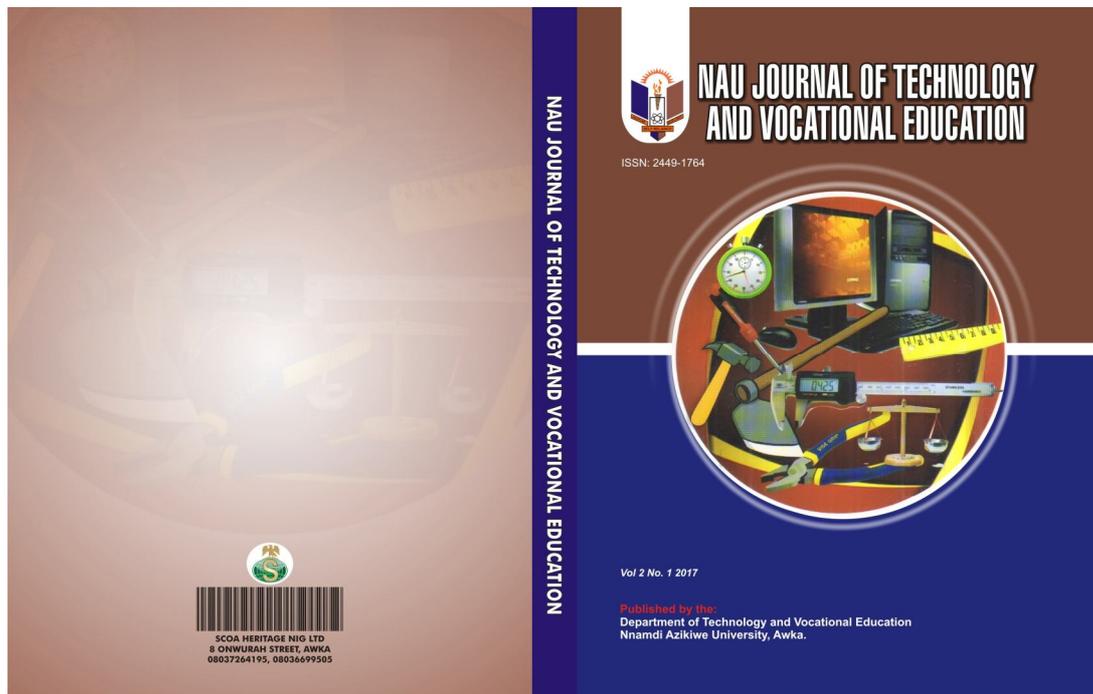


# NAU JOURNAL OF TECHNOLOGY & VOCATIONAL EDUCATION

Vol. 7, No.1 December, 2022



Published by the  
**Department of Technology and Vocational Education**  
Nnamdi Azikiwe University, Awka.

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**ISSN:** 2449-1764

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Printed By:  
**SCOA Heritage Nig. Ltd**  
No 8 Onwurah Street, Awka, Anambra State  
Phone: 08037264195, 08036699505  
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## **TECHNICAL AND VOCATIONAL EDUCATION UNIVERSITY STUDENTS' CAREER DECISION SELF-EFFICACY: EXPLORING DEMOGRAPHICS IMPLICATIONS**

**Samson Onyeluka Chukwuedo<sup>1</sup> & Ikechukwu Chidiebere Odogwu<sup>2</sup>**

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### **Abstract**

While university students of technical and vocational education must transit smoothly from school to work, inquiries patterning the students' career decisions appear relatively understudied; especially concerning demographic possibilities in predicting their career decision self-efficacy (CDSE). This paper explores the students' CDSE and the implications of their demographics (sex, academic major, and age) on their career decision self-efficacy (self-appraisal, occupational information, goal selection, planning, and problem-solving). Adopting a correlational survey approach, the participants were 451 university students in technical and vocational education from three geopolitical zones in Nigeria. The adopted CDSE scale used for this study showed a good model fit for its construct validity as well as high-reliability coefficients. Mean, standard deviation, bivariate correlation, t-test, and multiple linear regression statistics were applied for data analyses. Findings revealed that the students possessed some level of appreciable CDSE. Findings of multiple regression analysis revealed that academic major (Agricultural, Business, Home Economics, and Technical Education) has a relative association with CDSE. Meanwhile, the results also showed that the demographics have significant joint association with occupational information, goal selection, planning, and problem-solving; but not self-appraisal.

**Keywords.** Career decision, demographics, self-efficacy, technical education, vocational education.

### **Introduction**

As expected, it has been variously theorized and stated that technical and vocational education and training is a holistic career-oriented programme to prepare its recipients for the world of work (Federal Republic of Nigeria, FRN, 2013). Without being narrow in its scope, TVET prepares individuals with varieties of occupations that make them either self-employed or paid-employed. It is a career-based field of study in higher education where students obtain attitudes, values, and skills in different specialties or academic majors such as agricultural education, business education, computer education, consumer education, entrepreneurship education, home economics education, marketing education and technical/technology education (Chukwuedo & Ementa, 2022; Ekpenyong, 2011; FRN 2013). While this assertion may be true, changes in educational policies, haphazard implementation of policies and guidelines, political instability, family and cultural (societal) dynamism may affect students career decisions. Hence, some pertinent questions need to be periodically answered. For instance, despite persistent unemployment syndrome (Edokpolor, 2020; National Bureau of Statistics, Nigeria, 2020), do TVET students' ability to make career decisions still hold? Could dynamics in personal, educational, and societal characteristics be factors in establishing firm decisions in careers among TVET students? To address, these questions, this study focuses on exploring the

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demographic determinants of career decision-making self-efficacy among university students of technical and vocational education.

Drawing upon social cognitive career theory (SCCT – which explains the interrelations among the development of academic, career, and job/employment interests - Lent et al., 1994), career decision self-efficacy (CDSE) is an individual's confidence in their ability to make career decisions. CDSE measures one's extent of belief to successfully complete tasks necessary to making career decisions (Betz et al., 1996; Ogbuanya & Chukwuedo, 2017). It dovetails with an individual's belief in self-appraisal, occupational information, goal selection, planning, and problem-solving about one's career, occupational choices, employability, or jobs (Betz et al., 2005). In technology and vocational education, the measurement of students' CDSE has become imperative because of the dwindling employability among fresh graduates. Although previous studies (e.g., Chukwuedo & Ementa, 2022; Chukwuedo & Ogbuanya, 2020; Kim et al., 2020; Salim et al., 2023; Renn et al., 2014) have explored students' CDSE, there seems to be negligence about demographic determinants of CDSE in recent times and especially among TVET students. This study, therefore, intend to add to the body of knowledge and theory about CDSE concerning demographics such as students' sex, academic major, and age.

Sex is the trait that categorizes humans based on their reproductive functions (American Psychology Association, 2010). In this study, students' sex is categorized into male and female only. Believing that human traits differ as a result of differences in their reproductive functions, this study presumes that such differences may be a factor in determining one's level of career decision self-efficacy. Since students are admitted into different academic majors (students' disciplines to which they commit or are offered admission in the university), this study further theories that academic majors may be a predictor of students' CDSE. Furthermore, this study also proposes that age (the length of time of one's existence) may influence one's belief in making career decisions as a result of differences in exposure over time. Of course, technology and vocational education have male and female students with different academic majors and ages, this study also deems it fit to investigate these categories of students. While university students of technical and vocational education must transit smoothly from school to work, inquiries patterning the students' career decisions appear relatively understudied; especially concerning demographic possibilities in predicting their career decision self-efficacy (i.e., self-appraisal, occupational information, goal selection, planning, and problem-solving). Thus, this study explores the students' CDSE and the implications of their demographics (sex, academic major, and age) on their career decision self-efficacy.

### **Research Questions**

The following research questions were answered in this study.

1. What are the students' levels of career decision self-efficacy?
2. What are the correlations between the students' demographic variables and their CDSE?

### **Hypotheses**

The following corresponding hypotheses were also tested at .05 level of significant

1. The students' levels of CDSE (self-appraisal, occupational information, goal selection, planning, and problem solving) will not be significantly higher than expected.
2. The students' demographic variables (sex, academic major, and age) will not jointly or relatively have significant association with CDSE (self-appraisal, occupational information, goal selection, planning, and problem solving).

**Methods**

This study adopts a descriptively based correlational survey as the research design. Thus, this study describes the level of the students CDSE as well as the association or relationship between the students' demographic variables and their CDSE. The participants of the study were 451 penultimate and final year students of vocational and technical education drawn from three universities, one each from three geopolitical zones (south-east, south-south and south west) Nigeria. The students were made up of male students ( $n = 201$ ) and female students ( $n = 250$ ). In a similar vein, the participants were drawn from four academic majors in technical and vocational education: Agricultural Education ( $n = 76$ ), Business Education ( $n = 225$ ), Home Economic Education ( $n = 41$ ), and Technical Education ( $n = 109$ ).

