

**CORRELATION BETWEEN STUDENTS' ACADEMIC ACHIEVEMENT IN  
EDUCATIONAL TECHNOLOGY AND ENTREPRENEURSHIP IN VOCATIONAL  
AND TECHNICAL EDUCATION**

**BY**

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**Abstract**

*This study investigated Academic Achievement in entrepreneurship in Vocational and Technical Education and Educational Technology Practice among students of Kwara State college of Education (Technical), Lafiagi. The study investigated students' general achievement in EDU 212 and VTE 220, determined the relationship between students' achievement in EDU 212 and VTE 220 based on gender and examined relationship between students' achievement in EDU 212 and VTE 220 based on course of study. The population of the study consists of all 200 level Vocational and Technical Education students of Kwara State College of Education (T), Lafiagi. Frequency counts and Percentages was used to answer research question 1 while Mean Score, Standard Deviation and Pearson's Product Moment Correlation Coefficient was used to answer research questions 2 and 3 in the study. The findings of the study indicated that students' general achievement in EDU 212 and VTE 220 is low with 51.33% of the students scoring between letter grade D to F, significant relationship exist between students' achievement in EDU 212 and VTE 220 based on gender and no significant relationship exist between students' achievement in EDU 212 and VTE 220 based on course of study. The study however concluded*

*that the objectives of EDU 212 and VTE 220 have not been achieved as highlighted NCCE green book for NCE programme. It was then recommended among others that students should be more committed to their study for improved academic achievement.*

**Keywords:** Academic achievement, Entrepreneurship, Vocational and technical education, Educational technology

## **Introduction**

The creation of a country's wealth is dependent on how competitive its firms were. This however, largely relies on the capabilities of its entrepreneurs. Entrepreneurship is an activity that involves the discovery, evaluation and exploitation of opportunities to introduce new goods and services, ways of organising, markets, processes and raw materials through organising efforts that previously had not existed. The individual entrepreneur detects or creates business opportunities that he or she then exploits through small and medium-sized firms, normally participating in funding the capital for that firm, carries out the role of arbitrator or simply sells the idea of the business project.

Entrepreneurship education is a formidable educational programme introduced with capacity through its training and content to generate business opportunities and turn job seekers to employers of labour (Ibibo & Abdulrahman, 2017). Over the years, many students, after their academic programme in colleges of education either seeks employment or admission to Universities for further study. In the process, they become frustrated after a long search for the limited available jobs in the labour market and admission slot in the Universities. Consequently, the National Commission for Colleges of Education (NCCE, 2012) as Nigerian Colleges of Education regulatory body in its green book introduced entrepreneurship in vocational and technical education as a means of preparing students with skills and innovative techniques of management and administration of small and medium businesses and educational technology practice as means of preparing student with vocational knowledge and skills required for design, production, improvisation and use of instructional media among others.

### **Statement of the Problem**

Ibibo and Abdulrahman (2017) opined that Nigerian school curriculum was geared towards 3R's (Reading, Writing and Arithmetic) which were deficient in vocational skill acquisition for self reliance among graduates in Nigeria. Studies have also indicated that the introduction of alternative to practical and students' over dependent on commissioning out practical works for experts at the expense of their personal engagement in the production process hampered their skill acquisition in their various fields of learning for entrepreneurship development.

It is in view of the above that this research investigated the correlation between students' academic achievement in entrepreneurship in vocational and technical education and educational technology theory and practice among students of Kwara State College of Education (Technical), Lafiagi.

### **Literature Review**

#### **Entrepreneurship and Educational Technology**

The modern and popular use of the term entrepreneur can be traced back to the economist Joseph Schumpeter's work *The theory of economic development: an inquiry into profits, capital, credit, interest, and the business cycle* (1934). The term 'entrepreneur' precedes Schumpeter though, originating from French common language in the 12th century, denoting someone who undertakes a task (Landström, 2005). Entrepreneurship is defined as an activity that involves the discovery, evaluation and exploitation of opportunities to introduce new goods and services, ways of organising, markets, processes and raw materials through organising efforts that previously had not existed (Venkataraman, 1997; Shane & Venkataraman, 2000).

The entrepreneurial function implies the discovery, assessment and exploitation of opportunities, in other words, new products, services or production processes; new strategies and organizational forms and new markets for products and inputs that did not previously exist (Shane and Venkataraman, 2000). The entrepreneurial opportunity is an unexpected and as yet unvalued economic opportunity. Entrepreneurial opportunities exist because different agents have differing ideas on the relative value of resources or when resources are turned from inputs into outputs. The

theory of the entrepreneur focuses on the heterogeneity of beliefs about the value of resources (Alvarez and Busenitz, 2001).

