commission –PPSSC, 2017). Most times availability and utilization of resources in schools is affected by some variables like school location (urban and rural).

Considering the influence of school location as a determinant factor on the provisions of school resources, Ugwuanyi (2013) found that availability and utilization of such facilities, equipment and supplies may vary among secondary schools, according to school type and geographical location . There are yet scanty research reports on influence of school location and school type on availability and utilization of resources in Nigeria. The study agrees with the findings of Owoye (2000) which showed that urban students performed better than rural students as a result of resource availability and utilization. Onah (2011) also indicated that urban students perform better than rural students in a similar study. Therefore, the phenomenon of school location (whether urban or rural) on educational resources availability and utilization is investigated in the present study to determine whether these variables account for possible differences in the extent of resource availability and utilization for teacher job performance in the secondary schools in Anambra State. Furthermore, teachers in the urban and rural schools could have their own views concerning the availability and utilization of educational resources for teacher job performance and this is also what the present study intends to find out .It may also be the reason for differences in teacher job performance.

Teacher job performance however, as defined by Sonnentag, Volmer and Spychala (2010) has to do with teachers' behavioural aspect which refers to what people do while at work, the action itself. Job performance encompasses specific behaviour (e.g., sales conversations with customers, teaching statistics to under-graduate students). This conceptualization in the present study implies that only actions and behaviours which is goal-oriented and can be scaled (that is, counted) are regarded as performance. Thus, job performance covers the fulfillment of the

requirements that are part of the contract between the employer and employee. According to Igbiniedion (2014), it serves as the ability of qualified teachers who are equipped with the desired knowledge, skills, competences and commitment to perform and carry out their task professionally. It is therefore, an imperative for quality services in Nigerian education. In schools teacher's performance can be mapped well through resource availability and utilization and they get motivated and their confidence also increases.

As part of teacher job performance, they are expected to motivate students to learn, teach and evaluate students' learning outcomes in the cognitive, affective and psychomotor domains using various educational resources. Robbins and Judge (2013) and Munir and Khatoon (2015) described teacher job performance as disposition of teachers towards their work – and this involves a collection of numerous attitudes to work. Therefore, the indices of teachers' job performance as identified by Valdez (2006) and Agu (2014) can be determined through regular attendance to school and classes, writing note of lessons, giving students assignment and tests among others. All the above mentioned seem also to be affected by the extent to which educational resources are made available and utilized by teachers in the school environment.

Valdez (2006) however envisaged that since teaching is changing and in many ways, becoming a more difficult job because of its increasingly numerous contradictory expectations, achieving teachers job performance in the classroom can also be determined through the extent to which educational resources are provided, made available and utilized for teaching. Helping teachers become more effective to increase their performance in their jobs through improvement in their working conditions with educational resource availability and utilization is the best route towards improving students' academic learning. It is through effective teachers and educators that students are engaged in the teaching/learning process. Also through effective instructional practices where teachers make maximum use of tools and resources to their utmost performances and fullest potentials and capacities that quality academic achievements is actualized.



It is further by empowering teachers with the adequate instructional tools and skills which allow them to do their jobs efficiently, that the ultimate goal of improving quality in the system can be reached, thus, the rationale for educational resource(s) availability and utilization for teacher job performance (Valdez, 2006). Again, Geo, Bell and Little (2008) opined that teachers do not work in a vacuum, and an individual teacher working alone cannot change school culture. From all the foregoing, the availability and utilization of educational resources share a connection with teacher job performance in secondary schools in Anambra State, which is the main thrust of this present study. When resources are sufficiently made available at the disposals of teachers in the school environment, teachers happily perform their functions and positive results emerge and are achieved. In the case of secondary schools in Anambra State, the resources are of concern as their availability and utilization will lead to teacher job performance.

The Anambra State Government on their own part has made efforts to improve the secondary school standards with the presence of some educational resources but they seem not to be enough for promoting teaching and learning. A glance at the situation of educational resources provided in the secondary schools portrays a picture showing that a lot of these educational resources are still wanting in many schools and something needs to be done so that teachers can have access to many of these educational resources at their disposal. This is so because the amount and magnitude of educational resources injected into any education system must have to be commensurate with the human resources in the school like teachers, students and all other non-teaching staff. For Anambra State, the amount of resources available seems not to take the students' capacity in many of the schools. For instance, some schools in the State have large students' class-sizes and this may not be attributed to increased amount of resources provided. For Anambra State to continually fare positively in external examinations, such as the Senior Secondary School Certificate Examination (SSCE), there is need for educational resources to be extensively available and utilized by teachers.

If resources are not extensively available and utilized in the secondary schools for teacher job performance, quality learning cannot be guaranteed and the State may not do well in external examinations. Therefore, given this background, the present situation of educational resources in Anambra State, needs to be examined hence the researcher examined the availability and utilization of educational resources for teacher job performance in secondary schools in Anambra State.

### **Statement of the Problem**

The problem of availability and utilization of educational resources in connection with teacher job performance in secondary schools in Anambra State has become worrisome for the researcher, principals, teachers and other stakeholders in the State. A cursory look at the development of secondary schools in the State has shown that there are yet evidence of lapses in majority of the teachers' job performances and work. This seems to have negative consequences on students' performances in both internal and external examinations.

The problem of availability and utilization of educational resources as regards school physical plant facilities, printed and non-printed facilities existing in the secondary schools in Anambra State, which could enhance teacher quality and job performance seem to be questionable. The Researcher's observation shows that many of the teachers in Anambra State secondary schools, whether rural or urban secondary schools, are still teaching with less or no resources which hinders productivity. With this devastating state, teachers have difficulties in performing their tasks and functions relating to effective realization of educational goals in Anambra State. This situation has constituted a big challenge for teacher job performance in the State. The only way secondary schools within the State can continue to achieve their goals is when educational resources are accessible, sufficiently available and easily utilized by teachers for their tasks. This is so because teachers are important machineries that impact greatly on students' learning and contribute to quality education. Without their effectiveness, students' academic progress and the promotion of quality education system might become a difficult task.

The problem concerning availability and utilization of educational resources for teacher job performance therefore stands as the gap which must be filled in order to bridge this knowledge gap and for quality education system to be harnessed in secondary schools in Anambra State.

### **Purpose of the Study**

The main purpose of this study was to examine the availability and utilization of educational resources for teacher job performance in secondary schools in Anambra State. Specifically, the study sought to examine the:

1. availability of physical plant resources for teacher job performance in secondary schools in Anambra State.
2. availability of printed resources for teacher job performance in secondary schools in Anambra State.
3. availability of non-printed resources for teacher job performance in secondary schools in the State.
4. extent of utilization of the available physical plant resources for teacher job performance in secondary schools in Anambra State.
5. extent of utilization of the available printed resources for teacher job performance in secondary schools in Anambra State.
6. extent of utilization of the available non-printed resources for teacher job performance in secondary schools in Anambra State.

## **Significance of the Study**

This study is expected to be of great significance to the various key stakeholders in secondary education in Anambra State. They include; the Anambra State government policy makers, Post Primary Schools Service Commission (PPSSC), Principals, Teachers, Students, Parents Teachers Association (PTA), Alumni, Curriculum developers and other researchers.

To the Anambra State government and policy makers in the education sector, the findings of this present study will acquaint them towards understanding the extent to which various resources like the school physical plant resources, printed resources and non-printed resources are available and utilized for teacher development, job performance and school improvement. By understanding this, they will improve and increase their financial budgets in funding secondary schools. Information that will be generated from the study will assist the Government to formulate policies that will help to improve on educational resources availability and utilization for teacher job performance in public secondary schools in the State.

Examining educational resources availability and utilization for teacher job performance is of immense benefit to the officials of Anambra State Post Primary Schools Service Commission (PPSSC) who are involved in the management of secondary education. The findings of this study will provide them with information concerning the state of educational resources in the secondary schools. This includes areas where resources are not available and the extent to which teachers utilize the available ones in the schools. With these information, they would make provisions for educational resources in schools where resources are not available, as well organize workshops and seminars for teachers on the proper use of educational resources. These would be profitable for teacher job performance and overall school development.

The secondary school principals stand to gain and benefit from the findings of this study. The study will expose them towards understanding the importance of different educational resources and how they are utilized for teachers' job performance in the classroom. The study will also assist them to make proper selection of the resources that will promote quality learning

in schools. The findings of this study would furnish principals with information in the areas where resources are not available in the schools. This can help them to find means of improving their collaborations with the Parents Teachers Association and the private sector to support schools development.

The findings of the study would boost teachers' confidence towards unveiling areas of needs and support in relation to availability and utilization of educational resources for effective classroom management. The findings of this study would also serve as a source of information and empirical data for teachers to make requisition to the school principals concerning the need to purchase and supply printed and non-printed resources in order to improve their teaching. This also will promote their performance and productivity in the classroom for proper school guidance and administration.

The findings of this study would be of immense benefit to the students who are participants in the teaching and learning situations. This study will enable teachers improve their job performances which in return would make positive impact in promoting quality learning for improved students academic performance and achievement. Students improved achievement translates to improved achievement of educational objectives.

The determination of availability and utilization of educational resources on teacher job performance would be of immense benefit to Parents Teachers Association (PTA) and Alumni. The findings of this study will provide them with the necessary information about the schools' needs as regards availability and utilization of educational resources; which would equally motivate them to make financial contributions for the provision and teachers utilization of educational resources that will lead to improved teacher performances, quality and school improvement. These are their common interests that would guarantee their children's growth and development.

To other researchers, the findings of this study would provide information upon which future researches in the areas of availability and utilization of educational resources for teacher

job performance could be based. In all, the present study will serve as an inspirational and consultative material for further researches.

### **Scope of the Study**

The content scope of this study was delimited to examining the availability and utilization of educational resources for teacher job performance in secondary schools in Anambra State. This study confined itself to investigating availability of educational resources such as: the physical plant resources, printed resources and non-printed resources in secondary schools in Anambra State. The study also determined how the available educational resources were utilized for teachers' job performance in urban and rural secondary schools in Anambra State. The geographical scope of this study covered only Anambra State. Therefore, the scope of the study was limited to all the 258 public secondary schools and their teachers within the urban and rural areas in the six (6) education zones in Anambra State.

### **Research Questions**

The following research questions guided the study:

1. What are the physical plant resources available for teacher job performance in secondary schools in Anambra State?
2. What are the printed resources available for teacher job performance in secondary schools in Anambra State?
3. What are the non-printed resources available for teacher job performance in secondary schools in Anambra State?
4. To what extent are the available physical plant resources utilized for teacher job performance in secondary schools in Anambra State?
5. To what extent are the available printed resources utilized for teacher job performance in secondary schools in Anambra State?
6. To what extent are the available non-printed resources utilized for teacher job performance in secondary schools in Anambra State?

## Hypotheses

The following null hypotheses were tested at  $\alpha$  0.05 level of significance in the study:

1. There is no significant difference in the proportions of physical plant resources available in urban and rural secondary schools in Anambra State for teacher job performance.
2. There is no significant difference in the proportions of printed resources available in urban and rural secondary schools in Anambra State for teacher job performance.
3. There is no significant difference in the proportions of non printed resources available in urban and rural secondary schools in Anambra State for teacher job performance.
4. There is no significant difference in the mean ratings of urban and rural secondary school teachers on the extent of utilization of the available physical plant resources for teacher job performance in secondary schools in Anambra State.
5. There is no significant difference in the mean ratings of urban and rural secondary school teachers on the extent of utilization of the available printed resources for teacher job performance in secondary schools in Anambra State.
6. There is no significant difference in the mean ratings of urban and rural secondary school teachers on the extent of utilization of the available non-printed resources for teacher job performance in secondary schools in Anambra State.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

This chapter reviewed some scholarly related works, theories and studies based on the present study on the extent of resource availability and utilization for teacher job performance in secondary schools in Anambra State. Thus, the review has been organized into sub-headings as:

#### **Conceptual Frame Work**

Educational Resource Availability

Educational Resource Utilization

Teacher job performance

#### **Theoretical Framework**

Resource Dependence Theory (RDT)

Two-Factor (Motivation-Hygiene) Theory

#### **Theoretical Studies**

Importance of Educational Resources in Secondary Schools

Educational Resources Requisite for Teachers Job Performance in Secondary Schools

Availability of Educational Resources in Secondary Schools

Utilization of Educational Resources in Secondary Schools

Educational Resources Availability and Utilization for Improved Teacher Job Performance in Nigerian Secondary Schools

#### **Empirical Studies**

Studies on Educational Resources Availability for Teacher Job Performance

Studies on Educational Resources Utilization for Teacher Job Performance

Studies on Extent of Availability and Utilization of Educational Resources for Teacher Job Performance

#### **Summary of Review of Related Literature**



## **Conceptual Framework**

This section of the chapter described the concepts of some important concepts used in the study. These included the concepts of resource availability, resource utilization and teacher job performance.

### **Educational Resource Availability**

Miller and Spoolman (2011) define a resource as a source, material, substance or supply from which benefit is derived. Resources are materials, instruments, energy, services, staff, knowledge, or other assets that are transformed to produce benefit and in the process may be consumed or made unavailable. Resources are stock or supply of money, materials, staff, and other assets that can be drawn on by a person or organization in order to function effectively. According to Manson and Nor (2011), educational resources are materials, equipment, facilities, and direct services to students and teachers which support the school curriculum, contribute to the development of life-long learners and promote teacher effectiveness. They are also the physical, material, human and financial inputs in the teaching-learning process which include the physical plant resources, printed resources and non-printed resources. The physical plant resources are all the physical properties of a school which include the grounds, buildings and various facilities within the school environment (Macalino, 2014). According to Obidiegwu (2008) and Nzeneri (2010), printed resources are instructional materials on pen, black and white coloured paints or prints, and they include newspapers, dictionary, diagrams, charts, maps, note of lesson, scheme of work, pictures, among others. Non-printed resources are durable materials and hardwares which include real objects, high-digital technological devices, audio-visual electronic devices which appeal to the five senses of seeing, hearing, touching, tasting and smelling (Richards, 2001; Nzeneri, 2010 & Mohammed, 2011). Educational resources as defined by Chanda, Phiri and Nkosha (2013) are teaching materials or aids used by the trainer which could be a teacher in order to help him/her in teaching his/her lesson effectively. Resource utilization in a school may include increased wealth or wants, proper functioning of a system, or

enhanced well being. Educational resources serve as instruments for those who seek to satisfy their needs and preferences. A given school resource is used as intensively as possible to provide the greatest satisfaction to the user. From a human perspective a resource is anything obtained from the environment to satisfy human needs and wants (Miller & Spoolman, 2011). Wanjiku (2013) define educational resources as physical, material, human and financial inputs in the teaching and learning process. They include the physical facilities and school plant such as the school building, school learning environment, space, classrooms, libraries, laboratories, workshops and also instructional materials which includes the physical and material inputs in the teaching learning process. They also include texts, videos, software, and other materials that teachers use to assist students to meet the expectations for learning. Examples of these educational resources as pointed out by Kochhar (2012) include such materials like: finance, school building, classroom, chalkboard, flannel board, bulletin board, pictorial materials, graphic materials, cartoons, audio-visuals, projectors, audio materials, printed materials, among others.

Nwaham (2011) define educational resources as the things or facilities in the school and learning environment, which are used to attain the goals and objectives of the school organization. This also includes the material resources such as facilities, equipment, time, land, transport, among others. Educational resources are therefore human-centered and dynamic, their availability, adequacy and scarcity in schools depend upon several factors including: cultural factors (taste) that prompts demand; the people's view of nature (as spirits of resources to be exploited); social change such as the changing role of teaching; scarcity of natural resources; technology; and economic factors – price, market, demand and supply (Manson & Nor, 2011). Educational resources as defined in this study are tools, instruments, services and devices which assist teachers to effectively deliver their lessons in the classroom. They are important machineries which support and assist teachers to actualize their goals and objectives of teaching in the classroom. These materials which include natural resources, durable and non-durable, physical plant materials, printed and non-printed materials, enhance teachers job performance,

commitment and effective instructional delivery for positive outcomes and students' academic learning.

Educational resource availability according to Qadir and Quadri (2016) means enabling access to authorized information or resources to those who need them. It is the ability to make information and related physical and logical resources accessible as needed, when they are needed, and where they are needed. Educational resource availability is the capability of an education system or its authorities to make resources available including all the logical and physical resources reachable and accessible wherever and whenever they are needed. It is the probability that an item will operate satisfactorily at a given point in time when used under stated conditions in an ideal support environment.

Educational resource availability according to the Techopedia (2017) referred to the ability of a user to access information or resources in a specified location and in the correct format. It deals with ability to obtain or access resources in schools. Katukoori (nd) defines educational resource availability as the probability that an item will operate satisfactorily at a given point in time when used under stated conditions in an ideal support environment (i.e., that personnel, tools, spares, etc. are instantaneously available). Educational resource availability according to Ugwuanyi (2013) referred to services/resources that can be obtained in the discharge of certain functions.

Also, Onyejimezie (2002) noted that educational resource availability is a state of making provision for a satisfactory standard requirement in terms of teaching resource to enhance effective instructional activity in a particular subject. According to the author no meaningful learning or transfer of what has been learned will take place if such learning occurs in a situation devoid of relevant activities and concrete experiences. Educational resource availability as used in the present study means the degree at which school resources are readily provided, handy and utilized for teachers' job performance, effectiveness, commitment and satisfaction in the

classroom delivery. The point which underpins resource availability is that teachers' are able to have access to the required resources in the classroom during instructional delivery.

### **Educational Resource Utilization**

Educational resource utilization according to Ugwuanyi (2013) simply represents the actual patronage of the school facilities, equipment and supplies by the teacher in teaching. Philip Lief Group (2013) defined educational resource utilization as capable of performing; having an innate capacity. It also means how educational resources are used to get good results. This is the act of using any resources to achieve a particular aim or objective in the school (Okoth, 2011).Hornby cited in Ugwuanyi (2013) explained that educational resource utilization is the teachers' ability to make use of available resources at their disposal in the classroom. These resources include the facilities, equipment and experienced personnel. Keck and Lendle (2012) define the term educational resource utilization as the degree to which something is used. To Keck and Lendle, resource utilization is viewed as the degree of usage of existing preferences; while preference could be service rendered, data, resources or an object. Olagunju and Abiona (2008) therefore opined that the process of managing and organizing resources is educational resource utilization. They added that in a school, the available resources should be utilized in such a way that it enables the students to acquire desirable learning competencies. Utilization of educational resources in teaching brings about increased teacher job performance for fruitful learning since it stimulates student's senses and motivates them (Olagunju & Abiona, 2008). The point which also underpins educational resource utilization is that teachers' are able to utilize (use) the available resources for effective classroom management. They are more likely to use resources and instructional materials in the classroom when they are available and accessible to them as highlighted by Kwasu and Ema (2015). Educational resource utilization as viewed by the researcher in the present means the ability of teachers to comfortably access, operate and make use of the available resources in order to promote students' learning in the classroom and achieve instructional objectives. It also involves teachers' application,

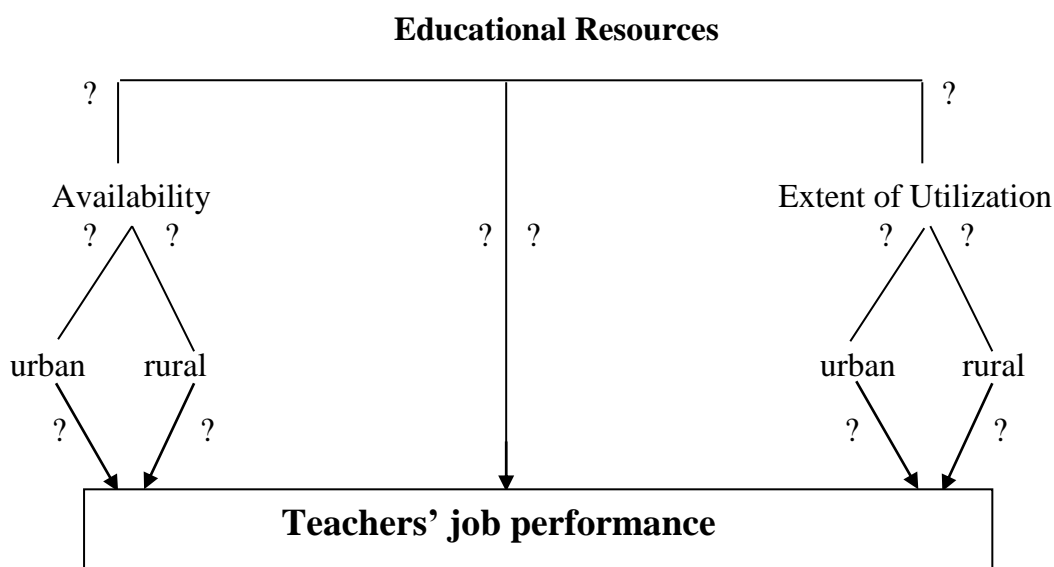
deployment and consumption of resources while exercising the teaching task for effective classroom management in school.

### **Teacher Job Performance**

A teacher is someone who carries out the teaching task in the classroom whose performance will lead to achieving instructional objectives. Hunt (2009) sees a teacher as someone who instructs and guides students to learn in the classroom. To Hunt, the teacher also facilitates learning by carrying out their teaching task whose efficiency is determined by their performance and actions. Sonnentag, Volmer and Spychala (2010) explored teacher job performance as to workers behavioural aspect which refers to what people do while at work, the action itself. Job performance encompasses specific behaviour (e.g., sales conversations with customers, teaching statistics to under-graduate students). This conceptualization implies that only actions that can be scaled (that is, counted) are regarded as performance. Moreover, the concept of performance explicitly describes behaviour which is goal-oriented, that is, behaviour which the organization hires the employee to do well as performance. Thus, job performance covers the fulfillment of the requirements that are part of the contract between the employer and employee. Teacher job performance to Hunt (2009) means effectiveness showing that something adds value and quality. Dunkin cited in Hunt (2009) considered that teacher job performance is a matter of the degree to which a teacher achieves the desired effects upon students. Dunkin further viewing teacher performance from the angle of their competence sees it as the extent to which the teacher possesses the requisite knowledge, attributes, qualities and skills, and behaves appropriately in the process of teaching.

Igbinedion (2014) defined teacher job performance as the ability of qualified teachers who are equipped with the desired knowledge, skills, competences and commitment to perform and carry out their task professionally, therefore, is an imperative for teachers' commitment, productiveness and quality attainment in Nigerian education. Effective teachers are always

committed to duty with increased performance. Among the factors which improved teacher job performance, Hunt (2009) identified school climate, the provision and use of adequate facilities and staff motivation. Teacher job performance is used broadly, to mean the collection of characteristics, competences, commitment and behaviours of teachers' at all educational levels that enable students to reach desired outcomes, which may include the attainment of specific learning objectives as well as broader goals such as being able to solve problems, think critically, work collaboratively, and become effective citizens (Hunt, 2009). Goe, Bell and Little (2008) described teacher job performance as teacher's ability to produce higher than expected gains in students' standardized test scores. Griffin (2005) explored that the performance of an individual is determined by three factors that is, motivation, work environment and ability to do work. Chandrasekar (2011) also examined that the workplace environment impacts on employee morale, productivity and job performance both positively and negatively. If the work place environment is poorly designed, employees working in such environment will not be satisfied and they feel stress on themselves and dislike the workplace environment, this will create negative impacts on the employees job performance. Therefore, teacher job performance as used by the researcher in this study means teachers ability to exercise and exhibit certain attributes, abilities, qualities and competences while delivering instructions in the classroom for positive learning outcomes.



## **Theoretical Framework**

The present study adopted two theories in order to explain the phenomena of resource availability and utilization for teacher job performance. These theories also formed the foundation and basis for this present study and are:

- a. Resource Dependence Theory (RDT)
- b. Two-Factor (Motivation-Hygiene) Theory

### **Resource Dependence Theory (RDT)**

Resource Dependence Theory (RDT) was propounded by Jeffrey Pfeffer and Gerald R. Salancik in the year 1978. RDT is underpinned by the idea that resources are the key to organizational success and that access and control over resources is a basis of power. Power here means performance and functionality of an organization. Resource Dependence Theory (RDT) identified that the organizations depend on external resources for survival. And these external resources of organizations which are multidimensional like: labour, capital, raw materials affect the behaviour of the organization and including workers output and performance in the organization. Therefore, the procurement of external resources is an important tenet of both the strategic and tactical management of any company. Managers' careers thrive when customer demand expands. Thus customers are the ultimate resource on which companies depend. This is similar to the school system, where students are the customers whom the school depends for survival. Effective services must be provided through resource availability and utilization for students' retention, effective instructional delivery and positive outcomes. On this premise, the purpose of RDT is presenting a guide on how to design and manage organizations that are externally constrained. This is based on the basic assumption that an organization, or more precisely a manager, tries to ensure the organizational survival which is determined by the organizational ability to acquire and maintain resources. Theorists of RDT based their argument

on the following tenet and notions that organizations depend on resources. These resources ultimately originate from an organization's external environment. In essence, RDT has been adopted by the present study because it shares connection with the study. The present study borders on finding out the availability and utilization of educational resources and their significance on teacher job performance; likewise this theory sees the availability and utilization of resources as the key to organizational success. Achievement of goals, survival of any organization including the school and workers performance, is based upon their ability to use various resources such as the physical plant resources, printed and non-printed resources. Also, that access and control over resources is a basis of organizational power and functionality. This means that availability and utilization of resources in the school organization will improve teacher performance and likewise impact on the quality of teaching-learning and promote students' academic achievements as well. They are the key to functionality and success in the school. Moreover, the RDT pays more attention to availability and utilization of resources in the school organization for customers (students) satisfaction without giving detailed preferences on teacher job performance. This has justified the need and warranted the second Two-Factor Theory by Frederick Herzberg of 1957 to cover the areas of teacher job performance.

### **Two-Factor (Motivation-Hygiene) Theory**

The Two-Factor Theory of job satisfaction and dissatisfaction is another theory that finds an important place in the present study in the aspect of teacher job performance. This theory is also known as the Motivation-Hygiene Theory and is one of the content theories propounded by Frederick Herzberg in 1959 following an investigation into the sources of job satisfaction and dissatisfaction in order to determine the level of job performance of accountants and engineers. Content theories focus on factors within the person that start, energize, direct, maintain and stop the behaviour, which are also components of teacher job performance. The Motivation-Hygiene Theory identified that the wants of employees just like teachers in the secondary schools are divided into two groups. These groups form the Two-Factors in Herzberg's model: one consist of



the satisfiers or motivator factors, because they are seen to be effective in motivating the individual to superior performance, effort and effectiveness. These include achievement, recognition, responsibility, advancement, growth, and the work itself and are effective in motivating employees to greater productivity and which according to Herzberg are frequently unfulfilled in today's organizations.

The other consists of the dissatisfiers - named the hygiene factors in the medical use of the term, which essentially describes the environment, while having little effect on job attitudes. Hygiene factors are job factors that create dissatisfaction and emanate from extrinsic job context such as salary, work conditions, supervision, interpersonal relationship, job security, company policy and administration. If the hygiene is at an unacceptable level, dissatisfaction will occur and low performance sets in. If managers really want motivated employees who are committed and effective, they should use the motivators because they produce high job performance, while the hygiene factors satisfy lower-order needs. This two factors impact on workers effectiveness and productivity – that is, job performance. The two relationships are further shown in Table 1.

**Table 1: Herzberg's Satisfaction Continuum for Motivation and Hygiene Factors**

<b>Hygiene Factors (Dissatisfaction)</b>	<b>Motivational Factors (Satisfaction)</b>
<b>ENVIRONMENT</b> Pay Status Security Supervision Fringe benefits Working conditions Policies and administration Practice Interpersonal relations with supervisors, peers and subordinates	<b>THE JOB</b> The meaning and challenging work Recognition for accomplishment Opportunity for growth and advancement Feeling of achievement The job itself Responsibility

*(Source: Nwaham (2011). School administration and supervision of instruction in Nigeria. Agbor: Progress Printing Associates)*

The above discussions clearly show that this theory relates to the present study and this has necessitated adoption of this theory by the researcher. The researcher in relating the theory also agrees with Herzberg that when certain factors are introduced within the school context, just

like availability of school resources – physical plant, printed and non-printed resources, this would directly motivate teachers to work harder (these are called Motivators). While there were also factors that would de-motivate teachers to work harder if not present (these are called Hygiene factors). Motivators are more concerned with the actual job itself. For instance how interesting the work is and how much opportunity it gives for extra responsibility, recognition and promotion. In the school system, opportunities should be created for teachers to have access to and utilize resources that will improve their efficiency as a way of determining their level of job performance. In essence, the presence and utilization of school resources will enable teachers have a feeling of safe working conditions which will not only make them feel satisfied in their jobs but boost their job performances as well.

In essence, the job environment itself and its related factors that are associated with the job itself are important influences on teacher job performance. Therefore, the two theories discussed formed foundation and basis of the present study which makes it possible that the researcher adopt these theories in order to fill the gap existing for the study. The resource dependence theory is highly recommended for the present study having based arguments on the extent of availability and utilization of resources for commitment, high performance and productivity in any organization, including secondary schools in Anambra State. In the case of Herzberg's Two-Factor theory, the existence of two groups of factors is very essential to teachers effectiveness leading to improved job performance, whereas the satisfaction of the motivation factors leads to better performance; the satisfaction of the hygiene factors will obviously enhance teachers job stability and high performances also.

### **Theoretical Studies**

This section of the chapter presented several scholars' theoretical works which related to the study. Discussions were done in various sub-themes to look into the importance of educational resources in secondary schools. Educational resources requisite for teacher job

performance in Anambra State secondary schools were pointed out and examined in this section. Further discussed in this section were; availability and utilization of educational resources in Anambra State secondary schools; and the extent of educational resources availability and utilization for teacher job performance in secondary schools.

### **Importance of Educational Resources in Secondary Schools**

Educational resources have played great significance in the various school systems including secondary schools. They are important tools for teaching and learning. Saima, Qadir and Shazia (2011) pointing out the importance of teaching resources in the school opined that teachers use different materials to teach their students for effective learning. To Nwaham (2011), school resources are materials, equipment, facilities, amenities, instructional materials, buildings or finance (money) available in the school which aids to improve teaching and learning. They arouse the interest of learners and help the teachers to explain the concepts easily. In the same vein, Aila (2005) pointed out that teaching resources are vital because they are used to enhance teaching and learning, generate more interest and create a situation where the students would fully engage in classroom activities.

Obidiegwu (2008) and Nzeneri (2010) opined that teaching effectiveness demand the use of appropriate resources to facilitate and improve the quality of instruction and to benefit greater number of learners. It aids the attainment both instructional objectives and educational goals. Chang (2009) was of the opinion that the use of teaching resources would make discovered facts glue firmly to the memory of students. Slavin (2010) also added that, a well planned and imaginative use of visual resources in lessons should do much to banish apathy, supplement inadequacy of books as well as arouse student's interest by giving them something practical to see and do, and at the same time helping to train them to think things out themselves. Slavin further suggested a catalogue of useful visual aids that are good for teaching subject as English Language like pictures, diagrams, maps, film strips and models. The selection of materials which are related to the basic contents of a course or a lesson helps in-depth understanding of such a

lesson by the students in that they make the lesson attractive to them, arresting their attention and thus motivating them to learn. In this regards, school heads should ensure that resources are extensively available and utilized for teachers to enable everyone in the classroom situation to participate actively.

Supporting all the above explanations, Chanda, Phiri and Nkosha (2013: 1-28) summarized the importance of teaching resources in secondary schools as, they:

1. make lessons interesting and capture trainees interest;
2. make learning easy and ensure understanding of lesson;
3. help learning (i.e. what has been learnt) to remain in the minds of the trainees for a longer time. In this regards, resources aids dissemination and retention of information;
4. help the trainer to deliver his/her lesson successfully and easily;
5. enable the trainer to express intended concepts of learning effectively;
6. are things and ideas which are usually familiar to the trainees. A lesson delivered without teaching aids can be boring to the trainees;
7. encourage nearly everyone (i.e. trainees) to participate in teaching; and
8. make lessons enjoyable, interesting, lively and memorable.
9. help trainees to relate what is being taught to real life situations.

In a similar development, Aremu (2007: 135-145) gave a catalogue of roles of teaching resources as tools that support teacher job performance as:

1. It saves time;
2. It makes learning real and permanent;
3. It stimulates the interest of the learner;
4. It focuses attention of the learners;
5. It provides authority for concepts being presented in the class;
6. It enhances teacher-learner relationship; and
7. It gives room for meaningful interaction in the class.

From the discussions of Aremu (2007) and Chanda, Phiri and Nkosha (2013), likewise other authors cited in this section shows that educational resources is of great importance to teacher job performance. This necessitates the need to identify the types of educational resources requisite for teacher job performance in Anambra State secondary schools.

### **Educational Resources Requisite for Teacher Job Performance in Anambra State Secondary Schools**

Educational resources have been previously identified as important machineries that help teachers to realize their instructional goals and give guidance to the teaching-learning process which leads to realization broad national goals. These resources vary in nature and types, and writers have continued to classify them based on their usage and what they represent. Chanda, Phiri and Nkosha (2013) generally identified some of these educational resources requisite for promoting teacher effectiveness and job commitment in secondary schools as: school site, buildings, classrooms, laboratories, library, maps, charts, diagrams, books, overhead projectors/transparencies, TVs and videos, slide projectors, blackboards, chalkboards, flip charts, chalk, felt pens and markers. Adeogun and Osifila (2008) cited few examples of the educational resources used in the school by grouping them into two categories as: firstly, physical resources which include laboratories, libraries, classrooms and a host of other physical infrastructure, and secondly, material resources which include textbooks, charts, maps, graphs, posters, among others. Obidiegwu (2008) and Nzeneri (2010) classified the resources used in the secondary school as; durable and non-durable materials; audio-visual materials; printed and non-printed materials; projected and non-projected materials; and mass media, print media and sound media. To these two scholars, durable teaching resources are those instructional materials that do last. They are sometimes referred to as hard wares, equipment and high-technology materials and include all materials for recording, receiving, projecting and transmitting instructional message.

Examples of such teaching resources classified as durable materials include: projectors (film, slide, over-head, etc), video-recorder, television set, cameras, tape recorders, computers, printers and scanners (Green & Fallgren, 2007; Green & Huang, 2014). Non-durable materials include all projected materials transmitted to the audience through hard wares. Examples of non-durable materials include receptive materials such as: blackboard, bulletin boards, papers and chalk. Others are pictorial and graphic representations which include: posters, maps, charts, diagrams and cartoons. Also, projected pictures such as film strips, transparencies, motion pictures are inclusive (Green & Fallgren, 2007; Obidiegwu, 2008; Nzeneri, 2010).