Questionnaire was the instrument used for data collection. It was made up of the students' demographic variables (sex, academic major, and age) as section A of the instrument, and the career decision self-efficacy scale as section B of the instrument. In the section A, sex was measured as a dummy variable (male =1 vs female =2), academic major was measured in four categories (Agricultural Education =1, Business Education = 2, Home Economic Education = 3, and Technical Education = 4), while age was measured as a continuous variable. For the section B, the CDSE scale was adopted from the 25-item career decision self-efficacy scale – short form (Betz et al., 1996). The CDSE scale has five dimensions or subscales (self-appraisal, occupational information, goal selection, planning and problem-solving) each having five items (See Appendix for items). The scoring of the items was based on five response options (1 to 5).

To establish construct validity and reliability, the scale showed relatively acceptable data fit and reliability coefficients respectively: self-appraisal – (chi-square  $\chi^2 = 9.414$ , degree of freedom  $df = 5$ , goodness-of-fit index  $GFI = .992$ , Tucky-Lewis index  $TLI = .982$ , comparative fit index  $CFI = .991$ , root-mean-square error approximation  $RMSEA = .044$ ,  $p = .094$ , and  $\alpha = .745$ ), occupational information - ( $\chi^2 = 24.365$ ,  $df = 5$ ,  $GFI = .950$ ,  $TLI = .898$ ,  $CFI = .919$ ,  $RMSEA = .083$ ,  $p = .000$ , and  $\alpha = .780$ ), goal selection ( $\chi^2 = 20.965$ ,  $df = 5$ ,  $GFI = .979$ ,  $TLI = .933$ ,  $CFI = .966$ ,  $RMSEA = .081$ ,  $p = .000$ , and  $\alpha = .791$ ), planning ( $\chi^2 = 17.097$ ,  $df = 5$ ,  $GFI = .985$ ,  $TLI = .959$ ,  $CFI = .979$ ,  $RMSEA = .073$ ,  $p = .004$ , and  $\alpha = .785$ ), and problem-solving ( $\chi^2 = 27.019$ ,  $df = 5$ ,  $GFI = .977$ ,  $TLI = .929$ ,  $CFI = .964$ ,  $RMSEA = .082$ ,  $p = .000$ , and  $\alpha = .796$ ).

Mean, standard deviation, bivariate correlation, t-test, and multiple linear regression statistics were applied for data analyses. Mean, standard deviation and bivariate correlation were used to answer the research questions, while the one-sample t-test and multiple linear regression were used to test the hypotheses at .05 significant level. However, first, the construct validity was established by applying confirmatory factor analysis indexes from structural equation modelling to describe the psychometric properties of the CDSE (see the preceding paragraph). Mean and one-sample t-test were applied for research question 1 and hypothesis 1 respectively; while bivariate correlation and multiple linear regression were applied for research question 2 and hypothesis 2 respectively. The criteria for establishing a positive or negative correlation was based on r-values ranging between  $-.35$  to  $+.35$  for weak/no correlation;  $+.35$  to  $+.65$  or  $-.35$  to  $-.65$  for moderate correlation; and  $+.65$  to  $1.00$  or  $-.65$  to  $-1.00$  for strong correlation (Gay et al., 2011). To apply one-sample t-test, a theoretically assumed mean of 3.50 for CDSE scale was used as the criterion mean (test value or expected value) to compare the aggregated or weighted mean of responses for each of the dimensions of the CDSE (c.f., Betz et al., 2005; Ogbuanya & Chukwuodo, 2017). The choice of 3.50 is based on the fact that a graduate is expected to have high level of CDSE. Hence, since the range of score of responses starts from 1 to 5 with corresponding real limits of 1.00 to 1.49, 1.50 to 2.49, 2.50 to 3.49, 3.50 to 4.49, and 4.50 to

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5.00, we presumed that 3.50 should optimally be the lowest (critically stretched) average or mean response expected to conclude that a student has expected CDSE. Hence, aggregated or weighted mean responses from 3.50 is considered appreciable level of CDSE.

**Results**

The results of the statistical data analyses are presented in line with the research questions and corresponding hypotheses as shown in Tables 1, 2 and 3.

**Research Question 1.** What are levels of the students’ levels of career decision self-efficacy?

**Hypothesis 1.** The students’ levels of CDSE (self-appraisal, occupational information, goal selection, planning, and problem solving) will not be significantly higher than expected.

**Table 1. Mean, Standard Deviation and t-test of Level of Career Decision Self-efficacy**

Career Decision Self-efficacy (CDSE)	Mean	SD	Test value = 3.50, df = 450		
			t-cal.	p-value	CI (LL, UL)
Self-Appraisal	3.908	.647	13.377	.000	.348, .468
Occupational Information	3.855	.738	10.196	.000	.286, .423
Goal Setting	3.746	.755	6.915	.000	.176, .316
Planning	3.863	.741	10.417	.000	.295, .432
Problem-Solving	3.765	.780	7.224	.000	.193, .338

Note. SD = standard deviation, CI = confidence interval, LL = lower limit, UL = upper limit

Table 1 reveals the aggregated or weighted mean responses for self-appraisal ( $M = 3.908$ ), occupational information ( $M = 3.855$ ), goal selection ( $M = 3.746$ ), planning ( $M = 3.863$ ), and problem-solving ( $M = 3.765$ ). Compared with the theoretically assumed mean for this study, the students appear to possess appreciable levels of CDSE. Similarly, the table reveals a significantly expected level of self-appraisal ( $t = 13.377, p < .001$ ), occupational information ( $t = 10.196, p < .001$ ), goal selection ( $t = 6.915, p < .001$ ), planning ( $t = 10.417, p < .001$ ), and problem-solving ( $t = 7.224, p < .001$ ) among the students.

**Research Question 2.** What are the correlations between the students’ demographic variables and their CDSE?

**Hypothesis 2.** The students’ demographic variables (sex, academic major, and age) will not jointly or relatively have significant association with CDSE (self-appraisal, occupational information, goal selection, planning, and problem solving).

**Table 2. Bivariate Correlation Matrix between Variables**

Variables	1	2	3	4	5	6	7	8
1. Sex	1							
2. Major	-.147**	1						
3. Age	-.015	-.050	1					
4. Self-Appraisal	-.027	.105*	.022	1				
5. Occupational Information	-.011	.133**	.046	.506**	1			
6. Goal Selection	-.057	.166**	.058	.453**	.646**	1		
7. Planning	-.022	.137**	.069	.346**	.651**	.733**	1	
8. Problem-Solving	.011	.108*	.084	.239**	.558**	.571**	.578**	1

Note. \*\* $p < .01$ , \* $p < .05$ .

Data shown in Table 2 reveals the negatively weak correlations between sex and self-appraisal ( $r = -.027$ ), occupational information ( $r = -.011$ ), goal selection ( $r = -.057$ ), as well as planning ( $r = -.022$ ), but a positively weak correlation between sex and problem-solving ( $r = .011$ ). The table further reveals positively weak correlations between academic major and self-appraisal ( $r = .105$ ), occupational information ( $r = .133$ ), goal selection ( $r = .166$ ), planning ( $r = .137$ ), and problem-solving ( $r = .108$ ). The table also shows positively weak correlations between age and self-appraisal ( $r = .105$ ), occupational information ( $r = .133$ ), goal selection ( $r = .166$ ), planning ( $r = .137$ ), and problem-solving ( $r = .108$ ).

**Table 3. Summary of Multiple Regression Estimates for Demographic and CDSE**

CDSE	Regression Coefficients									Model Summary		
	Sex			Academic Major			Age					
	$\beta$	t	P	$\beta$	T	P	$\beta$	T	P	R <sup>2</sup>	F	P
SA	-.011	-.239	.811	.104	2.194	.029	.027	.584	.560	.012	1.789	.148
OI	.010	.208	.833	.137	2.884	.004	.053	1.135	.257	.020	3.112	.026
GS	-.032	-.680	.497	.164	3.486	.001	.066	1.422	.156	.033	5.067	.002
Planning	.001	-.002	.998	.141	2.979	.003	.076	1.620	.106	.025	3.746	.011
PS	.029	.616	.538	.117	2.461	.014	.090	1.928	.055	.020	3.115	.026

Note. PS = self-appraisal, OI = occupational information, GS = goal selection, PS = problem-solving

The results of Table 3 reveal no significant joint association between the students' demographics (sex, academic major, and age) and self-appraisal ( $F = 1.789, p > .05$ ); but there were significant joint associations between demographics and occupational information ( $F = 3.112, p < .05$ ), goal selection ( $F = 5.067, p < .01$ ), planning ( $F = 3.746, p < .05$ ) as well as problem-solving ( $F = 3.115, p < .05$ ). The tables also shows that there were significant relative associations between academic major and self-appraisal ( $\beta = .104, p < .05$ ), occupational information ( $\beta = .137, p < .01$ ), goal selection ( $\beta = .164, p < .01$ ), planning ( $\beta = .141, p < .01$ ) as well as ( $\beta = .104, p < .05$ ). Conversely, there was no significant relative association between sex and CDSE as well as between age and CDSE.

