

EFFICACY OF INSTRUCTIONAL MEDIA ON STUDENTS' ACADEMIC ACHIEVEMENT IN BUSINESS STUDIES AT UPPER BASIC EDUCATION IN ENUGU STATE

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Abstract

The study investigated the efficacy of instructional media on students' academic achievement in Business Studies at Upper Basic Education in Enugu State. The study also highlighted the concept of Education, Technical & Science Education and Business Education. The researcher adopted quasi-experimental design using pre-test and post-test non-equivalent control group. The population of the study consists of nineteen thousand seven hundred and fifty four (19,754) Upper Basic Education students which comprises both male and female. Out of this population, purposive random sampling was used to select three hundred and twenty (320) Upper Basic Education III students for the study. Two research questions and two hypotheses guided the study. Instruments for data collection were Business Studies Text Items (BSTI) and questionnaire developed by the researcher. Data collected were analyzed using mean, standard deviation and t-test statistic for the hypothesis. It had a reliability coefficient of 0.69 which indicates that the instrument was reliable. The result of the finding show that the following instructional media were available: tape recorders, business studies textbooks, chalkboard, duplicating machine, photocopier, dictating machine, pictures/sketches, stapling machine, file jackets, perforators and adding machine. Results of data analysis show that some available instructional media were not utilized by Business Studies teachers in the teaching and learning process. The results also reveal that students taught Business Studies with instructional media achieved higher than those taught without instructional media. Location had no significant difference in the mean score and standard deviation of Upper Basic Students III in academic achievement.

Based on the findings, some recommendations were made; government should provide necessary instructional media for effective teaching and learning, there should be regular workshops and seminars for teachers to update their skills and knowledge on utilization of current instructional media.

Introduction

National and individual developments are strongly hinged on their educational system. No nation can grow above her educational system Federal Rep of Nig (2013). National Policy on Education (NPE), states that education in Nigeria is an instrument “per excellence” for effecting national development. Eya (2012) defined education as a process of developing individual in a given society to acquire aptitudes and competencies in order to live useful life and contribute to the progress of such a society in all its ramifications. Education therefore is the bedrock for any meaningful development in any nation.

According to Onoh, Onu and Oluka (2012), education is the sum of all the experiences which affect the habits, thinking and decision of human beings to enable them adapt themselves to

their social environment and meet its demands with at least some measures of success. Education makes human beings think and decide rationally. Nations endeavour to educate her citizens through various educational programmes such as vocational education, technology education, science education, etc.

Vocational education prepares students for jobs and careers that are practically oriented. FRN (2013) defined Technical and Vocational Education as those aspects of educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding, and knowledge, relating to occupations in various sectors of economic and social life. It is a means of preparing for occupational fields and for

effective participation in the world of work. The goals of technical and vocational education as stated in the National Policy on Education are:

Provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels;

Provide technical knowledge and vocational skills necessary for agricultural, commercial and economic development;

Give training and impart the necessary skills to individuals who shall be self-reliant economically. (FRN, 2013)

Vocational education is offered at various levels of education. It is offered in secondary schools in Nigeria.

Secondary education is the education children receive after primary education and before tertiary stage (FRN, 2013). In Nigeria secondary education is divided into three years of junior and three years of senior. The primary and the first three years of secondary education is called the Upper Basic Education. The

Upper Basic Education is both pre-vocational and academic. In Upper Basic Education, basic subjects which will enable pupils to acquire further knowledge and skills are taught. Every student offers a minimum of ten (10) and a maximum of thirteen (13) subjects. Students are expected to offer all the subjects in Group A i.e. the core/compulsory subjects and at least one subject each from Group B i.e. the pre-vocational electives which include Business Studies, Agriculture and Home Economics. Emphases on subjects in pre-vocational subjects are usually on practice.

Business Studies as a course is pervasive and comprehensive in nature. It is made up of many interrelated areas of study which are taught practically by making the teaching situation as real as possible (Igboke, 2005). General objectives of Business Studies according to Igboke (2005) are:

- To enable the students to acquire basic knowledge of Business Studies.
- To provide business skills in office occupations.

- To provide students with further training in business.
- To provide orientation and basic skills with which to start a life of work for those who may not undergo further training.
- To provide basic skills for personal use in future.
- To relate the knowledge and skills to the national economy.