Auditory materials like records, tapes and radio broadcast are all part of non-durable resources. On the other hand, audio-visual aids involving a combination of sound and pictures just like the television set and DVD; including representations and relief displays like models, objects, paintings, drawings and specimens; and printed resources like textbooks, newspaper, pamphlets, brochures, diagrams, charts, memo-graphs, periodicals, magazines, posters, graphs and journals are all materials utilized by teachers in the secondary school ((Obidiegwu, 2008; Nzeneri, 2010). Mass media as one the resources used in teaching is also known as the press. According to Nzeneri (2010) and McQuail (2000), they make use of such instructional materials as the radio broadcasting or television broadcasting. With these the mass media carries its functions of communicating information, research, advertisement and entertainment of the masses. For the present study, resources that aid teacher job performance have been broadly categorized into physical plant (buildings) resources, printed resources and non-printed resources.

### **Physical Plant Resources**

Physical plant resources refer to all the physical properties of a school, consisting of the grounds, buildings, and the various facilities within the school grounds and inside the school buildings (Macalino, 2014). To Macalino, these physical resources include; the site, buildings, laboratories, libraries, furniture, equipment, among others. They are further described as the site,

the buildings, the equipment and all the essential structures, permanent and semi-permanent as well as such machines and laboratory equipment, the blackboard, chalkboard needed for effective teaching and learning. Chike-Okoli (2007) describing the physical plant resources says they include the school site, buildings, classrooms, corridors, playgrounds, sanitary facilities, furniture and other equipment minus the consumable materials. Coombs in Chike-Okoli (2007) identified the school physical plants to include the sitting, buildings, and provision of physical equipment in the schools.

Ogunsaju (2000) defines school plant as a process of acquiring and designing a building which would satisfy the educational needs of the students. The school physical plant consists of the school buildings, school equipment, school site which make the beauty of the school environment and aid the stimulation of teaching-learning process. For Yusuf (2008) and Ajayi (2007), school physical plants resources which aid teacher job performance comprised the following:

1. Machinery: It includes machines and tools used in the workshop, duplicating machines and so on.
2. School site: This refers to the entire landscape on which the school's permanent and semi-permanent structures are built.
3. Buildings: These include classroom blocks, administrative offices, libraries, workshops, laboratories, students, hostels, staff residential quarters, assembly halls, toilets dining hall and so on.
4. Equipment: These consist of typewriters, photocopiers, computers, sporting equipment, laboratory equipment and workshop equipment.
5. Furniture: Desks and seats used in the classrooms office furniture, residential furniture and soon.
6. Vehicles of various types and sizes.
7. Books textbooks, periodicals and all library books.

8. Electrical infrastructure: Air conditioners, electrical fans, generating sets and other electrical fittings.
9. Water supply infrastructure: This involves deep wells, boreholes, water tanks and public water.
10. Accessories: These include playgrounds, lawns, parks garden and farm.

Similarly, Oyedeji (2000) classified school physical plant as school site, building and equipment, which includes permanent and semi-permanent structures such as machines, laboratory equipment, the chalkboard and office assistant tools such as brooms and clearing materials. The benefits of physical plant resources to Chike-Okoli (2007) include that they provide security and shelter for both the human resources and properties in the school; promote healthy and safety environment; develop school and community pride; and they promote effective teaching-learning. Oyedeji (2000) pointing out the significance of the physical plant in the school further explained that physical plant like the school building is said to have positive impact on the enrolment, comfort, safety and academic performance of the student.

This was further reported in a study carried out by Ibitoye (2003) on relationship among secondary school size, resource utilization and school effectiveness in Ilorin Local Government Areas, which discovered that there is a high relationship between enrolment and the utilization of classrooms provided for teaching-learning endeavour. The result implies that the higher the number of students in the school, the higher the utilization of the classrooms. The study depicts the relevance of physical plant resources in meeting the increase demand of school enrolment. Udosen (2012) also opined that the physical plant resources share a great relationship with the curriculum, which in turn affects effective teaching and learning. They create positive impact of the physical environment, in which teaching-learning takes place. The reasons for this are not far-fetched because school physical plant (given teacher effectiveness and commitment) helps to improve students' performance in achievement tests in WAEC, NECO, JAMB and SAT. They also improve attendance and reduces dropout rate. They improve student's attitude to learning



and increase teachers' retention rate. They boost teaching effectiveness and job performance. Physical plant resources also makes teachers feel relaxed while teaching in the classroom, which equally makes room for job satisfaction. For instance, the situation where a teacher is teaching in a classroom with broken room and ceilings, such teacher will not be comfortable teaching in such a place and this negatively affect the teacher's performance to effectively present instruction. Likewise, such a teacher will have negative feeling concerning the atmosphere and environment where the teaching is taking place. Therefore, for teacher job performance, teaching must take place in an environment that is conducive.

Supporting the above statements, Khan (2016) opined that good learning environment should be created by the school physical plant. It is the most important factor in the whole educational process. But reports from several researchers like Ajayi (2007), Macalino (2014) have shown that people have been complaining about poor administrative space in some schools. Experience has also shown that spaces of convenience such as toilets, corridors and so on in some of the schools are not properly planned. However, where administrative space and space of convenience are poorly planned, it is likely that the effectiveness of teaching and learning process may be affected negatively which in turn may affect teachers job satisfaction and students' learning outcomes negatively. Nevertheless, before setting up a school, the physical plant resources are usually the first thing that must be available when one thinks of opening a new school. They are the first machineries which create the existence of a school before any other human and material resource come into play. For instance, the site where the school is located and its structures are of utmost important and should be considered first before putting up other resources. To Macalino (2014), the school site should have physical plant resources components such as buildings, classrooms, offices, staff and function rooms, assembly and athletic facilities, medical and dental clinic, food services and canteen. The school site must be easily accessible to the greatest number of teachers, pupils and students it intends to serve. The maximum distance for teachers and pupil/student to walk from residence to school is 2 to 3

kilometers, while the maximum time from residence to school on board a public conveyance is thirty (30) minutes. The location of the school also affects its development of operation. In determining the location of the school site, accessibility, design and suitable surrounding environment are important considerations.

To maintain the design and safety standards, Macalino (2014) and Khan (2016) opined that the school site should be well-located near the centre of the present and probable population to be served. It should be some distance from the town or city in order to provide equal accommodations for outlying settlements. It must have a suitable frontage on a public road, preferably on a quiet street and not shut in front of the main highway by private property or from dense groves of tall trees. There is also need for school site beautification. This requires that a school should have a main entrance gate and a service gate. A good strong fence should be built around a school site to secure the school against stray animals and squatters. The display of the Nigerian National flag and school flag (where applicable) is a requirement for all schools. The flag should occupy a prominent place in front of the main building in the assembly area. A sign board to identify the name and location of the school should be displayed in front of the main building. The school surroundings should be beautified with plants and ornamental plants and this requires the prior preparation of a planting plan. As part of the design of school buildings, this should be guided by design guidelines functions, needs of its users, nature of the environment. The school buildings and classrooms should be well ventilated and constructed. Considerations should be given to the flexibility, structural stability of aesthetic elements and contemporary treatment provision for mobility of handicapped/disabled persons. Ventilation of the school buildings and classrooms should not be obstructed and impeded from natural illumination. Sounds in one building should not carry into the next building. Design requirements for the windows should be equal to or at least 10% of the floor area of the room. Ceiling height should not be less than 2.70 meters measured from the floor to the ceiling (w/natural ventilation); 2.40m (artificial ventilation). Construction of all floors should be framed

and secured into the framework and supporting walls Exit Doors and should have at least 2 exit doors (50+occupants); not less than 2.10m. Corridors should be less than 1.10m wide Stairways height and 900 millimeters wide. Door shutters 1.10m wide (50 or less occupant); 1.50 (more than 50); rise of every step should not be less 1.50mm; tread should not be less than 250 mm; handrails should be provided on each side of the stairway having more than 4 steps (Macalino, 2014).

For the school furniture, equipment and facilities, Macalino pointed out that good seating is necessary for comfort and good posture and is crucial to the proper physical development of the child. Facilities and equipment which have a normal life span of two to five years should be put in place in the school. The lighting, furnishing, fixtures and fittings in the classroom must be properly designed and well constructed. School tables, such as pupils/students' table, teacher's table, library table, demonstration table, dining table, and conference table are designed according to their use or function. Storage and display furniture for storing and displaying materials, supplies and equipment is as essential as seats and tables in any school. Commonly used in public schools for storage and display purposes are bookcases, cupboards, cabinets, shelves, and divans. The school site should also have library facilities, laboratories, games/sports, technical and workshop facilities. According to Macalino (2014), physical plant resources which include home economics facilities, industrial arts facilities, agricultural arts facilities, library facilities, sanitary facilities, playground facilities, athletic facilities, administrative facilities, facilities for ancillary service, special education facilities and school canteen or vendors should be found within the school premises. Instructional devices which comprise a wide range and variety of educational media and technology such as visual aids, audio visual aids, teaching aids and devices, which are indispensable tools for effective teaching and learning, should be available in the school. Further supporting the works of Macalino (2014) and discussing the components of the school physical plant resources, Khan (2016) concurred that classrooms are the major component of the school physical plant which should have a

section for each student. There should be as many classrooms in the school, as there are sections in different classes in the secondary schools. The classrooms should provide sitting arrangement to accommodate 40 to 50 students with adequate space for students and teachers to sit, stand and move freely for using maps, charts, pictures, among others.

Khan (2016) further noted that the classroom should be ideal and a workable one according to the present need. The classroom should be sizeable to accommodate all learners, tastefully decorated to have a pleasant look and the walls should be painted with some attractive and light colour. Each classroom should have essential equipment of desk and chairs for the pupils, wall blackboard or whiteboard, a chair and a table for the teacher and a map stand. Besides the aforementioned above, attendance register, chalks, duster should be there in each classroom. Bulletin board, water basin, dust-bin, door-mat, table cloth, may be among non-essential equipment to decorate the classroom. There should be adequate lighting arrangement in each classroom. The rooms should have sufficient number of sources in the form of doors, ventilators and windows for admitting light from outside. Proper ventilation of the classrooms is just as important as adequate lighting. The classroom should have sufficient number of doors, windows and ventilators to admit light and air from outside. The size and number of the windows should be decided on the basis of the size of the room.

Ceiling fans should be fitted in the classroom which helps in solving the problems of over-perspiration, draught and suffocation in summer and rainy seasons. Besides the classrooms, the school physical plant should have accommodation for teaching of some specific subjects like Science, Mathematics, Geography, Drawing, Crafts, Music and Home Science (Macalino, 2014; Khan, 2016). In the modern school system, where the new teaching devices like project teaching, individualized instruction, laboratory work, discussion and debate, audio-visual instruction, are followed, it is not desirable to provide a general classroom which is meant for teaching subjects for general nature. The subject-rooms helps economizing time, energy, when the equipment, apparatus and other teaching aids are not moved from one end of school to another. So the

schools which provide for the teaching of different practical subjects must have different special rooms for the purpose. The library which is also part of the physical plant resources should find a dominating position in the school. It is the most important school physical plant in the school which improves academic life of a school. Today, it is considered as the most powerful media to promote teacher job performance, to acquire information and to provide research facilities.

For quality learning and teacher performance in the school, the library should be provided with adequate natural light and ventilation with satisfactory window shades and provision for needed artificial light. The furniture, book shelves, tables, chairs, reading desks should be carefully designed with an eye to artistic effect as well as functional efficiency. It should be well-equipped and stocked with nicely selected books and literature, which should be easily approachable and accessible to the teachers and students. It should neatly kept and cleaned all the time (Lonsdale, 2003; Douglas & Wilkinson, 2010; Khan, 2016). Other components of school plant identified by Khan (2016) and Macalino (2014) include; laboratories, furniture, and records. Every school must possess well-equipped and well-planned laboratories for teaching science subjects. The size of this room should be more spacious to accommodate all the laboratory equipment's. It should also have one or two attached rooms used as stores. The service connections for gas, electricity and water are to be provided in the wall of this room. This arrangement will facilitate to use movable tables in one position for class work and in another for laboratory. Built in cupboards for storing the chemicals in a laboratory should be provided. There should be adequate provision for the individual shelf for the students for keeping their apparatus and belongings. Proper care should be taken for the adequate lighting and attention. Also, every school should have adequate furniture's and equipment's. So furniture and equipment play a dominant role in the physical, mental and moral welfare of the students. These are essential for the successful working of the school. Suitable furniture's should be provided in the classroom. Improper seating arrangement leads to physical deformities and ruin the health of the students. Therefore, every care should be taken for the right type of furniture and seating

arrangements. The seat and desk should be made to fit the students but not the students the seat and desk. Seats should be of such a height that learner's feet do not dangle but reach the floor. However, the desk should be designed to give comfort to the students. With careful examination, the height, the seat and writing surface should be determined (Khan, 2016; Macalino, 2014).

The classrooms should have cupboards to keep the equipment's like maps, charts, dusters, registers, reference books, and pictures model. The cheapest cup-boards are those which are built into the wall the building is being put up. If possible, there should also be open-shelves in the classroom for dictionaries, encyclopedias, picture books, atlases and so on. In every classroom, a blackboard is highly essential. Blackboards are of several types. Generally, two types of blackboard are in use-the wall blackboard and the easel blackboard. Among these, the easel blackboard is considered to be the best. It can be moved from place to place and can be used outside the classroom also. But in case of wall blackboard, a cemented and painted or wooden board should be permanently fixed in wall of the classroom. It may be painted with black or green colour. The blackboard should at least be four feet wide. The blackboard should be at an easy distance from the teachers. A true teacher can use black board very effectively keeping in view the location, height, colour and cleanliness (Khan, 2016; Macalino, 2014).

Generally, school plant is one of the most important educational resources which aid teacher effectiveness and job performance for the achievement of educational objectives. Its material conditions should be conducive for the all round development of the teachers-physical, emotional, social, cultural, aesthetic and moral. Good physical learning environment should be created by the school physical plant resources which shares a nexus/connection with teacher job performance. Without availability and utilization of physical plants it is difficult to establish a school. Supporting the above statement, Adeboyeje cited in Akinsolu (2012) opined that the availability and utilization of the physical plant facilities determines the quality of instruction and performance of students in the school. This calls for efficient management of school physical plant resources through its extensive availability and utilization, which is mandatory in order to

make the school a pleasant, safe and comfortable center for teacher effectiveness and job performance (Adeboyeje, 2000). According to Adeboyeje, the school administrator has to play a major task in the school, which is the management of all the physical plant resources.

Adeboyeje further stressed that the school administrators should be conversant with universal principles of managing physical plant facilities. Proper understanding and application of such principles will contribute to correcting deficiencies in physical plant facilities management practices, which in turn facilitate instructional programmes in schools. In addition, Akinsolu (2012) stressed the importance of physical facilities in the management of educational system. In Akinsolu (2003) study on provision and management of facilities for primary education in Nigeria, she pointed out that there is a gross inadequacy in physical plant facilities for Nigerian primary schools with availability to required percentage ranging from as low as 1.5 to a maximum of 35.2%. Akinsolu further opined that all stakeholders need to ensure adequate provision of physical plant facilities in all educational system, be it primary, secondary and tertiary levels to enhance learning and for improved productivity. From all the foregoing, school physical plant resources is very crucial for teacher job performance in the classroom.

### **Printed Resources**

Printed resources in the secondary school according to Obidiegwu (2008) and Nzeneri (2010) are instructional materials on pen, black and white or coloured prints like pamphlets, workbook, study materials, brochures, memo-graphs, periodicals, newspapers, dictionary, teachers' manual and guide, textbooks, notebooks, diagrams, flash cards, charts, cartoons, posters, pictures, journals, note of lesson, lesson plan, scheme of work, curriculum and graphs. Today, with the role of technology in education, most of the printed resources are derived from non-printed resources like the computer. Downloaded materials from the Internet are printed in black and white or coloured paints on papers for teaching and learning effectiveness in the secondary schools. The printed resources are also readable materials which equally appeal only to the senses of sight (seeing), touching and smelling. To Bolick (2003), Obidiegwu (2008) and

Nzeneri (2010) the printed resources also provide educational information and as an excellent tool for instruction, they store information where, when and as desired by the teachers or users. The edition of the printed media may be adjusted to suit the educational needs of the people. In countries or regions with very few non-printed resources like television or radio, the print media becomes very important media resource for communicating socio-economic, political and cultural programmes. These resources therefore play important role in teacher job performance.

Their benefits to teachers as further highlighted by Bolick (2003), Nzeneri (2010), Wambui (2013), Effiong and Igiri (2015) include: enriching and enlivening teaching; stimulating the students' desire to learn; assisting learning processes by making assimilation and memorization of materials easier; they help to hold students attention in the classroom; inducing greater acquisition and longer retention of information; and assisting teacher to have a repetition of what is being taught. Obidiegwu (2008), Nzeneri (2010), Effiong and Igiri (2015) further discussed the role of most of the printed resources in promoting teacher job performance in the classroom. The graphic to him are two dimensional materials that have length and breath. They are used to compress information about events and are effectively used in secondary schools to stimulate discussion and create students' interest. The graphic resources include maps, pie graphs, posters, charts, diagrams and cartoons. These materials are used in different subjects like Geography to represent geographical features like relief, regions and capitals, rivers, rainfall, vegetation, cities, among others. They are used in Economics by teachers to represent regions of high or low production of goods and services, demand and supply, and areas of distribution of goods and services. The graphic materials are used to represent comparative information like regions of greatest productivity of agricultural or industrial goods and regions of less or least productivity of such goods. The teacher can as well draw temperature or rainfall graphs of a country. According to Francis, Jacobsen and Friesen (2014), graphs can be made to use line or dots or pictures in their presentation of numerical or statistical data. They act as learning designs that change and improve student learning experiences and outcomes by adopting inquiry



approaches to teaching that incorporate meaningful uses of technology. Graph can be seen in printed books, magazines, among others. They indicate relationship between variables.

Charts can be piece of paper or cloth on which letters, pictures, diagrams or statistical tables have been manipulated. They are used to summarize events and portray relationships. According to Nasibi and Kiio (2004) and Mohamed (2011), a chart is a combination of written or drawn pictorial or graphic material, which presents a clear visual summary in tabulated or methodical form. Charts are either teacher-made or ready-made. Where possible, it is recommended that teachers make their own charts incorporating their own ideas and line of thought in teaching and learning. If possible, the teacher should involve learners in preparation of charts. Charts therefore serve as alternative to real objects and can be used to make abstract concepts meaningful for teaching and learning. Charts are different from photographs which are true representation of objects. Examples of these charts useful for teacher effectiveness include; strip charts, stream charts and flow charts. Posters on the other hand are very useful in teaching in the classroom. They are usually very attractive and they combine pictures, words and attractive colours to enable achieve the intended learning objectives (Nzeneri, 2010; Obidiegwu, 2008). In most cases, posters are more effectively used by teachers to introduce a new topic in the classroom. They can be used to summarize essential points on a topic and used to relay intended information so quickly. Also, flash cards are very useful to teachers in the classroom. They are used to emphasize points on a lesson. The essence of flash cards is to present the point's one after the other. That is, the points are logically and sequentially presented stage by stage as each point is being discussed. They are used by the teacher to motivate and encourage students' participation in the classroom. The textbook and note books are another printed resource widely used in the secondary schools. According to the Department of Basic Education of the Republic of South Africa (2015) textbooks are a core resource and a source of supplementary material for teaching and learning. Textbooks are collection of the knowledge,

concepts, and principles of a selected topic or course. They are usually written by one or more teachers, college professors, or education experts who are authorities in a specific field.

Moulton (1994) and Richards (2001) opined that textbooks drive instruction because they are ubiquitous. Most textbooks are accompanied by teacher guides, which provide teachers with supplemental teaching materials, ideas, and activities to use throughout the academic year. Textbooks serve several advantages to teachers when effectively utilized in the classroom. This includes that they are especially helpful for beginning teachers. The material to be covered and the design of each lesson are carefully spelled out in detail. Textbooks provide organized units of work. It gives teachers all the plans and lessons they need to cover in a topic in some detail. Textbook series provides teachers with a balanced, chronological presentation of information. They are a detailed sequence of teaching procedures that tells the teacher what to do and when to do it. There are no surprises—everything is carefully spelled out (Richards, 2001).

Textbooks provide administrators and teachers with a complete programme. The series is typically based on the latest research and teaching strategies. Good textbooks are excellent teaching aids. They are a resource for both teachers and students. Textbooks assist teachers in managing a lesson. It saves time, give direction to lessons, guide discussion, facilitate in giving homework, making teaching easier, better organized, more convenient, and most of all, it provides confidence and security to teachers (Department of Basic Education of the Republic of South Africa, 2015). For teacher job performance, textbooks are used to teach learners to learn, used as resource books for ideas and activities and for instruction/learning. They give teachers rationale for what they do in order to bring about an effective learning situation. Similarly, Lianghuo and Gurcharn (2000) reported in their study that textbooks did appear to have an impact on teachers teaching strategies. They conveyed certain pedagogical messages to teachers and provide them with an encouraging curricular environment for utilizing different teaching strategies. With the recent use of technology, textbooks are sourced through electronic means

like the computer. Other print resources used for effective teacher job performance include the curriculum, syllabus, scheme of work and lesson plan/note.

### **Non-Printed Resources**

Non-printed resources are durable materials that do last and include real objects, hard wares, equipment and high-technology/digital materials. These resources equally appeal to all the five senses of sight (seeing), hearing, touching, tasting and smelling (Richards, 2001; Mohamed, 2011). Many of these non-printed machineries apart from the real objects operate with electricity or batteries (Nzeneri, 2010). Their advantages to teachers in the classroom include; helping in producing standardized materials of varying quality; free the teacher from routine repetition of tasks so the he can devote more time and energy to more profitable ones; make learning available to a wide audiences; illuminating and clarifying non-verbal images and symbols and quantitative relationship; helping to bring wide variety of experts into the classroom; they help to control the pace of learning and promote better understanding; and they help teachers to overcome physical difficulties in presenting subject content; and motion picture for instance help to promote continuity of thought (Nzeneri, 2010). Examples of such machineries include the chalkboard, whiteboard, makers, television set, smart phones, ipads, radio, tape recorders, cameras, projectors, video recorder, record players, programmed text, public address system, materials for recording, projecting and transmitting instructional messages. Toby cited in Nzeneri (2010: 181) described these non-printed resources as materials transmitted and projected to the audience through hard wares. Among them include:

1. Receptive materials such as the blackboards, bulletin boards and flannel boards.
2. Projected materials such as slide and film strips, transparencies and overhead projectors
3. Auditory materials, for example, record tapes, radio broadcast, microphones, videos, DVDs, CD tapes and gramophones, among others.

4. Representations and relief displays like two and three-dimensional objects, models, dioramas, real objects and specimens.
5. Audio-visual like television set, computer materials, among others.

Mohamed (2011) and Prakash (2011) noted that non-printed resources play a key role in teaching-learning situations. Their works is to support both teacher and taught in the pursuit of knowledge and curriculum transaction. They are the tools purposefully designed to overcome verbal deficiencies in communication in a classroom situation. They act as interest booster which helps in arousing and sustaining the interest of the learners in the teaching learning process. Visual, audio and audio-visual instruments help in precise and easy dissemination of information of facts, information and data, too large audience with less effort. Visual instruments assist in stimulating learning and audio instruments aid in critical thinking and improve the use of imagination. Digital devices act as time speeders that speed up the learning process because of its prompt, easy, accurate and quick presentation of information (Adelodun & Asiru, 2015). In line with the above statements, Prakash (2011) divided these resources which aid teacher job performance into different types as per their nature of function and usability as:

1. **Auditory Aids:** - These aids produce sound and act through the ear. These are:

- (1) Gramophone
- (2) Tape Recorder
- (3) Radio.

2. **Visual Aids:** - These aids presents pictures and matters act through the eyes. These are:-

- (1) The chalkboard
- (2) The flannel board
- (3) The bulletin board
- (4) Projected aids, such as slides, epidiascope film-strips and motion pictures, among others.
- (v) Representations through computers - charts, sketches, flash cards, posters, cartoons, pictures, among others.

3. **Audio-Visual aids:** - These aids produce both pictorial and sound which influence mind both through the eyes and ears. These are:-

- (1) Television
- (2) Sound motion pictures

4. **Activity aids:** - These aids induce direct participation of students and teachers to get firsthand knowledge. These are:-

- (1) Tours, excursion, field trips.
- (2) Collection of specimens, models, pictures, coins, among others.
- (3) Preparation of models, charts, puppets etc.
- (4) Dramatics, Demonstration.

Describing the role of some of these non-printed resources for teaching effectiveness and teachers' job performance, Nzeneri (2010) opined that the tape recorder which is classified as audio material is used to relay group discussion on several subjects in the society. Such recorded discussion on training programmes may be replayed to assist the group evaluate their previous discussion on such issues in the past. The playback of recorded discussion can also help teachers review previous summaries on topics treated in the past. According to Bagulia (2005) and Mohamed (2011), the tape recorder can be used in skill practice in primary teachers colleges and primary schools. This is because they can record and playback the recorded images instantly for feedback and use in learning. They can also record events and situations for use in the class, especially where motion is needed. They can also record programmes from television broadcasts for later use. Tape recorders have advantages of storing original information, sound or how accurate language words are being pronounced. They have not only revolutionized teaching but also introduced flexibility in teaching. Tape recorder can be used by individuals, handicapped students and distance learners, among others to recall information, revise or evaluate ones performance or work from stored original data. In the secondary schools, they are widely used in language laboratory. The radio is another audio device utilized for effective teaching. According

to Nzeneri (2010), this is a very useful device for transmitting knowledge, ideas, and information to the group of students in the classroom.

The radio seems to be the most economical of all audio resources. Educational radio programmes are usually relayed at the convenience of students. The radio is easy to manipulate and does not necessarily require to be powered by electricity. Most times batteries serve as substitutes for electricity. The radio can sometimes be combined with the printed resources or study materials for organized study groups. Telephone is also another resource that is been utilized to communicate knowledge between the teacher and student. The teacher at any agreed given time can call on his students to discuss their progress in specific programme or subject areas. The teacher tries to ensure that students do their assignments, communicate their problems to him and collect feedback. This pattern helps to motivate students in participating actively in their programmes (Mohamed, 2011).

Furthermore, the chalkboard or white board of all non-printed resources seems to be the most widely used by teachers in the secondary schools. This resource is simple to manipulate, very flexible, economical and probably it has the greatest utility. Its usefulness cannot be over-emphasized. The chalkboard or whiteboard according to Mohamed (2011) can be used by the classroom teacher to display maps, drawings, sketches, diagrams, graphs, and statistical information. It is mostly used to summarize lesson topics or essential points of the lesson. It is used to clarify complex ideas and to demonstrate the objectives of a lesson. It is used to give and solve assignments of problems discussed in a given topic. The chalkboard offers opportunity for initiative and because it is used to illustrate working examples, any writings on it should be legible, neat or tidy. To ensure teacher job performance in use of the chalkboard in instructional delivery, the teacher should ensure legibility whereby letters must be boldly written and properly arranged in a straight line. Also, its plan of use must be sequential in presenting any lesson or topic for better understanding. According to Daniel (2013), the chalkboard is a very convenient teaching aid for group teaching and useful for explaining points to students. Additionally, Daniel

opined that audio-visual resources which appeal to both the senses of hearing and seeing can effectively be used for students in skills or cognitive aspects of knowledge. Audio-visual materials as previously identified include video recording, closed-circuit television, projected films with sound, among others. The closed-circuit television can be used to magnify objects, role-play, skill demonstration and laboratory experiments. It can be adjusted so that it can be viewed by a large group of learners.

Today, various smart television set are used as useful instructional resource in educational programmes – especially in advanced countries. Each lesson can be recorded on video tape and shown on many occasions through the television. The television can transcend the limits of space and time to reach the masses or specific learning groups. The video recording is an instructional resource that records sound and vision. It serves to record and install information until desired. It is also useful in the classroom for group discussion. That is to say that well prepared model lessons or programmes can be recorded in video-tapes and they can be observed by different groups of students and teachers. Projectors of different sort which include Episcopes, Diascopes and the Epidiscopes are also useful hard ware resources for improving teacher job performance. These projectors display images of objects, graphics and still pictures, among others which aid teaching in the classroom (Nzeneri, 2010). Recently, with the advancement of technology, digital resources using various software and applications have begun to gain prominence as important resources used in the secondary schools for teaching and learning. According to Brown, Campbell, Christopher, Fritz, Jorn, Little, Lynch, McCreadie and Metros (2009), technology as part of non-printed resources has contributed substantially to teacher and student role modifications by facilitating easy access to vast amounts of information. Supporting the above statement, Hussain and Safdar (2008), Bada, Ademole and Olalekan (2009), identified the computer as one of the information technologies operating various packages that are used in education for various purposes as they can store and retrieve a huge amount of information, among others. Before the Web, for instance, art history faculty had virtually total control over the

images that their students viewed—typically, the slides shown in class. Today, a student with a laptop or a Web-enabled mobile device can browse the Internet for images, circumventing the vetting previously exercised by the instructor. Web search engines have democratized the expansion of information beyond the basic syllabus. Much of the commentary on this expansion of access concentrates on a perceived inability for students to judge value, but many students identify valid and valuable information without the guidance of their teachers. This is an environment that can be much more challenging for teachers.

Similarly, Berg, Blijleven and Jansen (2001) described some of the computerized digital resources useful in teaching and learning. To them, these digital resources are classified as drill and practice, tutorials, multimedia, simulations, educational games, and digital tools. Drill and practice are the most well known digital learning materials. Essentially, these programmes are built on existing knowledge and give learners the opportunity to consolidate and repeat knowledge and train and automate skills. An example of such programme is the Dutch programme ‘Plato ende rekenspiegel’ [Plato and the arithmetic mirror] that provides learners with ample opportunities to practice their numeric skills. This programme consists of excellent facilities to diagnose performance and give adequate feedback and guidance. The programme calculates a model of the learner, and based on his/her past performance, subsequent tasks are given. Feedback is also provided by means of suggesting and supporting different calculating strategies. Contrary to drill and practice programmes, tutorials support the acquisition of knowledge and/or skills. Tutorials mostly offer pre-defined sequences to build up the desired knowledge and skills. They often apply immediate feedback to guide learning in an effective way. Tutorials are very common in learning software applications (for example: <http://training.ase.tufts.edu/>). But tutorials may also serve instructional purposes in school subjects. Multimedia (or hypermedia) refers to programmes that contain text, images and sound which are interacted in a non-linear structure. Like tutorials, also multimedia is primarily designed for the acquisition of knowledge. Moreover, multimedia programmes usually have a



large amount of the information codified in a non-text way, such as pictures, animations and video. The multimedia are apt for teacher effectiveness and job performance in the classroom. Simulations are programmes that contain a model of a system or a process. The flight simulator, such as 'Microsoft Flight simulator 2000' is a well-known example of a simulation that enables pilots to train crash scenarios. Educational games are computer games designed into software used for entertainment and education purpose. They are a combination of play and learning which are best described by some characteristics such as: rules, points, winning and losing, coping with pressure, skill & luck and so on (Berg, Blijleven & Jansen, 2001).

Educational games have a (often hidden) learning purpose. The knowledge and skills are imparted entertainingly into the game. The new words education or understanding are examples of games that have integration of play and learning. They have such qualities that arouse high motivation amongst learners. Computer tools are basically developed to facilitate teaching and learning. They include computerized tools for writing, calculating, communicating and so on. These tools are not content-related, and most of them, such as word processing programmes, are not designed with an educational purpose in mind. Some tools, such as 'De Junior Bos@tlas' [the Junior Atlas] and 'De interactieve Flora van Nederland' [Interactive Flora of the Netherlands], are especially designed for education. Examples of these computer tools which also impact on teacher job performance include: databases and encyclopedias; electronic performance support systems [EPSS]; communication and cooperative environment; and new tutees (Berg, Blijleven & Jansen, 2001). Other non-printed resources that are essential in teaching and learning are the three-dimensional materials. According to Obidiegwu (2008), Nzeneri (2010) and Daniel (2013), these resources are different from graphics and pictorial materials, in the sense that they have additional elements. The three dimensional materials include models, dioramas, mock-ups and specimens. They are sometimes referred to as multi-dimensional materials because they have length, breadth and depth. They are useful to reflect natural reality in teaching and learning. Models or mock-ups represent real objects. They are

constructed to the actual shape and size of the real object. They can be constructed according to required scale to reflect the enlargement or reduction of the real object. Models are permanently fixed while mock-up can be dismantled. Dioramas are effectively used in terms of reflecting natural reality. They are usually a creation of a scene with appropriate background. Example of such display can be the ones done by churches on the Christmas day to show the birth of Jesus Christ born in a Manger and visited by the three wise men from the East (Obidiegwu, 2008; Nzeneri, 2010). Therefore, non-printed resources when adequately provided are very useful for teacher job performance. From all the discussions, shows that the magnitude at which educational resources such as the physical plant, printed and non-printed resources are made available for teachers in schools will aid to improve their job performance.

### **Availability of Educational Resources in Anambra State Secondary Schools**

One of the basic requirements for achieving quality and high standards in teaching and learning in the secondary schools in Anambra State is to ensure that teachers frequently have access to resources in the school. This is equally a means in which teacher efficiency and job performance can likewise be guaranteed. Teachers are always happy to showcase their competences and commitments which promote their utmost performance in an environment where resources are adequately available, and where they can easily have access and explore resources within their reach. Supporting the above statements, Ugwuanyi (2013) noted that no meaningful learning or transfer of what has been learned will take place if such learning occurs in a situation devoid of relevant materials and activities as well as concrete experiences – given through teacher job performance. Therefore, the importance of availability of resources for teacher job performance cannot be over-emphasized in secondary schools in Anambra State.

The availability of resources like the physical plant resources, printed and non-printed resources motivates the teachers to high performance and commitment of duty. They increase teacher's efficiency, productivity and equally the indices or elements of promote job performance as

pointed out by Ugwuanyi (2013). Resources therefore are important aspect of teacher job performance and the management of secondary schools in Anambra State. Onyejiemezie cited in Ugwuanyi (2013) noted that availability is a state of making provision for a satisfactory standard requirement in terms of teaching resources to enhance effective instructional activity in a particular subject. According to the author no meaningful learning or transfer of what has been learnt will take place if such learning occurs in a situation devoid of relevant activities and concrete experiences. In other words, availability can be defined as human and material resources ready for use by teachers in teaching in the classroom.