### Discussion and Implication

Drawn from the SCCT (Lent et al., 1994), this study explored the career decision self-efficacy of technical and vocational education students in Universities in Nigeria. The study also explored the influence of the students' demographics (e.g., sex, academic major, and age) on the students' levels of CDSE. Overall, the findings of the study supported the tenets of SCCT, indicating that self-efficacy is an important variable in career decision or job selection (e.g., Chukwuedo & Ementa, 2022; Lent & Brown, 2019; Ogbuanya & Chukwuedo, 2017). Similarly, the findings of this study supported the conceptualization of career decision self-efficacy as a necessary variable to be studied among university or college students (Kepir Savoly & Dost, 2020; Lent & Brown, 2019). Hence, this study validates the tenets of SCCT as well as confirms the need for studying career decision self-efficacy among students.

The findings of this study also show that demographic variables of the students can jointly predict or determine their levels of occupational information, goal selection, planning, and problem-solving. These outcomes are possible, perhaps because occupational information,

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goal selection, planning, and problem-solving require multiple sources for an individual to possess such abilities. The findings also show that academic major is a predictor of students' career decision self-efficacy. In essence, academic majors can serve as a means of boosting students' confidence in making career decisions. Although these findings (to the researchers' knowledge) are relatively unique to this study, the outcomes concur with previous studies that have shown that there is a possible relationship between students' characteristics and their career decision self-efficacy and development (e.g., Chukwuendo & Ogbuanya, 2020; Kim et al., 2015; Okolie et al., 2020). In all, the practical implication is that institutions, vocational counselors, and practitioners should consider an individual's academic major as a model for enhancing career decisions and behaviours.

### **Limitations**

Of course, as in other studies, this study is not void of limitations. Cross-sectional survey limits causality. Thus, longitudinal studies are recommended for future research. Homogeneity of sample limits generalization of findings to other groups of individual. Despite, this study covered a wide group of homogenous samples in Nigeria universities. However, future research can focus on heterogeneous sample, bearing in mind the possible flaws inherent in such sample. This study used a theoretically assumed mean to compare aggregated mean responses in order to ascertain level of CDSE. Future research should use a more practical or statistically-based assume mean to compare the weighted mean responses.

### **Conclusion**

Based on the findings of this study, the study of career decision self-efficacy is imperative. This study therefore concludes that TVET students in Nigeria universities possess some levels of CDSE but improvement is needed. The study also concludes that students' academic major is a practical determinant of increasing one's career decision making self-efficacy. Thus, academic major influences confidence in making career decisions in TVET.

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**Appendix**

**The Career Decision Self-Efficacy Scale by Betz et al., 1996**

<b>SN</b>	<b>Self-Appraisal Subscale</b>
1	I can accurately assess my abilities
2	I can determine what my ideal job would be
3	I can decide what I value most in an occupation
4	I can figure out what I am and not ready to sacrifice to achieve my goals
5	I can define the type of lifestyle I would like to live
<b>SN</b>	<b>Occupational Information Subscale</b>
1	I can find information in the library about occupation I am interested in
2	I can find out the employment trends for an occupation over the next 10 years
3	I can find out the average yearly earning of people in an occupation
4	I can talk to a person already employed in the field I am interested in
5	I can find information about postgraduate or professional schools
<b>SN</b>	<b>Goal Selection Subscale</b>
1	I can select one major from a list of potential majors I am considering
2	I can select one occupation from a list of potential occupations I am considering
3	I can choose a career that will fit my preferred lifestyle
4	I can make a career decision and then not worry about whether it was right/wrong
5	I can choose a major or career that will fit my interests
<b>SN</b>	<b>Planning Subscale</b>
1	I can make a plan of my goals for the next 5 years
2	I can determine the steps I need to take to successfully complete my chosen major
3	I can prepare a good resume (curriculum vitae)
4	I can identify employers, firms, and institutions relevant to my career possibilities
5	I can successfully manage the job interview process
<b>SN</b>	<b>Problem-Solving Subscale</b>
1	I can determine the steps to take if I am having academic trouble with an aspect of my chosen major
2	I can persistently work at my major or career goal even when I get frustrated
3	I can change majors if I did not like my first choice
4	I can change occupations if I am not satisfied with the one I enter
5	I can identify from reasonable major or career alternatives if I am unable to get my first choice

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## **JOB SATISFACTION AS A CORRELATE OF BUSINESS EDUCATORS WORK ADJUSTMENT IN COLLEGES OF EDUCATION IN DELTA STATE**

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### **Abstract**

The need to enhance job satisfaction and minimize the rate of brain drain experienced by business educators in colleges of education necessitated this study. This study examined job satisfaction as correlate of business educators work adjustment in colleges of education in Delta State. The study adopted the correlation research design. The population of for the study comprised 82 full time business educators in colleges of education in Delta state. The instruments for data collection were structured questionnaire. The questionnaire was validated by three experts with the reliability Coefficients of 0.71 and 0.81 respectively, established using Cronbach alpha's method. Data collected were analysed using Pearson product moment correlation analysis and linear regression analysis. The findings of this study revealed that a high positive relationship of 0.700 exists between job satisfaction and work adjustment of business educators with 1-9 years work experience, while, a moderate positive relationship of 0.571 exists between job satisfaction and work adjustment of business educators with 10 years and above work experience in colleges of education. On the other hand, there was a statistically significant correlation between job satisfaction and work adjustment of business educators with 1-9 years work experience and no statistically significant relationship for those with 10 years and above work experience. Based on the findings of this study, it was recommended that motivational needs of business educators should be continually addressed for enhanced productivity.

**Keywords.** Job satisfaction, work adjustment, business education, business educators, colleges of education.

### **Introduction**

In view of the observed prevailing brain drain among business educators in colleges of education nationwide, it could be said that the level of job satisfaction is dwindling and this has propelled research thoughts among business educators. Job satisfaction refers to the measure of employees' contentedness with their jobs. It is the ability of one's job to meet the person's needs as well as improve their work performance (Candidus & Phyllis, 2018). It is a feeling of fulfilment that an employee derives from his job. Individuals with high job satisfaction, tend to display positive attitude towards their jobs, while individuals who are dissatisfied, usually have negative attitude about their jobs as Jerotich and Box (2015) maintained that, work motivation is positively associated with job satisfaction. Staff motivation and job satisfaction are of great value to any organization. A worker, who is motivated and satisfied with the nature of his job is likely to perform his duties happily and with keen interest. As long as an organization through its policy and motivational strategies continues to meet the employees' needs, there is tendency that the employees would be satisfied and work adjustment would be enhanced.

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Numerous terms have been used to refer to the concept of adjustment, which includes acculturation adaptation (Kyunghee, Ronald, Izumi & Hyun, 2020). Sharma (2016) defined adjustment as a satisfactory adaptation to the demand of day-to-day life and keeping a balance between need and capacity to realize the needs. As long as the balance is maintained, the person remains adjusted, but the very moment, it is disturbed, the person drifts towards maladjustment. Sharma (2016) further stressed that, the internal (personal) and the external (environmental) aspects of an individual are in constant interaction during the process of adjustment. To this end, the author concluded that work adjustment involves a reaction of the person to the demand imposed upon him or how the individual manages to cope with various demands of life. Dziuba, Ingaldi and Zhuravskaya (2020), viewed work adjustment from the angle of job satisfaction and defined work adjustment as the satisfaction of a worker with the nature of his job and performance of his duties. Work adjustment, therefore, is a continuous and dynamic process by which the worker seeks to achieve and maintain correspondence with the work environment.

However, business educators' job satisfaction and work adjustment could be influenced by their years of work experience. Agezegn, Tefera and Ebrahim (2014), in their study, found that workers who were longer in their jobs, were better equipped to adjust their expectations of what the work could provide. Similarly, Kollman, Stoeckmann, Kensbock and Peschl (2019), found that people who were more experienced in their jobs, were highly satisfied and could adjust easily than those who were less experienced. Hence, the use of years of experience as a moderating variable to either uphold or not the findings of the previous studies.

### **Statement of the Problem**

Research studies have shown that motivated employees (including business educators) could imbibe the culture of innovation (Dykstra, 2020) and exhibit considerable capacity to adapt to work pressure and demand, which could invariably enhance their performance. This therefore entails that, business educators could challenge themselves and grow the culture of innovation, to enhance their performance when they are motivated and satisfied. Observations have shown that the issues of job dissatisfaction and maladjustment seem to be manifesting continuously through the act of incessant strikes, staff attrition, staff turnover and absenteeism in Colleges of Education. It was further observed that Colleges of Education in Nigeria seem to be plagued with poor conditions of service, poor work environment, lack of basic teaching and learning facilities and harsh management policy. This situation prevails, even though Business educators in colleges of Education in Nigeria have a role to play in achieving the goals stipulated in the National Policy on Education. This usually brings a dwindling situation in the work force among business educators in colleges of education, and could have a multiplying effect, which ranges from producing incompetent, un-skilled and undynamic business teachers, office administrators and businessmen and women for the world of work. According to Dziuba, Ingaldi and Zhuravskaya (2020), adjustment or maladjustment of a worker could change his personality traits and that this change may be due to some personal and social reasons or certain policies of the management. The change, if negative might cause emotional maladjustment on the individual worker. It is therefore important that employees' job satisfaction and work adjustment should be looked into so as to maintain optimal employee retention.

