



Consequences of Teachers' Quality on Student Outcome in Technical and Vocation Colleges in Lagos Nigeria

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ABSTRACT

This study aimed to investigate the influence of teachers' quality on students' outcomes in technical and vocational colleges. Two research questions and two hypotheses were tested at 0.05 level of significance. The Ex-post facto research design was used for the study, the population of the study was 223 students. The sample of the study was 85 undergraduate students. The collected data was analysed using the mean for the research questions and ANOVA to test the hypotheses. The result revealed that the teachers' quality related to sex and certification does not have any significant influence on students' outcomes in technical and vocational colleges. The recommendation was made that the government should recruit competent teachers for technical and vocational college teaching, there should be no consideration in the recruitment of technical and vocational teachers because the students' outcomes are not related to teachers' sex and certification.

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1. INTRODUCTION

Education can be viewed as the transmission of a society's values and acquired knowledge. In this respect, it is analogous to the terms socialization and enculturation used by social scientists. The Technical and Vocational Training policy, as adopted by the Federal Ministry of Education (FME) in Nigeria, is structured on three major goals through which economic challenges can be ameliorated. The success of this/ rests on the effectiveness of its policy implementation strategies. Education is described as an unavoidable device for augmenting economic progress and ensuring nation-building (Aluede et al., 2020; Bereketeab, 2020). Technical and Vocational training is the pillar of all-round development, serving as the rudiment for literacy, skills acquisition, technological improvement and the capacity to control the natural resources of the state. Technical and Vocational colleges and institutions meant to develop students with practical skills in different career fields which will help them become self-reliant to themselves and the nation. The technical and vocational programmes in Nigeria are offered at the pre-vocational and vocational schools at the secondary school level, the technical colleges, the polytechnics, and colleges of technical education and universities at the postsecondary school level. Technical and vocational colleges have been seen as the type of institution that develops its trainees with the necessary skills and knowledge to transform theoretical science into goods and services for the benefit of humanity (Okolie et al., 2020; Cai & Kosaka, 2024). McGrath & Yamada (2023) stated that technical and vocational colleges are very important to manage the environment recourses for the social and economic development of a nation. Some of the goals for technical and vocational education include: Offering a diversified curriculum to cater for the differences in talents, disposition, opportunities and future roles. Providing skilled labour at sub-professional levels in the fields of applied sciences, technology and commerce. Inspiring students with a desire for self-improvement and achievement of excellence (Federal Republic of Nigeria, NPE 2014).

Academic outcome is used in the school to evaluate students' success in learning and examination. According to Abdallah & Alkaabi (2023), academic outcomes can be determined by test and examination scores or marks assigned by the designated teacher. Sattar et al. (2022) stated that the performance of students in any academic programme has always been of curiosity to the education stakeholders. According to Wong et al. (2024), academic outcome is a measure of the degree of success in a specific student's area of study. It is the outcome of education that indicates the performance of academically. Academic outcome is a major issue for teachers, students, parents and guardians as well as other stakeholders in the education sector. This concern cuts across all levels of the education system, including primary, secondary and tertiary.

An excellent academic outcome for any level of students is an indication of teaching and learning effectiveness while poor academic achievement, on the other hand, is an indication that the teaching and learning process is not effective. The academic outcome of students in Nigeria has been and is still of great concern to educators, government and parents because of the great importance that education has on the nation's growth and development. Parents and government are in agreement that the huge investment in education is not yielding the desired result. Poor academic performance has been observed in school subjects, especially mathematics, and English language among secondary school students (Bah, 2022; Engida et al., 2024). This is having a serious effect on the manpower in all sectors of the economy.

Teachers are always been celebrated and rewarded when their schools and subject areas are highly rated, appreciating the value of rewarding teachers who produce better results,

teachers should also not be left to blame when students perform poorly. It has been proven empirically from various studies that teachers have an important influence on students' academic outcomes, according to Mincu (2022), teachers display an important role in education development because the teachers are mainly responsible for translating policy into action and principles based on practice during interaction with the students. According to Suleiman (2023), there has never been a consensus on the specific teacher factors that influence students' academic outcomes. Different scholars have studied the effect of teacher components such as sex, educational certification and years of service on students' academic outcomes. Dechavez (2024) found that there was a significant relationship between teachers' sex and students' academic achievement. Onikoyi et al., (2023) found that teachers' years of service and educational qualifications were the prime predictors of students' academic achievement. So, that teachers' years of service and educational qualifications were not significantly related to students' achievement.