The Longman cited in Ugwuanyi (2013) defined available as something that is able to be used or can easily be found and used. In other words they are those resources that are committable or usable upon demand to perform their designated or required function. According to Okoro cited in Ugwuanyi (2013) facilities, equipment and supplies as components of resources are very vital in teaching and learning in the secondary schools. Similarly Awosika also cited in Ugwuanyi (2013) asserted that facilities and equipment are programme related in any teaching programme like secondary schools in Anambra State and should be provided in sufficient quantity to meet the needs of the school. National Association for Sports and Physical Education (NASPE) in 1995 advocates that sufficient physical education resources are needed to meet the standard for secondary school physical education programme (Ugwuanyi, 2013). Ogbu cited in Ugwuanyi (2013) observed that school physical education resources (facilities, equipment supplies and the personnel) are very important to the successful implementation of the school physical education programme. The level of success of most education programmes like that of the secondary schools in Anambra State is greatly dependent on the degree of availability and utilization of up-to-date equipment and facilities as these form the hub around which such programmes revolve (Ugwuanyi, 2013). Writing on availability of school facilities and academic achievement Owoeye (2011) opined that availability of school resources is a potent factor to quantitative education. To Owoeye the importance of provision of instructional facilities for

teaching and learning in the education sector cannot be over-emphasized. The authors added; ‘teaching is inseparable from learning but learning is not separable from teaching’. According to them this means that teachers do the teaching to make the students learn, but students can learn without the teachers. They added that learning can occur through one’s interaction with one’s environment which has the presence of resources and effective teachers.

In recognition of the importance of availability of resources in teaching, the Federal Republic of Nigeria (2013) under Section 8 of the National Policy on Education (NPE) document identified that school resources will lead towards the attainment of policy goals and the promotion of effectiveness of educational system. The FRN further noted that educational support services provided through availability of school resources would improve and develop educational programmes; provide conducive environment for learning; make learning experiences more meaningful and realistic for learners; enhance access to learning; develop and promote effective use of innovative materials in schools. In this regards, teachers in the secondary school are users of the resources whose effectiveness counts. Given availability of resources in the secondary schools in Anambra State, improves teachers’ performance and commitments and likewise students’ academic achievements, which are parts and parcel of determining teacher efficiency. Again, the Federal Executive Committee under the auspices of the Minister of Education and National Council on Education – (NCE, 2005), in fulfillment of the goals of education reproduced a legal national document concerning the guidelines on minimum standards in schools nationwide for resource provision. In identifying the importance of availability of resources in the school, they pointed out the resources required for effective school operations as approved by the National Council on Education (NCE). The following resources were under listed for the secondary schools. There should be an administrative block which contain an office for the manager, the principal, vice principals, staff rooms, and meeting room. The administrative offices should all have facilities for conveniences. This building must be certified by the commission in charge and must be developed strictly in accordance with the

approved plan for the site. The facilities and infrastructure should be certified as adequate by the Education Secretariat before approval is accorded. There should be a minimum of six (6) classrooms for a single stream school and multiples of six (6) classrooms thereafter for each stream. The minimum classroom space per student is specified in the minimum standards document (National Council on Education - NCE, 2005; Macalino, 2014; Khan, 2016).

All classrooms should be well lit and ventilated and should normally have two doors and five windows (two in front and three at the back). All doors and windows should open outwards and must be kept unlocked when the classroom is in use. Also, the school should have a standard library, suitably furnished for the use of the students and their teachers. Every school should have an assembly hall large enough to accommodate twice the number of its students. Khan (2016) observed that the boarding school should provide separate and secure hostels for their male and female students, with adequate rooms and toilet facilities. The approved standard ratio of toilet facilities for both students and teachers was also provided in the minimum standards document. Schools should provide adequate fire fighting and other emergency equipment in all buildings and should keep them functional at all times. Specification for special rooms like Arts/Music rooms, Home Economics room, Workshops for woodwork, electrical and metal work, Science laboratories for all science subjects like Chemistry, Integrated science, Technical subjects and Agricultural sciences; were also provided in the minimum standards document. Also, facilities and adequate materials for computer education, local crafts and multi-purpose rooms should be available in the school. Sports and games equipment as well as other recreation facilities should be available and adequate as well. A fully equipped sick bay with First Aid equipment and materials and trained personnel should be available in the school. Suitable furniture (that is; chairs, desks, tables, chalkboards, computers, among others) for different categories of students should be made available. Special and adequate facilities for the handicapped should be available in the school. Schools operating in rented accommodation should meet the minimum requirements in plot size, operational space and facilities. No school

should be sited within, near or have its gates less than five hundred (500) metres from the following premises of a: market, political party office, bar or any public drinking place, electricity high tension wire, express road, hilltop or undulated land, river bed or swampy area, industrial plant, motor park and petrol station/oil pipeline (National Council on Education - NCE, 2005; Macalino, 2014).

All schools are supposed to provide all the necessary facilities/resources before they commence academic activities; hence and school that wishes to charge a development levy should only do so in consultation with its P.T.A. Other resources pointed out in the minimum standards document necessary for effective school operation include: space/land, instructional materials – example play-pen, educative walls, charts, graphs and among others, curriculum modules, site plan and approved building plans, statutory and non-statutory records, certificate of occupancy and fencing, play ground/equipment, utilizes such as electricity, water and among others, assembly hall, examination hall, reading room, basic health scheme, library, class size, games field, teachers qualifications and certificates, syllabus, lesson note and plan, fire-fighting equipment, school clinic, classrooms, workshops and laboratories, farm land/fish farm, guidance and counseling unit, dining rooms, bathrooms, standard kitchen, staff quarters, store rooms, sports equipment rooms, among others. All these resources should not only be available but likewise adequate according to the specifications provided in the minimum standards document (NCE, 2005; Macalino, 2014). Furthermore, the Organization for Economic Cooperation and Development – (OECD, 2013) report on resources invested in education as a measure to determine what makes a school successful in OECD countries showed that educational resources available in a school tend to be related to the system's overall performance as well as schools' average level of performance. It was shown that high performing systems tend to allocate resources more equitably in teaching and learning than those disadvantaged systems with non-availability of resources. Copies of the questionnaire were distributed to school principals to report on not only the availability of school resources, on how the availability or non-availability

of certain school resources affected teaching and learning in their schools. School principals were asked to report on whether their schools' capacity to provide instruction was hindered ("not at all", "very little", "to some extent", or "a lot") by a shortage or inadequacy of physical infrastructure, such as school buildings and grounds; heating/cooling and lighting systems; and instructional space, such as classrooms. The responses were combined to create an 'index of quality of physical infrastructure' that has a mean of zero and a standard deviation of one in OECD countries.

Positive values that reflected principals' perceptions that the shortage of physical infrastructure hindered learning was to a lesser extent than those of the negative values which indicated that school principals believed the shortage of physical infrastructure hindered learning which was to a greater extent. This indicated that principals that believed that the shortage of physical infrastructure which hindered learning was to a greater extent. This equally means that the absence of resources could negatively affect teaching/learning, including teachers and students performance (OECD, 2013). From all the discussions above, shows that availability of resources in the secondary schools in Anambra State is highly of utmost importance for teacher effectiveness and job satisfaction.

### **Utilization of Educational Resources in Anambra State Secondary Schools**

Utilization of educational resources for teacher job performance in the secondary schools according to Ugwuanyi (2013) refers to a condition of being enough in quantity and good enough in quality for a particular purpose or need. Utilization of facilities and equipment constitute a strategic factor in organizational functioning. This is because they determine to a very large extent, the smooth functioning of any educational programme. Ugwuanyi further stated that their availability and utilization impacts on teachers' efficiency and high productivity in teaching. This means that resources influence teacher job performance which is determined by their commitments, effectiveness, efficiency and productiveness. A committed teacher is also a happy teacher who is always satisfied with his or her job. Atieno (2014) likewise opined that

resource utilization especially in the secondary schools is determined by how satisfactory or acceptable the quality and quantities of material resources, physical facilities and human resources that is put in place in a school are, in order to improve and boost teaching and learning.

Mapaderum (2002) opined that utilization is a satisfactory condition of resources in an organization. Mapaderum added that utilization of facilities; equipment and supplies in schools promote effective teaching and learning activities in the school while their poor utilization affects the academic performance negatively. Likewise, where resources such as physical plant resources, printed and non-printed resources are adequately provided and utilized in the secondary school, such could influence teachers' effectiveness and job performance. This will aid teachers to improve their competences and performance in the school. Supporting this statement, Hornby cited in Ugwuanyi (2013) asserts that resource utilization is a condition in which something is enough or good enough in quantity for a particular purpose or need. Availability of school resources and facilities – like school plant, printed and non-printed resources and their proper utilization have been positively correlated to good performance in examinations while poor performance has been blamed on inadequacies in availability and proper utilization (Maduewesi, 2010 & Ugwuanyi, 2013). Adding that where equipment and facilities are lacking, teaching may be poorly executed and teacher performance and effectiveness jeopardized. Additionally, several government departments, policy-making bodies, scholars, authors and researchers have given their own general comments and opinions concerning resource utilization in the entire education system. The FRN (2013) in the policy document has recommended the importance of adequate physical plant resources, material resources, recreational facilities, instructional facilities and equipment as one prerequisite for educational goal attainment and improvement of quality learning in the secondary schools. According to the Department for International Development (DFID), United Kingdom in 2007 cited in Atieno (2014) utilization of instructional materials such as textbooks which is the main instruction material is the most cost effective input affecting student performance. In this context



adequate supply is usually assumed to be a minimum of one textbook per three students, and at primary level enough reading books so that every child has the opportunity to read at least one new book every week.

Utilization of resources determines an educational system's efficiency, according to Padmanabhan (2001). For effective teaching and learning, textbook and resource materials are basic tools, their absence or inadequacy makes teachers handle subjects in an abstract manner, portraying it a dry and non-exciting. It is also important to have appropriate personnel plan for adequate utilization instructional materials and physical facilities to support educational effort. Therefore, scarcity of textbooks, libraries and physical facilities according to Coombs cited in Atieno (2014), will constraint educational system from responding more fully to new demands. In order to raise the quality of education, its efficiency and productivity, better teaching and learning materials (TLM), physical facilities and human resources are needed. Again, resources are however a prerequisite for the establishment and operation of a secondary school in the country. For this objective to be achieved, standard and adequate facilities, equipment and supplies should be provided in the secondary schools. This was also noted by the National Council on Education (2005) in the minimum standards guidelines for establishment of schools nationwide, that schools shall provide and utilize adequate resources as one of the needed conditions for their operations. Therefore, Anambra State secondary schools are not an exception, since they operate within the Nigerian context and environment, all government policies still covers them. Akinsolu (2003) stressed the importance of physical facilities in the management of educational system. In her study on provision and management of facilities for primary education in Nigeria, she pointed out that there is a gross inadequacy in facilities for Nigerian primary schools with availability to required percentage ranging from as low as 1.5 to a maximum of 35.2%. Akinsolu opined that all stakeholders need to ensure adequate provision and utilization of physical facilities in all educational system, be it primary, secondary and tertiary levels to enhance learning and for improved productivity.

Likewise, Amanchukwu and Ololube (2015) noted in a study that situational report revealed that there has been a drastic decline in some of the essential services required in the country's educational system especially in the area of utilization of physical facilities and resources. This must have affected students' performance in the two public examinations: Joint Admissions and matriculation Board (JAMB) and National Examination Council (NECO) students write in Nigeria. In Rivers State there are both public and private secondary schools; but the problem is more pronounced in the public schools. Public schools are those secondary schools funded by the State government. The latter also selected their own teachers who take care of the students and the facilities in the school compound. The State government is expected to take full control of those secondary schools by providing all the necessary infrastructures and facilities for effective teaching and learning delivery. Some of these infrastructures are non-existent in some schools and at times the existing ones are in a very bad state or not utilized properly. For the past few years the results of these two examinations were nothing to write home about (Amanchukwu & Ololube, 2015). Amanchukwu (2010) revealed that inadequacy in the use of school facilities coupled with other problems has led to the declining standard of education in Nigeria. There is actual lack of educational facilities and the few available ones are in a terrible state. The National Teachers Institute in 2003 also made a more elaborate recommendation of educational resources, equipment and supplies needed for teaching of various subjects in Nigerian schools. National Teachers Institute (2003) focusing on subjects like Physical and Health Education (PHE) further asserts that the issue of facilities and materials as well as equipment for use in teaching of physical education in secondary schools and colleges has for long constituted a problem in Nigerian schools that the number of facilities equipment and materials for physical education respectively has been generally inadequate in our secondary schools and colleges causing problem for their utilization. The learners themselves are resources to a resourceful teacher. The teacher can utilize their innate skills and ingenuity in producing certain local materials to be used as teaching aids.

Commenting on inadequacies in utilization of resources which affects teacher job performance in secondary education system, Ajayi and Ogunyemi cited in Ugwuanyi (2013) reiterated that when facilities are provided in adequate quantity and utilized to meet relative needs of a school system, students will not only have access to the reference materials mentioned by their teachers but individual students will also learn at their own pace. The net effect of this is increased overall academic performance of the entire students. On the contrary inadequate utilization of facilities and equipment in teaching is the origin of failure.

To Ajayi and Ogunyemi, a close look at the public secondary schools in Nigeria and what goes on there shows that nothing good can come out of most schools as they do not have and utilize adequate facilities, and appropriate human resources to prepare candidates for the West African School Certificate Examination (WASCE). Similarly Okwor cited in Ugwuanyi (2013) blames the failure of Curriculum Reforms in Nigeria (CRN) on the inability of the initiators of the programme to mobilize adequate resources (human, material and financial) to prosecute it and transform the plan into reality. From all the foregoing, shows that issues relating to resource availability and utilization for teacher job performance in the secondary schools have always been a matter of concern for all education stakeholders. Therefore, for teacher job performance, resource utilization must be taken into considerations. However, Umeoduagu, (2000) asserts that resources should be provided in quality and quantity for effective teaching in schools. Generally, utilization of resources in Nigerian secondary schools, including Anambra State will guarantee quality service delivery and maximum productivity, which leads to attainment of both national and educational goals. Discussion under this section therefore shows that effective utilization of educational resources will impact greatly on teachers' job performances.

## **Availability and Utilization of Educational Resources for Improved Teacher Job Performance in Nigerian Secondary Schools**

Teachers throughout the education system are popularly known to have great impact in the teaching and learning processes. Their efficiency counts in every teaching and learning delivery. Rivkin, Hanushek, and Kain (2000) explained that studies on the effect of teacher experience on student learning have found a positive relationship between teachers' high level of performance and student academic achievement. The evidence currently available suggests that inexperienced teachers are less effective. For this reason, adequate resources must be provided for them in order to perform their duties effectively in the classroom during instructional delivery. Similarly, the extent of resource availability and utilization for teacher job performance as used within the confines of the present study is concerned with ensuring that teachers in the secondary schools are making the best possible use of the resources in the school in order to achieve instructional objectives for positive outcomes. Such however determines their level of performance and effectiveness in a school.

Teacher job performance according to Hunt (2009) is encompassed in teachers' knowledge, competence and attitudes. Hunt expressed further that knowledge teachers have excellent verbal and written communication skills. Such teachers have thorough knowledge of the subjects they teach and pedagogical methods for teaching those subjects to students. They know a variety of pedagogical strategies, and when and with which students these are appropriate and likely to be effective. They equally have a thorough understanding of the linguistic and cultural backgrounds of their students, and how best to maximize learning for students with diverse needs and characteristics. They know how to organize and manage classrooms, using time effectively. Teachers of such know how to select and make resources that are available appropriate for student learning activities. Under attitudes, the teachers have high expectations for the learning of all students. These teachers view student errors as a window to their thinking that can be used to improve student learning. They are reflective about their

practice. Teachers believe in collaboration with others toward common goals for student learning. Teachers of such are eager to continue to learn and to improve their practice.

These teachers are likewise committed to their profession. Showing teacher performance under their effectiveness, the teachers develop classroom rules with students and maintain safe and orderly classrooms in which all students are treated fairly and equitably. These teachers make effective use of time, both of over-all classroom time and the time of individual students. They use effective teaching techniques and resources in planning lessons, presenting new material clearly, helping students connect new learning with previous learning, and providing guided and independent practice for new material taught (Hunt, 2009). Teachers of such provide opportunities for students to be actively involved in their own learning. The teachers respond to student errors in positive ways that help students understand and learn the concepts involved diversify it for the needs of individual or groups of students. Teachers create warm and caring relationships with their students (Hunt, 2009). Agu (2014) equally summarized that teacher performance is determined by their effectiveness in curriculum design and course development, Effectiveness in using well conceived course materials, Effectiveness in lecture presentation skills, .Effectiveness in pedagogical skills and assessment devices, Effectiveness in guiding and advising students. Wokocha (2014) also opined that the success of any educational system however, especially in terms of quality and effectiveness is dependent to a very large extent on the regular and sustained supply of quality teachers who are effective and equipped with the desired knowledge, skills, competence, commitment, aptitude and attitude and who also are motivated to execute their tasks professionally. This implies that ‘quality of education is quality of teachers and their effectiveness’. The importance of quality and effective teachers in our school system cannot be over-emphasized as one of the determining factors for quality assurance and national development. Teachers hold the key/secret for the advancement of society. This is witnessed by policy statements regarding teacher quality improvement and effectiveness that really contributes to desired educational outcomes.

One of such is the National Policy on Education (2004) Section 11 (100b) cited in Wokocha (2014) which states, “enhance teaching and improve the competence of teacher”. Teacher quality and effectiveness in executing their job has been described as the most important key to improving pupils/students learning achievement and that is for example more related to academic achievement than any other variable (Darling – Hammond 2000, Rivkin, Kanushek& Kain cited in Wokocha, 2014).The most basic definition of teacher job performance is the ability of teachers to help students reach high standards. Thus teachers’ performance must be understood from the context of their quality and competence (Wokocha, 2014).

Describing teacher job performance, Adeyanju (2009) posited that teacher quality and effectiveness judiciously involve combination of:

- 1) Strong subject matter knowledge.
- 2) Verbal ability
- 3) Skills in a range of teaching methodologies
- 4) Understanding the Curriculum and its purpose.
- 5) Professionalism and
- 6) Effective communication ability.

Valdez (2006) however envisaged that since teaching is changing and, in many ways, becoming a more difficult job because of its increasingly numerous contradictory expectations, achieving teachers job performance and effectiveness in the classroom can also be determined through the extent at which resources are provided, available and utilized for teaching. Valdez further pointed out some rationales and expectations which demands improvement in teachers job performance be promoted in schools to include; the presence of technological and information age which requires teachers to access, evaluate, analyze, and synthesize vast quantities of information. At the same time, teachers are expected to teach students to solve complex problems that require knowledge necessary across many subject areas even as they are held accountable for the teaching and learning of isolated skills and information. Teachers are

expected to meet the needs of all students and move them toward fulfillment of their individual potentials even as they are pressured to prepare students for maximum performance on high-stakes assessment tests that are the primary measure of students and school success. Availability and utilization of adequate resources for teachers job performance can actually assist with some of these expectations and make teachers—and their students—more successful (Valdez, 2006).

Knowing therefore the critical role played by availability and utilization resources and facilities in effective teaching and learning in secondary schools in Anambra State, Maicibi (2003) stressed that availability and utilization of teaching/learning resources enhances the improvement of teachers' task and performance in schools as these are basic things that can bring about good academic performance in the students. Maicibi opined that all institutions or organization are made up of human beings (workers) and other non-human resources. He further asserted that when the right quantity and quality of human resources is brought together, it can manipulate other resources towards realizing institutional goals and objectives. Consequently, every institution should strive to attract and retain the best of human resource. The implication of these opinions is that well trained teachers in the secondary schools if well deployed and supported through constant availability and utilization of school resources will bring about well rounded students who will perform academically well in their subjects. Most teachers in the secondary schools are trained and have clear goals to guide their teaching, but good teaching and learning materials seem not to be seen in most lessons. As a result, there has been a public outcry about poor performance in subjects like English, Mathematics and science/technical areas at secondary school level (Maicibi, 2003). Supporting the above statements, Cooley (2014) envisaged that unfortunately few resources are available in the schools and the lack of available and appropriate utilization of learning resources has consistently widened academic achievement. This is so because teachers' performance, quality and effectiveness is highly being influenced and affected greatly. According to Ofoegbu (2004), poor academic performance of students in Nigeria has been linked to poor teachers' performance in terms of accomplishing the

teaching task, negative attitude to work and poor teaching habits which have been attributed to poor motivation in which the extent of resources availability and utilization seem to be one of them. It has also been observed that conditions that would make for effective teaching as regards to the extent in which resources are available and utilized by teachers, general conditions of infrastructure as well as instructional materials available in public secondary schools in Nigeria are poor and limited. This has continued to have negative impact on teacher job performance (Oredein, 2000).

Both teaching and learning depend on teachers: no wonder an effective teacher has been conceptualized as one who produces desired results in the course of his duty as a teacher (Uchefuna 2001). For improved job performance in secondary schools including in Anambra State necessitates teachers who are effective to achieve positive results and outcomes through effective utilization of educational resources. However, effective teachers who utilize resources appropriately, consistently achieve goals that focus on desired outcomes for their students.

Goe, Bell and Little (2008) and Barry (2010) identified five-point definition of effective teachers to consist of the following:

1. Effective teachers have high expectations for all students and help students learn, as measured by value-added or other test-based growth measures, or by alternative measures;
2. Effective teachers contribute to positive academic, attitudinal, and social outcomes for students such as regular attendance, on-time promotion to the next grade, on-time graduation, self-efficacy, and cooperative behaviour;
3. Effective teachers use diverse resources to plan and structure engaging learning opportunities; monitor student progress formatively, adapting instruction as needed; and evaluate learning using multiple sources of evidence;
4. Effective teachers contribute to the development of classrooms and schools that value diversity and civic-mindedness; and



5. Effective teachers collaborate with other teachers, administrators, parents, and education professionals to ensure student success, particularly the success of students with special needs and those at high risk for failure.

Agu (2014) also outlined five characteristics of effective teaching which determines their level of job performance as when a teacher:

1. has high expectations for all students and help students learn, as measured by value-added or other test-based growth measures, or by alternative measures.
2. contributes to positive academic, attitudinal, and social outcomes for students such as regular attendance, on-time promotion to the next grade, on-time graduation, self-efficacy, and cooperative behaviour.
3. uses diverse resources to plan and structure engaging learning opportunities; monitor students progress formatively, adapting instruction as needed;
4. evaluates learning using multiple sources of evidence; and
5. contributes to the development of classrooms and schools that value diversity and civic-mindedness.
6. collaborates with other teachers, administrators, parents, and education professionals to ensure student success, particularly the success of students with special needs and those at high risk for failure.

Similarly, in a study conducted by the National Council for Accreditation of Teacher Education - NCATE (2007), the findings revealed a variety of instructional planning activities, teaching strategies, and materials which were found to be common in the repertoires of effective teachers with good performances as:

1. They had high expectations for student learning;
2. They provided clear and focused instruction;
3. They closely monitored student learning progress;
4. They re-taught using alternative strategies when children didn't learn;

5. They used incentives and rewards to promote learning;
6. They were highly efficient in their classroom routines;
7. They set and enforced high standards for classroom behavior; and
8. They maintained excellent personal interactions with their students.

In regards, improved teacher job performance supported with extensive resource availability and utilization gears towards establishing learning goals, students' interaction with new knowledge, student practice to deepen understanding, engaging students, effective classroom management, effective student teacher relationships, communicating high expectation for students, and effective, standards-based, formative and summative assessment practices which use multiple measures of students' proficiency. The above portray that high level of teacher job performance should equally be enhanced through the extent of availability and utilization of resources in the school. A variety of instructional planning activities, teaching strategies, resources and materials were found to be common in the repertoires of effective teachers' performance (Barry, 2010).Olando cited in Dugguh and Ayaga (2014), put it that teaching is a demanding job that need to be remunerated well to attract and retain teachers in the profession. This will help prevent teachers from running to other greener pastures. Olando further urges that for any efficient work to take place there is need for favourable conditions. Thus, an individual should be provided with an enabling environment with available and adequate resources and facilities to utilize, perform and produce the desired results. More so, the teacher as an instrument of success needs the physical, psychological, economical and social comfort in the school environment in order to effectively function as highlighted by Dugguh and Ayaga (2014). Okemwa also cited in Dugguh and Ayaga (2014) confirms that every organization which has to succeed must have contended workers that perform exceedingly. Therefore, teachers' job performance can be better understood when one considers both the factors related to job and individual, in which extent of availability and utilization of school resources can be part of. Dugguh and Ayaga (2014) further noted that managers need to design jobs to provide

opportunities for individual's achievement recognition, responsibility, advancement and personal growth. Each occupation including teaching has its own potential environment sources of stress which the working conditions of the school environment contribute to. In this regards, poor working condition can be described by inadequate utilization of resources and equipment, poor staff room, lack of basic amenities, inadequate furniture, among others.

The VSO Ethiopia in 2010, cited in Dugguh and Ayaga (2014) commented on how lack of basic amenities such as desks, chairs, tables, benches, made the teaching more difficult: 'if there are not enough desks and benches, chairs and tables, the teacher is suffering and the teaching process is not good'. Leshao also cited in Dugguh and Ayaga (2014) found out that in Kenya FPE was introduced without prior preparation and teachers had a feeling that the lack of preparation was a cause of low motivation. Poor design of building and physical setting example of the office can be a source of job dissatisfaction. Working conditions is a factor that has a modest effect on job performance. Clean and attractive surroundings tend to make workers happy when doing their work thus increasing teachers' job performance. Motivating employees is a managers' job. The idea that poor work conditions are compensated for by higher pay does not accord with the reality of the labour market (Luthans cited in Dugguh & Ayaga, 2014). In essence, work environment in the school should be such that it enhances teacher's sense of professionalism and in turn decrease their performance, as proposed by Sogomo in his research findings cited in Dugguh and Ayaga (2014), where he indicated that job performance of school principals in the Rift Valley province of Kenya, were similar. He goes ahead and indicates that characteristics for teachers that are associated with job performance should be identified in order to change the working environment in order to achieve continuity in the job performance. With current globalization age which is heightening competition, schools must continue to develop tangible products and provide services which are based on strategies generated by teachers. From all the foregoing, it is evident that extent of availability and utilization of resources has a great relationship and linkages with employees work performance and organizational productivity.

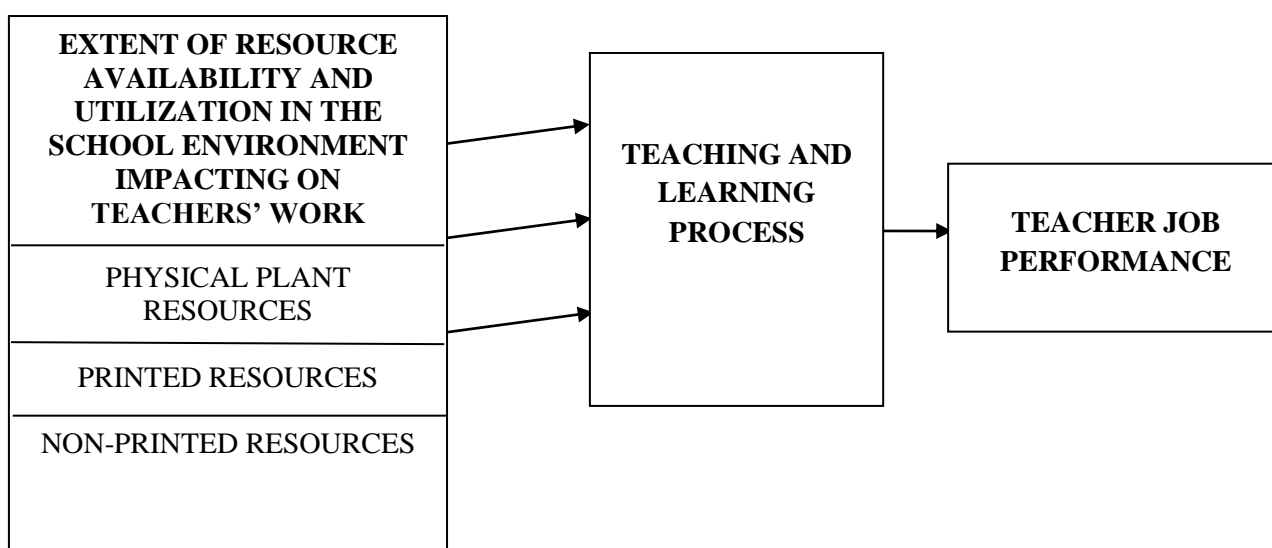
Therefore, any challenges around the attainment of teachers' job performance can demise the attainment of the great goals for secondary education in Nigeria, likewise in Anambra State secondary schools. Most schools need motivated and competent teachers who can work effectively and efficiently for the attainment of school goals and productivity.

Teachers' effectiveness, performance, commitment and retention are crucial factors for effective school management and academic performance. All this is achievable through the extent of availability and utilization of resources in the school environment (Smith cited in Nyange, 2013) and Anambra State secondary schools are not an exception. Additionally, Byrd and Rasberry (2011) also opined that teacher job performance can be measure through six standards of effective instructional leadership, establishment of a respectful environment, content knowledge, facilitation of learning, reflection on practice – with a sixth standard on student growth measures. Supporting the above statement, Nuthall (2004), seeking to find out exactly how teacher performance relates to learning, reviewed research on teaching effectiveness and found out that effectiveness is exhibited by the teacher through the following means; passionate commitment to doing the best for students; love of children enacted in warm, caring relationships; pedagogical content knowledge; use of a variety of models of teaching and learning; collaborative working style with colleagues; and reflective practice. From the foregoing, Leu (2005) pointed out that to determine the level of teachers performances in the school, teachers must possess the following qualities: sufficient knowledge of subject matter to teach with confidence; knowledge and skills in a range of appropriate and varied teaching methodologies; knowledge of the language of instruction; knowledge of, sensitivity to, and interest in young learners; ability to reflect on teaching practice and children's responses; ability to modify teaching/learning approaches as a result of reflection; and ability to create and sustain an effective learning environment. Such teachers must have understanding of the curriculum and its purposes, particularly when reform programmes and new paradigms of teaching and learning are introduced; general professionalism, good morale, and dedication to the goals of teaching;

ability to communicate effectively; ability to communicate enthusiasm for learning to students; interest in students as individuals, sense of caring and responsibility for helping them learn and become good people, and a sense of compassion; good character, sense of ethics, and personal discipline; and ability to work with others and to build good relationships within the school and community (Leu, 2005).

Possession of above listed qualities by teachers also requires that school resources are available and adequate for them to utilize and become effective. From the above discussions on extent of resource availability and utilization on teacher job performance, shows that they all are connected and interrelated to each other. Dugguh and Ayaga (2014) in their statement indicated that employees with high level of performance tend to be more efficient and effective in carrying out their respective roles. They embrace their work and workplace wholeheartedly and render services required by them timely. This, however, shows that both their intrinsic and extrinsic values have been met by the organization. Further, it is generally believed that employee performance can be determined by the employee's level of effectiveness and commitment which they perceived as fairness, affecting their attitude and performances on the job as asserted in the study of Vandenaabeele (2009) cited in Dugguh and Ayaga (2014). Such factors are interrelated to one another in such a way that one may lead to the other, for instance, motivation on the job through availability and utilization of resources may eventually result to good or positive job attitude which will result in higher performance. Likewise, in a situation where by an employee perceives equity in the workplace, it may also lead to higher performance, on the other round if the employee perceives inequity or unjust treatment by the employer than it may tend to result to decrease in productivity of the employee. Fairness should consider when it comes to issues like extent of availability and utilization of school physical plant resources, printed and non-printed resources and other important factors, so that teachers will remain motivated thereby increasing performance and productivity level (Dugguh & Ayaga, 2014). Furthermore, when managers and organizations recognize the significance of employees (example: teachers) in the workplace by

providing comfortable working environment (with extensive resource availability and utilization) and ensure that employees are motivated in their jobs through just and fair treatment that will bring about positive job attitude and high commitment, which are equally components of teacher job performance (Dugguh & Ayaga, 2014). An effective teacher is one with high level of performance, who is likewise shows high level of competency, commitment and dedication to the job. However, a model has been presented in a diagram to illustrate the extent of availability and utilization of resources on teacher job performance. This model has been culled out from the works of Nyange (2013) and represented under figure 1.



**Figure 1: Integrated Conceptual Model of the Factors Impacting on Teacher Performance**

Adapted from: Nyange, N. M. (2013). Factors influencing teachers' job satisfaction in public secondary schools' in Voi District Kenya. *Unpublished master's degree project*. Department of Educational Administration and Planning, University of Nairobi, Kenya.

The model illustrates the factors as regards to extent of availability and utilization of resources that are key to achieving better teaching and learning process and can impact positively or negatively on teacher job performance. In this case, teachers level of job performance is determined through successful and effective teaching and learning process at school and which is highly dependent on the availability and utilization of school resources like the: physical plant resources, printed resources and non-printed resources. These resources will make teachers not to only feel comfortable with the school environment but also boost their competences which will lead to improved teaching and learning, high performances and productivity. Therefore, extent of educational resources availability and utilization in the school environment shares a connection

and link with teacher job performance as identified by Nyange (2013) whose study indicated some work related variables and factors influencing effective teaching and job performance of teachers.

### **Empirical Studies**

Some empirical studies have been reviewed under this section to determine their similarities and differences with the present study on the extent of educational resources availability and utilization for job performance in secondary schools in Anambra State. These studies were reviewed here under the following subheadings:

#### **Studies on Educational Resources Availability for Teacher Job Performance**

An investigation was conducted by Bizimana and Orodho (2014) on teaching and learning resource availability and teachers' effective classroom management and content delivery in secondary schools in Huye District, Rwanda. Four research questions were raised for the study. A descriptive survey research design was used. Population of this study was 102 school administrators, 266 teachers and 7001 students of which their total was 7369 found in 17 formerly established secondary schools from Huye district, that is all secondary schools excluding the Groups Scolaires established with Nine Year Basic Education. Stratified sampling technique was applied to select a sample size of 619 respondents comprising 81 school administrators, 160 teachers and 378 students. A questionnaire was the main research instrument used to collect data. Data was analyzed using Pearson's Product Moment Correlation Coefficient statistical technique. The major finding was that the level of teaching and learning resources in the study locale was insufficient, hence compromising the effectiveness of classroom management and content delivery. There was a positive and significant correlation between most of the teaching and learning resources and level of classroom management and content delivery.