### **Literature Review**

The theoretical underpinning of the study was based on the Job-Demand-Resource Model (JD-R). The model was propounded by Arnold Bakker and Evangelia Demerouti in 2006. The model states that when job demands are high and job resources/positives are low, stress and

burnout increase. Conversely, a high number of job positives can offset the effects of high job demands. The job demands-resource model is an occupational stress model which suggests that strain is a response to imbalance between demands on the individual and resources to deal with those demands (Bakker & Demerouti, 2007). The JD-R model proposes that working conditions can be categorized into two broad categories; job demands and job resources. Job demands are primarily related to the exhaustion component of burnout, whereas (lack of) job resources are primarily related to disengagement. On the basis of this interplay, it could be said that business educators could deal with their job demands if the job resources are sufficiently provided and this could reduce stress and burnout, and enhance job satisfaction and work adjustment. In other words, when job resources are not provided to meet the job demands of business educators, disengagement may set in, with its resultant effects, which could hinder the realization of business education goals and objectives.

The role of business educators in colleges of education in Nigeria is guided by the objectives of the Nigeria Certificate in Education (NCE) which are outlined by the National Commission for Colleges of Education (NCCE, 2008). They include among others:

1. To produce well qualify and competent NCE graduates in business subjects who will be able to teach business subjects in our secondary schools and other related educational institutions.
2. To produce NCE business teachers who will be able to inculcate the vocational aspect of business education into the society. To produce NCE business teachers who will be involved in the much, desired revolution of vocational development right from the primary and secondary schools.
3. To equip graduates with the right skills that will enable them to engage in a life of work in the office as well as for self-employment.
4. To equip students with necessary competencies so as to qualify them for a post-NCE degree programme in business education.

Business education programmes taught by business educators in institutions play a significant role in economic development of any nation by providing knowledge and skills necessary to handle sophisticated office technologies and information systems (Ajisafe, Bolarinwa & Omotayo 2015). The programme emphasizes work skill acquisition by its recipients (Ukah & Atah, 2022). It prepares its recipients with relevant competencies needed to be productive in the society (Obidile & Onyeneke, 2023). It is a sub set of technology and vocational education and its goal is primarily to produce competent, skillful and dynamic business teachers, office administrators and businessmen and women who will effectively compete in the world of work. It has as its primary aim, the preparation of people for roles in enterprises. Such roles could be as employees, entrepreneurs and employers. The achievement of these goals largely depends on the quality of business education teachers (business educators) in educational institutions like universities and colleges of education.

Business educators in colleges of education can be categorised based on their Years work experience as this could influence their level of job satisfaction. According to Agezegn, Tefera and Ebrahim (2014), the longer workers stay, in their jobs, the better equipped they are to adjust their expectations of what the work can provide. In the view of Kollman, Stoeckmann, Kensbock and Peschl (2019), older employees are generally happier with their jobs than younger employees. The authors further stated that, people who are more experienced in their jobs are highly satisfied and could adjust easily than those who are less experienced. It is therefore important to also find out if the result of the present study will agree with the above findings. Business educators are expected to be satisfied with their jobs so as to improve their dedication

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to the jobs and in turn increase satisfaction. They need motivational support such as comfortable working environment, holiday with pay, security, recognition and social support among others. These may influence their decisions to stay and be committed to work and contribute towards the attainment of the institutional goals.

Several studies have been conducted on job satisfaction and employees' performance such as; a study carried out by, Hee, Shi, Kowang, Fei and Ping (2020) to examine the factors influencing job satisfaction among academic staff in Malaysia. The findings of the study revealed that top management leadership was discovered to have the most significant relationship with job satisfaction. In another study, Gaunya (2016) studied organizational climate and its influence on job satisfaction among public sector employees in Kenya. The results of the study revealed that certain dimensions of organizational climate such as identity, conflict management and rewards had significant positive relationship with job satisfaction. The implication was that public sector employees in Kisii County, Kenya, were more satisfied with their work where organizational mission and objectives are in congruence with employees' personal beliefs and values.

In another development, Khahan and Peerapong (2013) conducted a study to examine both direct and indirect influence of factors of job characteristics, personality characteristic, and job satisfaction with work adjustment of new graduates. The study found that the personality characteristics had indirect effect to work adjustment, although job satisfaction was statistically significant. Similarly, Ajayi (2017) examined the relationship among job stress, job satisfaction and employee turnover intentions of employees of Guinness Nigeria Plc. The result revealed that, job stress did not determine turnover intention of participant as it accounted for 0.001 percent of the variance in the level of turnover intention of the participants. Job tenure was also found not to predict turnover intention level of participant as the findings revealed that job tenure did not significantly predict turnover intention. Job satisfaction on the other hand, was shown to significantly predict turnover intentions of the employees. However, the variation from the previous studies and the present study, in terms of the variables used, location and population, created the gap for the present study.

### **Research Questions**

The following research questions guided the study.

1. What is the correlation between job satisfaction and work adjustment of business educators with 1 – 9 years of work experience in Colleges of Education in Delta state?
2. What is the correlation between job satisfaction and work adjustment of business educators with 10 years and above work experience in Colleges of Education in Delta state?

### **Research Hypotheses**

The following null hypotheses guided the study.

1. There is no significant correlation between job satisfaction and work adjustment of business educators with 1 – 9 years work experience in Colleges of Education in Delta state.
2. There is no significant correlation between job satisfaction and work adjustment of business educators with 10 years and above work experience in Colleges of Education in Delta state.

**Methods**

The study adopted a correlational research design. According to Nworgu (2015), correlation research survey design is used to ascertain if two or more variables relate with each other. It is therefore adequate for the study as it examined the relationship between job satisfaction and work adjustment of business educators in colleges of education in Delta State. The population of the study was 82 full-time business educators in three Colleges of education in Delta State. The instruments for data collection were structured questionnaire which were adapted from other studies after extensive review of literature. The instruments were structured on a four-point Likert rating scale of: Strongly Agree (SA) =4, Agree (A) =3, Disagree (D) =2 and Strongly disagree (SD) =1. It was validated by three experts, two experts from the Department of Vocational Education, Federal College of Education, Asaba and one expert from Nnamdi Azikiwe University, Awka. The reliability of the instrument was established using Cronbach alpha’s method with the reliability coefficients of 0.71 and 0.81 respectively. Data were collected by the researchers with the help of three research assistants. Data collected relating to the research questions were analyzed using Pearson product moment correlation and linear regression was used to test the null hypotheses at 0.05 level of significance. The analyses were computed using the Statistical Package for Social Sciences (SPSS version 27).

**Results**

**Research Question 1.** What is the correlation between job satisfaction and work adjustment of business educators with 1 – 9 years’ work experience in Colleges of Education in Delta state?

**Table 1: Pearson r on job satisfaction and work adjustment of business educators with 1-9 years work experience**

Source of Variation	N	Job satisfaction r	Work adjustment r	Remark
Job satisfaction	41	1.00	0.700	HPR
Work adjustment	41	0.700	1.00	

Note. HPR = High positive relationship

Data in Table 1 reveal that a high positive relationship of 0.700 exists between job satisfaction and work adjustment of business educators with 1-9 years work experience in colleges of education in Delta State.

**Research Question 2.** What is the correlation between job satisfaction and work adjustment of business educators with 10 years and above work experience in Colleges of Education in Delta state?

**Table 2: Pearson r on job satisfaction and work adjustment of business educators with 10 years work experience in Colleges of Education in Delta State.**

Source of Variation	N	Job satisfaction r	Work adjustment r	Remark
Job satisfaction	36	1.00	0.571	MPR
Work adjustment	36	0.571	1.00	

Note. MPR = Moderate positive relationship

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Table 2: shows that a moderate positive relationship of 0.571 exists between job satisfaction and work adjustment of business educators with 10 years and above work experience in colleges of education in Delta State.

**Hypothesis 1.** There is no significant correlation between job satisfaction and work adjustment of business educators with 1 – 9 years work experience in Colleges of Education in Delta state.