Ullah et al., (2021) found that the teacher factors that significantly contributed to low academic achievement include lateness to school, absenteeism, and inability to complete daily school tasks. Different studies have revealed that various factors related to the teachers' characteristics such as their certification, age, years of service, and sex affect the academic performance of students in vocational courses which entrepreneurship is a part, entrepreneurship course is a general course in the programme of technical and vocational Education which is a core course. Vocational Education students must pass as a requirement for graduation. Therefore, the study aims to assess the effects of teachers' characteristics on students' academic outcomes in technical and vocational programmes. This prompted the focus on the effects of teacher's sex and certification on the academic outcome of students in entrepreneurship.

Teaching and learning of entrepreneurship greatly depend on the teachers' knowledge of the course content and ability to adequately or effectively deliver the instruction to the students. Different researchers have stated that a lot of teachers' quality can positively or negatively affect subject delivery. According to Umoru (2024), these variables include teachers' certification, years of service, and sex. It is against these backdrops that this present study seeks to examine whether teachers' sex and certification can affect the academic outcome of students in entrepreneurship.

Thus, the specific purposes of the study are to:

- 1) assess the effects of teachers' sex on students' academic outcomes on entrepreneurship in technical and vocational colleges.
- 2) examine the effect of teachers' certification on students' academic outcomes on entrepreneurship in technical and vocational colleges
- 3) investigate the scores of students who were taught entrepreneurship by a male and female teacher
- 4) examine the scores of students who were taught entrepreneurship by the teacher with an M.Sc degree and bachelor's degree

2. METHODS

The ex-post facto research design was used in this study. This design was appropriate because no variable was manipulated in this study. The study was limited to the entrepreneurship course of the Vocational and Technical College, Ikotun, Lagos. The entrepreneurship results from the 2011/2012-2013/2014 session were used. Also, the study was limited to final-year regular students. The population of this study was 334 students who

registered entrepreneurship from 2011/2012 to 2013/2014 academic session. Due to the students' grades available at the time of the request, a purposive sampling technique was used to select students' grades for two sessions. The sessions each were selected based on the teachers' sex and certifications. However, 2013/2014 session results were used as a sample of the study. Therefore, the sample of the study was 91 final-year students. No instrument was developed in this study. Rather, the researchers wrote a letter to the principal of Vocational and Technical College, Ikotun to request data which was the entrepreneurship results for the selected sessions. Data were collected by the researchers from the school office and the mean was used to analyse the data for the research questions, while analysis of variance (ANOVA) was used to test the hypotheses. However, the mean score of 50-69 is the average outcome, 70-100 is the high outcome and 0-49 is the poor outcome. Furthermore, it was decided that the f-calculated value was equal to or greater than the table f-value, which indicates a significant difference; the null hypothesis will be rejected but otherwise, the null hypothesis will be accepted. All statistical analyses were performed with statistical package for social sciences (SPSS) software.

3. RESULTS AND DISCUSSION

Research Question 1: What is the effect of teachers' sex on the student's academic outcomes in technical and vocational colleges?

Table 1 revealed that the outcomes of students taught by male and female teachers were average, but the mean scores of students taught by female teachers were higher than those of students taught by male teachers, the result can be seen at **Table 1**.

Table 1. Teachers' sex on the student's academic the mean scores of students taught entrepreneurship by male and female teachers

Teachers' Sex	Numbers of Students	Mean Score	Remark
Male teacher	8	54.86	Average outcome
Female teacher	23	60.33	Average outcome

Research Question 2: What is the effect of teachers' certification on the student's academic outcomes in technical and vocational colleges?

Table 2 revealed that the outcomes of students taught by teachers with M.Sc degrees and bachelor's degrees were average, but the mean scores of students taught by teachers with M.Sc degrees were higher than those of students taught by teachers with bachelor's degrees can be seen at **Table 2**.

