

**DEMONSTRATION TEACHING METHOD AS CORRELATES OF BUSINESS
EDUCATION STUDENTS ACADEMIC ACHIEVEMENT IN COLLEGES OF
EDUCATION IN SOUTH-EAST NIGERIA**

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Abstract

This study investigated demonstration teaching method as correlates of academic achievement of business education students in colleges of education in South-east, Nigeria. The study was guided by three research questions and three null hypotheses stated at 0.05 level of significance. The population of the study comprised 684 NCE II business education student, in colleges of education in south-east, Nigeria. Two sets of structured Questionnaire namely: Demonstration Teaching Method Questionnaire, (DTMQ) and Business Education Achievement Test Questionnaire (BEATQ) validated by experts were used to collect data. The reliability of the instruments were determined using Cronbach alpha method which yielded an overall coefficient of 0.83 and 0.79 respectively. A total of 684 copies of the questionnaire were administered by the researcher with the help of six research assistants and at the end of the exercise, a total of 679 (95%) copies of the instruments were retrieved. Data collected from the respondents were statistically analyzed using Pearson's Moment correlation coefficient at 0.05 level of significance. The findings of the study revealed that there was a low relationship between live demonstration teaching methods and academic achievement of business education students in colleges of education in south-east Nigeria. Again, the relationship between-solving mode of instruction, audio visual demonstration, video-based and academic achievement of business education students in colleges of education in south-east, Nigeria was positive and strong. Based on the findings of the study, the following recommended were made; teachers should strive to use demonstration teaching method to improve teaching and learning process; Students should adapt to demonstration teaching method, to enhance academic achievement; Curriculum planners should incorporate computer assisted instruction such live demonstration, video based and audio visual demonstration teaching methods in the business education curriculum to enable the programme achieve its goal of equipping the students with skills needed to become self-reliant.

Keywords: Computer Assisted Instruction, Academic achievement, Business education.

INTRODUCTION

Education is widely recognized as a vital instrument for national development because it equips individuals with the knowledge, skills, and attitudes needed to contribute meaningfully to society. Chazan (2023) defined education as the deliberate systematic and sustained effort to transmit, provoke or acquire knowledge, values, attitudes and skills as well as any learning that results from that effort.

The quality of education depends not only on the curriculum but also on the teaching methods employed by teachers. Teaching methods are described as principles, strategies and procedures used by teachers to facilitate students' learning and achieve instructional objectives (Wong & Wong, 2020). Ormrod (2020) described teaching method as general principles, pedagogy and management strategies used teachers for classroom instruction. There are different types of teaching methods such as lecture method, discussion method, demonstration method, project method, inquiry method, problem solving method and cooperative method. An effective teaching method enhances students understanding promotes active participation and improved academic achievement in school subjects such as business education.

Business education is a vocational programme designed to equip students with practical, entrepreneurial, managerial and office skills required for employment, self-reliance, and lifelong learning. In view of the fact that business education involves both theoretical and practical components, teachers are expected to adopt instructional methods that encourage student's active participation and practical skill acquisition.

One of the learner-centered instructional approaches commonly used in business education is the demonstration teaching method. Demonstration teaching methods is defined as method of teaching in which the teacher illustrates and explains a process, experiment or practical activity while students observed ask questions and later imitate or practice the procedure (Manion & Morrison 2018). It involves the teacher showing students how a particular task, process or procedure is performed while explaining each step before students are given the opportunity to practice. This method enables learners to observe, imitate, and develop the required knowledge and practical competencies, thereby improve their academic achievement.

Academic achievement refers to the level of success students attain in their educational activities often measured through examinations, tests, assignments and continuous assessment scores. The academic achievement of business education students is influenced by several factors, including student's motivation, learning environment, teachers' competence, availability of instructional materials, and the teaching method, adopted by instructors or teachers.

Despite the recognized importance of business education, reports of poor academic achievement among some students have continued to raise concern among educators, parents, and policy makers. This situation has promoted researchers to investigate teaching methods that can improve students' learning outcomes. Among these methods, the demonstration teaching method has been identified as one that may enhance students' understanding, retention, practical skills, and overall academic achievement.

This study therefore sought to examine the relationship between the demonstration teaching method and the academic achievement of business education students in colleges of education in south-east Nigeria.

STATEMENT OF THE PROBLEM

Despite the importance of effective teaching methods in promoting learning, many students continue to record poor academic achievement in business education. This has raised concern about whether the teaching methods used by teachers are sufficiently effective in improving students understanding and performance.

A lot of studies have been conducted by scholars on the relationship between teaching methods and academic achievement of pupils and students in primary and secondary schools in Nigeria and elsewhere. These studies have not yielded much useful results and were not specific and unique. The demonstration method is believed to make learning more practical, interesting and meaningful, but its actual relationship with students' academic achievement has not been clearly established in many schools.