**Table 3: Linear regression on the relationship between motivation and work adjustment of business educators with 1-9 years work experience**

N	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	df	F	p-value	Remark
41	0.700	0.490	0.477	39	37.501	0.000	S

Note. S = Significant

Result presented in Table 3 reveals that at 0.05 level of significance and 39df, the calculated F of 37.501 with p-value 0.000 which is less than 0.05, hence the null hypothesis is rejected. This means that there is a significant relationship between job satisfaction and work adjustment of business educators with 1-9 years work experience in Colleges of Education in Delta State.

**Hypothesis 2.** There is no significant correlation between job satisfaction and work adjustment among business educators with 10 years and above work experience in Colleges of Education in Delta state.

**Table 4: linear regression on the relationship between motivation and work adjustment of business educators with 10 years and above work experience in Colleges of Education Delta State.**

Education Delta State.

N	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	df	F	p-value	Remark
36	0.379	0.144	0.119	34	5.706	0.226	NS

Note: NS = Not Significant

Result presented in Table 4 reveals that at 0.05 level of significance and 34df, the calculated F value of 5.706 with p-value 0.226 is greater than 0.05, hence the null hypothesis is not rejected. This implies that there is no significant relationship between job satisfaction and work adjustment of business educators with 10 years and above work experience in Colleges of Education in Delta State.

### Discussion of Findings

The findings of this study revealed a high positive relationship of 0.700 between job satisfaction and work adjustment of business educators with 1-9 years work experience in colleges of education in Delta State. The study further revealed that there is a moderate positive relationship of 0.571 between job satisfaction and work adjustment of business educators with 10 years and above work experience in colleges of education in Delta State. This finding conforms with the findings of Nur-Shafini, Amaleena-Syamimie, Ahmed-Suffian and Suzila (2015) as they reported that individual needs, personal preferences and work environment are positively and significantly related to job performance.

Results relating to hypothesis testing revealed a significant relationship between job satisfaction and work adjustment of business educators with 1-9 years work experience in Colleges of Education Delta State. The findings also revealed that there was no significant relationship between job satisfaction and work adjustment of business educators with 10 years and above work experience in Colleges of Education Delta State. The finding is in line with the findings of Agezegn, Tefera and Ebrahim (2014) which revealed that workers who were longer in their jobs, were better equipped to adjust their expectations of what the work could provide.

### **Conclusion**

Based on the findings of this study it was concluded that there was a high positive relationship between job satisfaction and work adjustment of business educators with 1-9 years work experience, and a moderate positive relationship between job satisfaction and work adjustment of business educators with 10 years and above work experience in colleges of education in Delta State. Furthermore, there was a significant relationship between job satisfaction and work adjustment of business educators with 1-9 years work experience and no significant relationship between job satisfaction and work adjustment of business educators with 10 years and above work experience in Colleges of Education in Delta State.

### **Recommendations**

Based on the findings of the study, the following recommendations were made;

1. Motivational needs of business educators among other employees should be continually addressed for enhanced productivity.
2. Appropriate motivational strategies should be used to enhance business educators' job satisfaction for proper work adjustment.

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*NAU Journal of Technology & Vocational Education, Vol. 7, No. 1, December 2022*

## **CRAFTS AND SKILL EDUCATION IN CONTEMPORARY SECONDARY SCHOOLS FOR NATIONAL DEVELOPMENT IN NIGERIA**

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### **Abstract**

Graduates from secondary schools can maximally, contribute their quota to the development of this nation only if crafts and skill education is combined with the general education knowledge acquired. This study investigated crafts and skill education in contemporary secondary schools for national development. Three research questions guided the study. Three null hypotheses were formulated. The population of the study was 1500 SSIII students. A sample of 186 students in Anambra and Benue States was sampled using cluster sampling technique. Purposive sampling was used to sample 10 schools in Benue state and 12 schools in Anambra state, making a number of 372 students. Descriptive survey research design was used for the study. The instrument used was a self-structured questionnaire. Three experts validated the instrument. The Cronbach alpha reliability coefficient was computed and the results obtained alfa ( $\alpha$ ) value of 0.73. The null hypotheses were tested using independent samples t-test at 0.05 level of significance. The findings of the study revealed that production craft, traditional crafts and metal-making crafts were not taught in secondary schools in Anambra and Benue states. The conclusion was that, it is now important that every serious Nigerian must embrace craft and skill education to promote national development. Among the recommendations was that ministries of education in Anambra and Benue states in conjunction with the federal ministry of information should liaise with social organizations to create more awareness to the public to see the need and importance of craft and skill education as one of the mediums for national development.

**Keywords.** Crafts and skills, education, contemporary, national development.

### **Introduction**

National development of any country in the world can hardly be achievable unless institutional approach is employed. Generally, educational institutions in Nigeria are classified as Pre-primary, Primary, Post-primary, Secondary and Post-secondary but this study hinged on the secondary education. Secondary education is a six years programme and ends at senior secondary III. Considering the case of Nigeria as a nation where series of national development plans have been strategized and put in place by successful governments, for both military and civilian administrations yet, the country is still faced with serious underdevelopment in almost all sectors (Lawal and Oluwatoyin, 2011). Adedotun (2019) also averred that Nigeria is a nation stuck in underdevelopment. Seeing that Nigeria is still struggling with the wound bitten by underdevelopment, there is every need to continue in search for possible solutions, and institutional approach may seem to be one of the remedies.

When institutional approach is employed, craft and skill education stand a better option for human capital development which is a means for national development. National development therefore, can be seen as the overall development or a collective socio-economic,

political as well as religious advancement of a country or nation (Lawal and Oluwatoyin, 2011). Researches such as that of Bassi and McMurrer (2006) and Hanssen (2017) found that national development is dependent on human capital development. Human capital development is a process that improves an individual's knowledge and skills, and therefore his or her productivity in the home, community, or workplace (Johanson and Adams, 2014). According to Richard and Adams (2014), the institutional sources used in giving training to individuals vary by the level of skills acquired. Semiskilled workers may acquire the rudiments of a craft or trade through prevocational education in a school setting, or by informal on-the-job methods. Skills from higher-level journeyman up to master craftsperson can be acquired informally but also can be obtained through combinations of formal vocational education, non-formal training, and apprenticeship being aspects of craft and skill education. Sinikka and Māra (2017) avers that craft and skill education includes the ideas that the knowledge of materials and of the process acquired through authentic experience creates a sense of commitment and responsibility, and that the different phases of the craft process stimulate the learner's own cognitive, sensory-motor, emotional, and social factors. According to (Macquoen, 2007), craft and skill education is the understanding and assimilation of the total technology of a craft and its application in any craft situation so as to produce effective and satisfying result. There are many perspectives that can be used to describe craft, Elebute and Odokuma (2016) defined craft as a profession that requires some particular kind of skilled work while skill is the ability acquired through the deliberate, systematic, and sustained effort to smoothly and adaptively execute the complex activities (IGB Global, 20121).

Some of the skilled crafts works include among others; crafts production, traditional crafts, furniture crafts, artisanal crafts, musical instruments crafts, wood working, metal-working and jewellery crafts. This study is concerned more about crafts production, traditional crafts and metal-working crafts.

Crafts production is the process of making products by hand. This is a common type of premiumization whereby one can make a product that is more unique and valuable than the competition with the labour of a skilled artisan (Simpson, 2018). Traditional crafts is an art of using tools by hand, traditional technique, traditional materials in manufacturing things in a systematic manner, while metal-working includes professions such as blacksmith, silversmith and Coopersmith. Limited metalworking can be learned as a hobby without becoming a professional. This usually involves shaping, structuring and finishing malleable and ductile metals (Bureau of Labor Statistics, 2017).

The term craft is usually applied to people who are occupied in small scale production of goods. The craftsmen are mostly referred to as artisans or petty-bourgeoisie and petty traders who are found in the urban city, but also significantly in the rural areas. They are small operators with little capital, restricted skills and limited education. "Unemployment has expanded their ranks in areas including among others welding, painting, tailoring; hairdressing; carpentry and joinery work and in most cases lack of capitals restricts them to using their labour of hiring relatives, apprentices and lumpens. Yliverronen and Seitamaa-Haikkarainen (2016) viewed crafts as an aspect of designing and making processes in which one works through all phases of innovation process, generating and developing design ideas. The development of skills can be considered as a problem-solving process. Yliverronen et al further stated that craft skills consist of fine motor, technical, and cognitive skills such as perception and problem-solving. Craft skills are not just a series of operations; they represent know-how combined with knowledge and thinking: the craft maker has to know what to do, how to do it, and why (Yliverronen & Seitamaa-Haikkarainen, 2016). Similarly, Koning and Tabbers, (2011), found that craft skills

require good coordination of the eye, hands, and thinking. In the thinking and learning processes, perception, action, and cognition are tightly interwoven. Autio (2016) concluded that traditional crafts and skill education increases student's self-esteem by developing their skill through enjoyable crafts creativity. Furthermore, crafts education aim to encourage students to make their own decisions in designing, allowing them to access their ideas and product. Craft and skill education will help every secondary school learner develop as a whole person, fulfill his or her potential and help shape a shared future built on the well-being of individuals, communities and the planet. It is spelt clearly in the National Policy on Education that "Each, student is to select one or two subjects from Trade/Entrepreneurship subjects" (FGN, 2013). Which crafts and skill is involved.