This study relates to the current study in the areas of availability of teaching and learning resources on teacher effectiveness which is equally a component of teacher job performance. The

research design and sampling technique used in the study also relate to the present study. Moreover, the study did not cover the aspect of determining the extent of these resources and this makes it different from the present study.

Eze (2010) carried out a study on the influence of school environment on academic achievement of students of public secondary schools in Enugu State. Four research questions and two null hypotheses guided the study; while t-test statistic was used to test the hypotheses at 0.05 level of significance. The design of the study was descriptive while the population comprised principals and teachers in the education zone. The sample size for the study was 600 respondents while a researchers' self developed questionnaire formed the instrument for data collection. A 29-item questionnaire was used to get information from the respondents. Cronbach Alpha reliability coefficient method was employed. Based on the data collected and analyzed, the following results were obtained. That staff office, classroom spaces for teaching students and staff common room represented the major areas that to a great extent affect the academic achievement of students in public schools, with regard to buildings. It was also revealed that desks, current books and presence of library assistants constituted the areas of influence to the academic achievement of the students with regard to library services in the public secondary schools. Inadequate teaching materials were also noted as a major factor affecting the students' academic achievement.

This study relates to the present study in the aspect of the availability of resources on teacher effectiveness. The study differs from the present study in finding out the influence of resources on students' academic achievements. Some aspect of the methodology related to the present study in only aspect of the study design but differs from the present study in other areas of the methodology which include the location – area of the study, method of data analysis, among others. For the present study, teacher performance covers areas which affects their effectiveness, productiveness and commitment, and all these makes it different from Eze (2010) study.



### **Studies on Educational Resources Utilization for Teacher Job Performance**

A study was carried out by Andambi and Kariuki (2013) on the effect of use of learning resources in teaching social education and ethics in Bungoma District, Kenya. Two research questions guided the study. A field survey design was used to carry out the research. Questionnaires, interview schedules and an observation checklist were used to collect data. The respondents included the personnel in charge of the District learning resource centre, 1920 Social Education and Ethics students of Forms 3 and 4 classes, 120 Social Education and Ethics SEE teachers and 80 heads of humanities department. Descriptive statistics was used to analyze data. The study revealed that types of learning resources for teaching Social Education and Ethics SEE were not adequately available in secondary schools.

This study relates to the present study in the aspect of learning resources available in the secondary schools. The study scope did not cover the aspect of finding out the extent of educational resources for teacher job performance. The study only relates to the present study in the area of resource availability. Both studies shared similarities by adopting the same research design but differed in all other aspects of their methodology.

Kimeu, Tanui and Ronoh (2015) carried out an investigation on the influence of instructional resources on secondary school students' academic performance in Makueni County, Kenya. Twelve research questions guided the study. The study adopted a descriptive survey research design with a sample of 93 head teachers and 418 teachers, making a total of 511 respondents. Data were analyzed using mean, standard deviation and chi-square test. Based on the research findings, it was concluded that students' academic performance depended on teachers' reference books and guides, students' and teachers textbooks, charts, chalk boards and chalk, classrooms, and laboratory apparatus and chemicals as teaching and learning materials.

This study is different from the present study. The study only focused on students' academic performance but did not cover the aspects of teacher job performance.

Atieno (2014) just like Kimeu, Tanui and Ronoh (2015) carried out a similar study on the influence of teaching and learning resources on students' performance in Kenya certificate of secondary education in free day secondary education in Embakasi District, Kenya. Four objectives and four research questions were raised to guide the study. The study used descriptive study design, and data was collected using three sets of questionnaires for the head teachers, teachers and students. The target population consisted of all the six free day secondary schools (FDSS) in the Embakasi district, their principals, teachers and students. There are about 2400 students and a total of 90 class teachers in the district and the study targeted all of them. The samples consisted of 6 principals, 18 class teachers and 240 students and they were selected using the simple random sampling technique. Observations, questionnaire and content analysis were the methods of data collection; observations were done on physical facilities for teaching and learning. A questionnaire was generated with both open and close ended questions to the head teachers, class teachers and students. Data were analyzed using descriptive statistics, using Statistical Package for Social Sciences (SPSS). The analyzed data were then presented using frequency tables, means, percentages, pie charts and bar graphs. The study found out that teaching and learning materials were available and are utilized in schools, especially those used in classroom instruction, like chalks, dusters and charts except physical facilities are lacking and there's gross inadequacy of human resources. This study is different from the present study. The study only focused on the influence of teaching and learning resources on students' academic performance but did not cover the aspects of teacher effectiveness and job satisfaction. The study like that of Kimeu, Tanui and Ronoh (2015), only share similarity with the present study from the perspective of extent of availability and utilization instructional resources. The study did not consider the aspect of teacher job performance and this makes it different from the present study. Some areas of the methodology also relate to the present study in the research design but all other aspect differed with the present study.

A study was conducted by Ntui and Udah (2015) on accessibility and utilization of library resources by teachers in secondary schools in Calabar education zone of Cross River State, Nigeria. Survey research design was adopted for the study. Four hypotheses tested at 0.05 level of significance were formulated for the study. The population of the study was two thousand, two hundred and twenty (2,220) and a sample of five hundred (500) respondents was selected for the study. The selection was done through the stratified and purposive random sampling techniques. Questionnaire was the instrument used for data collection. The instrument was validated by experts in Educational test and measurement who vetted the items developed. The reliability of the instrument was established through the test re-test reliability method. One Way analysis of Variance (ANOVA) was the statistical techniques employed to test the hypotheses under study. The result of the analysis revealed that, availability of text book, visuals, audio-visual materials, reference materials and newspaper/magazines significantly influenced utilization of library resources by teachers. This study relates with the current study in area of utilization of resources like printed and audio-visual materials but differs from the present study in the use of extent and teacher performance. The study methodology also differs with the current study.

An investigation was carried out by Adebule and Ayoola (2015) on impact of instructional materials on students' academic performance in mathematics in secondary schools in Ekiti State, Nigeria. The study was a quasi-experimental research design that employed pretest, posttest non randomized control group design. The population of the study comprised all the students in Junior Secondary Schools in Ekiti State. The sample consisted of 90 students selected from nine secondary schools in Ekiti State through the multistage sampling technique. A self-designed instrument tagged Mathematics Students Achievement Test (MSAT) was used to collect data for the study. The responses obtained were analyzed using Achievement Mean Scores, Multiple Bar Charts and Analysis of Covariance at 0.05 level of significance. The findings shows that significant difference exists between the performances of students taught

with instructional materials and those taught without instructional materials. This study although related with the present study on use of instructional materials but also differs from the present study in the area in aspect of extent and teacher job performance. The methodology also differs from the present study.

### **Studies on Extent of Educational Resources Availability and Utilization for Teacher Job Performance**

The relevance of the availability and presence of resources to the smooth running of secondary schools in Nigeria has been severally emphasized in most literature and studies. Ugwuanyi (2013) conducted a study on availability, adequacy and utilization of physical education teaching resources in public secondary schools in Enugu State. Eight research questions and three hypotheses guided the study. The descriptive survey research design was used for the study. Population for the study comprised 275 secondary schools and 470 physical education teachers in public secondary schools in the State. The proportionate random sampling technique was adopted in the study and a sample size of 35 secondary schools and 103 physical education teachers were drawn for the study. Two instruments were developed and used for the study. The Availability and Adequacy of Physical Education Resources Check list (AAPERC) and the Utilization of Physical Education Resources Questionnaire (UPERQ). The data were computed using SPSS. Chi-square and analysis of variance (ANOVA) were used to analyze the data. The findings of this study indicated that of all the physical education teaching facilities only soccer fields are available in all the schools. The result of the study indicates that of all the physical education facilities, equipment and supplies, only soccer field are adequate in the schools. Of all the factors investigated only inadequate time allotment was found to be affecting the utilization of physical education teaching resources in the schools. This study relates with the present study in the area of availability and utilization of resources but differs with the present study in that aspect of adequacy. Although, the present study adopted the same research design but other aspects of the methodology differed. The study though similar with the present study

but differ in the aspects of determining extent and teacher job performance which the study did not cover but it only looked at utilization of resources in physical education.

Another study was carried out by Wanjiku (2013) on availability and utilization of educational resources and their influence on students' performance in secondary schools in Mbeere South, Embu County, Kenya. Three research questions were raised to conduct the study. A survey design was used in this study. The target population for the study comprised 34 secondary schools in Mbeere South Embu County with a total population of 6403 students, 34 principals, 68 H. O.Ds (languages and sciences). Stratified sampling was used to sample public schools in girls, boys boarding and mixed day to avoid bias of sampling one type of school and to determine whether there are variations in availability and utilization of educational resources in the different categories of schools. The study sample comprised of 3 boys (100%), 4 girls (67%) boarding and 8 mixed (30.8%) day secondary schools. Purposive sampling was used to sample 15 principals (45.5%), 30 H.O.Ds (45.5%), while simple random sampling technique using lottery was used to sample 1 form 3 English language class, and 15 students in form 3 class in each category of schools. Questionnaires, lesson observation schedule and checklist were used to collect data. Data were coded and keyed in the computer for analysis using the (SPSS). Quantitative data were analyzed by use of descriptive statistics such as averages, percentages, mean and range. The study found out that the text books were not sufficient. Government funding was found to be inadequate. This study although different from the present study in the aspect of resource availability and utilization on the influence of students' performance, but relates in the aspect of teacher job performance. Extent of utilization of the educational resources was also not determined in the study and this makes it different from the present study. Both studies shared similarities by adopting the same research design, both of them differed in all other aspects of their methodology.

A study was carried out by Owate and Iroha (2013) on the availability and utilization of school library resources in some selected secondary schools in Rivers State. Seven research

questions were raised and three hypotheses formulated for the study. Population for the study comprised four thousand, six hundred and fifty-five (4,685) students and teachers from eight selected secondary schools in Port-Harcourt. A sample size of two hundred respondents which represents about 5% of the population was drawn from the study population using the stratified random sample. These consist of teachers and students of the eight selected secondary schools in Port-Harcourt. The eight selected secondary schools in Rivers State, Nigeria were chosen based on their performance in external examinations and geographic locations. In carrying out the research, copies of questionnaire were administered to both teachers and students of the schools. Findings revealed that school library services were either lacking or not in place in most secondary schools. Also, in cases where spaces were provided for library, the materials in the libraries were not only scanty but poorly organized for effective library and information service delivery. This study is different from the present study in the aspect of influence of library resource utilization on students' performance. The study also differed in the aspect of extent of teacher job performance. The study relates to the present study in the area of resource availability and utilization. Both studies shared similarities by adopting the same research design and sampling technique.

Okoro (2006) carried out an investigation on availability, adequacy, and utilization of instructional materials/equipment in teaching and learning of home economics in the junior secondary schools in Owerri zone. This study was a descriptive survey study. The Population is made up of 52 Secondary Schools in Owerri Zone that offer home economics in the West African Examination Council. The sample comprised twenty (20) home economics teachers and forty (40) home economics students, all from twenty (20) secondary schools that offer home economics in Owerri Zone and were selected using cluster random sampling. The researcher used cluster random sampling technique in selecting the schools that were clustered along the line of locations – urban and rural. The instruments used were check list and questionnaire. Data were analyzed using frequency counts and percentages with 50% as the basis for pass and

failure. Results indicated that the schools have on the average 59.0%. Most of the available items were not adequate for instructions. The result further indicated that the students were not always exposed to the use of the available instructional materials during instructions. This study relates to the present study in the aspect of availability and utilization of instructional resources /equipment in the secondary schools. The study scope did not cover the aspect of extent and teacher job performance. Both studies shared similarities by adopting the same research design but differed in all other aspects of their methodology.

Another study was conducted by Mbugua (2011) on adequacy and the extent to which teaching and learning resources for mathematics are available and used for achievement in the subject in secondary school in Kenya. Four research questions were raised for the study. Ex-post facto research design was used. Population of the study comprised teachers and including, 211,394 students. A total of 661 form three students and 71 mathematics teachers participated in the study. An observation schedule, mathematics teachers' and students' questionnaires were used to collect the needed data. Descriptive statistics were used to analyze the data and the obtained results were presented in form of tables. The findings indicate that secondary schools are poorly equipped with the teaching and learning resources for mathematics; which is serious since mathematics is an abstract subject which requires these materials to facilitate abstraction of concepts by the learners. This study relates with the present study in the aspect of extent, availability and utilization of teaching and learning resources in mathematics. Although, the study focused on a particular subject, its scope did not cover the aspect of teacher job performance.

A similar study was carried out by Adebule and Ayoola (2014) on evaluation of instructional materials commonly used in the teaching of mathematics in junior secondary schools in Ekiti State. Three research questions were raised for the study. The descriptive survey research design was adopted. The population consisted of all Mathematics teachers teaching in all the public secondary schools in Ekiti State, Nigeria. The sample for the study consisted of

360 Mathematics teachers selected through the multistage sampling technique from selected secondary schools in the state. Data collected were analyzed using descriptive statistics such as graph, frequency counts and percentages. The results from the teachers' responses revealed that instructional materials are available for teaching Mathematics but are not adequate. It was also found out that to a certain extent, the instructional materials are functioning. However, teachers are not putting the materials into good use. This study relates with the present study in the aspect of finding out availability and utilization of instructional materials in teaching mathematics. Although, the study focused on a particular subject, its scope did not cover the aspect of teacher job performance.

Another investigation was conducted by Stephen (2011) on the status of material resources for effective teaching of physics in secondary schools in Akwa Ibom State of Nigeria. Three research questions guided the study. The study adopted a descriptive research survey design. The population of the study was all senior secondary three (SS3) physics students of 2010/2011 academic session of one hundred and twenty (81 public and 19 private schools) secondary schools. A sample size of 1400 SS3 Physics students in seventy schools took part in the investigation and selected using the stratified random sampling technique based on the three senatorial districts of the State. A researcher-made instrument, Available, Adequate and Frequently used Physics Resource Materials Questionnaire (AAFPRMQ) was used in generating the data for the study. Mean was used in answering the three research questions raised to guide the investigation. Findings revealed that some resource materials are available and adequate for the teaching and learning of physics. The study showed a low frequency of use of the available resource materials. This study showed the influence of availability and utilization of material resources on teacher effectiveness and this is the area where it relates to the present study. The research design also relates to that of the present study. Scope of the study did not cover area of teacher job performance.



## **Summary of Review of Related Literature**

This chapter extensively reviewed and discussed literatures, reports, studies and comments of various writers, scholars and researchers on the phenomenon of the Availability and Utilization of educational resources for teacher job performance in secondary schools in Anambra State. The chapter provided clear conceptual definition and meaning of the concepts of resource availability, resource utilization and teacher job performance.

The theoretical framework of the study was formed under the foundation of two theories - Resource Dependence Theory (RDT) by Jeffrey and Gerald R. Salancik (1978); and Two-Factor (Motivation-Hygiene) Theory by Frederick Herzberg (1959).

The theoretical studies were discussed under the subheadings of: importance of resources in secondary schools; resources requisite for teachers' job performance in Anambra State secondary schools; availability of resources in Anambra State secondary schools; utilization of resources in Anambra State secondary schools; and availability and utilization of resources on improved teacher job performance in Nigerian secondary schools.

Some empirical studies were also reviewed in order to share their similarities and differences with the current study. A lot of studies including the empirical studies reviewed have been carried out on availability and utilization of school resources and facilities but the extent to which these resources are available and utilized for teacher job performance have not fully been investigated and established in Anambra State. None of these studies has tried to look into the extent of resource availability and utilization for teacher job performance.

The essence of improving teachers' job performance through resource availability and utilization in Anambra State is of necessity and utmost importance because this would help in strengthening teaching effectiveness for achieving both instructional and educational objectives. This has created a gap for the current study. In view of filling this existing gap in the teaching and learning process in the secondary schools especially in Anambra State, has warranted the present study.

## CHAPTER THREE

### METHOD

This chapter discussed the research method and procedures that guided the conduct of this study. These methods include the research design, area of the study, population of the study, sample and sampling technique, instrument for data collection, validation of the instrument, reliability of the instrument, method of data collection and method of data analysis.

#### **Research Design**

Descriptive survey research design was adopted in the study. Descriptive survey design, according to Abanobi and Ajayi (2017) and Nworgu (2015) is a research design which collects data on situations and events in order to describe and interpret what is going on in the present. These studies are only interested in describing certain variables in relation to the population. Here, only a part of the population is studied and findings from this are expected to be generalized to the entire population. This design is aimed at collecting data from some samples of a population and describing in a systematic manner the characteristics, features or facts about a given population. As for the present study, the researcher gathered the necessary information as they existed in Anambra State in order to find out the availability and utilization of educational resources for teacher job performance in secondary schools in Anambra State.

#### **Area of the Study**

The area of the study is Anambra State. Anambra State is one of the five States in the South East Zone of Nigeria with Ibo language as the native language. The State capital is Awka. Boundaries of Anambra State are formed by Delta State to the West, Imo State to the South, Enugu State to the East and Kogi State to the North. The occupation of all the inhabitants of Anambra State are mostly traders, businessmen and women, industrialists, agriculturalists, public and civil servants, clergy men and women. The business nature and characteristics of Anambra State, especially its popular main market makes it a lively place which draws people from far and

wide to engage into different businesses with the inhabitants of this area. The predominant religion is Christianity with other religious beliefs as Muslims, Traditionalists and Atheists inclusive. Anambra State has 21 Local Government Areas (LGAs) spread within six (6) Education Zones, namely Aguata, Awka, Nnewi, Ogidi, Onitsha and Otuocha zones. The different schools in the six education zones in Anambra State by policy are classified based on urban and rural locations (Department of Planning, Research and Statistics, Post Primary Schools Service Commission – (PPSSC), Awka, Anambra State, 2017). The researcher decided to use Anambra State as area of the study because the state has a large number of education institutions with a lot of post primary schools.

### **Population for the Study**

Population of the study comprised 5,976 teachers consisting of all the 3,932 urban and 2,044 rural secondary school teachers from 130 urban and 128 rural State public secondary schools in the six (6) education zones of the State (Source: Planning, Research and Statistics Department, Anambra State Post Primary Schools Service Commission, January, 2017). The population distribution of the staff— that is teachers and State public secondary schools according to their location (urban and rural) and the six education zones is shown in Appendix E.

### **Sample and Sampling Technique**

The sample size for this study was made up of 1,195 teachers in 133 secondary schools. Out of this sample size, 786 teachers were drawn from the urban schools, while 409 teachers obtained from the rural schools. Proportionate stratified random sampling technique was used to draw the sample size. This was done; firstly, the public secondary schools and teachers were stratified according to their urban and rural locations within the six education zones in Anambra State and then samples were drawn from each of the stratum (that is, zone). Secondly, fifty percent (50%) of State public secondary schools and twenty percent (20%) of secondary school teachers in Anambra State, stratified according to their urban and rural locations, were randomly selected from each of the six education zones (stratum) for sampling. Justification for drawing

50% and 20% was as a means to enable the researcher control a sizeable number of schools and teachers from the large population of schools and teachers existing within the urban and rural locations in the State. The choice of 20% (for a very large number) is also in line with the recommendation of Nworgu (2015) who identified that 10% to 80% of any given population is adequate for a research work. The sample size demographic data of staff in public secondary schools stratified according to their locations and six education zones have also been represented. See Appendix F for details.

### **Instrument for Data Collection**

Two research instruments were used in eliciting information in this study. The research instruments included a Checklist titled - “Educational Resources Availability Checklist (ERAC)” and a questionnaire titled – ‘Extent of Utilization of Available Educational Resources for Teacher Job Performance Questionnaire (EUAERTJPQ)’. The first instrument used for collecting data on the availability and utilization of educational resources for teacher job performance was titled ‘Educational Resources Availability Checklist (ERAC)’ The instrument contained 59 items which was used as a checklist to collect data covering educational resource availability only. The instrument had only one part which contained items on the NCE (2005) minimum standards of resources required in secondary schools. The National Council on Education (NCE) minimum standards accreditation checklist for establishment and operation of schools was adapted in this study. The researcher included in the research checklist, all the resources that are needed to promote teaching and learning, which are contained in NCE minimum standards and conditions for secondary schools operations. The Educational Resources Availability Checklist (ERAC) was arranged into three clusters as follows; Section A had 29 items which contained information that checkmated the availability of physical plant resources in urban and rural secondary schools in Anambra State. Section B had 13 items consisting information on the availability of printed resources in urban and rural secondary schools. Section C had 17 items which contained information that checkmated the availability of non-printed

resources in urban and rural secondary schools. In this study, therefore the resources that were available in the schools are those numbers that were up to the required number contained in the National Council on Education (NCE) recommendations. Items on the instrument (ERAC) were measured on a scale of Numbers Available, Numbers Not Available, Percentage Available and Percentage Not Available, for the urban and rural secondary schools. See Appendix C. for the sample of the instrument.

The second instrument used for collecting data on the availability and utilization of educational resources for teacher job performance was titled “Extent of Utilization of Available Educational Resources for Teacher Job Performance Questionnaire (EUAERTJPQ)”. The instrument was divided into two sections and also contained 59 items. Construction of the questionnaire was guided mostly by the purpose of the study, research questions and National Council on Education (NCE) document on the educational resources availability. The items on the instrument EUAERTJPQ relating to teacher performance was modified to suit the current study. Section one of the instrument had an introductory section which elicited from the respondents their personal details and contained open-ended statements concerning the school name and location.

Section two of the EUAERTJPQ instrument was equally organized into three clusters in order to elicit information based on the following: Cluster A had 29 items in order to determine extent of utilization of the available physical plant resources for teachers’ job performance in urban and rural secondary schools in Anambra State. Cluster B had 13 items in order to elicit information on extent of utilization of the available printed resources for teachers’ job performance in urban and rural secondary schools; Cluster C had 17 items in order to determine extent of utilization of the available non-printed resources for teachers’ job performance in urban and rural secondary schools. Items on the instrument (EUAERTJPQ) was measured on a 4-point scale and rating as: (a) Very High Extent (VHE) – 4 points, High Extent (HE) – 3 points, Low Extent (LE) – 2 points and Very Low Extent (VLE) – 1 point, as response items for extent of

educational resources availability and utilization for teacher job performance. See Appendix B for the sample of the instrument.

### **Validation of the Instrument**

Three experts from Faculty of Education; two from the Department of Educational Management and Policy and one from the Department of Educational Foundations (Measurement and Evaluation Unit) validated the research instrument (the questionnaire) - Extent of Utilization of Available Educational Resources for Teacher Job Performance Questionnaire (EUAERTJPQ). Copy of the questionnaire was given to one expert in Measurement and Evaluation and two lecturers in Educational Management and Policy. All of them were from the Faculty of Education, Nnamdi Azikiwe University, Awka. The experts determined the face validity of the instrument. They checked whether the items were in line with the purpose of the study, research questions and hypotheses. The experts also examined the items in the questionnaire as regards their sentence construction, appropriateness of language, adequacy of questions in relation to the purpose, research questions and hypotheses. After which they made useful comments and corrections which were reflected before final copies were produced. See Appendix G for the sample of the instrument.

### **Reliability of the Instrument**

Reliability of the instrument was determined through a trial-test. Copies of the questionnaire were administered on a sample of 30 teachers from three State public secondary schools in Enugu State. That is, 5% of the total number of teachers were selected from each of the three State public secondary schools in Enugu State for the trial-testing. This area was not part of the study. The researcher chose Enugu State in order to avoid bias. Moreover, the fact still remains that Enugu State shared common boundary with Anambra State and both States have similarity in terms of their secondary school structure and administration. Cronbach Alpha technique was used to measure the internal consistency of the EUAERTJPQ research instrument.

Coefficients 'r' value of 0.678, 0.603 and 0.639 were obtained for each of the three clusters respectively and thereby added up to an overall reliability 'r' value of 0.82 for the questionnaire.

This technique is most appropriate for the instrument (that is, questionnaire) arranged into clusters and where scores for the various items were added or aggregated to produce a single or composite score. The result indicated the internal consistency of the instrument, which was considered satisfactory and stable for the study. Thus, the reliability of the items in the questionnaire showed that the instrument was reliable and fit for data collection hence the overall reliability 'r' value was above 0.70 as recommended by Nworgu (2015) (See Appendix H).

### **Method of Data Collection**

The researcher collected the data with the help of six research assistants, one each from the six education Zones in the State. The direct method of questionnaire administration was adopted in the distribution of the instruments. The researcher and the assistants visited the respondents in the sampled schools and administered the instruments on them. One thousand, one hundred and ninety-five (1,195) copies of the questionnaire – EUAERTJPQ were delivered by the researcher and research assistants to the respondents in their respective schools for self administration. Distribution of the research instrument (questionnaire) entailed direct and hand delivery process, on a face-to-face personal contact with the teachers (respondents). The research assistants were trained on how to use the ERAC checklist to note resources available in the schools. These research assistants were also briefed on the essence of the study and on how to locate and politely approach the respondents in order to administer and retrieve the filled copies of the (EUAERTJPQ) questionnaire.

The respondents who were not able to fill their own questionnaire on the spot, on that same day were allowed to do so within two days. Thereafter, the researcher and the assistants went back and collected the filled copies of the questionnaire from such respondents. A total of 1,195 copies of the questionnaire and 133 checklists were printed and distributed to the

respondents. One copy for each school sampled to be filled by the school principal. All the 1,195 copies of questionnaire distributed were retrieved, giving 100% return rate.

### **Method of Data Analysis**

Data collected and collated were quantitatively analyzed using the descriptive statistics of frequency, percentages, mean scores and standard deviation. In doing so, the frequency counts and percentages were firstly used in answering research questions 1, 2 and 3, covering statements relating to availability of the educational resources for teacher job performance on the checklist - ERAC. The results analysis on the ERAC checklist was graphically represented. Items in the ERAC checklist were also analyzed using frequency and percentages which was benchmarked at 50 percent. However, the decision rule for each of the items on the checklist was based on the premise that any item rated with a percentage score of 50% and above was available, while any one below 50% was not available. To determine whether any educational resource was available in the rural and urban secondary schools the percentage score of 50% was met, otherwise, it was deemed to be unavailable.

Secondly, the aggregate mean and standard deviation was used to answer research questions 4, 5 and 6 which covered statements relating to the extent of utilization of the available educational resources for teacher job performance on the questionnaire - EUAERTJPQ. The aggregate mean and standard deviation for each cluster on the EUAERTJPQ were computed separately also for all the teachers in the urban and rural State public secondary schools on each item representing each research question. The mean score for each item on the instrument were computed based on the four (4) point rating scales. The decision rule for the items on each of the research questions was based on the premise that any statement with a mean score of 2.50 and above was regarded as utilized, while any one below 2.50 was not utilized. The boundary limits for taking decision on the items for each research question and for ascertaining the degree at which the respondents agree or disagree to each item were shown thus:

3.50 – 4.00 = Very High Extent



2.50 – 3.49 = High Extent

1.50 – 2.49 = Low Extent

1.0 – 1.49 = Very Low Extent

The hypotheses were tested at 0.05 level of significance using chi-square and t-test statistics. The chi-square statistic was used to test hypotheses 1, 2 and 3, while t-test was used to test hypotheses 4, 5 and 6. The decision rule was that wherever p-value obtained or calculated value is greater than or equal to the alpha 0.05 level of significance, the null hypothesis –  $H_0$  is not rejected (accepted). On the other hand, a null hypothesis –  $H_0$  is rejected wherever an obtained or calculated *p*-value is less than the alpha 0.05 level of significance. Data collated were also coded into the SPSS (Statistical Software Package for Social Sciences) for computer analysis.

## CHAPTER FOUR

### PRESENTATION AND ANALYSIS OF DATA

The data collected in the study were statistically analyzed and presented in this chapter. The presentation was done in tables and arranged in accordance with Research Questions and Hypotheses of the study.

#### **Presentation of Results**

**Research Question 1:** What are the physical plant resources available for teacher job performance in rural and urban secondary schools in Anambra State?

**Table 1: Percentage Scores on the Physical Plant Resources Available for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State**

S/N	Items	Rural				Urban			
		N0. Available		N0. Unavailable		N0. Available		N0. Unavailable	
		F	%	F	%	F	%	F	%
1	Staff rooms with adequate ventilation available for teachers	205	50.0	204	50.0	360	45.8	426	54.2
2	Functional library available for teachers research and private reading	130	31.8	279	68.2	24	3.0	762	97.0
3	Technical workshop available for basic technology practical	198	48.5	211	51.5	117	14.9	669	85.1
4	Workshop available for vocational subject like Home economics practical	192	47.0	217	53.0	71	9.0	715	91.0
5	Art studio available for Fine and applied arts practical	130	31.8	279	68.2	376	47.8	410	52.2
6	Functional guidance and counseling unit available for teachers and students consultation	62	15.2	347	84.8	129	16.4	657	83.6
7	Classrooms of 35-40 seating capacity with adequate space and ventilation (6 classrooms for each stream)	378	92.4	31	7.6	773	98.4	13	1.6
8	Computer room available for students practical during computer class	347	84.8	62	15.2	82	10.4	704	89.6
9	Football/Games field of (1.5 hectares) are available for outdoor and indoor games	409	100	0	0	786	100	0	0
10	Farmland/Fish farm of (40m <sup>2</sup> ) are available for Agricultural science practical	398	97.0	11	3.0	258	32.8	528	67.2
11	Classroom furniture and fittings with cupboards/cabinets and shelves available in all the classrooms	175	42.7	234	57.3	368	46.8	418	53.2
12	Water supply/borehole available for conveniences in the school	62	15.2	347	84.8	715	91.0	71	9.0
13	Fire-fighting equipment installed in all laboratories and administrative office for protection during fire outbreak	68	16.7	341	83.3	376	47.8	410	52.2
14	Play ground available for recreational activities	391	95.5	18	4.5	786	100	0	0
15	Toilet facilities provided for male and females staff and students in the school (minimum of 6 VIP/6WC)	68	16.7	341	83.3	374	47.6	412	52.4
16	Enough chairs and tables available for teachers comfort in the classroom	182	44.4	227	55.6	334	42.5	452	57.5
17	Enough chairs and tables available for students comfort in the classroom	327	80.0	82	20.0	756	96.2	30	3.8
18	School bus (1or 2) available in the school	186	45.5	223	54.5	786	100	0	0
19	Functional standby generator set available in the school	124	30.3	285	69.7	12	1.5	774	98.5
20	Sports hall available for indoor games	186	45.5	223	54.5	235	29.9	551	70.1
21	Physics laboratory available for physics practical	62	15.2	347	84.8	786	100	0	0
22	Chemistry laboratory available for chemistry practical	62	15.2	347	84.8	786	100	0	0
23	Biology laboratory available for biology practical	50	12.1	359	87.9	786	100	0	0
24	Integrated science laboratory available for integrated science practical	99	24.2	310	75.8	329	41.8	457	58.2
25	Language and music laboratory available for arts practical	180	43.9	229	56.1	388	49.3	398	50.7
26	First aid box available in each of the classrooms	103	25.3	306	74.7	178	22.6	608	77.4
27	Electrical ceiling fans available in each of the classrooms (2 in each classroom)	101	24.9	308	75.1	214	27.2	572	72.8
28	Nature corner space available in the classroom for specimen, puppets and real object display	192	47.0	217	52.4	229	29.1	557	70.9
29	School typing pool available for teachers and students for typing, printing documents and students practical	167	40.9	242	59.1	223	28.4	563	71.6
<b>Total</b>		<b>42.9%</b>		<b>57.1%</b>		<b>51%</b>		<b>49%</b>	

Analysis of the result in Table 1 shows the percentage scores on the available physical plant resources for teacher job performance in the rural and urban public secondary schools in Anambra State. Result of the studied resources in the rural secondary schools indicated that

42.9% of the physical plant resources were available in the rural public secondary schools for teacher job performance while 57.1% of the physical plant resources were unavailable for teacher job performance. This result showed that items 1, 7, 8, 9, 10, 14 and 17 considered under available physical plant resources in the rural public secondary schools, were rated above 50 percent showing that teachers staff rooms, classroom of 35-40 seating capacity, computer rooms, football/games field, farmland/fish farm, play ground and enough chairs and tables for students, are available for teacher job performance .So, items 2, 3, 4, 5, 6, 11, 12, 13, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29 considered under unavailable physical plant resources, were rated above 50 percent showing that these physical plant resources were unavailable in the rural secondary schools. The result further showed that functional library, technical workshop, workshop for practical in vocational subjects, art studio, functional guidance and counseling unit, classroom furniture and fittings, water supply/borehole, fire-fighting equipment, toilet facilities, adequate number of table and chairs for teachers, functional standby generators, sport hall for indoor games, school bus, functional generator set, physics, chemistry, biology, integrated science, language/music laboratories, first aid box, electrical ceiling fans, nature corner and school typing pool were rated unavailable.

In the urban secondary schools, analysis of the result indicated a grand percentage response of 51% of the physical plant resources were available in the secondary schools, while 49% of the physical plant resources were unavailable in the urban secondary schools. This result showed that items 7, 9, 12, 14, 17, 18, 21, 22 and 23 considered under available physical plant resources, were rated above 50 percent showing that classroom of 35-40 seating capacity, football/games field, water supply/borehole, play ground, enough table and chairs for teachers, school bus and physics, chemistry and biology laboratories were sufficiently available for teacher job performance. Similarly, items 1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 15, 16, 19, 20, 24, 25, 26, 27, 28 and 29 considered under unavailable physical plant resources, were rated above 50

percent showing that these physical plant resources were unavailable in the urban secondary schools.

The result further showed that the staff rooms, functional library, technical workshop, workshop for practical in vocational subjects, art studio, functional guidance and counseling unit, computer room, farmland/fish farm, classroom furniture and fittings, fire-fighting equipment, toilet facilities, enough table and chairs for teachers, functional standby generators, sport hall for indoor games, school bus, functional generator set, integrated science and language/music laboratories, first aid box, electrical ceiling fans, nature corner and school typing pool were considered unavailable for teacher job performances. The analysis of result in Table 1 showed that physical plant resources were more available in the secondary schools in the urban areas than those in the rural areas for teacher job performance in Anambra State. Although, the result further indicated that there were some resources still unavailable in the urban secondary schools, yet they met the NCE minimum requirements for physical plant resources provision more than the rural secondary schools. The availability of physical plant resources for teacher job performance was low in the rural and high in the urban secondary schools in Anambra State. This result has further been represented in a chart in Figure 1.

**Research Question 2:** What are the printed resources available for teacher job performance in rural and urban secondary schools in Anambra State?