It is against this background that this study examined the relationship between demonstration teaching methods and academic achievement of students in colleges of education in south-east, Nigeria.

RESEARCH QUESTIONS

The following research questions guided the study.

1. What is the relationship between live demonstration and academic achievement of business education students in colleges of education in south-east Nigeria?
2. What is the relationship between audio-visual demonstration and academic achievement of business education students in colleges of education?
3. What is the relationship between video-based demonstration and academic achievement of business education students in colleges of education?

HYPOTHESES

The following null hypotheses were tested at 0.05 level of significance.

1. There is no significant relationship between live demonstration and academic achievement of business education students.
2. There is no significant relationship between audio-visual demonstration and academic achievement of business education students in colleges of education.
3. There is no significant relationship between video-based demonstration and academic achievement of business education students in colleges of education.

METHOD

The study adopted correlational research design. Correlational research design examines the relationship between two or more variables without manipulating them, focusing on observing and measuring naturally occurring relationships. The study was carried out among business education students in selected colleges of education in the south, east, Nigeria. The population comprised nine colleges of education and 684 business education students in colleges of education in the study area. The colleges include; Alvan Ikeokwu College of Eductaion, Owerri, Federal College of Education Iheamufu, federal College of Education Isu-Onicha, Ebonyi state, Imo State college of Education, Ifite-Uboma, Federal college of Education (Technical) Abia state, Ebonyi State college of Eductaion Ikwo, Enugu state college of education, Enugu, federal college of education (Technical) Umunze and Nwafor Orizu College of Education, Nsugbe.

The sample of the study consisted of 679 business education students drawn from the population. The instrument used for data collection was a Demonstration Teaching Method Questionnaire designed by the researcher and validated by experts drawn from the Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. The suggestions and correction of the validator were incorporated into the final version of the instrument. The instrument has two major Sections A and B. section A sought information on the demographic data of the respondents whereas section B has 10 items on demonstration methods of teaching business education. The response format adopted was 4-point scale of Strongly Agree, Agree, Disagree and Strongly Disagree with weighted values of SA = 4 points, A = 3 points, Disagree = 2 points and SD = 1 point. The reliability of the instrument was established through a trial test conducted among 20 students from college of education South-South which was outside the study area. Data collected were analyzed using Cronbach alpha method and this yielded an internal consistency of 0.84 which was considered high to adjudge an instrument reliable and acceptable. The questionnaire were administered and retrieved by the researcher and his research assistants. The process of data collection lasted for one week. The data collected were subjected to analysis using Pearson Product Moment Correlation Coefficient. All hypotheses were tested at 0.05 level of significance. The statistical package for social sciences (SPSS) version 26 was deployed in data analysis.

RESULTS

The data collected were analyzed and presented in tables in accordance with research questions and hypotheses that guided the study.

Research Question One: What is the relationship between live demonstration and academic achievement of business education students in colleges of education in South East, Nigeria?

Table I: Correlation of Relationship between live demonstration and academic achievement of business education students in colleges of education

Source of Variation	N	Live Demonstration	Academic Achievement	P-value
Live Demonstration	679	1	0.221	0.000
Academic Achievement	679	0.221	1	

Table 1 showed a correlation coefficient (r) of 0.221 which is positive and within the coefficient limit of $\pm 0.21 - 0.40$. This indicated that there is a positive low relationship between live demonstration and academic achievement of business education students in colleges of Education in South-east, Nigeria.

Research Question Two: What is the relationship between audio-visual demonstration and academic achievement of business education students in colleges of Education in South-east Nigeria?

Table 2: Correlation of Relationship between Audio-visual demonstration and academic achievement of Business Education Students in Colleges of Education

Source of Variation	N	Audio-Visual Demonstration	Academic Achievement	P-value
Audio-visual Demonstration	679	1	-0.462	0.000
Academic Achievement	679	-0.462	1	

Table 2 indicated that a correlation coefficient (r) of -0.462 which is negative and within the coefficient limit of $\pm 0.41 - 0.60$. This indicated that there is a negative moderate relationship between Audio-Visual Demonstration and Academic achievement of Business Education Students in Colleges of Education in South-East Nigeria.

Research Question Three: What is the relationship between video-based demonstration and academic achievement of business education students in colleges of education in south-east, Nigeria?

Table 3: Correlation of relationship between video-based demonstration and academic achievement of business education students in colleges of education

Source of Variation	N	Video-based Demonstration	Academic Achievement	P-value
Video-base Demonstration	679	1	0.760	0.000
Academic Achievement	679	-0.760	1	

Table 3 revealed that a correlation co-efficient of 0.760 which is positive and within the coefficient of $\pm 0.61 - 0.80$. This indicated that there is a positive high relationship between video-based demonstration and academic achievement of business education students in colleges of education in south-east, Nigeria.