Development of people especially our secondary students in craft and skills will not only leads to higher worker productivity but also facilitates the absorption of workers into the economy and improves their job mobility (ability to move into more productive jobs and sectors). Reducing skills bottlenecks significantly enhances the efficiency of the labor market. It will also help to reduce unemployment of youth who are mostly secondary school graduate. Investment in human capital also enhances business and technological innovation by improving the capacity of workers to apply and adapt existing knowledge and processes as well as make new discoveries for national development (Richard and Adams, 2004). Our Daily Manna (ODM, 2020) found that knowledge has always been slayed by creativity and today's sleek creative ambience is the justification of this statement. In trying to advocate for the development of Nigeria to grow and keep pace with this evolving world, there is need to make sure that our secondary students are more creative rather than making them just knowledgeable.

### **Statement of the Problem**

It is undeniable that any young person, like those graduating from the secondary schools trained to acquire crafts skills are likely to stand the chance to contribute to national development through their proficiency as they use tools and materials to produce tangible things that would improve man's condition of living. Researches have it that most of the youths graduating in contemporary secondary schools are not trained in such a way that they will acquire crafts skills as an alternative for sustainability.

Some of the graduates that could not further their education due to some reasons such as lack of sponsorship or examination failure, are always seen roaming the street aimlessly, looking for any slight opportunity to gain advantage of helping themselves. Some of them engaged in various social vices such as kidnaping, banditry, armed robbery to mention but few. It is so because there is a saying that an idle mind is a devil's workshop. The fear is that if this one way traffic type of educational training given to secondary school students continue, it is likely that Nigeria will hardly get out of this underdevelopment condition and will definitely affect national development, hence the need for this study.

### **Purpose of the Study**

The main purpose of the study was to investigate the types of crafts and skill education giving to secondary school students for National development in Anambra State and Benue State, Nigeria. Specifically, the study sought to;

1. find out the types of craft production secondary students are taught for national development in Nigeria;
2. determine the type of traditional crafts inculcated to secondary students for national development in Nigeria; and

3. identify the metal-working crafts that are taught to students for national development.

### **Research Questions**

The following research questions were raised to guide the study:

1. What are the types of crafts production taught to secondary students in Anambra and Benue states for national development?
2. What are the types of traditional crafts taught to secondary students in Anambra and Benue states for national development?
3. What are the types of metal-working crafts taught to students in Anambra and Benue states for national development?

### **Hypotheses**

Three hypotheses were formulated to guide the study:

1. There is no significant difference in the mean responses of secondary students on how craft production is taught to secondary school students in Anambra and Benue states.
2. There is no statistically significant difference in the mean responses of secondary students on how traditional crafts is inculcated to secondary school students in Anambra and Benue states.
3. There is no statistically significant difference in the mean responses of secondary school students on how traditional crafts is inculcated to secondary students in Anambra and Benue states.

### **Methods**

Descriptive survey research design was used for the study. Purposive sampling was used to sample 10 schools from Zone A, Zone B and Zone C making a sample of 186 students in state owned secondary school in Benue State, Nigeria, while 12 state owned schools were selected from the six educational zones of Aguata, Awka, Ihiala, Nnewi, Ogidi and Onitsha in Anambra state. The instrument used for data collection for this study was a self-structured questionnaire. The instrument was validated by 3 experts in varying disciplines and was subjected to reliability analysis using the test of internal consistency. The Cronbach Alpha reliability coefficient was computed and the results obtained yielded a reliability coefficient  $\alpha$  value of 0.73. Data collected was analyzed using descriptive statistics of arithmetic mean to answer the research questions. The mean responses were weighed with real limit of numbers as follows: Very Highly Taught (VHT) = 3.49-4.00, Highly Taught (HT) = 2.50-3.49, Taught (T) = 1.50-2.49 and Not Taught (NT) = 1.00-1.49. The items with mean ratings of 1.00-1.49 were considered Not Taught; items with mean ratings of 1.50-2.49 were considered Taught, items with mean ratings of 2.50- 3.49 were considered Highly Taught while items with mean ratings of 3.50-4.00 were considered Very Highly Taught. The three null hypotheses formulated were tested using independent samples t-test at 0.05 level of significance. Decisions were taken based on values of associated probabilities denoted by p. When the p-values were found to be equal or less than 0.05 alpha levels, the noted difference was said to be statistically significant therefore, the null hypothesis was rejected. But if the p value found to be greater than 0.05, the noted difference was statistically insignificant therefore, the null hypothesis was accepted. Statistical Package for the Social Sciences (SPSS) version 21 aided the researcher to analyze the data.

## Results

The results are presented in the order of the research questions and the corresponding hypothesis.

**Table 1. Mean range on types of Trade taught to secondary school students in Anambra and Benue States**

S/N	Craft production taught to students	Mean	SD	Decision
1	Air Conditioning and Refrigeration	1.16	0.38	Not Taught
2	Auto Electrical Works	1.19	0.39	Not Taught
3	Auto Mechanical Work	1.32	0.47	Not Taught
4	Radio, Television and Electronic Servicing	1.72	0.49	Taught
5	Engineering Craft Practice	1.19	0.39	Not Taught
	Cluster Mean	1.32		Not Taught

Data presented in Table 1 shows cluster mean of 1.32 which indicates that craft production was not taught in secondary schools in Anambra and Benue states. The item-by-item analysis shows that items 1, 2, 3, and 4 with mean values ranges from 1.6, 1.19, 1.32 and 1.19 are craft production taught rated not taught, while item 4 with mean value of 1.72 was craft production taught to students rated taught.

**Table 2. Mean range on types of Traditional crafts taught to secondary school students in Anambra and Benue States**

S/N	Traditional Craft Taught to Students	Mean	SD	Decision
6	Dying and Bleaching	1.76	0.64	Taught
7	Clothing and Textile	1.19	0.40	Not Taught
8	Printing Craft Practice	1.20	0.39	Not Taught
9	Upholstery	1.28	0.51	Not Taught
10	Furniture Making	1.15	0.41	Not Taught
11	Fishery	1.22	0.36	Not Taught
	Cluster Mean	1.30		Not Taught

Data presented in Table 2 shows cluster mean of 1.30 which indicates that traditional crafts was not taught in secondary schools in Anambra and Benue states. The item-by-item analysis shows that items 7, 8, 9, 10 and 11 with mean values ranges from 1.19 1.20, 1.28, 1.22 and 1.19 are traditional crafts rated not taught, while item 6 with mean value of 1.76 was traditional crafts rated taught.

**Table 3. Mean range on types of metal-making taught to secondary school students in Anambra and Benue States**

S/N	Metal-Making Craft Taught to Students	Mean	SD	Decision
12	Sheet metal forming	1.18	0.39	Not Taught
13	Welding and Fabrication	1.19	0.39	Not Taught
14	Metal cutting	1.21	0.41	Not Taught
15	Blacksmithing	1.25	0.44	Not Taught

16	Joining metal	1.18	0.38	Not Taught
17	Metal fabrication	1.39	0.51	Not Taught
18	Drilling of metal materials	1.71	0.47	Taught
19	Forging	1.33	0.47	Taught
20	Casting	1.94	0.78	Taught
	Cluster Mean	1.37		Not Taught

Data presented in Table 3 shows cluster mean of 1.37 which indicates that metal-making crafts was not taught in secondary schools in Anambra and Benue states. The item-by-item analysis shows that items 12, 13, 14, 15, 16, 17 and 19 with mean values ranges from 1.18, 1.19, 1.21, 1.25, 1.18, 1.39 and 1.33 are craft production taught to students rated not taught, while items 18 and 20 with mean values of 1.71 and 1.94 were metal-working crafts rated taught.

**Hypothesis 1.** There is no significant difference in the mean responses of secondary students on how craft production is taught to secondary school students in Anambra and Benue states.

**Table 4. The t-test comparison of secondary school students in Anambra and Benue on product craft for national development**

Student	N	Mean	SD	df	t-cal	p-value	Decision
SS3 students in Anambra State	186	1.32	0.19	370	-.101	0.92	Not significant
SS3 students in Benue State	186	1.32	0.22				

The t-test in Table 4 shows that there is no statistically significant difference in the mean ratings of secondary school students in Anambra and secondary school students in Benue on product craft for national development. This is shown by the t-cal value of -.101 and p-value of 0.92 which is more than alpha value 0.05 level of significance. Therefore, the null hypothesis of no significant difference was accepted.

**Hypothesis 2.** There is no significant difference in the mean responses of secondary students on how traditional crafts is inculcated to secondary school students in Anambra and Benue states.