**Table 2: Percentage Scores on the Printed Resources Available for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State**

S/N	Items	Rural				Urban			
		N0. Available		N0. Unavailable		N0. Available		N0. Unavailable	
		F	%	F	%	F	%	F	%
30	Curriculum available for teaching in all subjects	115	28.1	294	71.9	604	76.8	182	23.2
31	Syllabus available for teaching in all subjects	111	27.1	298	72.9	661	84.8	125	15.2
32	Classroom register available for students roll calls in class	409	100	0	0	786	100	0	0
33	Educative wall charts available in the classrooms - (at least 2 in each classroom )	150	36.7	259	63.3	211	26.8	575	73.2
34	Dictionary available in every classroom	158	38.6	251	61.4	338	43.0	448	57.0
35	Graphics for picture representation available in teaching various subjects	151	36.8	258	63.2	193	24.6	593	75.4
36	Maps available for geography subjects	360	87.9	49	12.1	704	89.6	82	10.4
37	Work books available for all subjects	150	36.0	259	64.0	182	23.1	604	76.9
38	Current textbooks available for teaching in all the subjects	101	24.7	308	75.3	329	41.8	457	58.2
39	Posters and cartoons available for display in the classrooms (at least 2 in each classroom )	170	41.6	239	58.4	303	38.6	483	61.4
40	Up-to-date textbooks in the library available for all subjects	138	33.8	271	66.2	113	14.4	673	85.6
41	Pamphlets on past questions and answers available for different subjects (within the space of 5 years)	194	47.4	215	52.6	239	30.4	547	69.6
42	Drawing book for sketches and other drawings are available in introductory technology and creative arts subjects	8	2.0	401	98.0	290	36.9	496	63.1
<b>Total</b>		<b>41.6%</b>		<b>58.4%</b>		<b>48.5%</b>		<b>51.5%</b>	

Analysis of the result in Table 2, as shown from the percentage score on the available printed resources for teacher job performance in rural public secondary schools indicated that 41.6% of the printed resources were available in rural public secondary schools for teacher job performance while 58.4% of the printed resources were unavailable for teacher job performance. This result showed that items 32 and 36 considered under available printed resources in the rural secondary schools were rated above 50 percent showing that classroom register and maps for geography subjects were sufficiently available for teacher job performance. However, items 30, 31, 33, 34, 35, 37, 38, 39, 40, 41 and 42 considered under unavailable printed resources, were rated above 50 percent showing that these printed resources were unavailable in the rural secondary schools hence insufficient for effective teacher job performance. The result further showed that the curriculum, syllabus, educative wall charts, dictionary in every classroom, graphics, workbooks, current textbook for teaching different subjects, posters and cartoons, up-to-date textbooks in the library, pamphlets and drawing books were equally unavailable for teacher job performance in the rural secondary schools.

In the urban secondary schools, analysis of the result indicated that 48.5% of the printed resources were available in the secondary schools for teacher job performance, while 51.5% of the printed resources were unavailable in the urban secondary school for teacher job performance. This result showed that items 30, 31, 32 and 36 considered under available printed resources, were rated above 50 percent showing that the curriculum, syllabus, classroom register and maps for geography subjects were available for teacher job performance. Items 33, 34, 35, 37, 38, 39, 40, 41 and 42 considered under unavailable printed resources, were rated above 50 percent showing that these printed resources were unavailable in the urban secondary schools. The result further showed that educative wall charts, dictionary, graphics, workbooks, current textbooks for teaching, posters and cartoons, up-to-date textbooks in the library, pamphlets and drawing books were considered unavailable. The analysis of result in Table 2 showed that printed resources were more available in the secondary schools in the urban areas than those in the rural areas in Anambra State. Although, the result further indicated that both the rural and urban secondary schools did not meet up with the NCE minimum requirements for printed resources provision. The availability of non-printed resources for teacher job performance was low in the rural and urban secondary schools in Anambra State. This result has further been represented in a chart in Figure 2.

**Research Question 3:** What are the non-printed resources available for teacher job performance in rural and urban secondary schools in Anambra State?

**Table 3: Percentage Scores on the Non-Printed Resources Available for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State**

S/N	Items	Rural				Urban			
		N0. Available		N0. Unavailable		N0. Available		N0. Unavailable	
		F	%	F	%	F	%	F	%
43	Laboratory tools and kits available for teaching physics practical	132	32.3	277	67.7	705	89.7	81	10.3
44	Laboratory tools and kits available for teaching chemistry practical	101	24.8	308	75.2	668	85.0	118	15.0
45	Laboratory tools and kits available for teaching biology practical	125	30.6	286	69.4	664	84.5	122	15.5
46	Workshop equipment available for teaching home economics practical	173	42.4	236	57.6	223	28.4	563	71.6
47	Workshop technical tools and kits provided for teaching basic technology practical	109	26.6	300	73.4	359	45.7	427	54.3
48	Computers available for practical and research	63	15.5	346	84.5	582	74.0	204	26.0
49	Television set available for teaching in different subjects	6	1.4	403	98.6	33	4.2	753	95.8
50	Radio set with tape recorder available for teaching in different subject	6	1.5	403	98.5	178	22.6	608	77.4
51	Public address system available in the classroom for presentations	34	8.2	375	91.8	252	32.0	534	68.0
52	Chalkboard/whiteboard installed on the wall in all the classrooms	171	41.9	238	58.1	387	49.2	399	50.8
53	Flannel boards installed on the side wall of each classroom	69	16.9	340	83.1	64	8.1	722	91.9
54	Internet facilities installed in the school for browsing and surfing of information from different websites	149	36.4	260	63.6	329	41.8	457	58.2
55	Projectors available for teaching in different subjects	9	2.1	400	97.9	39	4.9	747	95.1
56	Models/dioramas available for display in teaching various subjects in the classrooms	309	75.6	100	24.4	719	91.5	67	8.5
57	Functional printers and scanners available to print documents in the administrative office	220	53.8	189	46.2	317	40.3	469	59.7
58	Functional photocopiers available for producing and duplicating materials in large quantities	195	47.7	214	52.3	369	47.0	417	53.0
59	Athletic facilities and sports equipment provided for physical and health education	159	38.6	250	61.4	358	45.5	428	54.5
<b>Total</b>		<b>29.2%</b>		<b>70.8%</b>		<b>46.7%</b>		<b>53.3%</b>	

Analysis of the result in Table 3, as shown from the percentage score on the available non-printed resources for teacher job performance in the rural public secondary schools indicated that 29.2% of the non-printed resources were available in the rural public secondary schools for teacher job performance while 70.8% of the non-printed resources were not available for teacher job performance. This result showed that items 56 and 57 considered under available non-printed resources in the rural areas were rated above 50 percent showing that Models/dioramas and functional printers and scanners were sufficient and available for teacher job performance. Items 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 58 and 59 considered under unavailable resources, were rated above 50 percent showing that these non-printed resources were unavailable in the rural secondary schools. The result further showed that laboratory tools and



kits for physics, chemistry and biology practical, workshop equipment, technical tools, computers, television set, radio set, public address system, flannel boards, internet facilities, projectors, functional photocopiers and athletic facilities and sports equipment were not available for teacher job performance in the rural secondary schools.

In the urban secondary schools, analysis of the result indicated that 46.7% of the non-printed resources were available in the secondary schools for teacher job performance, while 53.3% of the non-printed resources were unavailable in the urban secondary schools for teacher job performance. This result showed that items 43, 44, 45, 48 and 56 considered under available non-printed resources, were rated above 50 percent showing that laboratory tools and kits for physics, chemistry and biology practical, computers and models/dioramas were sufficient and available for teacher job performance. Items 46, 47, 49, 50, 51, 52, 53, 54, 55, 57, 58 and 59 considered under unavailable non-printed resources, were rated above 50 percent showing that these non-printed resources were insufficient and unavailable in the urban secondary schools. The result further showed that workshop equipment, workshop technical tools and kits, television set, radio set, public address system, chalkboard/white board, flannel boards, internet facilities, projectors, functional printers and scanners, functional photocopiers and athletic facilities and sports equipment were considered unavailable. The analysis of result in Table 3 showed that more non-printed resources were available in the secondary schools in the urban areas than those in the rural areas in Anambra State. Although, the result further indicated that both the rural and urban secondary schools did not meet up with the NCE minimum requirements for non-printed resources provision. The availability of non-printed resources for teacher job performance was low in the rural and urban secondary schools in Anambra State. This result has further been represented in a chart in Figure 3.

**Research Question 4:** To what extent are the available physical plant resources utilized for teacher job performance in rural and urban secondary schools in Anambra State?

**Table 4: Mean Scores and SD of the Respondents Ratings on the Extent to which the Available Physical Plant Resources are Utilized for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State**

**N= 1,195**

S/N	Items	Rural		Decision	Urban		Decision
		$\bar{X}$	SD		$\bar{X}$	SD	
1	Staff rooms with adequate ventilation are utilized by teachers for consultations and timely give feedback to students	2.22	0.98	LE	2.41	1.08	LE
2	Functional library stocked with up to date books are journals are utilized by teachers for their research consultations and private reading	1.96	0.94	LE	2.35	1.07	LE
3	Technical workshop are utilized by teachers to teach basic technology practical for skill acquisition	2.20	1.03	LE	2.31	1.08	LE
4	Workshop utilized by teachers in vocational subject areas like Home economics practical in order to support group task	1.96	0.92	LE	2.30	1.11	LE
5	Art studio used by teachers to conduct Fine and applied arts practical	1.55	0.70	LE	2.34	1.07	LE
6	Functional guidance and counseling unit are utilized by teachers for consultations and to support students academic growth	2.13	0.88	LE	2.27	1.10	LE
7	Classrooms of 35-40 seating capacity with adequate space and ventilation are utilized by teachers to aid active teaching and students participation in class	2.66	1.02	HE	2.59	1.08	HE
8	Computer room are used for students practical during computer class	2.14	0.95	LE	2.44	1.06	LE
9	Football/Games field of (1.5 hectares) are utilized by teachers for outdoor games of students' learning	2.52	0.93	HE	2.51	1.08	HE
10	Farmland/Fish farm of (40m <sup>2</sup> ) are used for Agricultural science practical	2.26	1.03	LE	2.31	1.09	LE
11	Classroom furniture and fittings with cupboards/cabinets and shelves are utilized teachers to keep books and other materials in all the classrooms	1.64	0.87	LE	2.34	1.10	LE
12	Water supply/borehole are utilized by teachers for conveniences purposes in the school	1.72	0.88	LE	2.31	1.07	LE
13	Fire-fighting equipment installed in all laboratories and administrative office are used for protection during fire outbreak	1.56	0.66	LE	2.32	1.08	LE
14	Play ground for recreational activities are used by teachers to support students' learning	1.58	0.67	LE	2.32	1.12	LE
15	Separate toilet facilities are utilized by male and females teacher in the school	2.14	1.06	LE	2.46	1.14	LE
16	Enough chairs and tables are utilized for teachers comfort in the classroom	1.96	1.04	LE	2.20	1.11	LE
17	Enough chairs and tables are utilized for students comfort and effective class control while teaching in the classroom	1.80	0.80	LE	2.38	1.12	LE
18	School bus is used by teachers as at when needed for excursions and field trips in order to expose reality of teachings in the classroom and support outdoor learning	1.76	0.88	LE	0.00	0.00	LE
19	Functional standby generator set are used for illuminating lighting into the classroom during presentations	1.68	0.80	LE	2.21	1.06	LE
20	Sports hall utilized by teachers for the indoor games	1.75	0.83	LE	2.31	1.09	LE
21	Physics laboratory are utilized by teachers to support students' physics practical	1.90	0.93	LE	2.37	1.10	LE
22	Chemistry laboratory are utilized by teachers to conduct chemistry practical	2.21	1.06	LE	2.32	1.10	LE
23	Biology laboratory used by teachers for biology practical	2.20	0.89	LE	2.46	1.08	LE
24	Integrated science laboratory are utilized by teachers to conduct integrated science practical	1.82	0.89	LE	2.39	1.07	LE
25	Language and music laboratory are used by teachers to conduct arts practical	1.27	0.68	LE	2.13	1.04	LE
26	First aid box available in each of the classrooms	2.12	0.99	LE	1.99	0.99	LE
27	Electrical ceiling fans are functional always for students' comfort while teaching in the classroom	1.69	0.81	LE	2.05	1.01	LE
28	Nature corner space are used by teachers to display specimen, puppets and real object for students learning in the classroom	2.56	1.03	HE	2.23	1.03	LE
29	School typing pool used by teachers to promote students practical in vocational subjects, as well as for typing and printing documents during examination and test	2.44	1.10	LE	1.85	0.90	LE
<b>Mean of Means and Standard Deviation</b>		<b>1.97</b>	<b>0.90</b>	<b>LE</b>	<b>2.31</b>	<b>1.07</b>	<b>LE</b>

Analysis of the result under Table 4, as shown from the mean ratings of the respondents (teachers) in the rural public secondary schools indicated that only items 7, 9 and 28 were rated above the acceptable mean score of 2.50 in agreement with the statements. The result revealed that classrooms of 35-40 seating capacity with adequate space and ventilation to aid active teaching and students' participation, football/Games field of (1.5 hectares) for outdoor games for students' learning and nature corner spaces available for teachers to display specimen, puppets and real object for students learning in the classroom were all utilized to a high extent by teachers in the rural public secondary schools. All other items 1, 2, 3, 5, 6, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27 and 29 were rated below 2.50 in disagreement with the statements. The result revealed that staff rooms with adequate ventilation for consultations, functional library stocked with up to date books and journals for teachers' research and private reading, technical workshops to teach basic technology practical for skills acquisition, workshops in vocational subject areas like Home economics practical in order to support group task, were all utilized to a low extent by teachers.

Art studio used by teachers to conduct Fine and applied arts practical and functional guidance and counseling unit for consultations and to support students' academic growth, were utilized to a low extent by teachers. Also, computer rooms for students practical during computer class, farmland/Fish farm of (40m<sup>2</sup>) for Agricultural science practical, classroom furniture and fittings with cupboards/cabinets and shelves to keep books and other materials in all the classrooms, water supply/boreholes for convenience purposes in the school, fire-fighting equipment installed in all laboratories and administrative offices for protection during fire outbreak, play ground for recreational activities to support students' learning, separate toilet facilities for male and female teachers in the schools, were all utilized to a low extent by teachers. Chairs and tables for teachers comfort in the classroom, chairs and tables for students comfort and effective class control while teaching in the classroom were also utilized to a low

extent. School bus for excursions and field trips in order to expose reality of teachings in the classroom and support outdoor learning, functional standby generator set for illuminating lighting into the classroom during presentations, sports halls for the indoor games ,physics laboratory to support students' physics practical, chemistry laboratory to conduct chemistry practical, biology laboratory for biology practical and integrated science laboratory to conduct integrated science practical, were all utilized to a low extent by teachers .Language and music laboratory were used to a low extent by teachers to conduct arts practical. First aid box available in each of the classrooms, functional electrical ceiling fans for students' comfort while teaching in the classroom and school typing pools to promote students practical in vocational subjects, as well as for typing and printing documents during examinations and class tests, were also utilized to a low extent by teachers. The mean of means of rural public secondary schools of 1.97 showed that respondents reacted negatively to majority of the items. The standard deviation of the rural public secondary schools ranged from 0.66 to 1.10, showing huge deviation in the scores.

Analysis of the result still under Table 4, as shown from the mean ratings of the respondents (teachers) in the urban public secondary schools indicated that only items 7 and 9 were rated above 2.50 in agreement with the statements, revealing that classrooms of 35-40 seating capacity with adequate space and ventilation to aid active teaching and students' participation, and football/Games field of (1.5 hectares) for outdoor games for students' learning, were utilized to a high extent by teachers in the urban public secondary schools in Anambra State. Items 1, 2, 3, 4, 5, 6, 8, 10, 11, 12,13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29, were rated below 2.50 in disagreement with these statements. The result showed that in the urban public secondary schools, staff rooms with adequate ventilation, functional library stocked with up to date books and journals , technical workshops for skills acquisition and workshops for vocational subjects, were all utilized to a low extent by teachers.

Computer rooms for students practical, farmland/Fish farm of (40m<sup>2</sup>) for Agricultural science practical, classroom furniture and fittings with cupboards/cabinets and shelves, water supply/boreholes for conveniences purposes in the school, fire-fighting equipment installed in all laboratories and administrative offices, play ground, separate toilet facilities for male and female teachers in the schools, were all utilized to a low extent by teachers. Chairs and tables for teachers and students comfort in the classroom were also utilized to a low extent. School bus for excursions and field trips, functional standby generator set, sports halls for the indoor games, physics laboratory, chemistry laboratory, biology laboratory and integrated science laboratory, were all utilized to a low extent by teachers.

First aid box, functional electrical ceiling fans, nature corner space and school typing pools, were also utilized to a low extent by teachers in the urban secondary schools in Anambra State. The mean of means of urban public secondary schools of 2.31 showed that respondents reacted negatively to majority of the items. The standard deviation of the urban public secondary schools ranged from 0.90 to 1.14, showing huge deviation in the scores. Both results from teachers in rural and urban secondary schools revealed that the available physical plant resources for teacher job performance in secondary schools were utilized to a low extent in Anambra State.

**Research Question 5:** To what extent are the available printed resources utilized for teacher job performance in rural and urban secondary schools in Anambra State?

**Table 5: Mean Scores and SD of the Respondents Ratings on the Extent to which the Available Printed Resources are Utilized for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State**

**N= 1,195**

S/N	Items	Rural		Decision	Urban		Decision
		$\bar{X}$	SD		$\bar{X}$	SD	
30	Curriculum is utilized to prepare the school programmes	2.92	0.89	HE	2.81	1.06	HE
31	Syllabus are utilized by teachers for day to day lesson plan preparations	2.80	0.96	HE	2.85	1.05	HE
32	Classroom register are utilized by teachers for students rolls in class	3.20	0.81	HE	3.31	0.70	HE
33	Educative wall charts are pasted by teachers on the walls in the classrooms to promote learning in different subject areas	1.67	0.86	LE	2.23	1.09	LE
34	Dictionary are utilized during instructional delivery to find meaning of some concepts and guide students' learning	2.21	1.03	LE	2.22	1.06	LE
35	Graphics for picture representation in teaching various subjects are displayed to support teaching	2.00	0.97	LE	2.41	1.12	LE
36	Maps are used during geography teaching to support students' learning	1.61	0.83	LE	2.37	1.05	LE
37	Work books are utilized by teachers in all subjects to give students assignment that will boost their cognitive and independent study	2.62	1.08	HE	2.58	1.06	HE
38	Current textbooks are frequently utilized by teachers to support their teaching in various subject areas	2.78	0.99	HE	2.51	1.05	HE
39	Posters and cartoons are used to support and display evidence of the lesson taught in the classrooms	1.89	1.05	LE	2.31	1.02	LE
40	Up-to-date textbooks in the library with wider coverage in all subjects are used by teachers to promote research and teaching in varying context	2.02	0.88	LE	2.12	1.03	LE
41	Pamphlets on past questions and answers available for different subjects	2.09	0.86	LE	2.41	1.09	LE
42	Drawing book for sketches and other drawings are utilized in introductory technology and creative arts subjects	2.08	0.85	LE	2.16	1.06	LE
<b>Mean of Means and Standard Deviation</b>		<b>2.30</b>	<b>0.93</b>	<b>LE</b>	<b>2.48</b>	<b>1.03</b>	<b>LE</b>

Analysis of the result under Table 5, as shown from the mean ratings of the respondents (teachers) in the public secondary schools showed that teachers in the rural and urban secondary schools in the state share similar results. Results of the teachers in the rural public secondary schools indicated that only items 30, 31, 32, 37 and 38 were rated above the acceptable mean score of 2.50 in agreement with the statements. The result revealed that the curriculum is utilized to a high extent by teachers to prepare the school programmes. Syllabuses are utilized to a high extent by teachers for day to day lesson plan preparations. Classroom registers are utilized to a high extent by teachers for students' roll calls in the class. Work books are utilized to a high extent by teachers in all subjects to give students assignments that will boost their cognitive and independent study. Current textbooks are frequently utilized to a high extent by teachers to support their teaching in various subject areas. This result is equally the same with those of the

teachers in the urban public secondary schools. All other items 33, 34, 35, 36, 39, 40, 41 and 42 were rated below 2.50 in disagreement with the statements. The result revealed that dictionaries are utilized to a low extent during instructional delivery to find meanings to some concepts and guide students' learning activities. Graphics for picture representation in teaching various subjects are displayed to a low extent in order to support teaching and maps are equally used to a low extent during geography teaching to support students' learning. Posters and cartoons are used to a low extent to support and display evidence of the lesson taught in the classrooms. Up-to-date textbooks in the library with wider coverage in all subjects are used to a low extent by teachers to promote research and teaching in varying context. Pamphlets on past questions and answers available for different subjects are utilized to a low extent. Drawing books for sketches and other drawings are utilized to a low extent in introductory technology and creative arts subjects.

This result equally rhymes with those of the teachers in the urban public secondary schools. The mean of means of rural and urban public secondary schools of 2.30 and 2.48 respectively, showed that both respondents reacted negatively to majority of the items. The standard deviation of the rural and urban public secondary schools ranged from 0.81 to 1.08, and 0.70 to 1.12 respectively, showing huge deviation in the scores. Both results from teachers in rural and urban secondary schools revealed that the available printed resources for teacher job performance in secondary schools were utilized to a low extent in Anambra State.

**Research Question 6:** To what extent are the available non-printed resources utilized for teacher job performance in rural and urban secondary schools in Anambra State?

**Table 6: Mean Scores and SD of the Respondents Ratings on the Extent to which the Available Non-Printed Resources are Utilized for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State**

**N= 1,195**

S/N	Items	Rural		Decision	Urban		Decision
		$\bar{X}$	SD		$\bar{X}$	SD	
43	Laboratory tools and kits available for teaching physics practical	1.98	1.05	LE	2.38	1.12	LE
44	Laboratory tools and kits available for teaching chemistry practical	1.92	0.98	LE	2.25	1.09	LE
45	Laboratory tools and kits available for teaching biology practical	1.79	0.94	LE	2.29	1.03	LE
46	Workshop equipment available for teaching home economics practical	1.78	0.94	LE	2.21	1.06	LE
47	Workshop technical tools and kits provided for teaching basic technology practical	1.88	1.03	LE	2.07	1.03	LE
48	Computers available for practical and research	1.40	0.77	LE	2.22	1.06	LE
49	Television set available for teaching in different subjects	1.29	0.61	LE	1.73	0.81	LE
50	Radio set with tape recorder available for teaching in different subject	1.58	0.80	LE	1.86	1.01	LE
51	Public address system available in the classroom for presentations	1.33	0.60	LE	1.91	0.90	LE
52	Chalkboard/whiteboard installed on the wall in all the classrooms	2.28	1.00	LE	3.16	0.82	HE
53	Flannel boards installed on the side wall of each classroom	1.35	0.67	LE	1.92	0.88	LE
54	Internet facilities installed in the school for browsing and surfing of information from different websites	1.10	0.43	LE	1.57	0.81	LE
55	Projectors available for teaching in different subjects	1.35	0.67	LE	1.88	1.02	LE
56	Models/dioramas available for display in teaching various subjects in the classrooms	1.10	0.43	LE	1.87	0.91	LE
57	Functional printers and scanners available to print documents in the administrative office	1.32	0.70	LE	1.99	1.04	LE
58	Functional photocopiers available for producing and duplicating materials in large quantities	1.29	0.64	LE	2.07	1.02	LE
59	Athletic facilities and sports equipment are utilized by teachers to aid practical exercises in physical and health education	1.45	0.75	LE	1.92	0.97	LE
<b>Mean of Means and Standard Deviation</b>		<b>1.54</b>	<b>0.77</b>	<b>LE</b>	<b>2.07</b>	<b>0.97</b>	<b>LE</b>

Analysis of the result presented under Table 6, as shown from the mean ratings of the respondents (teachers) in the rural public secondary schools indicated that none of the items were rated above the acceptable mean score of 2.50 in agreement with the statements. All other items 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 and 59 were rated below 2.50 in disagreement with the statements. The results revealed that laboratory tools and kits available for teaching physics, chemistry and biology practical, workshop equipment available for teaching home economics practical and workshop technical tools and kits provided for teaching basic technology practical, were all utilized to a low extent. Computers available for practicals and as



well as television set available for teaching in different subjects, were both utilized to a low extent. Radio sets with tape recorder available for teaching in different subject were utilized to a low extent. Public address systems available in the classroom for presentations were utilized to a low extent. Chalkboard/whiteboard installed on the wall in all the classrooms and Flannel boards installed on the side wall of each classroom, were utilized to a low extent. Other non-printed resources such as: Internet facilities installed in the school for browsing and surfing of information from different websites, projectors available for teaching in different subjects, models/dioramas available for display in teaching various subjects in the classrooms, functional printers and scanners available to print documents in the administrative office, functional photocopiers available for producing and duplicating materials in large quantities, athletic facilities and sports equipment are utilized by teachers to aid practical exercises in physical and health education, were all utilized to a low extent by teachers in the rural secondary schools. The mean of means of rural public secondary schools of 1.54 showed that respondents reacted negatively to majority of the items. The standard deviation of the rural public secondary schools ranged from 0.43 to 1.05, showing huge deviation in the scores.

Analysis of the result still under Table 6, as shown from the mean ratings of the respondents (teachers) in the urban public secondary schools indicated that only items only item 52 rated above 2.50 in agreement with the statements. The result revealed that only the chalkboard/whiteboard installed on the wall in all the classrooms were utilized by teachers to a high extent in the urban public secondary schools. All other items 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58 and 59 were rated below 2.50 in disagreement with the statements. This result shared the same thing as those of the rural schools indicating that laboratory tools and kits, workshop equipment, technical tools and kits, computers, television set, radio set, public address systems, flannel boards, Internet facilities, projectors, models/dioramas, functional printers and scanners, functional photocopiers, athletic facilities and sports equipment were all utilized by teachers to a low extent in the urban secondary schools. The mean of means of urban public

secondary schools of 2.07 showed that respondents reacted negatively to majority of the items. The standard deviation of the rural public secondary schools ranged from 0.81 to 1.12, showing huge deviation in the scores. Both results from teachers in rural and urban secondary schools revealed that the available non-printed resources for teacher job performance in secondary schools were utilized to a low extent in Anambra State.

### Test of Hypotheses

H<sub>0</sub><sub>1</sub>: There is no significant difference in the availability of physical plant resources for teacher job performance in rural and urban secondary schools in Anambra State.

**Table 7: Chi-Square test of no Significant Difference in the Availability of Physical Plant Resources for Teacher Job Performance between Rural and Urban Secondary Schools in Anambra State**

	Value	df	p
Pearson Chi-Square	6.626E2 <sup>a</sup>	1	.000
Continuity Correction <sup>b</sup>	662.382	1	.000
Likelihood Ratio	663.020	1	.000
Fisher's Exact Test			
Linear-by-Linear Association	662.550	1	.000
N of Valid Cases <sup>b</sup>	373688		

a. 0 cells (0%) have expected count less than 5. The minimum expected count is 1588.18.

b. Computed only for a 2 x2 table

The result in Table 7 indicated that the calculated Chi-square value is 6.626 and a p-value of .000 at 5% (.05) level of significance with degree of freedom (df) being 1. Since the p-value .000 is less than the alpha level ( $P \leq .05$ ), the tested null hypothesis which states that “there is no significant difference in the availability of physical plant resources for teacher job performance between rural and urban secondary schools in Anambra State ”is rejected ,while the alternative hypothesis of significant difference is accepted. Thus, there is a significant difference in the available educational resources on the availability of physical plant resources for teacher job performance in rural and rural secondary schools in Anambra State. Teacher job performance is

significantly dependent on the availability of physical plant resources in urban and rural secondary schools in Anambra State. This implies that teacher job performance in rural and urban secondary schools in Anambra State is significantly dependent on availability of physical plant resources.

H0<sub>2</sub>: There is no significant difference in the availability of printed resources for teacher job performance in rural and urban secondary schools in Anambra State.

**Table 8: Chi-Square test of no Significant Difference in the Availability of Printed Resources for Teacher Job Performance between Rural and Urban Secondary Schools in Anambra State**

	Value	df	P
Pearson Chi-Square	7.192E3 <sup>a</sup>	1	.000
Continuity Correction <sup>b</sup>	7.191E3	1	.000
Likelihood Ratio	7.352E3	1	.000
Fisher's Exact Test			
Linear-by-Linear Association	7.192E3	1	.000
N of Valid Cases <sup>b</sup>	362752		

a. 0 cells (0%) have expected count less than 5. The minimum expected count is 918.53.

b. Computed only for a 2 x2 table

The result in Table 8 indicates that the calculated Chi-square value is 7.192 and a p-value .000 with degree of freedom (df) 1 at 5% (.05) level of significance. Since the p-value .000 is less than the alpha level ( $P \leq .05$ ), the tested null hypothesis which states “there is no significant difference in the availability of printed resources for teacher job performance between rural and urban secondary schools in Anambra State” is rejected, while the alternative hypothesis of significant difference is accepted. Thus, there is a significant difference in the available educational resources on the availability of printed resources for teacher job performance in rural and urban secondary schools in Anambra State. This implies that teacher job performance in rural and urban secondary schools in Anambra State is significantly dependent on the availability of printed resources.

H0<sub>3</sub>: There is no significant difference in the availability of non-printed resources for teacher job performance in rural and urban secondary schools in Anambra State.

**Table 9: Chi-Square test of no Significant Difference in the Availability of Non-Printed Resources for Teacher Job Performance between Rural and Urban Secondary Schools in Anambra State**

	Value	df	P
Pearson Chi-Square	9.282E2 <sup>a</sup>	1	.000
Continuity Correction <sup>b</sup>	927.640	1	.000
Likelihood Ratio	938.492	1	.000
Fisher's Exact Test			
Linear-by-Linear Association	928.141	1	.000
N of Valid Cases <sup>b</sup>	74155		

a. 0 cells (0%) have expected count less than 5. The minimum expected count is 396.59.

b. Computed only for a 2 x2 table

The result in Table 9 indicates that the calculated Chi-square value is 9.282 and a p-value .000 with degree of freedom (df) 1 at 5% (.05) level of significance. Since the p-value .000 is less than the alpha level ( $P \leq .05$ ), the tested null hypothesis which states “there is no significant difference in the availability of non-printed resources for teacher job performance between rural and urban secondary schools in Anambra State ”is rejected, while the alternative hypothesis of significant difference is accepted. Thus, there is a significant difference in the available educational resources on the availability of non-printed resources for teacher job performance in rural and urban secondary schools in Anambra State. This shows that teacher job performance in rural and urban secondary schools in Anambra State is significantly dependent on the availability of non-printed resources.

H0<sub>4</sub>: There is no significant difference in the mean ratings of teachers on the extent of utilization of the available physical plant resources for teacher job performance in rural and urban secondary schools in Anambra State.

**Table 10**  
**t-test Comparison of no Significant Difference in the Mean Ratings of Teachers on the Extent of Utilization of the Available Physical Plant Resources for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State**

Group	Sample Size	Mean	Standard Deviation	t-Cal.	Degree of Freedom	Std Error	p- value	Decision
Rural	409	30.24	12.76	-8.594	1193	.89851	.000	Significant Difference
Urban	786	37.96	15.67					

The result in Table 10 indicates that the calculated t-test value is -8.594 and a p-value .000 with degree of freedom (d.f) 1193 at 5% (0.05) level of significance. Since the p-value .000 is less than the alpha level ( $P < 0.05$ ), the tested null hypothesis is rejected. Hence, there is a significant difference in the mean ratings of teachers on the extent of utilization of available physical plant resources for teacher job performance in rural and urban secondary schools in Anambra State.

H0<sub>5</sub>: There is no significant difference in the mean ratings of teachers on the extent of utilization of the available printed resources for teacher job performance in rural and urban secondary schools in Anambra State.

**Table 11**  
**t-test Comparison of no Significant Difference in the Mean Ratings of Teachers on the Extent of Utilization of the Available Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State**

Group	Sample Size	Mean	Standard Deviation	t-Cal.	Degree of Freedom	Std Error	p- value	Decision
Rural	409	29.88	11.28	-3.194	1193	.75248	.001	Significant Difference
Urban	786	32.28	12.86					

The result in Table 11 indicates that the calculated t-test value is -3.194 and a p-value of .001 with degree of freedom (df) 1193 at 5% (0.05) level of significance. Since the p-value .001 is less than the alpha level ( $P < 0.05$ ), the tested null hypothesis is rejected. Hence, there is a significant difference in the mean ratings of teachers on the extent of utilization of available printed resources for teacher job performance in rural and urban secondary schools in Anambra State.

H<sub>0</sub>: There is no significant difference in the mean ratings of teachers on the extent of utilization of the available non-printed resources for teacher job performance in rural and urban secondary schools in Anambra State.

**Table 12**  
**t-test Comparison of no Significant Difference in the Mean Ratings of Teachers on the Extent of Utilization of the Available Non-Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State**

Group	Sample Size	Mean	Standard Deviation	t-Cal.	Degree of Freedom	Std Error	p- value	Decision
Rural	409	26.52	12.39	-9.782	1193	.89686	.000	Significant Difference
Urban	786	35.29	15.78					

The result in Table 12 indicates that the calculated t-test value is -9.782 and a p-value of .000 with degree of freedom (df) 1193 at 5% (0.05) level of significance. Since the p-value .000 is less than the alpha level ( $P < 0.05$ ), the tested null hypothesis is therefore, rejected. Hence, there is a significant difference in the mean ratings of teachers on the extent of utilization of available non-printed resources for teacher job performance in rural and urban secondary schools in Anambra State.

## Summary of Findings

The findings of this study revealed that:

1. The availability of physical plant resources for teacher job performance was low in the rural and high in the urban secondary schools in Anambra State.
2. The availability of printed resources for teacher job performance was low in the rural and urban secondary schools in Anambra State.
3. The availability of non-printed resources for teacher job performance was low in the rural and urban secondary schools in Anambra State.
4. The available physical plant resources for teacher job performance in secondary schools were utilized to a low extent in Anambra State.
5. The available printed resources for teacher job performance in secondary schools were utilized to a low extent in Anambra State.
6. The available non-printed resources for teacher job performance in secondary schools were utilized to a low extent in Anambra State.
7. A significant difference was found in the available educational resources on the availability of physical plant resources for teacher job performance in rural and urban secondary schools in Anambra State.
8. A significant difference was found in the available educational resources on the availability of printed resources for teacher job performance in rural and urban secondary schools in Anambra State.
9. A significant difference was found in the available educational resources on the availability of non-printed resources for teacher job performance in rural and urban secondary schools in Anambra State.
10. A significant difference was found between the mean ratings of teachers on the extent of utilization of available physical plant resources for teacher job performance in rural and urban secondary schools in Anambra State.