This is the age of information technology. The use of science and technology can be seen everywhere in our daily lives. Science and technology has been instrumental in bringing efficiency, improvement and perfection in the process and product of human work. In case of teaching-learning, it also makes it more comprehensive and simple and helps to display more information in a lesser time while making the process more interactive. Educational technology (ET) in the wider sense includes the development, application and evaluation of systems, techniques and aids in the field of learning and teaching. The shape of future schools, colleges, and universities is bound to change radically due to technological impact in the years to come. There are hardly any areas left, where you do not feel the necessity as impact of technology.

Educational technology offers the means to reach large numbers in remote and inaccessible areas, remove disparity in educational facilities available to the disadvantaged, and provide individualized instruction to learners conveniently suited to their needs and pace of learning (NPE, 1986). It is a communication process resulting from the application of scientific methods to the behavioural science of teaching and learning. This communication may or may not require the use of media such as television broadcasts, radio, cassettes etc. (UNESCO, 2001).

However, entrepreneurship in vocational and technical education and educational technology practice as entrenched in the NCCE (2012) minimum standard for vocational and technical education and general education respectively were designed to impact in students' knowledge, skills and attitude required to be self-reliance after school.

### **Studies on Students' Academic Achievement**

Academic achievement of students in Nigerian institutions has been of much concern to all and sundry. Over the years, some educators have argued that entry standards are the most important determinants of success in higher institutions; others maintain that non-academic factors must also be considered. This implies that there is considerable evidence that the views and

expectations about success held by students are not always consistent. Fadokun (2009) asserted that schools are established with the aim of impacting knowledge and worldwide institutions have come to be recognized as centers of knowledge accumulation and knowledge transfer with students being the most essential asset for any educational institute.

According to Akomolafe and Olorunfemi-Olabisi (2011) stakeholders in Nigerian educational system ranging from; parents, guardians, lecturers, family members, counsellors, and many others, are so much concerned about students' achievements and academic standard. Reason for this is probably because success in education is highly instrumental to the development of a nation.

However, as students' progress from admission to graduation, a complex interaction of some factors such as personal, social, academic and institutional factors tend to influence the quality of their educational experiences. The issue of poor academic performance of students in Nigeria has therefore become a source of concern to most parties involved in the delivery of quality education within the country. This unhealthy situation has led to the widely acclaimed fallen standard of education in Nigeria (Akiri and Ugborugbo, 2009; Bamidele and Bamidele, 2013).

Studies in the past have identified study habit, student's self-concept, teacher's qualification, teaching method, school environment and government as factors influencing students' academic achievement and the primary environment of the students is the home and it stands to exert tremendous impact on students' achievements. Some research also reveals that there exist a relationship between academic achievement and some demographic characteristics. According to Keith, Byerly, Floerchinger, Pence and Thornberg (2006) there exists a positive relationship between age and academic performance. Yousefi (2010) found relationship between family income and academic achievement of high school students, while Tuttle (2004) found that students' academic performance correlates with locality of residence and household income.

### **Research Questions**

The following research questions were raised and answered in the study:

- What is students' general achievement in EDU 212 and VTE 220?
- What is the relationship between students' achievement in EDU 212 and VTE 220 based on gender?
- What is the relationship between students' achievement in EDU 212 and VTE 220 based on course of study?

### Methodology

The population for the study comprised all students of Kwara state college of education (T), Lafiagi, while the target population consisted of 200 level vocational and technical education students of Kwara state college of education (T), Lafiagi. The procedure used in selecting sample for this study was purposive sampling technique this was used to select 200 level students from Agricultural Science Education as well as all students from Technical Education departments because they are all offering the courses (EDU 212 and VTE 220) at 200 level.

The research instrument that was used to gather the relevant data for this study was the academic board approved results of EDU 212 and VTE 220 of the Kwara state college of education (T), Lafiagi. The academic board approved results of the college was collated for all 200 level students of vocational and education departments. This was subjected to descriptive and inferential statistics using frequency counts and percentages as well as Mean Score, Standard Deviation and Pearson's Product Moment Correlation Coefficient to answer the research questions.

### Results

**Table 1: Distribution of Respondents by Course of Study**

Variable	Frequency	Percentage (%)
Agricultural Education	264	70.21
Technical Education	112	29.79
<b>Total</b>	<b>376</b>	<b>100.00</b>

Table 1 indicated that 265 (70.21%) of the students are from Agricultural Education department while 112 (29.79%) of the students whose result were analyzed in the study were from Technical Education department.