**Table 5. The t-test comparison of secondary school students in Anambra and Benue on traditional craft for national development**

Student	N	Mean	SD	df	t-cal	p-value	Decision
SS3 students in Anambra State	186	1.38	0.25	370	7.41	0.00	Significant
SS3 students in Benue State	186	1.20	0.18				

The t-test in Table 5 shows that there is statistically significant difference in the mean ratings of students on traditional craft for national development in Anambra and Benue states secondary schools. This is shown by the t-cal value of 7.41 and p-value of 0.00 which is less

than alpha value 0.05 level of significance. Therefore, the null hypothesis of no significant difference was rejected.

**Hypothesis 3.** There is no significant difference in the mean responses of secondary school students on how traditional crafts is inculcated to secondary students in Anambra and Benue states.

**Table 6. The t-test comparison of secondary school students in Anambra and Benue on metal-making for national development**

<b>Student</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>df</b>	<b>t-cal</b>	<b>p-value</b>	<b>Decision</b>
SS3 students in Anambra State	186	1.25	0.17	370			
SS3 students in Benue State	186	1.36	0.17		-6.7	0.00	Significant

The t-test in Table 6 shows that there is statistically significant difference in the mean ratings of secondary school students in Anambra and secondary school students in Benue on metal-making craft for national development. This is shown by the t-cal value of -6.7 and p-value of 0.00 which is less than alpha value 0.05 level of significance. Therefore, the null hypothesis of no significant difference was rejected.

### **Discussion of Findings**

Following the analysis of the 3 research questions that guided the study and the 3 null hypotheses formulated, the discussions of the findings are as follows:

The data presented in respect to research question one and hypothesis one on Tables 1 and Table 4 revealed that secondary school students in Anambra and Benue states are not taught product crafts. The null hypothesis which states that there is no statistically significant difference in the mean responses of students on types of craft production taught in secondary schools in Anambra and Benue states was upheld. This in agreement with Veeber, Erji and Lind (2017) who found that, craft and skill have in recent decades been fighting for its place in education setting. Adedotun (2019) also averred that Nigeria is a nation stuck in underdevelopment due to technological negligence. Seeing that Nigeria is still struggling with the wound bitten by underdevelopment, there is every need to continue in search of the right medicine, and institutional approach may seem to be the remedy. The results is also in consonance with the findings of that of Lawal (2019), who averred that Nigerian education policy makers are bereft of ideas but often they are and their patrons lack the political will to implement the nations ambitious agenda of raising enterprise-minded school children based on the teaching of craft and skill in school as espoused in the primary and secondary school curriculum.

The findings of the study in respect to research question two and hypothesis two on Tables 2 and 5 revealed that secondary school students in Anambra and Benue states are not taught traditional crafts. The null hypothesis which states that there is no statistically significant difference in the mean responses of students on types of traditional crafts taught in secondary schools in Anambra and Benue states was rejected. The findings of the study is in agreement with that of the findings of Eastwood College (2019) that arts and craft are typically taken for granted as a must for children and young adults in the formal education set ups. The researcher

also interested that over the past several years, many schools have unfortunately cut down on art in their school curriculum. Music, painting and theatre are fast disappearing. The findings also resemble that of Vohra (2019) who discovered that in today's academic scenario, the crafts and arts have all but entirely disappeared in school systems. There was a time when creative classes were made compulsory for students, and were given their due recognition by parents, teachers and students alike. However, the current atmosphere of mounting academic pressure and curriculum goals has pushed arts and crafts to the sidelines.

The findings of this study in respect to research question three and hypothesis three on Tables 3 and 6 revealed that secondary school students in Anambra and Benue states are not taught metal-making craft. The null hypothesis which states that there is no statistically significant difference in the mean responses of students on types of metal-making craft taught in secondary schools in Anambra and Benue states was rejected. The findings of this study is in agreement with that of the findings of AAP Magazine (2016) which discloses that growing technology-run and industrialized world, people are increasingly forgetting the traditional crafts and moving to alternative income generation methods, for instance, daily wage labour and farming and arts is losing its grip.

### **Conclusion**

It is discovered that the development of this country to keep pace with her counterparts in the world depends solely on craft and skill education. It is now important that every serious Nigerian must embrace craft and skill education to promote national development.

### **Recommendations**

In view of the forgoing, the researcher therefore, made the following suggestions:

1. Adequate provisions should be made by both the Federal Government, State, Local and private organizations to provide the required facilities for effective teaching and learning of craft and skill education for national development.
2. More funds should be made available to schools at all levels to enable them obtain all that is needed for effective teaching and learning of craft education.
3. Ministry of education in conjunction with the federal ministry of information should liaise with social organizations to create more awareness to the public to see the need and importance of craft and skill education as one of the mediums for national development.
4. Successors of previous administrations in Nigeria should learn how to continue with policies made by their predecessors so as not to cause programme distortions that may result to programmes failure.

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*NAU Journal of Technology & Vocational Education, Vol. 7, No. 1, December 2022*

**NEEDS ASSESSMENT OF THE ADEQUACY OF ACCOUNTING  
EDUCATION CURRICULUM CONTENTS IN FEDERAL COLLEGES  
OF EDUCATION IN SOUTH-SOUTH, NIGERIA**

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**Abstract**

The study conducted a needs assessment of the adequacy of accounting education curriculum contents in federal colleges of education in South-South, Nigeria. One research question was raised and one null hypothesis was tested at 0.05 level of significance. The study adopted sequential explanatory mixed methods research design. The entire population of 148 (68 accounting educators and 148 final year accounting education students) was studied without sampling. A five-point rating scale questionnaire which was validated by experts and semi-structured interview schedule were used for data collection. The questionnaire has a reliability coefficient value of 0.73 using the internal consistency method with Cronbach alpha. Mean, standard deviation and t-test were used to analyze quantitative data while thematic analysis was used for qualitative data. The study revealed that accounting educators rated the curriculum contents of the programme as very highly adequate while the graduating students rated them as highly adequate. This means that small gap which is not significant exists between ratings of the accounting educators and graduating students on the adequacy of curriculum contents of the programme for skills acquisition. Furthermore, need for curriculum enrichment was the theme identified. Based on the findings, it was concluded that the lack of skills to secure employment among graduates of the programme is related to other factors and not contents of the curriculum although there are few areas the contents do not align with today's sophisticated accounting workplace. It was recommended among others that curriculum developers should obtain updated information from employers of labour on skills they need from accounting education graduates in order to emphasize them in the curriculum and prescribe requirements for developing them in students for smooth transition from school to work.

**Keywords.** Colleges of Education, Curriculum, Accounting Education, Needs Assessment.

**Introduction**

Colleges of education, irrespective of their conventional, technical and special status, are principally established to produce professional and competent teachers with satisfactory mastery of primary and secondary school subjects. Educational institutions like colleges of education can be regarded as empty entities without relevant academic programmes. One of the programmes offered in colleges of education in Nigeria is accounting education. According to Ugwu, Ezeabii and Ugwunwoti (2020), accounting education is one of the business education courses offered in Nigeria tertiary institutions for professional placement in the accounting and education sector of the economy. The feasibility of business education programme (accounting

education inclusive) comes from effective execution of its curriculum (Ezenwafor & Onokpaunu, 2017). Curriculum is an arrangement of courses, their outlines and academic experiences in a sequence of known to unknown that are exposed to students within and outside a learning institution. The curriculum content of accounting education give students the opportunity to master accounting information and acquire accounting skills to enable them properly function in the world of work upon graduation.

Accounting education curriculum is designed according to National Commission for Colleges of Education (NCCE) (2012) to train accounting teachers and professional for accounting jobs. The objectives of accounting education curriculum in colleges of education as outlined in Udo and Bako (2014:54-55) include to develop in the students the ability and desire to keep records for personal use, to develop in the students the ability to interpret and analyse business papers and records in the capacity of a final consumer, to give the students preliminary training for the advanced study of accounting, to develop in the students an understanding of some of the problems and characteristics of a business enterprise, to train the students with knowledge of records keeping necessary to carry out a small business and to train the students to become book-keepers, cashiers or accountants in the business enterprises or in their self-established business ventures. Despite its laudable objectives, Umoru and Bala (2018) and Mong and Okolocha (2019) reported that employers of labour viewed the level at which accounting education graduates possess accounting skills to handle the complexity of the business world as unacceptable. In addition, Uchenna, Stephen and Akujieze (2020) averred that the objectives of the accounting education programme are implemented to a low extent. Therefore, to maintain relevance and appropriateness of the accounting education and achieve its objectives in colleges of education, needs assessment is required to determine the adequacy of the curriculum contents whether they meet international accounting standards and practices in the global workplace of the current era.