11. A significant difference was found between the mean ratings of teachers on the extent of utilization of available printed resources for teacher job performance in rural and urban secondary schools in Anambra State.
12. A significant difference was found between the mean ratings of teachers on the extent of utilization of available non-printed resources for teacher job performance in rural and urban secondary schools in Anambra State.



## CHAPTER FIVE

### DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter discussed the result of the findings, concluded the study and indicated the implications of the study. The chapter also proffered some recommendations based on the findings of the study and made suggestions for further studies.

#### **Discussion of Findings**

The findings of the results were discussed under different sub heading sand they include:

- a. Availability of Physical Plant Resources for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State.
- b. Availability of Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools.
- c. Availability of Non-Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools.
- d .Extent of Utilization of the Available Physical Plant Resources for Teacher Job Performance in Rural and Urban Secondary Schools.
- e. Extent of Utilization of the Available Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools.
- f. Extent of Utilization of the Available Non-Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools.

#### **Availability of Physical Plant Resources for Teacher Job Performance in Rural and Urban Secondary Schools in Anambra State:**

The study revealed that the availability of physical plant resources for teacher job performance was low in the rural and high in the urban secondary schools in Anambra State.

In the rural secondary schools, the findings indicated that the physical plant resources were available in the rural public secondary schools for teacher job performance, while the physical plant resources were not available for teacher job performance.

The finding revealed that only physical plant resources such as: teachers staff rooms, classroom of 35-40 seating capacity, computer rooms, football/games field, farmland/fish farm, play ground and enough chairs and tables for students, were sufficiently available for teacher job performance in the rural secondary schools. Other physical plant resources such as functional library, technical workshop, workshop for practical in vocational subjects, art studio, functional guidance and counseling unit, classroom furniture and fittings, water supply/borehole, fire-fighting equipment, toilet facilities, enough table and chairs for teachers, functional standby generators, sport hall for indoor games, school bus, functional generator set, physics, chemistry, biology, integrated science, language/music laboratories, first aid box, electrical ceiling fans, nature corner and school typing pool were not sufficient and were considered highly unavailable. This situation could have negative impact on teacher job performance creating difficulties in realizing the goals and objectives of education. Whereby the physical plant resources are less available in the rural and urban secondary schools in Anambra State, such situation can jeopardize teacher job performance which has consequences on accomplishment of task for students' academic achievements.

It was also found that the physical plant resources were highly available in the urban secondary schools, while the physical plant resources were not available in the urban secondary school. In the urban secondary schools, it was found that physical plant resources such as: classroom of 35-40 seating capacity, football/games field, water supply/borehole, play ground, enough table and chairs for teachers, school bus and physics, chemistry and biology laboratories were considered available for teacher job performance. Other physical plant resources such as: staff rooms, functional library, technical workshop, workshop for practical in vocational

subjects, art studio, functional guidance and counseling unit, computer room, farmland/fish farm, classroom furniture and fittings, fire-fighting equipment, toilet facilities, enough table and chairs for teachers, functional standby generators, sport hall for indoor games, school bus, functional generator set, integrated science and language/music laboratories, first aid box, electrical ceiling fans, nature corner and school typing pool were considered insufficient and unavailable for teacher job performance. The finding also revealed that more physical plant resources were available in the secondary schools in the urban areas more than those in the rural areas for teacher job performance in Anambra State. Although, the finding further indicated that there were some resources still unavailable in the urban secondary schools, yet they met with the NCE minimum requirements for physical plant resources provision more than the rural secondary schools. This shows that teacher job performance could be positively felt in the urban secondary schools than the rural schools.

The hypothetical test of the present study indicated that a significant difference was found in the availability of physical plant resources for teacher job performance in rural and urban secondary schools in Anambra State. This finding is in agreement and in line with the finding of Ugwuanyi (2013) which discovered that availability and utilization of facilities varied among secondary schools according to their school type and geographical location differences. Studies of Owate and Iroha (2013) and Atieno (2014) also found out in a study that physical plant facilities were lacking and grossly inadequate in schools. Wanjiku (2013) study found that physical plant resources in almost all the secondary schools observed were largely inadequate. The subsidized secondary education had not significantly contributed to availability of libraries and laboratories, among others in schools. This situation equally hindered utilization of many of the physical plant resources by teachers in these secondary schools. The availability of school physical plant resources is a potent factor to quantitative education (Owoeye, 2011). Ogunsaju (2000) confirmed that quality physical facilities must be employed and put in place in the school

system for developing the human resources like the teachers in order to ensure school effectiveness.

### **Availability of Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools:**

This findings indicated that the availability of printed resources for teacher job performance was low in the rural and urban secondary schools in Anambra State. This finding revealed that the printed resources were less available in the rural public secondary schools for teacher job performance, while the printed resources were highly unavailable for teacher job performance.

In the rural areas, only such printed resources as the classroom register and maps for geography subjects were sufficient and therefore were considered available for teacher job performance. Other printed resources were insufficient to be considered as available printed resources in the rural secondary schools. It was found further that other printed resources such as: the curriculum, syllabus, educative wall charts, dictionary in every classroom, graphics, workbooks, current textbook for teaching different subjects, posters and cartoons, up-to-date textbooks in the library, pamphlets and drawing books were highly insufficient and considered unavailable for teacher job performance in the rural secondary schools. This situation could have negative impact on teacher job performance creating difficulties in realizing the goals and objectives of education.

In the urban secondary schools, the finding showed that only a few of the printed resources were not available in the secondary schools for teacher job performance, while those unavailable were high in the urban secondary school for teacher job performance. The finding indicated that only the curriculum, syllabus, classroom register and maps for geography subjects were sufficient and highly available for teacher job performance. Other printed resources were insufficient and less available in order to be considered as available printed in the urban

secondary schools. The finding showed that educative wall charts, dictionary, graphics, workbooks, current textbooks for teaching, posters and cartoons, up-to-date textbooks in the library, pamphlets and drawing books were considered insufficient and therefore not available in the urban secondary schools. The finding also showed that the printed resources were less available in the secondary schools in the urban areas more than those in the rural areas in Anambra State. Although, this finding further indicated that both the rural and urban secondary schools did not meet up with the NCE minimum requirements for printed resources provision. The availability of printed resources for teacher job performance was low in the rural and urban secondary schools in Anambra State. This shows that teacher job performance could not have been positively felt in the rural and urban secondary schools where printed resources are lacking.

The hypothetical test indicated that a significant difference was found in the availability of printed resources for teacher job performance in rural and urban secondary schools in Anambra State. This finding concurs with Okoro (2006) whose study found out that the instructional materials were largely unavailable in the schools were investigated. A lot of them were not available and the available ones not adequate for instructions. Andambi and Kariuki (2013) found that types of learning resources for teaching were not adequately available in secondary schools. Mbugua (2011) found that secondary schools (both rural and urban schools) were poorly equipped with teaching and learning resources especially in subject areas like mathematics which required these materials to facilitate abstraction of concepts by the learners. There was a significant difference between the available and unavailable instructional printed materials in schools. Adebule and Ayoola (2014) findings which also concurs and in line with the findings Mbugua (2011), discovered from teachers' responses that to a certain extent, instructional materials for teaching were available but were not adequate. Whereby the printed resources are less available in the rural and urban secondary schools in Anambra State, such situation can jeopardize teacher job performance which makes it difficult for teachers to

execute their tasks efficiently in order to achieve instructional objectives. Ofoegbu (2004) confirmed that poor performance of students in Nigerian schools has been linked to poor teachers' performance who fail to accomplish their teaching task, which have been attributed to the extent of availability of teaching resources in the classroom. Maicibi (2003) also found that availability of teaching and learning resources enhances the improvement of teachers' task and performance in schools. Ajayi and Ogunyemi cited in Ugwuanyi (2013) reiterated that when facilities are provided in adequate quantity and are utilized to meet relative needs of a school system, students will not only have access to textbooks and reference materials that were indicated by their teachers but individual student will also learn at their own pace. Therefore, finding of the present study concerning the insufficiency printed resources in the rural and urban secondary schools could have been responsible for teacher poor utilization and job performances in most of the rural and urban schools.

#### **Availability of Non-Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools:**

The findings revealed that the availability of non-printed resources for teacher job performance was low in the rural and urban secondary schools in Anambra State. In the rural public secondary schools, the finding indicated that the non-printed resources were less available in the rural public secondary schools for teacher job performance, while the non-printed resources unavailable were high for teacher job performance. The finding showed that in the rural secondary schools only non-printed resources such as: Models/dioramas and functional printers and scanners were sufficient and therefore considered available for teacher job performance. Other non-printed resources were insufficient and therefore available in the rural secondary schools. The finding further showed that laboratory tools and kits for physics, chemistry and biology practical, workshop equipment, technical tools, computers, television set, radio set, public address system, flannel boards, internet facilities, projectors, functional photocopiers and athletic facilities and sports equipment were largely insufficient and therefore

not available for teacher job performance in the rural secondary schools. This situation could have negative impact on teacher job performance creating difficulties in realizing the goals and objectives of education.

In the urban secondary schools, the finding indicated that only a few of the non-printed resources were available in the secondary schools for teacher job performance, while the non-printed resources were not available in the urban secondary school for teacher job performance. This finding showed that only laboratory tools and kits for physics, chemistry and biology practical, computers and models/dioramas were sufficient and highly available for teacher job performance. Other non-printed resources were insufficient and therefore considered not available. The finding further showed that workshop equipment, workshop technical tools and kits, television set, radio set, public address system, chalkboard/white board, flannel boards, internet facilities, projectors, functional printers and scanners, functional photocopiers and athletic facilities and sports equipment were considered insufficient and unavailable. This situation could have negative impact on teacher job performance creating difficulties in realizing the goals and objectives of education.

It was also found that more non-printed resources were less available in the secondary schools in the urban areas more than those in the rural areas in Anambra State. Although, this finding further indicated that both the rural and urban secondary schools did not meet up with the NCE minimum requirements for non-printed resources provision, which could in turn affect teacher job performance. The availability of non-printed resources for teacher job performance was low in the rural and urban secondary schools in Anambra State. The hypothetical test indicated that a significant difference was found in the availability of non-printed resources for teacher job performance in rural and urban secondary schools in Anambra State. This finding is in consonance with Bizimana and Orodho (2014) who found that level of availability of non-printed teaching resources in the secondary schools with reference to their location was insufficient, hence compromising the effectiveness of classroom management and content

delivery. There was a positive and significant correlation between most of the teaching and learning resources and level of classroom management and content delivery. Also, the findings of Ntui and Udah (2015) study concurred with the present study finding and discovered that with reference to visual and audio-visual materials, these resources were inadequate and they significantly influenced utilization by teachers. Whereby the non-printed resources are less available in the rural and urban secondary schools in Anambra State, such situation affects teacher utilization of these resources and which can negatively affect teacher job performance, making it difficult for teachers to efficiently execute their duties in order to achieve instructional objectives.

The Federal Republic of Nigeria (FRN, 2013) confirmed that educational support services provided through availability of non-printed resources in schools would improve and develop educational programs and provide conducive environment for teaching and learning, make learning experiences more meaningful and realistic to learners, as well as promote effective use of innovative materials in schools. The level of success of education programs like that of the secondary schools is greatly dependent on the availability of up-to-date equipment and non-printed facilities as these form the hub around which such programs revolve (Ugwuanyi, 2013).

#### **Extent of Utilization of the Available Physical Plant Resources for Teacher Job Performance in Rural and Urban Secondary Schools:**

The findings on the extent of utilization of the available physical plant resources for teacher job performance in the rural and urban secondary schools discovered that physical plant resources were utilized by teachers to a low extent. This finding further indicated that in the rural public secondary schools in Anambra State, only classrooms of 35-40 seating capacity with adequate space and ventilation are utilized to a high extent by teachers to aid active teaching and students participation in class. Football/Games field of (1.5 hectares) are utilized to



a high extent by teachers for outdoor games of students' learning. The nature corner spaces are used to a high extent by teachers to display specimen, puppets and real object for students learning in the classroom in the rural secondary schools.

It was further found out that staff rooms with adequate ventilation are utilized to a low extent by teachers for consultations and timely give feedback to students. Functional library stocked with up to date books and journals are utilized to a low extent by teachers for their research consultations and private reading. Technical workshops are utilized to a low extent by teachers to teach basic technology practical for skill acquisition. Workshops are utilized to a low extent by teachers in vocational subject areas like Home economics practical in order to support group task. Art studio used by teachers to conduct Fine and applied arts practical; and functional guidance and counseling unit were utilized to low extent by teachers for consultations and to support students' academic growth. Also, computer rooms are used to a low extent for students practical during computer class. Farmland/Fish farm of (40m<sup>2</sup>) are used to a low extent for Agricultural science practical. Classroom furniture and fittings with cupboards/cabinets and shelves are utilized to a low extent by teachers to keep books and other materials in all the classrooms. Water supply/boreholes are utilized to a low extent by teachers for conveniences purposes in the school. Fire-fighting equipment installed in all laboratories and administrative offices are used for protection during fire outbreak. Play ground for recreational activities are used to a low extent by teachers to support students' learning. Separate toilet facilities are utilized to a low extent by male and female teachers in the schools. Chairs and tables are utilized to a low extent for teachers comfort in the classroom. Chairs and tables for students comfort and effective class control while teaching in the classroom are utilized to a low extent. School bus is used to a low extent by teachers as at when needed for excursions and field trips in order to expose reality of teachings in the classroom and support outdoor learning. Functional standby generator set are used to a low extent for illuminating lighting into the classroom during

presentations. Sports hall are utilized to a low extent by teachers for the indoor games. Physics laboratory are utilized to a low extent by teachers to support students' physics practical.

Chemistry laboratory are utilized to a low extent by teachers to conduct chemistry practical. Biology laboratory are used to a low extent by teachers for biology practical. Integrated science laboratory are utilized to a low extent by teachers to conduct integrated science practical. Language and music laboratory are used to a low extent by teachers to conduct arts practical. First aid box available in each of the classrooms are utilized to a low extent. Electrical ceiling fans were functional to a low extent to always for students' comfort while teaching in the classroom. School typing pools are used to a low extent by teachers to promote students practical in vocational subjects, as well as for typing and printing documents during examination and test.

In the urban public secondary schools, it was found that only classrooms of 35-40 seating capacity with adequate space and ventilation, and football/Games field of (1.5 hectares) for outdoor games of students' learning, were utilized to a high extent by teachers in the urban public secondary schools in Anambra State. It was further found out that staff rooms with adequate ventilation, functional library stocked with up to date books and journals, technical workshops for skill acquisition and workshops for vocational subjects, were all utilized to a low extent by teachers. Art studios were utilized to a low extent by teachers. Computer rooms for students practical, farmland/Fish farm of (40m<sup>2</sup>) for Agricultural science practical, classroom furniture and fittings with cupboards/cabinets and shelves, water supply/boreholes for conveniences purposes in the school, fire-fighting equipment installed in all laboratories and administrative offices, play ground, separate toilet facilities for male and female teachers in the schools, were all utilized to a low extent by teachers. Chairs and tables for teachers and students comfort in the classroom were also utilized to a low extent. School bus for excursions and field trips, functional standby generator set, sports halls for the indoor games, physics laboratory, chemistry laboratory, biology laboratory and integrated science laboratory, were all utilized to a

low extent by teachers. It was also discovered that language and music laboratory, first aid box, functional electrical ceiling fans, nature corner space and school typing pools, were also utilized to a low extent by teachers in the urban secondary schools in Anambra State. This situation of poor utilization of physical plant resources could have negative effect or impact on teacher job performance which affects students' learning and academic achievements.

The hypothetical test indicated that a significant difference was found between the mean ratings of teachers on the extent of utilization of available physical plant resources for teacher job performance in rural and urban secondary schools in Anambra State. This finding concurs and equally is in line with Eze (2010) whose study reported that physical plant resources such as school building, library services and laboratories as regards to teachers' utilization were lacking in the schools. This was the major factor that affected students' academic learning and teacher effectiveness in schools. Unavailability of school health services, school fence and provision of power supply were also important variables that affected students' achievement in the public secondary schools (Eze, 2010). Atieno (2014) also confirmed that physical plant facilities in the schools were overstretched and thus affected quality education in the schools. Whereby the physical plant resources are not effectively utilized by the teachers in the rural and urban secondary schools in Anambra State, such situation will affect teacher job performance and has negative consequences on accomplishment of instructional task and students' academic achievements will be put in jeopardy in school. Dugguh and Ayaga (2014) found that basic amenities such as desk, chairs tables and benches made the teaching more difficult and if they are not enough, the teacher suffers and teaching process would not be good. The situation where teachers do not sufficiently utilize the physical plant resources in the school to a high extent, such would affect their performances and this has consequences on accomplishing task for positive outcomes, likewise, achieving educational goals and objectives.

### **Extent of Utilization of the Available Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools:**

The findings on the extent of utilization of the available printed resources for teacher job performance in the rural and urban secondary schools discovered that printed resources were generally utilized by teachers to a low extent. Both results of teachers in rural and urban secondary schools found that the same thing. The finding discovered that in both the rural and urban public secondary schools in Anambra State, the curriculum is utilized to a high extent by teachers to prepare the school programmes. Syllabuses are utilized to a high extent by teachers for day to day lesson plan preparations. Classroom registers are utilized to a high extent by teachers for students' rolls in class. Work books are utilized to a high extent by teachers in all subjects to give students assignment that will boost their cognitive and independent study. Current textbooks are frequently utilized to a high extent by teachers to support their teaching in various subject areas. The finding further reported that dictionaries are utilized to a low extent during instructional delivery to find meaning of some concepts and guide students' learning. Graphics for picture representation in teaching various subjects are displayed to a low extent in order to support teaching and maps are equally used to a low extent during geography teaching to support students' learning. Posters and cartoons are used to a low extent to support and display evidence of the lesson taught in the classrooms. Up-to-date textbooks in the library with wider coverage in all subjects are used to a low extent by teachers to promote research and teaching in varying context. Pamphlets, on past questions and answers available for different subjects are utilized to a low extent. Drawing book for sketches and other drawings are utilized to a low extent in introductory technology and creative arts subjects. This situation could have negative effect on teacher job performance, creating difficulties in task accomplishment.

The hypothetical test showed that a significant difference was found between the mean ratings of teachers on the extent of utilization of available printed resources for teacher job

performance in rural and urban secondary schools in Anambra State. This finding concurs and corresponds with Okoro (2006) whose study reported that the instructional materials available in schools were not adequate for instructions and students were not always exposed to the use of the available instructional materials during instructions. The finding of Adebule and Ayoola (2014) also confirmed that instructional materials were found in schools to an extent; however, teachers were not putting the materials into good use in teaching of some subjects. Stephen (2011) finding showed that there was low frequency in teachers' use of the available resource materials.

Andambi and Kariuki (2013) reported that the most commonly available printed resources used for teaching were textbooks, charts, maps, teacher made materials and newspapers; however, teachers were not using them for teaching and learning. Whereby the printed resources are not effectively utilized by the teachers in the rural and urban secondary schools in Anambra State, this situation will continually affect teacher job performance. This situation has negative consequences on instructional goal accomplishment and stands to jeopardize students' academic achievements in school. Maicibi (2003) confirmed that utilization of teaching and learning resources enhances the improvement of teachers' task and performance in schools as these are basic things that can bring about good academic performance in students. Kimeu, Tanui and Ronoh (2015) also observed that both teachers' and students' academic performances depended on teachers' utilization of printed resources. Therefore, if the printed resources are not utilized by teachers to a high degree of extent in the schools, this will affect their job performances, commitments and methodology in teaching, which has consequences on students' academic achievements and attainment of educational goals and objectives.

### **Extent of Utilization of the Available Non-Printed Resources for Teacher Job Performance in Rural and Urban Secondary Schools:**

Findings on the extent of utilization of the available non-printed resources for teacher job performance in the rural and urban secondary schools discovered that non- printed were utilized by teachers to a low extent. This low extent have tendency of affecting teacher job performance. The finding discovered that in the rural public secondary schools in Anambra State, laboratory tools and kits available for teaching physics, chemistry and biology practical, workshop equipment available for teaching home economics practical and workshop technical tools and kits provided for teaching basic technology practical, were all utilized to a low extent. Computers available for practical and research and television set available for teaching in different subjects, were both utilized to a low extent. Radio sets with tape recorder available for teaching in different subject were utilized to a low extent. Public address systems available in the classroom for presentations were utilized to a low extent. Chalkboard/whiteboard installed on the wall in all the classrooms and Flannel boards installed on the side wall of each classroom, were utilized to a low extent. Other non-printed resources such as: Internet facilities installed in the school for browsing and surfing of information from different websites, projectors available for teaching in different subjects, models/dioramas available for display in teaching various subjects in the classrooms, functional printers and scanners available to print documents in the administrative office, functional photocopiers available for producing and duplicating materials in large quantities, athletic facilities and sports equipment utilized by teachers to aid practical exercises in physical and health education, were all utilized to a low extent by teachers in the rural secondary schools.

In the urban public secondary schools, it was found that chalkboard/whiteboard installed on the wall in all the classrooms were utilized by teachers to a high extent in the urban public secondary schools. It was further found in the urban public secondary schools that laboratory

tools and kits, workshop equipment, technical tools and kits, computers, television set, radio set, public address systems, flannel boards, Internet facilities, projectors, models/dioramas, functional printers and scanners, functional photocopiers, athletic facilities and sports equipment were all utilized by teachers to a low extent in the urban secondary schools. The hypothetical test showed that a significant difference was found between the mean ratings of teachers on the extent of utilization of available non-printed resources for teacher job performance in rural and urban secondary schools in Anambra State.

This finding concurs and is in line with Kimeu, Tani and Ronoh (2015) whose study reported that students' academic performance depended on use of non-printed teaching and learning materials like the chalkboard, laboratory apparatus and chemicals, among others, but teachers' were not making adequate use of them. Ntui and Udah (2015) found in secondary schools in Calabar, Cross Rivers State, Nigeria, that teachers' were not making use of the audio-visual materials in the schools. A significant difference was observed in the schools concerning teachers' utilization of non-printed resources. Andambi and Kariuki (2013) also confirmed that radio was the most commonly available non-printed resources in the schools, but teachers were not using them for teaching and learning. Whereby the non-printed resources are not effectively utilized by the teachers in the rural and urban secondary schools in Anambra State, this situation will continually affect teacher job performance. This situation has negative consequences on instructional goal accomplishment and stands to jeopardize students' academic achievements in school. Ugwuanyi (2013) reported that no meaningful learning or transfer of what has been learned will take place if such learning occurs in a situation devoid of relevant non-printed materials and activities as well as concrete experiences – given through teacher job performance.

## **Conclusion**

Educational resources be it physical plant resources, printed resources or non-printed resources are very vital for effective teacher job performance. In Anambra State, most of these educational resources are less available and limited, also utilized by teachers to a low extent for their job performance, while a huge number of these resources are unavailable to a high extent in both rural and urban secondary schools. Failure of secondary school teachers in the rural and urban areas to deliver their lessons effectively in the classroom has negative consequences on both schools' development and students' academic achievement. This situation could also present lot of difficulties in providing conducive learning environment for attainment of educational goals in the secondary schools. The study however submits that educational resources have not been highly available in both rural and urban secondary schools in Anambra State, given that educational resources are more pronounced and sufficient in the urban schools than the rural schools.

## **Implications of the Study**

This study on availability and utilization of educational resources for teacher job performance in secondary schools in Anambra State has several implications for the Anambra State Ministry of Education, Post Primary School Service Commission, Teachers and as well as other Stakeholders in Education sector in Nigeria. The study has implications on physical plant, printed and non-printed resources availability, utilization and teacher job performance in public secondary schools in Anambra State. If quality education and effective instructional delivery is to be actualized in Anambra State, educational resources such as the physical plant, printed and non-printed resources must be made available in the urban and rural secondary schools. Once educational resources like the physical plant resources, printed and non-printed resources were highly available and utilized by teachers in executing their daily task, teachers job performances will extensively improve and enhanced for quality outcomes in the urban and rural secondary schools. This is so because availability and utilization of educational resources



coupled with its implications will aid to promote teacher job performances for students' effective learning and academic achievements. In this regards, quality education cannot be actualized if both the rural and urban secondary school teachers operate where there is less availability and poor utilization of physical plant, printed and non-printed educational resources, to a low extent, which is also a determinant factor for effective teacher job performance. If the urban and rural public secondary school teachers do not carry out their functions or duties efficiently due to unavailability or poor utilization of educational resources, there is bound to be poor efficiency in teaching and learning. Instructional objectives would also be hindered. This has great implications on achieving the overall educational objectives of secondary education.

### **Recommendations**

1. Educational Policy makers and Curriculum developers should ensure that the identified resources needed be integrated into the Curriculum Programme of Secondary schools. This will help teachers to acquire and develop the knowledge on the use of these resources.
2. The Anambra State Post Primary School Service Commission (PPSSC) should support effective teacher job performance in the secondary schools through making provision for those resources needed. They should liaise with the State government and other non-governmental agencies in order to provide schools with the required printed and non- print resources that will aid teacher job performance.
3. Secondary school principals should solicit financial support from external sources like the PTA, alumni associations (old boys and girls) and financial institutions, among others in order to support schools with the needed non-printed resources to improve teacher job performance.
4. The State government and PPSSC should constantly up-grade, audit and maintain the available physical plant resources in secondary schools in order to ensure that they are properly utilized for teacher job performance.

5. Secondary schools principals should ensure that they encourage teachers to utilize the available printed resources for their job performance in secondary schools. They should not only improvise the printed resources but also supervise teachers to ensure their effective utilization during instructional delivery in the classroom.
6. The principals' should also apply appropriate maintenance culture in order to protect the available non-printed resources for effective teacher job performance in secondary schools. Constant training and retraining should be given to teachers in order to improve utilization of the non-printed educational resources in the schools.

### **Suggestions for Further Studies**

The findings of this study have necessitated that further empirical studies be conducted in the aspects of educational resources and teacher job performance.

1. An empirical study could be conducted to find out the influence of educational resources utilization on teacher job performance.
2. A correlation study could be carried out to determine the relationship between educational resources and teacher job performance.
3. A comparative study could be conducted to assess educational resources availability and utilization on teacher job performance in public and private secondary schools.
4. Another study could be carried out to determine the adequacy of physical plant resources and printed resources for teacher job performance.
5. An experimental study could be carried out to examine the effect of utilizing non-printed resources on students' academic achievement.
6. A quasi-experimental study could be organized to find out whether educational resources utilization impacted on teacher job satisfaction and performance.

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## Appendix A

### Letter of Introduction

Department of Educational Management and Policy,  
Faculty of Education,  
Nnamdi Azikiwe University, Awka,  
Anambra State.  
25<sup>th</sup> May, 2017.

Dear Respondents,

The researcher is a Ph.D student from the above named department and institution. She is currently carrying out an investigation on the topic titled: “Educational Resources Availability and Utilization for Teacher Job Performance in Secondary Schools in Anambra State”. Please kindly assist by filling and responding to the questionnaire as requested in order to enable the researcher complete the study. Your responses to the questionnaire would be well appreciated and likewise, the information provided would be used for purely academic work alone and also treated as confidential.

Thank you for your cooperation.

Yours faithfully,

---

**Umeozor, Uzonna Juliana**  
**2007617008P**

## Appendix B

### Educational Resources Availability Checklist (ERAC)

**Instruction:**

Please kindly indicate by ticking (✓) on each of the items provided in the columns in order to identify the available items in the school.

**List of Available Physical Plant Resources. Tick (✓) as Appropriate**

S/N	Physical Plant Resources available in my school are;	Available	not Available
1	Staff rooms with adequate ventilation for teachers		
2	Functional library for teachers research and private reading		
3	Technical workshop available for basic technology practical		
4	Workshop for vocational subject like Home economics practical		
5	Art studio for Fine and applied arts practical		
6	Functional guidance and counseling unit for teachers and students consultation		
7	Classrooms of 35-40 seating capacity with adequate space and ventilation for each stream		
8	Computer room for students practical during computer class		
9	Football/Games field of (1.5 hectares) for outdoor and indoor games		
10	Farmland/Fish farm of (40m <sup>2</sup> )for Agricultural science practical		
11	Classroom furniture and fittings with cupboards/cabinets and shelves in all the classrooms		
12	Water supply/borehole for conveniences in the school		
13	Fire-fighting equipment installed in all laboratories and administrative office for protection during fire outbreak		
14	Play ground for recreational activities		
15	Toilet facilities provided for male and females staff and students in the school (minimum of 6 VIP/6WC)		
16	Enough chairs and tables for teachers comfort in the classroom		



17	Enough chairs and tables for students comfort in the classroom		
18	School bus (1or 2) in the school		
19	Functional standby generator set available in the school		
20	Sports hall for indoor games		
21	Physics laboratory for physics practical		
22	Chemistry laboratory for chemistry practical		
23	Biology laboratory for biology practical		
24	Integrated science laboratory for integrated science practical		
25	Language and music laboratory for arts practical		
26	First aid box in each of the classrooms		
27	Electrical ceiling fans in each of the classrooms (2 in each classroom)		
28	Nature corner space in the classroom for specimen, puppets and real object display		
29	School typing pool for teachers and students for typing, printing documents and students practical		

**List of Available Printed Resources. Tick (✓) as Appropriate**

S/N	Printed Resources	Available	Not Available
30	Curriculum for teaching in all subjects		
31	Syllabus for teaching in all subjects		
32	Classroom register for students roll calls in class		
33	Educative wall charts in the classrooms - (at least 2 in each classroom )		
34	Dictionary in every classroom		
35	Graphics for picture representation in teaching various subjects		
36	Maps for geography subjects		
37	Work books for all subjects		
38	Current textbooks for teaching in all the subjects		
39	Posters and cartoons for display in the classrooms (at least 2 in each classroom )		
40	Up-to-date textbooks in the library for all subjects		
41	Pamphlets on past questions and answers available for different subjects (within the space of 5 years)		
42	Drawing book for sketches and other drawings in introductory technology and creative arts subjects		

**List of Available Non-Printed Resources. Tick (√) as Appropriate**

<b>S/N</b>	<b>Printed Resources</b>	<b>Available</b>	<b>Not Available</b>
43	Laboratory tools and kits for teaching physics practical		
44	Laboratory tools and kits for teaching chemistry practical		
45	Laboratory tools and kits for teaching biology practical		
46	Workshop equipment for teaching home economics practical		
47	Workshop technical tools and kits provided for teaching basic technology practical		
48	Computers for practical and research		
49	Television set for teaching in different subjects		
50	Radio set with tape recorder for teaching in different subject		
51	Public address system in the classroom for presentations		
52	Chalkboard/whiteboard installed on the wall in all the classrooms		
53	Flannel boards installed on the side wall of each classroom		
54	Internet facilities installed in the school for browsing and surfing of information from different websites		
55	Projectors for teaching in different subjects		
56	Models/dioramas for display in teaching various subjects in the classrooms		
57	Functional printers and scanners to print documents in the administrative office		
58	Functional photocopiers for producing and duplicating materials in large quantities		
59	Athletic facilities and sports equipment provided for physical and health education		

## Appendix C

### Extent of Utilization of Available Educational Resources for Teacher Job Performance Questionnaire (EUAERTJPQ)

**Instruction:**

Please kindly indicate your response to each item by ticking (√) in the columns

**Personal Information of Respondent**

1. Name of School: .....

2. Location of the School

(a) Urban

(b) Rural

**Please indicate your agreement on the extent of utilization of the available physical plant resources for teacher job performance in your school:**

#### Extent of Utilization of Available Physical Plant Resources for Teachers' Job Performance

S/N		Very High Extent	High Extent	Low Extent	Very Low Extent
1	Staff rooms with adequate ventilation are utilized by teachers for consultations and timely give feedback to students				
2	Functional library stocked with up to date books and journals are utilized by teachers for their research consultations and private reading				
3	Technical workshop are utilized by teachers to teach basic technology practical for skill acquisition				
4	Workshop utilized by teachers in vocational subject areas like Home economics practical in order to support group task				
5	Art studio used by teachers to conduct Fine and applied arts practical				
6	Functional guidance and counseling unit are utilized by teachers for consultations and to support students academic growth				
7	Classrooms of 35-40 seating capacity with adequate space and ventilation are				

	utilized by teachers to aid active teaching and students participation in class				
8	Computer room are used for students practical during computer class				
9	Football/Games field of (1.5 hectares) are utilized by teachers for outdoor games of students' learning				
10	Farmland/Fish farm of (40m <sup>2</sup> ) are used for Agricultural science practical				
11	Classroom furniture and fittings with cupboards/cabinets and shelves are utilized teachers to keep books and other materials in all the classrooms				
12	Water supply/borehole are utilized by teachers for conveniences in the school				
13	Fire-fighting equipment installed in all laboratories and administrative office are used for protection during fire outbreak				
14	Play ground for recreational activities are used by teachers to support students' learning				
15	Separate toilet facilities are utilized by male and females teacher in the school				
16	Enough chairs and tables are utilized for teachers comfort in the classroom				
17	Enough chairs and tables are utilized for students comfort and effective class control while teaching in the classroom				
18	School bus is used by teachers as at when needed for excursions and field trips in order to expose reality of teachings in the classroom and support outdoor learning				
19	Functional standby generator set are used for illuminating lighting into the classroom during presentations				
20	Sports hall utilized by teachers for the indoor games				
21	Physics laboratory are utilized by teachers to support students' physics practical				
22	Chemistry laboratory are utilized by teachers to conduct chemistry practical				
23	Biology laboratory used by teachers for biology practical				
24	Integrated science laboratory are utilized by teachers to conduct integrated science practical				

25	Language and music laboratory are used by teachers to conduct arts practical				
26	First aid box available in each of the classrooms				
27	Electrical ceiling fans are functional always for students' comfort while teaching in the classroom				
28	Nature corner space are used by teachers to display specimen, puppets and real object for students learning in the classroom				
29	School typing pool used by teachers to promote students practical in vocational subjects, as well as for typing and printing documents during examination and test				

**Please indicate your agreement on the extent of utilization of the available printed resources for teacher job performance in your school:**

**Extent of Utilization of Available Printed Resources for Teachers' Job Performance**

S/N		Very High Extent	High Extent	Low Extent	Very Low Extent
30	Curriculum is utilized to prepare the school programmes				
31	Syllabus are utilized by teachers for day to day lesson plan preparations				
32	Classroom register are utilized by teachers for students rolls in class				
33	Educative wall charts are pasted by teachers on the walls in the classrooms to promote learning in different subject areas				
34	Dictionary are utilized during instructional delivery to find meaning of some concepts and guide students' learning				
35	Graphics for picture representation in teaching various subjects are displayed to support teaching				
36	Maps are used during geography teaching to support students' learning				
37	Work books are utilized by teachers in all subjects to give students assignment that will boost their cognitive and independent study				
38	Current textbooks are frequently utilized by teachers to support their teaching in various subject areas				