**Table 2: Distribution of Respondents by Gender**

Variable	Frequency	Percentage (%)
Male	297	78.99
Female	79	21.01
<b>Total</b>	<b>376</b>	<b>100.00</b>

From the approved result used for the study, 297 (78.99%) were male while 79 (21.01%) were female

*Research question 1: What is students' general achievement in EDU 212 and VTE 220?*

Table 3 presents data on students' general performance in semester academic board approved result of the college, the detailed information is presented in table 3.

**Table 3: Distribution of Respondents General Achievement Based on Letter Grade**

Variable	Frequency	Percentage (%)
A	42	11.17
B	53	14.10
C	88	23.40
D	74	19.68
E	63	16.76
F	56	14.89
<b>Total</b>	<b>376</b>	<b>100.00</b>

Table 3 showed that 42 (11.17%) of the students scored grade A, 53 (14.10%) scored grade B, grade D had 74 (19.68%) while grades E and F had 63 (16.76%) and 56 (14.89%) respectively. It would be seen from the table that 48.67% of the students fall in the A, B,C letter grade of the approved result while 51.33% of the students fall in the D, E and F letter grade categories. This could infer that larger percentage of the students fall in the weak letter grade categories which implied that the general achievement of the students is weak.

**Research question 2:** *Is there any relationship between students' achievement in EDU 212 and VTE 220 based on gender?*

**Table 4: Pearson's Product Moment Correlation Coefficient Showing Relationship between Students' General Achievement Based on Gender**

Variable	No	Mean	Standard Deviation	Df	Calculated r-value	Critical t-value	Sig.
Male	369	38.26	17.251	374	.280	.000	0.05
Female	07	54.27	10.136				
<b>Total</b>							

\*\* = Correlation is significant at the 0.05 level (2 tailed)

Table 4 showed a calculated r-value of .280 and a critical t-value of .000 with 374 degree of freedom at 0.05 level of significant. Since the calculated r-value is greater than the critical t-value, this shows that there is a significant relationship between students' achievement in EDU 212 and VTE 220 based on gender.

**Research question 3:** *Is there any relationship between students' achievement in EDU 212 and VTE 220 and their course of study?*

**Table 5: Pearson's Product Moment Correlation Coefficient Showing Relationship between Students' General Achievement Based on Course of Study**

Variable	No	Mean	Standard Deviation	Df	Calculated r-value	Critical t-value	Sig.
Agric. Edu.	211	43.69	17.370	374	.022	.164	0.05
Tech. Edu.	165	48.29	11.478				
<b>Total</b>							

\*\* = Correlation is significant at the 0.05 level (2 tailed)

Table 5 showed a calculated r-value of .022 and a critical t-value of .164 with 374 degree of freedom at 0.05 level of significant. Since the calculated r-value is less than the critical t-value, this shows that there is no significant relationship between students' achievement in EDU 212 and VTE 220 based on course of study.

### **Discussion**

The students' general achievement in EDU 212 and VTE 220 is weak with larger percentage (51.33%) of the students falling in the weak letter grade categories. In line with this study, Fadokun (2009) found that schools are established with the aim of impacting knowledge and worldwide institutions have come to be recognized as centers of knowledge accumulation and knowledge transfer with students being the most essential asset for any educational institute.

There is a significant relationship between students' achievement in EDU 212 and VTE 220 based on gender. In support of this finding, Akomolafe and Olorunfemi-Olabisi (2011) stakeholders in Nigerian educational system ranging from; parents, guardians, lecturers, family members, counsellors, and many others, are so much concerned about students' achievements and academic standard. Reason for this is probably because success in education is highly instrumental to the development of a nation.

There is no significant relationship between students' achievement in EDU 212 and VTE 220 based on course of study. In support of this finding, Keith, Byerly, Floerchinger, Pence and Thornberg (2006) who found that positive relationship between age and academic performance. Yousefi (2010) found relationship between family income and academic achievement of high school students, while Tuttle (2004) found that students' academic performance correlates with locality of residence and household income.

### **Conclusion**

The study however concluded that the objectives of EDU 212 and VTE 220 as enunciated in the green book has not been met based on the general achievement of the students as indicated in the findings of the study.

## Recommendations

The study however recommended that:

- ❖ Students should be more committed to their study for improved academic achievement in the courses;
- ❖ More effort should be adopted by all stakeholders to bridge the gender inequality that exist in the student achievement; and
- ❖ Workable principles should be enacted to maintain the academic equality in the students' achievement based on course of study.

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