Following the statement of the general objectives, Igboke also made the following statements which should be brought to the knowledge of the teachers and prospective teachers of Business Studies for the advancement of the objectives. The statements are:

“there must be a change in one’s otherwise erroneous and misleading idea about Business Studies. Many people think that Business Studies is a course which does not require preparation and which anybody can teach. This is obviously not so. As one of the pre-vocational subjects for the Upper Basic Education, it is crucial that adequate provisions be made in terms of human and

material resources for the desired effect to be achieved”.

Taking the above statements into consideration, issue of instructional media for the achievement of the objectives of Business Studies cannot be over-emphasized. For effective teaching-learning, it becomes necessary that varied instructional materials must be applied. Instructional media are those tools or aids which help the teacher to carry out teaching and students to learn effectively. The common goal of teachers everywhere is to make a lesson presentation vital, alive and lasting for their students. This goal can be achieved most effectively through the use of instructional materials and devices used as media to transmit concepts and ideas. According to Cable (1979), in Nnabuike (2006) instructional media in its broad sense include anything that a teacher could profitably employ to facilitate teaching and learning by his students. Eya and Ureme (2011), citing Onyejemezi (1988) defined instructional media as resources or teaching materials, which the teacher utilizes in the

course of presenting a lesson in other to make the content of the lesson understandable to the learners. This implies that the influence of instructional materials in promoting teaching and learning and students' academic achievement is indisputable. Baribor, (2003) stated that instructional materials could mean anything or device that the teacher uses to enhance better understanding of his teaching and learning which includes the following: chalk, chalkboard, field trips, dramatization, demonstration, displays, models and exhibits, films, Tv programmes, slides and pictures, photographs, recordings on tapes and computers, etc.

Another factor that may influence students' achievement academically is location. Hornby (1998) in Ureme (2012) defined school location as a place where a school is sited. Enugu Education Zone is made up of three local government areas namely: Enugu East, Enugu North and Isi-Uzo. This means that schools in the zone are located in both urban and rural areas. Studies carried out on school location showed that there

is no consensus on the effect of location on students' achievement. Okonkwo (2000) in Ogele (2011) investigated the nature of relationship between school location and gender and the study revealed that students from rural schools performed better than their urban counterparts.

According to Erubami (2003) in her study on school location as correlates of students' academic performance in Senior Secondary Certificate Examination (SSCE) in science, the findings of the study revealed no significant difference between the performance of students in urban and rural schools. Consequent upon these there is need to include location as a variable for this study.

Stakeholders in education are interested in students' performance and achievements. Page and Thomas in Mkpaora (2006) defined achievement as performance in school or college in a standardized series of educational test. Performance has been explained as the action of a person or group when given a learning task. According to Coper and Bargar (1980), academic

performance is the quality of performance in terms of tasks and class exercises with academic content. It is a level of attainment of a given standard of excellent or in other words, a qualified academic achievement.

Iroegbu (1992) defined academic achievement as the level of performance that is exhibited by an individual. It is the level of success attained at the end of an academic endeavour. The level of which an individual is able to accomplish a task, trade, profession, training or learning. Ogele (2011) opine that academic achievement may be seen as the level of mastery, proficiency and knowledge shown by an individual after learning has taken place. It is against this background that this study tends to investigate the efficacy of instructional media on students' achievement in Business Studies.

Business Studies is an integrated subject and is offered in Upper Basic Education. Students' achievement in this subject in Upper Basic Education Examination Certificate has not been impressive over the years. Students' attitude and poor

achievement may be due to poor preparations on the part of teachers and non utilization of instructional media. It is against this background that this study investigated the efficacy of instructional media on students' achievement in Business Studies in Upper Basic Education in Enugu State.

The main purpose of the study is to determine the efficacy of instructional media on students' achievement in Business Studies in Enugu Education Zone. Specifically the study sought to ascertain;

1. If instructional media are available for the teaching and learning of Business Studies in Upper Basic Education in Enugu Zone.
2. The extent of utilization of instructional media on Upper Basic Education Examination (UBEE) students.
3. If students taught Business Studies with instructional media in UBE achieve better in UBEE than those

taught without instructional media.

4. If urban students taught Business Studies with instructional media perform better than their rural counterparts.

Research Questions

The following research questions guided the study:

1. What are the instructional media available for the teaching and learning of Business Studies?
2. To what extent are these available instructional media utilized in the teaching and learning of Business Studies?