39	Posters and cartoons are used to support and display evidence of the lesson taught in the classrooms				
40	Up-to-date textbooks in the library with wider coverage in all subjects are used by teachers to promote research and teaching in varying context				
41	Pamphlets on past questions and answers available for different subjects				
42	Drawing book for sketches and other drawings are utilized in introductory technology and creative arts subjects				

**Please indicate your agreement on the extent of utilization of the available non-printed resources for teacher job performance in your school:**

**Extent of Utilization of Available Non-Printed Resources for Teachers' Job Performance**

S/N		Very High Extent	High Extent	Low Extent	Very Low Extent
43	Laboratory tools and kits are utilized by teachers in teaching physics practical				
44	Laboratory tools and kits are utilized by teachers in teaching chemistry practical				
45	Laboratory tools and kits are utilized by teachers in teaching biology practical				
46	Workshop equipment are utilized by teachers in teaching home economics practical				
47	Workshop technical tools and kits are utilized by teachers in teaching basic technology practical				
48	Computers are used by teachers for teaching practical and sustain students participation in the classroom				
49	Television set are used by teachers for teaching in different subjects to engage students in discussion				
50	Teachers utilize the radio set with tape recorder to support their teaching in different subject areas				
51	Public address system are used for presentation especially for large class in the classroom				
52	Chalkboard/whiteboard installed on the walls in all the classrooms are utilized by teachers to encourage copying of note for students learning and to aid teaching				
53	Flannel boards installed on the wall side				

	of each classroom are used by teachers to display sketches, drawings and maps				
54	Internet facilities installed in the school are used by teachers as search engines for browsing and surfing of information from different websites to encourage students' learning				
55	Projectors are utilized in the classroom to aid different teaching methodologies in different subject areas				
56	Models/dioramas are displayed and utilized by teachers for every presentation in the classroom in order to expose reality of teaching in various subject areas				
57	Functional printers and scanners used by teachers to print documents to complete their teaching task				
58	Functional photocopiers are utilized by teachers for producing and duplicating materials in large quantities that will support their teaching				
59	Athletic facilities and sports equipment are utilized by teachers to aid practical exercises in physical and health education				

## Appendix D

### NCE Approved Minimum Standard Guideline Requirements for Establishment and Operation of Secondary Schools Nation Wide

S/N	Accreditation Checklist on School Resources to determine the Extent of Availability of Resources for Teaching and Learning Delivery and Teacher Job Performance in Anambra State	NCE Minimum standards guideline requirements
1	Land for school site	4-8 hectares
2	Administrative block with 3 rooms, common staff rooms and a store of 7m x 4m x 3m	1 standard
3	Book store	1
4	Functional library with well stocked reading corner	1
5	Workshops for all schools offering: Introductory technology Technical subjects Home economics Arts	1 1 1 1
6	Well equipped and standard laboratories for: Integrated science Biology Agric science Chemistry Physics Language/Arts/Music Business studies and Accounting	1 1 1 1 1 1 1
7	Sport and games field/space of 1:5 hectares: Outdoor for football Indoor for other games	At least: 1 1
8	Farmland/fish farm 40m	1
9	Classrooms with dimension of 9m x 12m x 3m	6 classrooms for each stream to accommodate JSS 1 – SS3
10	Office and classroom furniture	Must be available, suitable and adequate
11	Class size	35–40 seating capacity
12	Teacher-student ratio	1:35, 1:40
13	Toilet facilities Separate toilets for boys and girls; also for male and female teachers	6 VIP/ 6 water cistern
14	Water supply/borehole	1-2
15	Electricity supply	Suitable for maximum comfort of staff and



		students.
16	Fire-fighting equipment	Must be installed in all laboratories and administrative office
17	Statutory and non-statutory records: Log book Register Admission register Punishment book Diaries Inspection report file Exam syllabus Time tables Results sheets Staff meetings book PTA minutes book	Mandatory and must be available to keep students' records and records of other activities in the school
18	Clinics	1
19	Sick bay	1
20	First aid box	2-3
21	General assembly hall	1 hall big enough to seat twice the total enrolment of students at full operation with a raised platform
22	Examination hall	1 hall big enough to seat twice the total enrolment of students at full operation with a raised platform
23	Stationeries	Must be adequately available
24	Classroom space with movable partitions	144m <sup>2</sup> internal space and 1/3 for blackboard with 2/3 teachers table
25	Instructional materials and teaching aids: i. Chalkboards ii. Charts iii. Maps iv. Graphics v. Pictorials	Must be available and suitable for all subjects offered in the school
26	Audio-visual aids/computer and others	Must be available and adequate
27	Play ground – to engage ¼ of students population	1
28	School bus for staff and student use	1-2
29	Official car park space	1-2
30	School fence	1 and adequate

31	ICT facilities: i. Computers ii. Photocopiers iii. Printers iv. Scanners	Must be available and adequate
32	Electronic storage facilities such as: tapes, flash drives and CD-ROMs	Must be available and adequate
33	Technical tools and kits	Must be available and adequate for introductory technology and other technical subjects
34	Laboratory tools and kits	Must be available and adequate for all science and arts subjects
35	Guidance and counseling unit	1 functional
36	Curriculum	For all subjects offered in the school (JJS and SSS) classes
37	National Policy on Education	1
38	Site plan with approved building	1

### Appendix E

#### Population Distribution of Public Secondary Schools and Staff Strength arranged according to their Location and Education Zones

S/N	EDUCATION ZONES	POPULATION OF SECONDARY SCHOOLS ACCORDING TO LOCATION AND EDUCATION ZONE		POPULATION OF TEACHERS ACCORDING TO LOCATION AND EDUCATION ZONE	
		URBAN	RURAL	URBAN	RURAL
1	Aguata Zone	16	31	295	477
2	Awka Zone	39	22	1122	434
3	Nnewi Zone	23	27	600	293
4	Ogidi Zone	19	21	628	310
5	Onitsha Zone	25	7	1146	167
6	Otuocha Zone	8	20	141	363
<b>TOTAL</b>	<b>SIX (6) Education Zones</b>	<b>130</b>	<b>128</b>	<b>3932</b>	<b>2044</b>
<b>Total NO. of Teachers and within the State Public Secondary Schools</b>		<b>258</b>		<b>5976</b>	

*(Source: Department of Planning, Research and Statistics, Post Primary Schools Service Commission – PPSSC, Awka, Anambra State, January 2017)*

## Appendix F

**Sample Size Distribution of Public Secondary Schools and Staff Strength arranged according to their Location and Education Zones**

S/N	EDUCATION ZONES	POPULATION OF SECONDARY SCHOOLS ACCORDING TO LOCATION AND EDUCATION ZONE SELECTED AT 50% (PERCENT)		POPULATION OF TEACHERS ACCORDING TO LOCATION AND EDUCATION ZONE SELECTED AT 20% (PERCENT)	
		URBAN	RURAL	URBAN	RURAL
1	Aguata Zone	8	16	59	95
2	Awka Zone	20	11	224	87
3	Nnewi Zone	12	14	120	59
4	Ogidi Zone	10	11	126	62
5	Onitsha Zone	13	4	229	33
6	Otuocha Zone	4	10	28	73
<b>TOTAL</b>	<b>SIX (6) Education Zones</b>	<b>67</b>	<b>66</b>	<b>786</b>	<b>409</b>
<b>Total NO. of Teachers and within the State Public Secondary Schools</b>		<b>133</b>		<b>1,195</b>	

## Appendix G

### Instrument Validity

## APPENDIX

## VALIDATION OF INSTRUMENT ON THE TOPIC

Extent of Resource Availability For Teacher  
Job Performance in Secondary Schools  
in Anambra State.

This is to certify that

I, Prof. R. C. Ebeneke

Validated the above mentioned instrument and made corrections /recommendations on the following areas:

- Recommendations:*
1. "Extent of" be removed from title and be brought in, in the "scope".
  2. That the areas of Teacher Performance being investigated be clearly spelt out in the background and scope so that resources required in each area be properly demarcated: eg (1) Teacher Job Performance at the classroom (Classroom Instruction (Teaching) Resources vital there: Qualified Competent Teachers with at least minimum NCE Qualification, subject specialization plus Pedagogical competence + (2) Creating Conducive Learning Environment at classroom level - Physical Resources: Spacious classrooms, seats, tables, instructional gadgets, texts, Teacher manuals etc. Staff tables chairs etc
  - (3) "Students' monitoring <sup>if needed</sup> gadgets eg Registers, diaries, Anecdotal records etc. (4) Other relevant materials to promote students' learning ICT etc, library, work shops, machinery, Light - Generator, Recreational facilities, c/c, Snack shop, First Aid Post, Toilets etc.

After the amendments, I considered the instruments fit/unfit for the study which is Staff tables chairs etc designed for.

Signature: R. EbenekeDate: 5/6/2017

P.T.O

## Utilization - Classroom Management skills

Issue of rural/urban factor should come in the Preliminary section of the instrument i.e. Section A while the **B part** <sup>should</sup> address "Availability" and "Utilization"

"Utilization" should address extent of agreement by respondents on the use of the available resources <sup>for</sup> the specific areas outlined

For example: Teaching at the Classroom level

- |   | SD | A | D | SD |
|---|----|---|---|----|
| - Qualified Teachers teach <u>only</u> in area of specialization  |    |   |   |    |
| - Teachers use robust teaching strategies & skills to impart knowledge  |    |   |   |    |
| - Teachers adequately motivate students <sup>to learn i.e. they</sup> generate interest & give incentives to students to    |    |   |   |    |
| - Teachers plan weekly & daily lessons to guide classroom activities based on the syllabus                                  |    |   |   |    |
| - Teachers effectively evaluate students learn outcomes in the cognitive, affective & psychomotor areas/domain as specified |    |   |   |    |

Instructor/Teacher Qualification		As per NPE Specification	
	No	%	
* B.Sc / B.A / HND / T.C.II and above			Not qualified (no pedagogy)
✓ B.Sc / B.A plus PGDE			Qualified

7 **EXTENT OF RESOURCE AVAILABILITY AND UTILIZATION FOR  
TEACHER JOB PERFORMANCE IN SECONDARY SCHOOLS IN  
ANAMBRA STATE**

\* Whether available      Recycle with what you  
have on pg 1 & 2  
\* Extent of Use (Usage).      'Influence', 'Extent of'

BY

UMEZOR, UZONNA JULIANA  
2007617008P

DEPARTMENT OF EDUCATIONAL MANAGEMENT AND POLICY,  
FACULTY OF EDUCATION,  
NNAMDI AZIKIWE UNIVERSITY  
AWKA, ANAMBRA STATE

MAY, 2017

**LETTER OF INTRODUCTION**

Department of Educational Management and Policy,  
 Faculty of Education,  
 Nnamdi Azikiwe University, Awka,  
 Anambra State.  
 25<sup>th</sup> May, 2017.

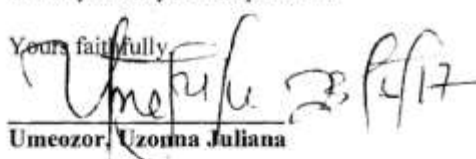
Dear Respondents,

**LETTER OF INTRODUCTION**

I am a Ph.D research student from the above named department and institution and my name is Umeozor, Uzonna Juliana with registration number – 2007617008P. The researcher is currently carrying out an investigation on the topic titled: "Influence of Resource Availability and Adequacy on Teacher Effectiveness and Job Satisfaction in Secondary Schools in Anambra State". Please kindly assist by filling and responding to the questions in questionnaire as requested in order to enable the researcher complete the study which is part of the basic requirements for completion of the academic work. Your responses to the questionnaire would be well appreciated and likewise, the information provided would be used for purely academic work alone and also treated as confidential.

Thank you for your cooperation.

Yours faithfully

  
 Umeozor, Uzonna Juliana



**Purpose of the Study**

The purpose of this study is to determine the extent of resource availability and utilization for teacher job performance in secondary schools in Anambra State. Specifically, the study tries to find out the:

1. extent of availability of physical plant resources for teacher job performance in urban and rural secondary schools in Anambra State.
2. extent of availability of printed resources for teacher job performance in urban and rural secondary schools in Anambra State.
3. extent of availability of non-printed resources for teacher job performance in urban and rural secondary schools in Anambra State.
4. extent of utilization of the available physical plant resources for teacher job performance in urban and rural secondary schools in Anambra State.
5. extent of utilization of the available printed resources for teacher job performance in urban and rural secondary schools in Anambra State.
6. extent of utilization of the available non-printed resources for teacher job performance in urban and rural secondary schools in Anambra State.

**Research Questions**

The following research questions are to guide the study:

1. To what extent are physical plant resources available for teacher job performance in urban and rural secondary schools in Anambra State?
2. To what extent are printed resources available for teacher job performance in urban and rural secondary schools in Anambra State?
3. To what extent are non-printed resources available for teacher job performance in urban and rural secondary schools in Anambra State?

4. To what extent are the available physical plant resources utilized for teacher job performance urban and rural in secondary schools in Anambra State?
5. To what extent are the available printed resources utilized for teacher job performance in urban and rural secondary schools in Anambra State?
6. To what extent are the available non-printed resources utilized for teacher job performance in urban and rural secondary schools in Anambra State?

### **Hypotheses**

The following null hypotheses will be tested at  $\alpha$  0.05 level of significance in the study:

1. There will be no statistical significant difference in the extent of availability of physical plant resources for teacher job performance in urban and rural secondary schools in Anambra State.
2. There will be no statistical significant difference in the extent of availability of printed resources for teacher job performance in urban and rural secondary schools in Anambra State.
3. There will be no statistical significant difference in the extent of availability of non-printed resources for teacher job performance in urban and rural secondary schools in Anambra State.
4. There will be no statistical significant difference in the extent of utilization of the available physical plant resources for teacher job performance in urban and rural secondary schools in Anambra State.
5. There will be no statistical significant difference in the extent of utilization of the available printed resources for teacher job performance in urban and rural secondary schools in Anambra State.

6. There will be no statistical significant difference in the extent of utilization of the available non-printed resources for teacher job performance in urban and rural secondary schools in Anambra State.

(A) EXTENT OF RESOURCE AVAILABILITY CHECKLIST (ERAC)

List of Available Physical Plant Resources. Check (✓) as Appropriate

S/N	Physical Plant Resources	Available <i>As expected</i>	Numbers Available	Not Available
1	School land and space (4-8 hectares)			
2	Administrative block with 7 rooms and 2 stores			
3	Staff rooms with adequate ventilation			
4	School clinic with at least 10 bed spaces			
5	Staff quarters			
6	Functional library			
7	Workshop for teaching vocational subjects (2 at least )			
8	Guidance and counseling unit			
9	Classrooms with adequate ventilation (5 classrooms for each stream)			
10	Assembly/Examination hall			
11	Computer room			
12	Football/Games field (1.5 hectares)			
13	Farmland/Fish farm (40m <sup>2</sup> )			
14	Office furniture			
15	Classroom furniture and fittings with cupboards/cabinets, shelves and space for nature corners			
16	Electricity			
17	Water supply/borehole			
18	Fire-fighting equipment			
19	Play ground			
20	Toilet facilities with gender fittings (minimum of 6 VIP/WC)			
21	Chairs and tables for teachers			
22	Chairs and tables for students			
23	School bus (1 or 2)			
24	Functional standby generator set			
25	Sports hall for indoor games			

26	Dimension of classroom of 9m x 12m x 3m carrying capacity			
27	Physics laboratory			
28	Chemistry laboratory			
29	Biology laboratory			
30	Language laboratory			
31	Art/music room			
32	First aid box			
33	Class size (teacher-student ratio/ 1:35-40 at least)			
34	Electrical fans in the classrooms			
35	Air conditioners in the classrooms			
36	Well protected roofs and ceilings in all the classrooms			
37	Study rooms			

**List of Available Printed Resources. Check (✓) as Appropriate**

S/N	Printed Resources	Available	Numbers Available	Not Available
38	Curriculum for all subjects			
39	Syllabus for all subjects			
40	Classroom register			
41	Educative wall charts			
42	Dictionary in the classroom			
43	Pictures			
44	Newspapers			
45	Diagrams			
46	Maps			
47	Work books			
48	Current textbooks for all subjects			
49	Magazines			
50	Strip charts			
51	Flow charts			
52	Printed materials from the Internet to teach different subjects			
53	Different drawings and sketches			
54	Flash cards			
55	Posters and cartoons			
56	Up-to-date textbooks in the library			
57	Pamphlets on past questions and answers for different subjects			

**List of Available Non-Printed Resources. Check (√) as Appropriate**

S/N	Printed Resources	Available	Numbers Available	Not Available
58	Laboratory apparatus and kits			
59	Technical tools and kits			
60	Computers			
61	Electronic storage devices such as flash drives, CD-ROMs and tapes			
62	Television set			
63	Radio set			
64	Public address system			
65	Chalkboard/whiteboard in all classroom			
66	Flannel boards in each classroom			
67	Internet facilities			
68	Projectors			
69	Models/dioramas			
70	Tape records			
71	Digital cameras			
72	Printer and scanner			
73	Photocopiers			
74	Sports equipment			
75	Collection of specimens and puppets			
76	Activity aids – example: field trips, excursions			
77	Athletic facilities for physical and health education			
78	Bulletin boards			

**(B) EXTENT OF UTILIZATION OF AVAILABLE RESOURCE FOR TEACHER JOB PERFORMANCE QUESTIONNAIRE (EUARTJPQ)**

**Instruction:**

Please kindly indicate your response to each item by ticking (√) in the columns

**Personal Information of Respondent**

1. Name of School: .....

2. Location of the School

(a) Urban

(b) Rural

3. Teacher Sex: Male  Female

**Extent of Utilization of Available Physical Plant Resources for Teachers' Job Performance**

S/N	Please indicate your agreement on the extent of utilization of the available physical plant resources for teacher job performance in your school:	Very High	High	Moderate	Low
1	Staff rooms are used for consultations and timely give feedback to students.				
2	Classrooms utilized adequately contains students population for active learning in the classroom				
3	Library stocked with up to date books and journals are used for teachers consultations				
4	Workshop are utilize to teach technical subjects for promotion of skills acquisition and to support group task				
5	Laboratories of all sorts are utilized to promote practical's and showcase teachers enthusiasm towards teaching in the school				
6	Guidance and counseling unit are utilized to support students academic growth				
7	Ceiling fans in the classrooms are utilized during instructional presentation in the classroom				
8	Class size and arrangements in the classroom are appropriate for effective teaching				
9	Office furniture are used to aid students private consultation				

10	Classroom furniture are utilized for comfort in teaching and learning				
11	Sports/games field are used for practical exercises				
12	Chairs and tables are appropriately utilized to arrange students sitting positions that will promote interactions in the classroom				
13	School structure, design and environment is appropriate to support teachers teaching in the school				
14	School bus for excursion and field trips are used to expose reality and serve as extent of outdoor learning				
15	Space aiding movements around the classroom are appropriately utilized to aid teachers demonstration during instructional delivery				

**Extent of Utilization of Available Printed Resources for Teachers' Job Performance**

S/N	Please indicate your agreement on the extent of utilization of the available printed resources for teacher job performance in your school:	Very High	High	Moderate	Low
16	Curriculum is used to make great effort for preparation of lessons at any point in time				
17	Syllabus are referred to in order as guide for teaching in the classroom				
18	Educative wall charts are pasted in the classroom to promote learning				
19	Charts are used during discussions in the classroom				
20	Pictures are displayed to support teaching				
21	Diagrams representing elements are utilized to support during instruction				
22	Maps which display locations are used to support instructional delivery				
23	Work book for various subjects are used for boosting students' cognitive				
24	Dictionary are utilized to find meaning of some concepts used in the classroom				
25	Textbooks are frequently used to aid teaching in various subjects				

26	Newspapers and magazines are utilized for further consultation and retrieval of important information on events as they aid teaching and learning				
27	Flash cards which summarizes points in the lesson are used to monitor students' discipline in the classroom				
28	Posters and cartoons are used to strengthen and support lesson taught in the classroom				
29	Pamphlets which to serve as key points for students learning are used to strengthen				

**Extent of Utilization of Available Non-Printed Resources for Teachers' Job Performance**

S/N	Please indicate your agreement on the extent of utilization of the available non-printed resources for teacher job performance in your school:	Very High	High	Moderate	Low
30	Laboratory apparatus and kits are used in the laboratories for promoting teachers' efficiency				
31	Technical tools and kits are appropriately used for practical exercises				
32	Computers are utilized in every lesson taught to the sustain students attention and respond to with activities				
33	Electronic storage devices such as flash drives, CD-ROMs and tapes are used to store information in order to aid teachers' competency during instructional delivery				
34	Television set are used to engage students into discussions at instructional delivery in the classroom				
35	Radios are well utilized to support teachers' clarity in the topic presented in the classroom				
36	Public address system are used for addressing large class size				
37	Chalkboard / whiteboard are utilized appropriately for summarizing points and encouraging note taking in the classroom				
38	Flannel boards are used to display sketches of charts, cartoons and maps in various subjects taught in the classroom for teaching and learning				
39	Internet facilities are provided for teachers to use				



	them as search engines for research and to inspire students for further reading				
40	Projectors are mounted in the classroom to aid various teaching methodologies through interactive and participatory teaching				
41	Models/dioramas are displayed and utilized for every presentation in the classroom to expose reality in teaching				
42	Tape recorders are played for revision of lesson presented in the classroom				
43	Digital cameras are used to display pictures of topic being discussed in the classroom				
44	Specimens and puppets are used for presentation of practical lesson in the classroom				
45	Use of activity aids – example: field trips, excursions are well utilized for practical knowledge				
46	Bulletin boards serving as means of communication for display of important information discussed in the classroom are appropriately utilized to boost students' learning				

## APPENDIX

## VALIDATION OF INSTRUMENT ON THE TOPIC

Extent of Resource availability and utilization  
for teacher job performance in Sec. schools in A/ State.

This is to certify that

1. Dr. Carol Ezengbar

Validated the above mentioned instrument and made corrections / recommendations on the following areas:

- 1) The hypothesis should indicate the mean ratings of two or more variables. See example as given
- 2) For the check list, there should be a bench mark that ought to guide the availability of the resources.
- 3) Is gender part of this study, if not expunge from the personal data of the respondents, ~~name of respondent~~
- 4) The leading statements should be properly constructed.
- 5) It is important that what you have in each cluster of availability should be a form for the corresponding cluster on utilization. (6) Reduce the items on availability and adopt more concrete items (7) On the whole, the entire items on utilization are not properly structured for a meaningful response. Revisit and see examples given in the text.

After the amendments, I considered the instruments fit/unfit for the study which is designed for.

Signature: 

Date: 6/5/2017

**LETTER OF INTRODUCTION**

Department of Educational Management and Policy,

Faculty of Education,

Nnamdi Azikiwe University, Awka,

Anambra State.

25<sup>th</sup> May, 2017.

Dear Respondents,

**LETTER OF INTRODUCTION**

I am a Ph.D research student from the above named department and institution and my name is ~~Umeozor, Uzonna Juliana with registration number 2007617008P~~. The researcher is currently carrying out an investigation on the topic titled: "Influence of Resource Availability and Adequacy on Teacher Effectiveness and Job Satisfaction in Secondary Schools in Anambra State". Please kindly assist by filling and responding to the ~~questions in~~ questionnaire as requested in order to enable the researcher complete the study, which is part of the basic requirements for completion of the academic work. Your responses to the questionnaire would be well appreciated and likewise, the information provided would be used for purely academic work alone and also treated as confidential.

Thank you for your cooperation.

Yours faithfully,

  
Umeozor, Uzonna Juliana

2007617008P

### Purpose of the Study

The purpose of this study is to determine the extent of resource availability and utilization for teacher job performance in secondary schools in Anambra State. Specifically, the study tries to find out the:

1. extent of availability of physical ~~plant~~ <sup>plant</sup> resources for teacher job performance in ~~urban and rural~~ secondary schools in Anambra State.
2. extent of availability of printed resources for teacher job performance in ~~urban and rural~~ secondary schools in Anambra State.
3. extent of availability of non-printed resources for teacher job performance in ~~urban and rural~~ secondary schools in Anambra State.
4. extent of utilization of the available physical ~~plant~~ <sup>plant</sup> resources for teacher job performance in urban and rural secondary schools in Anambra State.
5. extent of utilization of the available printed resources for teacher job performance in ~~urban and rural~~ secondary schools in Anambra State.
6. extent of utilization of the available non-printed resources for teacher job performance in urban and rural secondary schools in Anambra State.

### Research Questions

The following research questions are to guide the study:

1. To what extent are physical plant resources available for teacher job performance in urban and rural secondary schools in Anambra State?
2. To what extent are printed resources available for teacher job performance in urban and rural secondary schools in Anambra State?
3. To what extent are non-printed resources available for teacher job performance in urban and rural secondary schools in Anambra State?

4. To what extent are the available physical plant resources utilized for teacher job performance urban and rural in secondary schools in Anambra State?
5. To what extent are the available printed resources utilized for teacher job performance in urban and rural secondary schools in Anambra State?
6. To what extent are the available non-printed resources utilized for teacher job performance in urban and rural secondary schools in Anambra State?

### **Hypotheses**

The following null hypotheses will be tested at a 0.05 level of significance in the study:

1. There will be no statistical significant difference in the extent of availability of physical plant resources for teacher job performance in urban and rural secondary schools in Anambra State.
2. There will be no statistical significant difference in the extent of availability of printed resources for teacher job performance in urban and rural secondary schools in Anambra State.
3. There will be no statistical significant difference in the extent of availability of non-printed resources for teacher job performance in urban and rural secondary schools in Anambra State.
4. There will be no statistical significant difference in the extent of utilization of the available physical plant resources for teacher job performance in urban and rural secondary schools in Anambra State.
5. There will be no statistical significant difference in the extent of utilization of the available printed resources for teacher job performance in urban and rural secondary schools in Anambra State.

*Who are your respondents?*

The hypotheses did not indicate the mean ratings of 2 variables and therefore may not stand in this format.

See example, assuming that the teachers are your respondents,

1) There is not significant difference in the mean ratings of teachers in urban and rural

Schools in <sup>Andhra Pradesh</sup> state on the extent of availability of physical plant resources OR for teacher job performance

There is no significant difference in the mean ratings of teachers in Sec. Schls in A/S with respect to location (urban & rural) on the extent of availability of physical plant resources for teacher job/perf.

6. There will be no statistical significant difference in the extent of utilization of the available non-printed resources for teacher job performance in urban and rural secondary schools in Anambra State.

(A) EXTENT OF RESOURCE AVAILABILITY CHECKLIST (ERAC)

List of Available Physical Plant Resources. Check (✓) as Appropriate

S/N	Physical Plant Resources	Available	Numbers Available	Not Available
1	School land and space (4-8 hectares)			
2	Administrative block with 7 rooms and 2 stores			
3	Staff rooms with adequate ventilation			
4	School clinic with at least 10 bed spaces			
5	Staff quarters			
6	Functional library			
7	Workshop for teaching vocational subjects (2 at least)			
8	Guidance and counseling unit			
9	Classrooms with adequate ventilation (5 classrooms for each stream)			
10	Assembly/Examination hall			
11	Computer room			
12	Football/Games field (1.5 hectares)			
13	Farmland/Fish farm (40m <sup>2</sup> )			
14	Office furniture			
15	Classroom furniture and fittings with cupboards/cabinets, shelves and space for nature corners			
16	Electricity			
17	Water supply/borehole			
18	Fire-fighting equipment			
19	Play ground			
20	Toilet facilities with gender fittings (minimum of 6 VIP/WC)			
21	Chairs and tables for teachers			
22	Chairs and tables for students			
23	School bus (1 or 2)			
24	Functional standby generator set			
25	Sports hall for indoor games			

What is the bench mark for indicating whether the items are available or not?  
 Note

26	Dimension of classroom of 9m x 12m x 3m carrying capacity				
27	Physics laboratory				
28	Chemistry laboratory				
29	Biology laboratory				
30	Language laboratory				
31	Art/music room				
32	First aid box				
33	Class size (teacher-student ratio/ 1:35-40 at least)				
34	Electrical fans in the classrooms				
35	Air conditioners in the classrooms				
36	Well protected roofs and ceilings in all the classrooms				
37	Study rooms				

**List of Available Printed Resources. Check (✓) as Appropriate**

S/N	Printed Resources	Available	Numbers Available	Expected	Not Available
38	Curriculum for all subjects			no	
39	Syllabus for all subjects				
40	Classroom register				
41	Educative wall charts				
42	Dictionary in the classroom				
43	Pictures - of what?				
44	Newspapers ? ? where?				
45	Diagrams for what and where?				
46	Maps				
47	Work books				
48	Current textbooks for all subjects				
49	Magazines				
50	Strip charts				
51	Flow charts				
52	Printed materials from the Internet to teach different subjects				
53	Different drawings and sketches				
54	Flash cards				
55	Posters and cartoons				
56	Up-to-date textbooks in the library				
57	Pamphlets on past questions and answers for different subjects				

Where are most of these items supposed to be found and in what numbers and if what is not available you have to attach responsibility



## List of Available Non-Printed Resources. Check (✓) as Appropriate

S/N	Printed Resources	Available	Numbers Available	Expected	Not Available
58	Laboratory apparatus and kits			None	
59	Technical tools and kits				
60	Computers				
61	Electronic storage devices such as flash drives, CD-ROMs and tapes				
62	Television set				
63	Radio set				
64	Public address system				
65	Chalkboard/whiteboard in all classroom				
66	Flannel boards in each classroom				
67	Internet facilities				
68	Projectors				
69	Models/dioramas				
70	Tape records				
71	Digital cameras				
72	Printer and scanner				
73	Photocopiers				
74	Sports equipment				
75	Collection of specimens and puppets				
76	Activity aids – example: field trips, excursions				
77	Athletic facilities for physical and health education				
78	Bulletin boards				

**(B) EXTENT OF UTILIZATION OF AVAILABLE RESOURCES FOR TEACHER JOB PERFORMANCE QUESTIONNAIRE (EUARTJPO)**

**Instruction:**

Please kindly indicate your response to each item by ticking (✓) in the columns

**Personal Information of Respondent**

1. Name of School ✓ ~~not indicated~~ .....

2. Location of the School

(a) Urban

(b) Rural

3. Teacher Sex: Male  Female

*By this part of the study it is not indicated in the purpose, research, title of the study*

**Extent of Utilization of Available Physical Plant Resources for Teachers' Job Performance**

S/N	Please indicate your agreement on the extent of utilization of the available physical plant resources for teacher job performance in your school:	Very High	High	Moderate	Low
1	Staff rooms are used for consultations and timely give feedback to students.				
2	Classrooms utilized adequately contains students population for active learning in the classroom	?			
3	Library stocked with up to date books and journals are used for teachers consultations				
4	Workshop are utilize to teach technical subjects for promotion of skills acquisition and to support group task				
5	Laboratories of all sorts are utilized to <del>conduct</del> practicals and showcase teachers enthusiasm towards teaching in the school				
6	Guidance and counseling unit are utilized to support students academic growth	??			
7	Ceiling fans in the classrooms are <u>utilized</u> during instructional presentation in the classroom <i>Ceiling fans are functional always for students' comfort</i>	??			
8	Class size and arrangements in the classroom are appropriate for effective teaching				
9	Office furniture are used to aid students private consultation				

*The leading statement does not show that teachers are the respondents.*

There appears to be a contradiction  
in the structuring of the items.

What you have in each cluster of  
'availability' should be a focus for the  
corresponding cluster on utilization.

I suggest you reduce the number of items  
in the column for availability because the  
total number of the items in each cluster in  
availability must be the same in utilization.  
For instance, you have 37 items in cluster of  
availability and 15 in utilization. It wrong.

10	Classroom furniture are utilized for comfort in teaching and learning				
11	Sports/games field are used for practical exercises				
12	Chairs and tables are appropriately utilized to arrange students sitting positions that will promote interactions in the classroom				
13	School structure, design and environment is appropriate to support teachers teaching in the school				
14	School bus for excursion and field trips are used to expose reality and serve as extent of outdoor learning				
15	Space aiding movements around the classroom are appropriately utilized to aid teachers demonstration during instructional delivery				

**Extent of Utilization of Available Printed Resources for Teachers' Job Performance**

S/N	Please indicate your agreement on the extent of utilization of the available printed resources for teacher job performance in your school:	Very High	High	Moderate	Low
16	Curriculum is used to make great effort for preparation of lessons at any point in time	?			
17	Syllabus are referred to in order as guide for teaching in the classroom				
18	Educative wall charts are pasted in the classroom to promote learning				
19	Charts are used during discussions in the classroom				
20	Pictures are displayed to support teaching				
21	Diagrams representing elements are utilized to support during instruction				
22	Maps which display locations are used to support instructional delivery				
23	Work book for various subjects are used for boosting students' cognitive				
24	Dictionary are utilized to find meaning of some concepts used in the classroom				
25	Textbooks are frequently used to aid teaching in various subjects				

Items are not properly structured for accurate response. e.g. item 16 - may need to be reworded.

17) using the syllabus for day to day lesson preparations.