Testing of Hypotheses

Hypothesis One: There is no significant relationship between live demonstration and academic achievement of business education students in colleges of education.

Table 4: Test of significance between live demonstration and academic achievement of business education students in colleges of education

Source of variation	N	Live demonstration	Academic achievement	P-value	Remarks
Live demonstration	679	0.221	1	0.000	Negative significant
Academic achievement	679	1	0.221		

The data in table 4 showed that there was a negative significant relationship between live demonstration and academic achievement of business education students ($r = 0.221 = 0.000$). The null hypothesis was rejected since the p-value 0.000 was less than 0.05 level of significance.

Hypothesis Two: There is no significant relationship between audio-visual demonstration and academic achievement of business education students in colleges of education

Table 5: Test of significance between audio-visual demonstrations of business education students in college of education.

Source of variation	N	Audio-visual demonstration	Academic achievement	P-value	Remarks
Audio-visual demonstration	679	1	-0.462	0.000	Negative significant
Academic achievement	679	-0.462	1		

The data in Table 5 revealed that there was negative significant relationship between audio-visual demonstration and academic achievement of business education students in colleges of education in south-east, Nigeria. ($r = 0.462$, $P = 0.000$). The null hypothesis was rejected since the p-value was less than 0.05 level of significance.

Hypothesis Three: There is no significant relationship between video-based demonstration and academic achievement of business education students in colleges of education

Table 6: Test of significance between video-based demonstration and academic achievement of business education students in colleges of education.

Source of variation	N	Visual-based demonstration	Academic achievement	P-value	Remarks
Video-based demonstration	679	0.067	1	0.000	Positive Significant
Academic achievement	679	1	0.067		

The data in Table 6 indicated that there was a positive significant relationship $r = 0.067$, $p = 0.000$) between video-based demonstration and academic achievement of business education students in colleges of education in south-east Nigeria. The null hypothesis was rejected since the p-value of 0.000 was less than 0.05 level of significance

Discussion

The results of this study were discussed under the following sub-headings:

Live demonstration method of teaching and academic achievement of business education students

The findings of the study based on research question one and hypothesis one showed that there was a significant positive low relationship between the live demonstration method of teaching and the academic achievement of business education students on south-east Nigeria's college of education. The outcome of this study contravened the findings of Sivaranja et al (2021) who conducted a study on the effect of demonstration and flipped classroom with continuous formative assessment on dental students orthodontic wire-bending performance in Malaya and the mean wire-bending scores for FC were significantly higher than LD for two of the six assignments. Similarly, the study by Ivey and Parrish (2022) showed that live demonstration scores were slightly higher than the LMS-embedded multimedia scores for the upper extremity techniques. The result of the two later studies disagreed with the findings of the present study indicating no consensus in their findings.

Audio-visual demonstration teaching method and academic achievement of business education students

The findings of the study based on research question two and hypothesis two revealed that there was a negative moderate relationship between Audio-Visual demonstration method of teaching and academic achievement of business education students in colleges of education. The outcome of this study disagreed with Fakomogbon (2021) who asserted that audio-visual aids had significant positive effect on student's achievement in sciences. In the same vain, Ojelade et al (2020) contended that audio-visual instructional materials had a positive significant effect on student's achievement in sciences.

The findings of this study and some previous study differ. This implies that there is no consensus among scholars on the relationship between audio-visual demonstration method and academic achievement among business education students in colleges of education.

Audio-based demonstration teaching method and academic achievement of business education students

The findings of the study based on research question three and hypothesis three revealed that there was a positive high relationship between video-based demonstration method of teaching and academic achievement of business education students in colleges of education. The outcome of this study is in line with the studies by Fabunam and Ventura (2021) who asserted that there was a positive significant relationship between video-based demonstration and academic achievement of students in colleges of education. The use of video-based demonstration is high because in this digital era, majority of the students spend most of their time watching video and this may have affected their knowledge acquisition process.

Conclusion

The study was conducted among business education students in colleges of education in the south-east. The results of the study showed that the live demonstration method of teaching in this study was low, but this was a disagreement with previous studies compared and contrasted in this study. The audio-visual demonstration teaching method has contradicting findings, some were low while others were high. Finally, video-based demonstration seems to be best because both the present and the previous studies showed high positive results on the use of demonstration methods of teaching.

Recommendations

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

1. Teachers should strive to use variety of demonstration teaching methods to improve teaching and learning process.
2. Colleges of education management and government should equip colleges of education with modern teaching aids that will necessitate the use of video-based and audio-visual in the teaching and learning in colleges of education in south-east, Nigeria.
3. There is need to train and retrain the teachers of business education on the various form of demonstration teaching methods so to enhance teaching methodologies.

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