Hypotheses

The following hypotheses tested at 0.05 level of significance are formulated to guide the study.

1. There is no significant difference in the mean achievement scores of students taught Business Studies with

instructional media and those taught without instructional media.

2. There is no significant difference in the mean score of urban and rural students taught Business Studies with instructional media and those taught without.

Method

Quasi experimental research design was adopted in this study. The choice of this design is based on the work of Abonyi 2006 which opined that the design is appropriate in a real life situation where the researcher lacks full control in scheduling of experimental stimuli, which would make pure experiment possible. The design used per-test, post-test non-equivalent control group design.

The researcher assistants administered the business studies text items that are the pretest on both the control and experimental groups before treatment. The pre-test were marked and the scores

recorded and kept for future use. The experiment/ treatment was conducted during the normal Business studies lesson periods as specified in the time table for each of the sampled schools. The subjects in both the control and experimental groups were taught the same topic using the same length of time. After the treatment the post-test was administered to both groups. The post-test items were same with the pre-test except for the rearrangement in numbering.

Population

The population of the study consists of nineteen thousand seven hundred and fifty four (19754) Upper Basic Education students which comprises of both male and female in Enugu Education Zone. Out of this population, a sample of three hundred and twenty (320) basic education 3 students were randomly selected from 4 schools to form the sample for the study.

Instrument for Data Collection

The main instrument used for data collection was Business Studies Test adopted from Enugu State Upper Basic Education Examination (UPBEE) questions and structured questionnaire developed by the researcher to identify the available instructional media and the extent of their utilization. Both instruments were validated by experts in Measurement and Evaluation and Business Education from Faculty of Education Enugu State University of Science and Technology (ESUT) and it yielded reliability coefficient of 0.74 and 0.69 which indicates that the instruments were reliable.

Data Analysis

Data collected for the study were analyzed using relevant statistics. Mean and standard deviation were used to answer the research questions while t-test was used to test the hypotheses formulated at 0.05 level of significance.

Results

Research Question One

What are the Instructional Media Available for Teaching and Learning of Business Studies in Enugu Education Zone?

Table 1

Available instructional media for teaching and learning of business studies.

S/N	Items	X	SD	Decision
1.	Typewriters	2.25	1.09	NA
2.	Computers	2.19	0.58	NA
3.	Tape Recorders	2.75	1.03	A
4.	Business Studies Textbooks	3.34	0.54	A
5.	Chalkboard	3.41	0.49	A
6.	Duplicating Machine	3.44	0.50	A
7.	Photocopiers	3.56	0.61	A
8.	Dictating Machine	2.66	0.48	A
9.	Pictures and Sketches	3.75	0.43	A
10.	Stop Watches	1.63	0.48	NA
11.	Typewriting Studio	1.88	0.60	NA
12.	Computer Laboratory	1.97	0.47	NA
13.	Stapling Machine	2.81	0.88	A
14.	File Jackets	3.25	0.79	A
15.	Perforator	3.31	0.77	A
16.	Adding Machine	3.34	0.64	A

The result on table 1 shows that the following instructional media are available for teaching and learning Business Studies, tape recorders, business studies textbooks, chalkboard, duplicating machine, photocopier, pictures and sketches, stapling machine, file jackets, perforators

and adding machine with mean scores above 2.50.

Research Question Two

To what extent are these available instructional media utilized in the teaching and

learning of Business Studies in Enugu Education Zone?

Table 2

Extent of utilization of available instructional media for teaching and learning of Business Studies.

S/N	Items	X	SD	Decision
1.	Typewriters	2.00	0.75	NU
2.	Computers	2.13	0.82	NU
3.	Tape Recorders	2.14	0.77	NU
4.	Business Studies Textbooks	3.62	0.69	U
5.	Chalkboard	3.87	0.33	U
6.	Duplicating Machine	2.13	1.02	NU
7.	Photocopiers	3.25	0.79	U
8.	Dictating Machine	1.94	0.24	NU
9.	Pictures and Sketches	3.25	0.90	NU
10.	Stop Watches	1.75	0.56	NU
11.	Typewriting Studio	1.91	0.59	NU
12.	Computer Laboratory	2.00	0.69	NU
13.	Stapling Machine	2.87	0.65	U
14.	File Jackets	3.25	0.56	U
15.	Perforators	3.34	0.54	U
16.	Adding Machine	3.41	0.49	U

The analysis shown on table II indicate that items numbers 4, 5, 7, 13, 14, 15 and 16 with mean scores above 2.50 were utilized in teaching and learning Business Studies in Enugu Education Zone.