26	Newspapers and magazines are utilized for further consultation and retrieval of important information on events as they aid teaching and learning				
27	Flash cards which summarizes points in the lesson are used to monitor students' discipline in the classroom				
28	Posters and cartoons are used to strengthen and support lesson taught in the classroom				
29	Pamphlets which to serve as key points for students learning are used to strengthen				

**Extent of Utilization of Available Non-Printed Resources for Teachers' Job Performance**

S/N	Please indicate your agreement on the extent of utilization of the available non-printed resources for teacher job performance in your school:	Very High	High	Moderate	Low
30	Laboratory apparatus and kits are used in the laboratories for promoting teachers' efficiency	?			
31	Technical tools and kits are appropriately used for practical exercises				
32	Computers are utilized in every lesson taught to the sustain students attention and respond to with activities				
33	Electronic storage devices such as flash drives, CD-ROMs and tapes are used to store information in order to aid teachers' competency during instructional delivery				
34	Television set are used to engage students into discussions at instructional delivery in the classroom				
35	Radios are well utilized to support teachers' clarity in the topic presented in the classroom				
36	Public address system are used for addressing large class size				
37	Chalkboard / whiteboard are utilized appropriately for summarizing points and encouraging note taking in the classroom				
38	Flannel boards are used to display sketches of charts, cartoons and maps in various subjects taught in the classroom for teaching and learning				
39	Internet facilities are provided for teachers to use				

*E.g. item 30 - Using laboratory apparatus for teaching pure practical.*

	them as search engines for research and to inspire students for further reading				
40	Projectors are mounted in the classroom to aid various teaching methodologies through interactive and participatory teaching				
41	Models/dioramas are displayed and utilized for every presentation in the classroom to expose reality in teaching				
42	Tape recorders are played for revision of lesson presented in the classroom				
43	Digital cameras are used to display pictures of topic being discussed in the classroom				
44	Specimens and puppets are used for presentation of practical lesson in the classroom				
45	Use of activity aids – example: field trips, excursions are well utilized for practical knowledge				
46	Bulletin boards serving as means of communication for display of important information discussed in the classroom are appropriately utilized to boost students' learning				

## Appendix H

### Instrument Reliability

#### Scale: QUESTIONNAIRE SECTION A Case Processing Summary

		N	%
Cases	Valid	8	100.0
	Excluded <sup>a</sup>	0	.0
	Total	8	100.0

a. Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

Cronbach's Alpha	N of Items
<b>.678</b>	<b>29</b>

#### Scale: QUESTIONNAIRE SECTION B Case Processing Summary

		N	%
Cases	Valid	8	100.0
	Excluded <sup>a</sup>	0	.0
	Total	8	100.0

a. Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

Cronbach's Alpha	N of Items
<b>.603</b>	<b>13</b>

#### Scale: QUESTIONNAIRE SECTION C Case Processing Summary

		N	%
Cases	Valid	8	100.0
	Excluded <sup>a</sup>	0	.0
	Total	8	100.0

a. Listwise deletion based on all variables in the procedure.



**Reliability Statistics**

Cronbach's Alpha	N of Items
<b>.639</b>	<b>17</b>

**Scale: QUESTIONNAIRE (FULL SCALE)****Case Processing Summary**

		N	%
Cases	Valid	8	100.0
	Excluded <sup>a</sup>	0	.0
	Total	8	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
<b>.815</b>	<b>59</b>

**SUMMARY TABLE OF RELIABILITY**

<b>Questionnaire Sub-Scale</b>	<b>N0. of Items</b>	<b>Cronbach's Alpha</b>
Section A ( 1 – 29)	29	0.68
Section B (30 – 42)	13	0.60
Section C (43 – 59)	17	0.64
Full Scale (1 – 59)	<b>59</b>	<b>0.82</b>

The reliability coefficient using Cronbach Alpha is given as 0.82, therefore, the instrument is deemed reliable.

## Appendix I

## Demographic Representation of Data

Table 13: Location of Schools

Category of School	Frequency (f)	Percentage (%)
Rural	66	49.6
Urban	67	50.4
<b>Total</b>	<b>133</b>	<b>100</b>

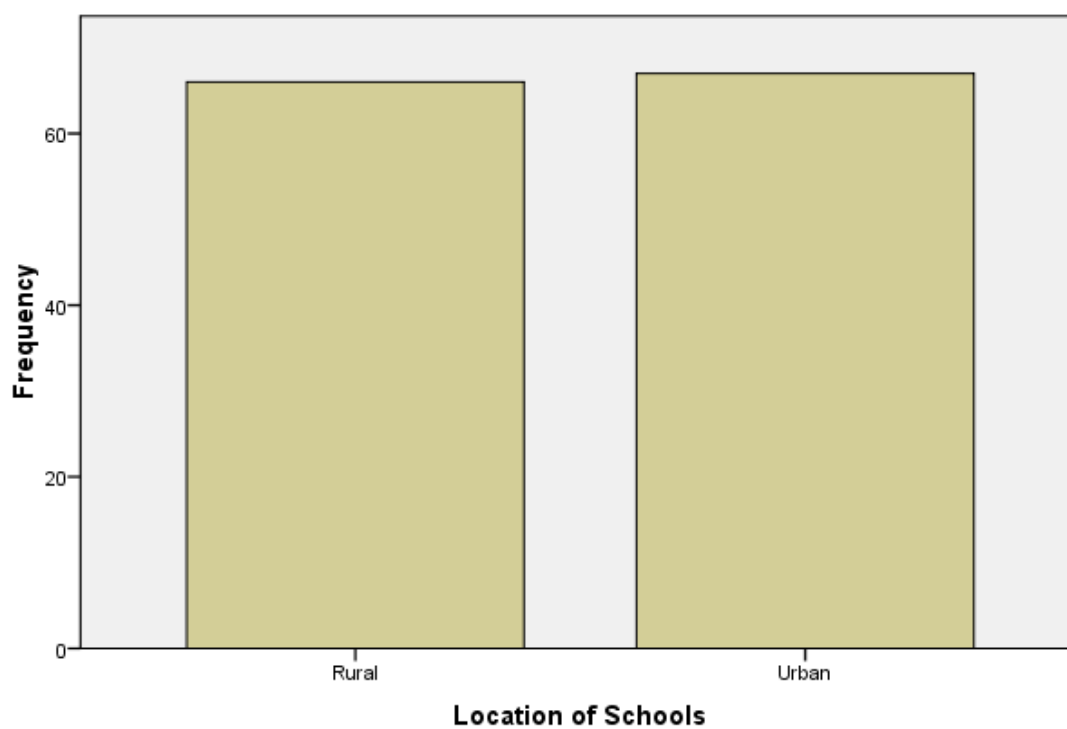
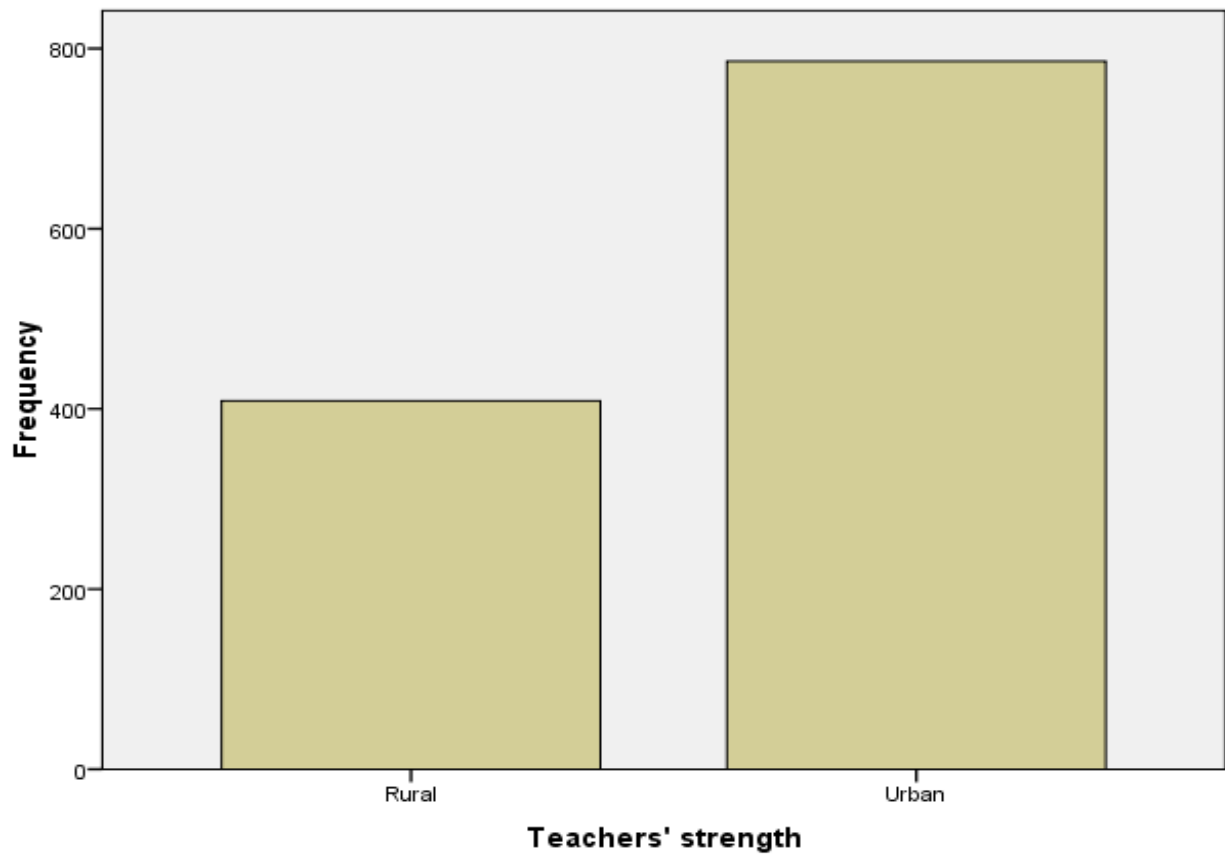


Figure 4: Bar Chart showing Location of Schools

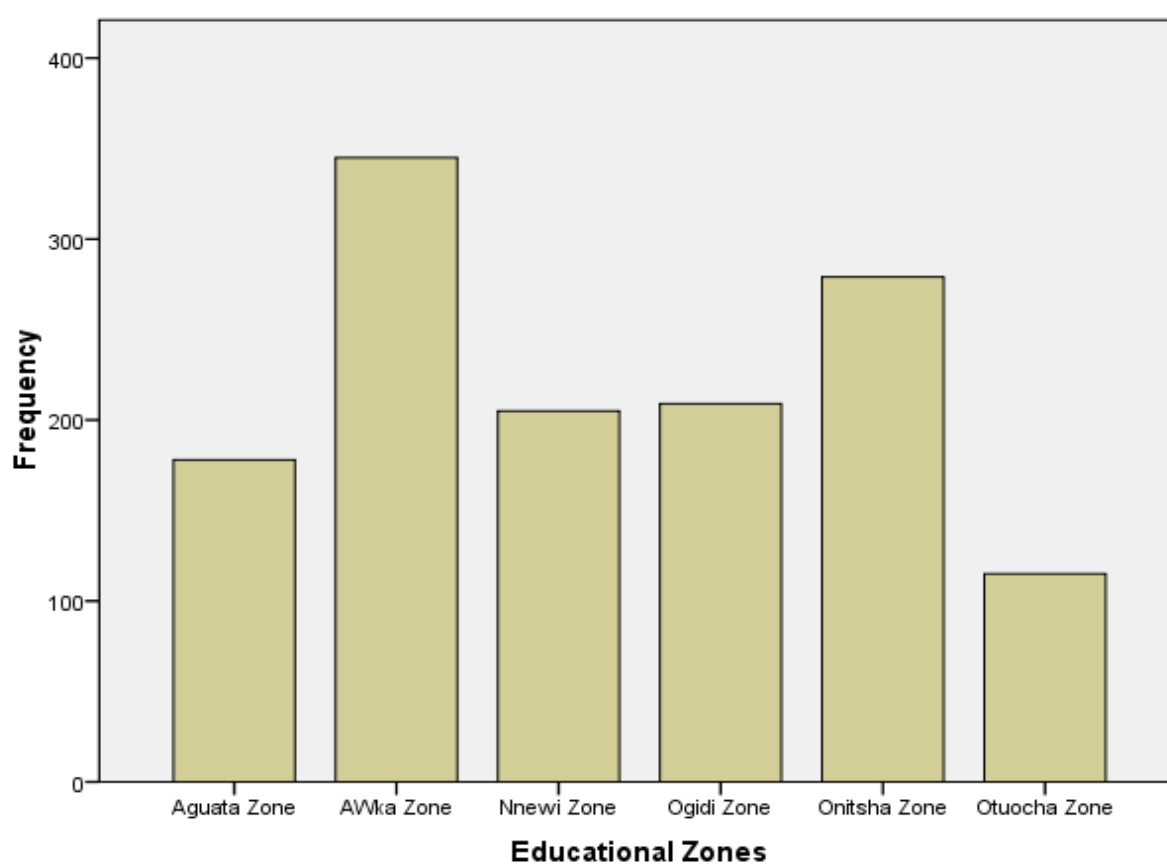
**Table 14: Distribution of Respondents by Location of Schools**

<b>Teachers' Strength by School Location</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Rural	409	34.2
Urban	786	65.8
<b>Total</b>	<b>1195</b>	<b>100</b>

**Figure 5: Bar Chart showing TeachersDistribution by School Location**

**Table 15: Distribution of Respondents by Education Zones**

Teachers' Strength by School Location	Frequency (f)	Percentage (%)
Aguata Zone	178	13.4
Awka Zone	345	25.9
Nnewi Zone	205	15.4
Ogidi Zone	209	15.7
Onitsha Zone	279	21.0
Otuocha Zone	115	8.6
<b>Total</b>	<b>1331</b>	<b>100</b>

**Figure 6: Bar Chart showing Teachers Distribution by Education Zones**

## Appendix J

### Analysis of Demographic Representation of Data

#### Location of Schools

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rural	66	5.0	49.6	49.6
	Urban	67	5.0	50.4	100.0
	Total	133	10.0	100.0	
Missing	System	1198	90.0		
Total		1331	100.0		

#### Teachers Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rural	409	30.7	34.2	34.2
	Urban	786	59.1	65.8	100.0
	Total	1195	89.8	100.0	
Missing	System	136	10.2		
Total		1331	100.0		

#### Education Zones

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Aguata Zone	178	13.4	13.4	13.4
	AWka Zone	345	25.9	25.9	39.3
	Nnewi Zone	205	15.4	15.4	54.7
	Ogidi Zone	209	15.7	15.7	70.4
	Onitsha Zone	279	21.0	21.0	91.4
	Otuocha Zone	115	8.6	8.6	100.0
	Total	1331	100.0	100.0	

**Appendix K**

**Analysis of Research Questions**

**RQ 1 URBAN**

**Item1U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	92	.1	45.8	100.0
	Number Unavailable	109	.1	54.2	54.2
	Total	201	.2	100.0	
Missing	System	84219	99.8		
	Total	84420	100.0		

**Item2U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2	.0	3.0	100.0
	Number Unavailable	65	.1	97.0	97.0
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item3U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	10	.0	14.9	100.0
	Number Unavailable	57	.1	85.1	85.1
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item4U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	6	.0	9.0	100.0
	Number Unavailable	61	.1	91.0	91.0
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item5U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	32	.0	47.8	47.8
	Number Unavailable	35	.0	52.2	100.0
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

Item6U

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	11	.0	16.4	100.0
	Number Unavailable	56	.1	83.6	83.6
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

Item7U

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2374	2.8	98.4	98.4
	Number Unavailable	38	.0	1.6	100.0
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

Item8U

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	7	.0	10.4	100.0
	Number Unavailable	60	.1	89.6	89.6
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

Item9U

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	67	.1	100.0	100.0
	System	84353	99.9		
Missing	Total	84420	100.0		

Item10U

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	22	.0	32.8	32.8
	Number Unavailable	45	.1	67.2	100.0
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item11U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1129	1.3	46.8	46.8
	Number Unavailable	1283	1.5	53.2	100.0
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item12U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	61	.1	91.0	91.0
	Number Unavailable	6	.0	9.0	100.0
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item13U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	384	.5	47.8	47.8
	Number Unavailable	420	.5	52.2	100.0
	Total	804	1.0	100.0	
Missing	System	83616	99.0		
	Total	84420	100.0		

**Item14U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	67	.1	100.0	100.0
	System	84353	99.9		
Missing	Total	84420	100.0		

**Item15U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	383	.5	47.6	100.0
	Number Unavailable	421	.5	52.4	52.4
	Total	804	1.0	100.0	
Missing	System	83616	99.0		
	Total	84420	100.0		



**Item16U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2048	2.4	42.5	100.0
	Number Unavailable	2776	3.3	57.5	57.5
	Total	4824	5.7	100.0	
Missing	System	79596	94.3		
	Total	84420	100.0		

**Item17U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	81203	96.2	96.2	96.2
	Number Unavailable	3217	3.8	3.8	100.0
	Total	84420	100.0	100.0	

**Item18U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	67	.1	100.0	100.0
	System	84353	99.9		
Missing	Total	84420	100.0		

**Item19U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1	.0	1.5	100.0
	Number Unavailable	66	.1	98.5	98.5
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item20U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	20	.0	29.9	100.0
	Number Unavailable	47	.1	70.1	70.1
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item21U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	67	.1	100.0	100.0
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item22U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	67	.1	100.0	100.0
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item23U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	67	.1	100.0	100.0
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item24U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	28	.0	41.8	41.8
	Number Unavailable	39	.0	58.2	100.0
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item25U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	33	.0	49.3	49.3
	Number Unavailable	34	.0	50.7	100.0
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item26U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	544	6	22.6	100.0
	Number Unavailable	1868	2.2	77.4	77.4
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item27U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1311	1.6	27.2	27.2
	Number Unavailable	3513	4.2	72.8	100.0
	Total	4824	5.7	100.0	
Missing	System	79596	94.3		
	Total	84420	100.0		

**Item28U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	701	.8	29.1	100.0
	Number Unavailable	1711	2.0	70.9	70.9
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item29U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	19	.0	28.4	100.0
	Number Unavailable	48	.1	71.6	71.6
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**RURAL****Item1R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	99	.1	50.0	50.0
	Number Unavailable	99	.1	50.0	100.0
	Total	198	.2	100.0	
Missing	System	84222	99.8		
	Total	84420	100.0		

**Item2R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	21	.0	31.8	100.0
	Number Unavailable	45	.1	68.2	68.2
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item3R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	32	.0	48.5	100.0
	Number Unavailable	34	.0	51.5	51.5
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item4R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	31	.0	47.0	100.0
	Number Unavailable	35	.0	53.0	53.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item5R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	21	.0	31.8	31.8
	Number Unavailable	45	.1	68.2	100.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

Item6R

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	10	.0	15.2	15.2
	Number Unavailable	56	.1	84.8	100.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

Item7R

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2196	2.6	92.4	92.4
	Number Unavailable	180	.2	7.6	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

Item8R

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	56	.1	84.8	84.8
	Number Unavailable	10	.0	15.2	100.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

Item9R

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	66	.1	100.0	100.0
	System	84354	99.9		
Missing	Total	84420	100.0		

Item10R

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	64	.1	97.0	97.0
	Number Unavailable	2	.0	3.0	100.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item11R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1014	1.2	42.7	42.7
	Number Unavailable	1362	1.6	57.3	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item12R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	10	.0	15.2	100.0
	Number Unavailable	56	.1	84.8	84.8
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item13R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	132	.2	16.7	16.7
	Number Unavailable	660	.8	83.3	100.0
	Total	792	.9	100.0	
Missing	System	83628	99.1		
	Total	84420	100.0		

**Item14R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	63	.1	95.5	95.5
	Number Unavailable	3	.0	4.5	100.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item15R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	132	.2	16.7	16.7
	Number Unavailable	660	.8	83.3	100.0
	Total	792	.9	100.0	
Missing	System	83628	99.1		
	Total	84420	100.0		

**Item17R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	66513	78.8	80.0	80.0
	Number Unavailable	16647	19.7	20.0	100.0
	Total	83160	98.5	100.0	
Missing	System	1260	1.5		
	Total	84420	100.0		

**Item16R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1056	1.3	44.4	44.4
	Number Unavailable	1320	1.6	55.6	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item18R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	60	.1	45.5	45.5
	Number Unavailable	72	.1	54.5	100.0
	Total	132	.2	100.0	
Missing	System	84288	99.8		
	Total	84420	100.0		

**Item19R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	20	.0	30.3	100.0
	Number Unavailable	46	.1	69.7	69.7
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item20R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	30	.0	45.5	100.0
	Number Unavailable	36	.0	54.5	54.5
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item21R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	10	.0	15.2	100.0
	Number Unavailable	56	.1	84.8	84.8
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item22R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	10	.0	15.2	100.0
	Number Unavailable	56	.1	84.8	84.8
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item23R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	8	.0	12.1	100.0
	Number Unavailable	58	.1	87.9	87.9
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item24R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	16	.0	24.2	24.2
	Number Unavailable	50	.1	75.8	100.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item25R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Unavailable	66	.1	100.0	100.0
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item26R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	602	.7	25.3	100.0
	Number Unavailable	1774	2.1	74.7	74.7
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		



**Item27R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1181	1.4	24.9	24.9
	Number Unavailable	3571	4.2	75.1	100.0
	Total	4752	5.6	100.0	
Missing	System	79668	94.4		
	Total	84420	100.0		

**Item28R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1130	1.3	47.6	100.0
	Number Unavailable	1246	1.5	52.4	52.4
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item29R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	27	.0	40.9	40.9
	Number Unavailable	39	.0	59.1	100.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**RQ 2 URBAN****Item30U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2883	3.4	76.8	76.8
	Number Unavailable	869	1.0	23.2	100.0
	Total	3752	4.4	100.0	
Missing	System	80668	95.6		
	Total	84420	100.0		

**Item31U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	3183	3.8	84.8	84.8
	Number Unavailable	569	.7	15.2	100.0
	Total	3752	4.4	100.0	
Missing	System	80668	95.6		
	Total	84420	100.0		

**Item32U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2412	2.9	100.0	100.0
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item33U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1294	1.5	26.8	100.0
	Number Unavailable	3534	4.2	73.2	73.2
	Total	4828	5.7	100.0	
Missing	System	79592	94.3		
	Total	84420	100.0		

**Item34U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1038	1.2	43.0	100.0
	Number Unavailable	1374	1.6	57.0	57.0
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item35U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	922	1.1	24.6	100.0
	Number Unavailable	2830	3.4	75.4	75.4
	Total	3752	4.4	100.0	
Missing	System	80668	95.6		
	Total	84420	100.0		

**Item36U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	60	.1	89.6	89.6
	Number Unavailable	7	.0	10.4	100.0
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item37U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	868	1.0	23.1	100.0
	Number Unavailable	2884	3.4	76.9	76.9
	Total	3752	4.4	100.0	
Missing	System	80668	95.6		
	Total	84420	100.0		

**Item38U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1569	1.9	41.8	100.0
	Number Unavailable	2183	2.6	58.2	58.2
	Total	3752	4.4	100.0	
Missing	System	80668	95.6		
	Total	84420	100.0		

**Item39U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1862	2.2	38.6	100.0
	Number Unavailable	2962	3.5	61.4	61.4
	Total	4824	5.7	100.0	
Missing	System	79596	94.3		
	Total	84420	100.0		

**Item40U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1077	1.3	14.4	100.0
	Number Unavailable	6427	7.6	85.6	85.6
	Total	7504	8.9	100.0	
Missing	System	76916	91.1		
	Total	84420	100.0		

**Item41U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	5697	6.7	30.4	100.0
	Number Unavailable	13063	15.5	69.6	69.6
	Total	18760	22.2	100.0	
Missing	System	65660	77.8		
	Total	84420	100.0		

**Item42U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	31183	36.9	36.9	36.9
	Number Unavailable	53237	63.1	63.1	100.0
	Total	84420	100.0	100.0	

**RURAL****Item30R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1040	1.2	28.1	100.0
	Number Unavailable	2656	3.1	71.9	71.9
	Total	3696	4.4	100.0	
Missing	System	80724	95.6		
	Total	84420	100.0		

**Item31R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1000	1.2	27.1	100.0
	Number Unavailable	2696	3.2	72.9	72.9
	Total	3696	4.4	100.0	
Missing	System	80724	95.6		
	Total	84420	100.0		

**Item32R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2376	2.8	100.0	100.0
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item33R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1746	2.1	36.7	100.0
	Number Unavailable	3006	3.6	63.3	63.3
	Total	4752	5.6	100.0	
Missing	System	79668	94.4		
	Total	84420	100.0		

**Item34R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	916	1.1	38.6	38.6
	Number Unavailable	1460	1.7	61.4	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item35R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1361	1.6	36.8	36.8
	Number Unavailable	2335	2.8	63.2	100.0
	Total	3696	4.4	100.0	
Missing	System	80724	95.6		
	Total	84420	100.0		

**Item36R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	58	.1	87.9	87.9
	Number Unavailable	8	.0	12.1	100.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item37R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1332	1.6	36.0	100.0
	Number Unavailable	2364	2.8	64.0	64.0
	Total	3696	4.4	100.0	
Missing	System	80724	95.6		
	Total	84420	100.0		

**Item38R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	913	1.1	24.7	100.0
	Number Unavailable	2783	3.3	75.3	75.3
	Total	3696	4.4	100.0	
Missing	System	80724	95.6		
	Total	84420	100.0		

**Item39R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1977	2.3	41.6	100.00
	Number Unavailable	2775	3.3	58.4	58.4
	Total	4752	5.6	100.0	
Missing	System	79668	94.4		
	Total	84420	100.0		

**Item40R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2500	3.0	33.8	100.0
	Number Unavailable	4892	5.8	66.2	66.2
	Total	7392	8.8	100.0	
Missing	System	77028	91.2		
	Total	84420	100.0		

**Item41R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	8766	10.4	47.4	47.4
	Number Unavailable	9714	11.5	52.6	100.0
	Total	18480	21.9	100.0	
Missing	System	65940	78.1		
	Total	84420	100.0		

**Item42R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1681	2.0	2.0	2.0
	Number Unavailable	81479	96.5	98.0	100.0
	Total	83160	98.5	100.0	
Missing	System	1260	1.5		
	Total	84420	100.0		

**RQ3 URBAN****Item43U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1202	1.4	89.7	89.7
	Number Unavailable	138	.2	10.3	100.0
	Total	1340	1.6	100.0	
Missing	System	83080	98.4		
	Total	84420	100.0		

**Item44U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1139	1.3	85.0	85.0
	Number Unavailable	201	.2	15.0	100.0
	Total	1340	1.6	100.0	
Missing	System	83080	98.4		
	Total	84420	100.0		

**Item45U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1132	1.3	84.5	84.5
	Number Unavailable	208	.2	15.5	100.0
	Total	1340	1.6	100.0	
Missing	System	83080	98.4		
	Total	84420	100.0		

**Item46U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	381	.5	28.4	100.0
	Number Unavailable	959	1.1	71.6	71.6
	Total	1340	1.6	100.0	
Missing	System	83080	98.4		
	Total	84420	100.0		

**Item47U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	612	.7	45.7	100.0
	Number Unavailable	728	.9	54.3	54.3
	Total	1340	1.6	100.0	
Missing	System	83080	98.4		
	Total	84420	100.0		

**Item48U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	992	1.2	74.0	74.0
	Number Unavailable	348	.4	26.0	100.0
	Total	1340	1.6	100.0	
Missing	System	83080	98.4		
	Total	84420	100.0		

**Item49U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	102	.1	4.2	4.2
	Number Unavailable	2310	2.7	95.8	100.0
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item50U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	546	.6	22.6	22.6
	Number Unavailable	1866	2.2	77.4	100.0
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item51U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	772	.9	32.0	32.0
	Number Unavailable	1640	1.9	68.0	100.0
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item52U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2374	2.8	49.2	49.2
	Number Unavailable	2450	2.9	50.8	100.0
	Total	4824	5.7	100.0	
Missing	System	79596	94.3		
	Total	84420	100.0		



**Item53U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	195	.2	8.1	100.0
	Number Unavailable	2217	2.6	91.9	91.9
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item54U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	28	.0	41.8	100.0
	Number Unavailable	39	.0	58.2	58.2
	Total	67	.1	100.0	
Missing	System	84353	99.9		
	Total	84420	100.0		

**Item55U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	117	.1	4.9	4.9
	Number Unavailable	2295	2.7	95.1	100.0
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item56U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	2206	2.6	91.5	91.5
	Number Unavailable	206	.2	8.5	100.0
	Total	2412	2.9	100.0	
Missing	System	82008	97.1		
	Total	84420	100.0		

**Item57U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	54	.1	40.3	100.0
	Number Unavailable	80	.1	59.7	59.7
	Total	134	.2	100.0	
Missing	System	84286	99.8		
	Total	84420	100.0		

**Item58U**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	63	.1	47.0	100.0
	Number Unavailable	71	.1	53.0	53.0
	Total	134	.2	100.0	
Missing	System	84286	99.8		
	Total	84420	100.0		

**Item59u**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	61	.1	45.5	45.5
	Number Unavailable	73	.1	54.5	100.0
	Total	134	.2	100.0	
Missing	System	84286	99.8		
	Total	84420	100.0		

**RURAL****Item43R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	426	.5	32.3	100.0
	Number Unavailable	894	1.1	67.7	67.7
	Total	1320	1.6	100.0	
Missing	System	83100	98.4		
	Total	84420	100.0		

**Item44R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	328	.4	24.8	24.8
	Number Unavailable	992	1.2	75.2	100.0
	Total	1320	1.6	100.0	
Missing	System	83100	98.4		
	Total	84420	100.0		

**Item45R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	404	.5	30.6	30.6
	Number Unavailable	916	1.1	69.4	100.0
	Total	1320	1.6	100.0	
Missing	System	83100	98.4		
	Total	84420	100.0		

**Item46R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	560	.7	42.4	42.4
	Number Unavailable	760	.9	57.6	100.0
	Total	1320	1.6	100.0	
Missing	System	83100	98.4		
	Total	84420	100.0		

**Item47R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	351	.4	26.6	26.6
	Number Unavailable	969	1.1	73.4	100.0
	Total	1320	1.6	100.0	
Missing	System	83100	98.4		
	Total	84420	100.0		

**Item48R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	205	.2	15.5	15.5
	Number Unavailable	1115	1.3	84.5	100.0
	Total	1320	1.6	100.0	
Missing	System	83100	98.4		
	Total	84420	100.0		

**Item49R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	33	.0	1.4	1.4
	Number Unavailable	2343	2.8	98.6	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item50R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	35	.0	1.5	1.5
	Number Unavailable	2341	2.8	98.5	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item51R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	194	.2	8.2	8.2
	Number Unavailable	2182	2.6	91.8	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item52R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1990	2.4	41.9	41.9
	Number Unavailable	2762	3.3	58.1	100.0
	Total	4752	5.6	100.0	
Missing	System	79668	94.4		
	Total	84420	100.0		

**Item53R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1974	2.3	83.1	83.1
	Number Unavailable	402	.5	16.9	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item54R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	24	.0	36.4	36.4
	Number Unavailable	42	.0	63.6	100.0
	Total	66	.1	100.0	
Missing	System	84354	99.9		
	Total	84420	100.0		

**Item55R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	50	.1	2.1	2.1
	Number Unavailable	2326	2.8	97.9	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item56R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	1797	2.1	75.6	75.6
	Number Unavailable	579	.7	24.4	100.0
	Total	2376	2.8	100.0	
Missing	System	82044	97.2		
	Total	84420	100.0		

**Item57R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	71	.1	53.8	53.8
	Number Unavailable	61	.1	46.2	100.0
	Total	132	.2	100.0	
Missing	System	84288	99.8		
	Total	84420	100.0		

**Item58R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	63	.1	47.7	47.7
	Number Unavailable	69	.1	52.3	100.0
	Total	132	.2	100.0	
Missing	System	84288	99.8		
	Total	84420	100.0		

**Item59R**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number Available	51	.1	38.6	38.6
	Number Unavailable	81	.1	61.4	100.0
	Total	132	.2	100.0	
Missing	System	84288	99.8		
	Total	84420	100.0		

## AppendixL

### Test of Hypotheses

#### HO 1

**Group\_HO1 \* Physical\_Plant\_Resources Crosstabulation**

			Physical_Plant_Resources		Total
			Number Required	Number Available	
Group_HO1	Urban	Count	106718	90803	197521
		Expected Count	110616.9	86904.1	2.0E5
	Rural	Count	102557	73610	176167
		Expected Count	98658.1	77508.9	1.8E5
Total	Count		209275	164413	373688
	Expected Count		209275.0	164413.0	3.7E5

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2- sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	6.626E2 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	662.382	1	.000		
Likelihood Ratio	663.020	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	662.550	1	.000		
N of Valid Cases <sup>b</sup>	373688				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 77508.90.

b. Computed only for a 2x2 table

**HO 2****GroupHO2 \* Printed\_Resources Crosstabulation**

			Printed_Resources		Total
			Number Required	Number Available	
GroupHO2	Urban	Count	143987	54048	198035
		Expected Count	154517.2	43517.8	2.0E5
	Rural	Count	139051	25666	164717
		Expected Count	128520.8	36196.2	1.6E5
Total		Count	283038	79714	362752
		Expected Count	283038.0	79714.0	3.6E5

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7.192E3 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	7.191E3	1	.000		
Likelihood Ratio	7.352E3	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	7.192E3	1	.000		
N of Valid Cases <sup>b</sup>	362752				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 36196.22.

b. Computed only for a 2x2 table

**HO3****Group\_HO3 \* Non\_Printed\_Resources Crosstabulation**

			Non_Printed_Resources		Total
			Number Required	Number Available	
Group_HO3	Urban	Count	27805	11976	39781
		Expected Count	29609.8	10171.2	39781.0
	Rural	Count	27390	6984	34374
		Expected Count	25585.2	8788.8	34374.0
Total		Count	55195	18960	74155
		Expected Count	55195.0	18960.0	74155.0

**i-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	9.282E2 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	927.640	1	.000		
Likelihood Ratio	938.492	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	928.141	1	.000		
N of Valid Cases <sup>b</sup>	74155				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8788.77.

b. Computed only for a 2x2 table



**HO4**

**Group Statistics**

Respondents	N	Mean	Std. Deviation	Std. Error Mean
RQ4 Rural	409	30.2372	12.75889	.63089
Urban	786	37.9593	15.66702	.55882

**Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
RQ4 Equal variances assumed	33.608	.000	-8.594	1193	.00000	-7.72212	.89851	-9.48497	-5.95928
Equal variances not assumed			-9.163	984.426	.00000	-7.72212	.84279	-9.37600	-6.06824

HO5

Group Statistics

Respondents	N	Mean	Std. Deviation	Std. Error Mean
RQ5 Rural	409	29.8802	11.27825	.55767
Urban	786	32.2837	12.86014	.45871

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
RQ5 Equal variances assumed	12.348	.00046	-3.194	1193	.001	-2.40352	.75248	-3.87985	-.92719
Equal variances not assumed			-3.329	9.264E2	.001	-2.40352	.72209	-3.82064	-.98640

HO6

Group Statistics

Respondents	N	Mean	Std. Deviation	Std. Error Mean
RQ6 Rural	409	26.5183	12.38893	.61259
Urban	786	35.2913	15.78213	.56293

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	46.412	.00000	-9.782	1193	.000	-8.77301	.89686	-10.53261	-7.01342E0
Equal variances not assumed			-1.054E1	1.013E3	.000	-8.77301	.83196	-10.40558	-7.14044E0

### Appendix M

#### Map of Anambra State and LGAs



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