Table 2. The mean scores of students taught entrepreneurship by the teacher M.Sc degree and bachelor's degree

Teachers' Certification	Numbers of Students	Mean Score	Remark
Teacher with M.Sc	13	54.36	Average outcome
Teacher with bachelor	47	53.83	Average outcome

Hypothesis 1: There is no significant difference in the mean scores of students who were taught entrepreneurship by male and female teachers.

Table 3. The analysis of variance (ANOVA) of mean scores of students taught entrepreneurship by male and female teachers

Sum of Squares	Df	Mean	Square	F	Sig
Between People	974.714	6	162.452	.007	.935
Within People Between Items	1.143	1	1.143		
Residual	955.857	6	159.310		
Total	957.000	7	136.714		
Total	1931.714	13	148.593		

df=13, Ftab=4.67

Table 3 revealed that the f-calculated (.007) is less than the F-tabulated (4.67), therefore, the hypothesis was accepted. This implies that there is no significant difference in the mean scores of students who were taught entrepreneurship by male and female teachers.

Hypothesis 2: There is no significant difference in the mean scores of students who were taught entrepreneurship by teachers with M.Sc degrees and bachelor's degrees can be seen at **Table 4**.

Table 4. The analysis of variance (ANOVA) of the mean scores of students taught entrepreneurship by the teacher with an M.Sc degree and bachelor's degree

Sum of Squares	Df	Mean	Square	F	Sig
Between People	1872.464	13	144.036	.002	.885
Within People Between Items	1.2893	1	2.893		
Residual	1729.607	13	133.047		
Total	1732.500	14	123.750		
Total	3604.964	27	123.750		

*Df=27, Ftab=4.21

Table 4 revealed that the f-calculated (.022) is less than the F-tabulated (4.21), therefore, the hypothesis was accepted. This implies that there was no significant difference in the mean scores of students taught entrepreneurship by teachers with M.Sc degrees and bachelor's degrees.

Research question one revealed that the outcome of students taught entrepreneurship by male teachers was average (54.86). Also, revealed that the outcome of students taught entrepreneurship by female teachers was average (60.33). Furthermore, research hypothesis 1 which stated that there is no significant difference in the mean score of students taught entrepreneurship by male and female teachers was accepted since the F-calculated (0.007) is less than the F-tabulated (4.67). These findings are in agreement with a study conducted by Yazici & Nakıbođlu (2024) which revealed that the teacher's sex does not affect their ability to impact knowledge on the students, much as he/she is a skilled teacher in that field of study. However, the findings are in disagreement with the research of Narayan (2018) which revealed that there was a significant relationship between teachers' gender and students' academic achievement.

Research question two revealed that the outcome of students taught entrepreneurship by a teacher with an M.Sc degree was average (54.36). As well, revealed that the outcome of students taught entrepreneurship by a teacher with a bachelor's degree was average (53.83). In addition, research hypothesis 2 which stated that there is no significant difference in the mean score of students taught entrepreneurship by the teacher with an M.Sc and bachelor was accepted since the F-calculated (0.022) is less than the F-tabulated (4.21). This is in line study which revealed that teachers' years of service and educational certification were not significantly related to students' achievement. On the contrary, Yazici & Nakıbođlu (2024) study revealed that students taught by teachers with higher certifications performed better than those taught by teachers with lower certifications. Teachers' experience and educational qualifications were the prime determinants of students' academic outcomes. Furthermore, study revealed that a positive relationship exists between teachers' characteristics (qualifications and experience) and the performance level of the students.

4. CONCLUSION

Based on the findings of this study, it was concluded that teachers' sex and certification do not have a significant influence on the academic outcome of students taught entrepreneurship. This implies that the rate of students' outcomes is the same when taught by male or female teachers, and when taught by teachers with M.Sc degree and bachelor's degrees. The implication of the results from this study for practice or policy is that the study has been able to establish that teachers' sex and certification do not have a significant influence on students' outcomes in technical colleges. This implies that in policy of making sex and certification should not be a strong criterion for selecting technical education teachers. Based on the findings of this study, the following recommendations were made: 1) Since students' outcome is not related to the sex of the teachers, there should be no gender preference in recruiting technical and vocational teachers in schools. 2) Since students' outcome is not related to the certification of the teachers, there should be no certification preference in recruiting technical and vocational teachers in schools.

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