Hypothesis One

There is no significant difference in the mean achievement scores of students taught Business Studies with instructional media and those taught without instructional media.

Table 3

Mean achievement scores of students taught Business Studies and those taught without instructional media.

Group	N	\bar{X}	SD	Df	t-cal	t-crit	Rmrks
Experimental with instructional media	160	17.20	8.3				
Control without instructional media	160	13.50	6.5	1.47	1.27	1.96	Reject

Hypothesis Two

Table III showed the mean scores of those taught with instructional media and those taught without instructional media. There was significant difference in their mean scores and standard deviation, therefore the null hypothesis of no difference is rejected.

There is no significant difference in the mean score of urban and rural students taught Business Studies with instructional media and those taught without instructional media.

Table 4

Summary of t-test result of mean ratings of urban and rural schools/students taught Business Studies with instructional media.

Variable	N	\bar{X}	SD	Df	t-cal	t-crit	Remark
Urban	160	3.17	0.70				
Rural	160	3.19	0.69	14.7	0.18	1.96	Do not reject

Table IV above indicates that there is no significant difference in mean achievement score of students in urban and

rural schools taught Business Studies with instructional media, therefore the null hypothesis is not rejected.

Discussions of Findings

The finding of research question one revealed that the following instructional media are available for the teaching and learning of Business Studies, tape recorder, business studies textbooks, chalkboard, duplicating machine, pictures and sketches, stapling machine, file jackets, perforators, photocopiers and adding machine. Since Business Studies is practically oriented the use of instructional media for the teaching and learning of the subject cannot be over emphasized. Osuala (1981) maintained the teacher should select the necessary aids that will best achieve the objectives of the lesson he/she wants to teach.

Finding from research question two revealed that only seven out of the available instructional media were utilized. The researcher is of the opinion that this may be as a result of the teachers lack of mastery/skills needed for proper use of some instructional media. A student who was never exposed to the use of instructional media during his/her training programme will perform poorly on graduation.

This confirms the view of Onyejemezie (2005) that the practical goal of instructional media is the efficient utilization of every method and resources of communication, which can contribute towards the full potential of the learner.

Result of research question revealed that students taught Business Studies with instructional media performed better than those taught without instructional media. The experimental group taught with instructional media had mean score of 17.20 and standard deviation of 8.3 while control group taught without instructional media had mean score of 13.50 and standard deviation of 6.5.

The null hypothesis one also revealed that there was significant difference in the performance of students taught with instructional media and those taught without instructional media. The finding agreed with Mbah (2013) which shows that there is statistical significant difference in educational performance of students when they are taught with instructional materials than when

they are not taught without instructional materials.

Result of research question four revealed that there was no significant statistical difference in the mean score of students in urban or rural schools taught with instructional media. The finding showed that location has no effect on students' academic achievement if they are taught with appropriate instructional media. Gana (1997), in his study on the effect of using designed visual teaching models on the learning of mathematics, found that there was no significant difference in mathematics achievement score of students in urban and rural location.

Conclusion

Business studies are one of the vocational subjects offered at the Upper Basic Education level. Vocational subjects are practically oriented. The efficacy of instructional media in the teaching of business studies cannot be overemphasized. Results of the research findings revealed that students taught Business studies

with instructional media performed better than those taught without instructional media. It was also discovered that location has no effect on students' academic achievement provided they are taught with appropriate media. There was no significant statistical difference in the mean score of students in urban and rural schools with regards to use of instructional media. The importance of instructional media in teaching and learning processes cannot be over emphasized. Instructional media help to develop learner's intellectual abilities, aid to attain learning objectives, enhance academic achievement and make learning more realistic.

Recommendations

Based on the findings of this study, the following recommendations are made:

Government should provide instructional media to schools to make for an effective teaching and learning process.

There should be regular workshops and seminars for

teachers to update their skills and knowledge on utilization of current instructional media.

Teachers should develop positive attitude towards the use of instructional media.

Teachers and students should improvise instructional media to make up where they are not available or not accessible.

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