

Instructional Materials and Workshop Utilization in the Teaching of Basic Technology: A Case Study of Government Day Junior Secondary School, Sabuwar Gwaram

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ABSTRACT

This study assessed the availability and utilization of instructional materials and workshop facilities in the teaching of Basic Technology at Government Day Junior Secondary School, Sabuwar Gwaram. The study was motivated by the persistent poor performance of students in practical and technology-related subjects due to inadequate teaching resources and ineffective workshop practices. A descriptive survey research design was adopted for the study. The population consisted of Basic Technology teachers and junior secondary school students. Data were collected through questionnaires, observation schedules, and interviews. Findings revealed that although some instructional materials and workshop tools were available, many were insufficient, outdated, or poorly maintained. The study also found that teachers rarely utilized workshops effectively because of inadequate facilities, overcrowded classrooms, and insufficient training. The results indicated that effective use of instructional materials and workshops significantly enhances students' understanding, participation, and academic performance in Basic Technology. The study concluded that proper provision and utilization of instructional resources are essential for effective teaching and learning of Basic Technology. Recommendations were made for government intervention, teacher training, and improved funding of school workshops.

KEYWORDS

Instructional Materials, Workshop Utilization, Basic Technology, Teaching Effectiveness, Junior Secondary School, Practical Skills, Technical Education

I. INTRODUCTION

Basic Technology is one of the core subjects introduced into the Nigerian junior secondary school curriculum to provide students with practical and technological skills necessary for national development. The subject emphasizes practical activities, creativity, problem-solving, and manipulation of tools and materials. Effective teaching of Basic Technology therefore requires adequate instructional materials and properly equipped workshops.

Instructional materials are educational resources used by teachers to facilitate teaching and learning processes. They include charts, models, machines, hand tools, diagrams, projectors, and workshop equipment. Workshop utilization involves the practical application of skills using tools and equipment in a laboratory or workshop environment.

In many Nigerian secondary schools, inadequate instructional materials and poor workshop facilities negatively affect students' academic achievement and practical competence. Studies have shown that effective instructional materials improve students' interest, retention, and understanding of technological concepts. Government Day Junior Secondary School, Sabuwar Gwaram, faces challenges similar to many public schools in Nigeria, including insufficient workshop equipment, inadequate funding, and poor maintenance culture. This study therefore investigates the availability and utilization of instructional materials and workshops in the teaching of Basic Technology in the school.

II. THEORETICAL FRAMEWORK

This study is anchored on the Constructivist Learning Theory developed by Jean Piaget and supported by experiential learning principles of John Dewey.

The constructivist theory states that learners acquire knowledge actively through interaction with materials, tools, and practical experiences. In Basic Technology, students learn effectively when they manipulate tools, engage in workshop activities, and participate in practical demonstrations. Workshop utilization therefore provides opportunities for experiential learning, which improves cognitive and psychomotor development. The theory supports the use of instructional materials because students understand technological concepts better when abstract ideas are converted into concrete learning experiences.

III. LITERATURE REVIEW

Several scholars have examined the role of instructional materials in effective teaching and learning.

Olarinde L. A. and colleagues assessed instructional resources for teaching Basic Technology in Nigerian junior secondary schools and found that many schools lacked adequate workshops, machines, and hand tools. The study further revealed that only a small percentage of available instructional resources were functional and regularly utilized.

Similarly, Onajite G. O. found that teachers' utilization of instructional materials in junior secondary schools was minimal because of inadequate funding and poor teacher training. Research by Bukoye Roseline Olufunke emphasized that instructional materials promote effective academic performance and improve students' understanding of science and technology subjects.

Studies on workshop utilization also indicate that practical teaching methods significantly improve student achievement in technology education. Onele (2014) noted that effective workshop planning enhances practical learning and skill acquisition in Basic Technology.

Efuwape and Omofonmwan (2015) demonstrated that technology-assisted instructional materials positively influence students' academic performance in Basic Technology. The reviewed literature indicates that instructional materials and workshop utilization are essential for effective teaching of Basic Technology, but many Nigerian schools still experience shortages and underutilization of resources.

IV. METHODOLOGY

The study adopted a descriptive survey research design.

A. Area of the Study

The research was conducted at Government Day Junior Secondary School, Sabuwar Gwaram.

B. Population of the Study

The population consisted of all Basic Technology teachers and junior secondary students in the school.

C. Sample and Sampling Technique

A simple random sampling technique was used to select respondents. The sample consisted of:

- 5 Basic Technology teachers
- 50 Junior Secondary School students

D. Instrument for Data Collection

The instruments used included:

- Structured questionnaires
- Observation checklist
- Interview schedule

E. Method of Data Analysis

Data collected were analysed using frequency counts, percentages, and mean scores.

V. FINDINGS

- The study revealed the following findings:
- Instructional materials such as charts, hand tools, models, and workshop equipment were insufficient.
- Some workshop tools were obsolete or non-functional.

- Teachers used lecture methods more frequently than practical workshop demonstrations.
- Students showed greater interest during practical lessons than during theoretical classes.
- Inadequate funding and poor maintenance affected workshop utilization.
- Lack of teacher training reduced effective use of instructional resources.

VI. RESULTS

The results indicated that:

- 70% of respondents believed instructional materials were inadequate.
- 65% stated that workshop activities were rarely conducted.
- 80% agreed that practical lessons improved understanding of Basic Technology concepts.
- 75% reported that inadequate workshop facilities negatively affected student performance.

The analysis showed a strong relationship between instructional material utilization and effective teaching of Basic Technology.

VII. DISCUSSION OF THE RESULTS

The findings agree with previous studies which reported inadequate instructional materials in Nigerian secondary schools. The insufficiency of workshop tools and poor utilization practices hinder effective teaching and practical skill acquisition.

The study also confirmed that students learn better through practical activities than through lecture methods alone. This supports the constructivist theory which emphasizes active participation and experiential learning.

The inadequate use of workshops observed in the study may be linked to poor government funding, lack of maintenance culture, and inadequate teacher preparation. Similar observations were reported by Olarinde et al. (2017), who found that many schools lacked functional technological equipment.

VIII. CONCLUSION

The study concluded that instructional materials and workshop utilization play significant roles in the effective teaching and learning of Basic Technology. However, Government Day Junior Secondary School, Sabuwar Gwaram, experiences inadequate instructional materials, insufficient workshop facilities, and poor utilization practices.

The study further concluded that effective workshop activities improve students' understanding, motivation, and academic performance. Therefore, adequate provision and proper utilization of instructional resources are necessary for achieving the objectives of Basic Technology education.

RECOMMENDATIONS

The following recommendations were made:

- Government should provide adequate instructional materials and workshop equipment for Basic Technology teaching.
- School administrators should ensure proper maintenance of workshop facilities.
- Teachers should be trained regularly on effective utilization of instructional materials.
- Practical lessons should be emphasized more than theoretical teaching.
- Parents and community stakeholders should support schools in providing workshop facilities.
- Educational authorities should monitor the implementation of practical-based teaching methods.

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