Needs assessment, also known as needs analysis, is regarded as a process which consists of all the activities involved in the collection and analysis of data and identification of gaps that exist in the implementation of curriculum contents (Salihu, 2014). Hui-chuan (2014) identified five models of needs assessment which are systematic approach, sociolinguistic model, learner-centred approach, task-based approach and learning-centred approach. The learning-centred approach which splits needs assessment into target needs and learning needs was used for this study. Hutchinson and Waters in Tinh (2018) submitted that learning needs analysis focuses more on process-oriented needs which are obtained from the learning situation by establishing how the learners want to learn rather than what they need to learn. Learning needs analysis must start from the students' judgment of their learning needs through their own observations (Chunling, 2015). Students learning needs must be contrasted with the needs perceived by their course teachers who also must be alert of such disparity and takes account of them in order to work out practical curriculum contents that will cater to the needs of a particular group of students (Nugraha, Suwandi, Nurkamto & Saddhono, 2018).

This is the rationale behind the researchers' interest on learning needs branch of learning-centred approach of needs assessment by focusing on the adequacy of accounting education curriculum contents. Due to recent changes in accounting standards, needs assessment arises to ascertain whether the present accounting education curriculum contents are capable of preparing students for the challenges of modern-day accounting profession. Anchoring on the learning needs branch of learning-centred approach of needs assessment, the target group used for this study are accounting educators and graduating accounting education students in all the federal colleges of education in South-South, Nigeria. The researchers used graduating accounting

education students because they were expected to have adequate knowledge about accounting education curriculum contents as they had studied for three years at the colleges of education. Accounting educators were used because they are teaching and catering to the accounting learning needs of the students. It is against this backdrop that an empirical study on needs assessment of the adequacy of accounting education curriculum contents in federal colleges of education in South-South, Nigeria was undertaken.

### **Statement of the Problem**

Graduating (third-year) accounting education students of colleges of education are expected to be proficient in accounting skills that can either help them to effectively teach accounting subject in secondary schools and work in accounting offices. The poor rating of accounting education graduates by employers of labour in the accounting workplace begs a lot of questions and worries on the feasibility and viability status of accounting education programme in colleges of education in Nigeria. Therefore, the problem of the study is the uncertainty about the adequacy of the current curriculum contents of the accounting education programme in colleges of education in South-South, Nigeria. This calls for a needs assessment of the implementation of accounting education by determining whether or not students are exposed to curriculum contents that fit into the mainstream requirements of today's accounting workplace in order to provide empirical evidence for curriculum review.

### **Purpose of the Study**

The purpose of this study was to determine the adequacy of accounting education curriculum contents in federal colleges of education in South-South, Nigeria through needs assessment. Specifically, the study ascertained the gaps that exist between the opinion of accounting educators and graduating students on the adequacy of the curriculum contents of accounting education in federal colleges of education in South-South Nigeria.

### **Research Questions**

1. What gap exists between the opinions of accounting educators and graduating students on the adequacy of the curriculum contents of accounting education in federal colleges of education in South-South Nigeria?

### **Research Hypotheses**

2. The mean ratings of accounting educators and graduating students on the adequacy of the curriculum contents of accounting education in federal colleges of education in South-South Nigeria are not significantly different.

### **Methods**

The study adopted sequential explanatory mixed methods research design. Sequential explanatory mixed methods research design is the process of collecting and analyzing quantitative data followed by a collection and analysis of qualitative data (Morgan, 2014). The study was conducted in three out of the six states of the South-South Nigeria, namely; Delta State, Rivers State and Cross River State.

### **Quantitative Phase (Study 1)**

The entire population of 216 (68 accounting educators and 148 final year accounting education students) were studied without sampling. The questionnaire contained 63 items in two

main sections of A and B. Section A contained one item on the demographic data of the respondents. Section B contained 62 items on a five-point rating scale of Very Highly Adequate (VHA), Highly Adequate (HA), Moderately Adequate (MA), Lowly Adequate (LA) and Not Adequate (NA). The reliability of the instrument was determined through a pilot study involving 15 accounting educators and 10 final year accounting education students in the Federal College of Education, Umuoze in Anambra State who were not part of the research population. Data collected were analysed using Cronbach alpha and a reliability coefficient of 0.73 was obtained. Out of the 216 copies of the questionnaire administered, 196 copies (representing 91 per cent) were retrieved and used for data analysis. Mean and standard deviations were used to answer the research question while t-test was used to test the null hypothesis at 0.05 level of significance. The gap between the mean responses of the two groups on each item was determined by comparing the difference in their mean scores and interpreted as follows: 0.00 – 0.49 = No gap; 0.50 – 1.49 = Small gap; 1.50 – 2.49 = Moderate gap; 2.50 – 3.49 = Large gap and 3.50 – 4.00 = Very large gap.

### Quantitative results

The results for the quantitative analysis are presented as follows.

**Table 1**

#### **Mean and Computed Gap on the Adequacy of the Curriculum Contents of Accounting Education**

S/N	Bookkeeping (Principles of Accounting I)	M1	M2	MD	Remark
1.	Evolution and importance of booking	4.67	4.59	0.08	No gap
2	Distinction between bookkeeping and accounts	4.82	4.71	0.11	No gap
3	Subsidiary books and methods of keeping them	4.90	4.76	0.14	No gap
4	Ledger and its classification	4.84	4.73	0.11	No gap
5	Preparation of trial balance and suspense account	4.36	3.22	1.14	Small gap
6	Preparation of single, double and three column cash book	4.63	3.58	1.05	Small gap
7	Preparation of petty cash book	4.94	4.85	0.09	No gap
8	Preparation of elementary final accounts	4.07	3.64	0.43	No gap
S/N	<b>Bookkeeping (Principles of Accounting II)</b>	<b>M1</b>	<b>M2</b>	<b>MD</b>	<b>Remark</b>
9	Preparation of year-end adjustments	4.26	3.70	0.56	Small gap
10	Introduction and computation of depreciation	4.11	3.39	0.72	Small gap
11	Preparation of accounting entries for sales, repairs, renewals and replacement of assets	4.32	3.07	1.25	Small gap
12	Preparation of final account of a sole trader	4.93	4.89	0.04	No gap
13	Preparation of bank reconciliation statements	4.24	3.16	1.08	Small gap
S/N	<b>Financial Accounting I</b>	<b>M1</b>	<b>M2</b>	<b>MD</b>	<b>Remark</b>
14	Accounting conventions and concepts	4.71	4.65	0.06	No gap
15	Preparation of non-profit making organizations accounts	4.80	3.23	1.57	Small gap
16	Preparation of control accounts	4.65	4.01	0.64	Small gap
17	Preparation of incomplete or single entry records	4.39	3.07	1.32	Small gap
18	Introduction and computation of bill of exchange	4.28	3.12	1.16	Small gap
S/N	<b>Financial Accounting II</b>	<b>M1</b>	<b>M2</b>	<b>MD</b>	<b>Remark</b>

19	Preparation of manufacturing account	4.77	4.16	0.61	Small gap
20	Preparation of partnership account	4.69	3.82	0.87	Small gap
21	Preparation of joint venture account	4.31	2.99	1.32	Small gap
22	Preparation of stock valuation account	4.13	2.64	1.49	Small gap
23	Preparation of company accounts	4.43	2.87	1.56	Moderate gap
<b>S/N</b>	<b>Cost and Management Accounting</b>	<b>M1</b>	<b>M2</b>	<b>MD</b>	<b>Remark</b>
24	Definition of costing and cost account	4.86	4.75	0.11	No gap
25	Elements of cost	4.93	4.84	0.09	No gap
26	Desirability of a costing system	4.89	4.61	0.28	No gap
27	Costing methods and techniques	4.62	3.84	0.78	Small gap
28	Materials procurement and storage of stock	4.71	3.63	1.08	Small gap
29	Labour remuneration	4.90	3.48	1.42	Small gap
30	Collection and methods of absorbing overheads	3.65	2.59	1.06	Small gap
31	Elementary computation and uses of break-even-point	4.36	3.47	0.89	Small gap
32	Elementary variance analysis	4.82	4.65	0.17	No gap
33	Budgeting and budgetary control	4.74	4.31	0.43	No gap
34	Contract accounts	4.10	2.56	1.54	Moderate gap
<b>S/N</b>	<b>Advanced Financial Accounting</b>	<b>M1</b>	<b>M2</b>	<b>MD</b>	<b>Remark</b>
35	Accounts of limited liability companies	4.84	4.61	0.23	No gap
36	Purchase and amalgamation of business	4.46	2.69	1.77	Moderate gap
37	Interpretation of accounts	4.72	3.35	1.37	Small gap
38	Preparation of departmental accounts	4.79	4.01	0.78	Small gap
39	Preparation of hire purchase account	4.68	3.44	1.24	Small gap
40	Preparation of royalty	4.35	2.83	1.52	Moderate gap
41	Preparation of consignment account	4.21	2.97	1.24	Small gap
42	Introduction to public sector accounts	4.34	3.80	0.54	Small gap
<b>S/N</b>	<b>Auditing</b>	<b>M1</b>	<b>M2</b>	<b>MD</b>	<b>Remark</b>
43	Auditing: meaning and objectives	4.91	4.72	0.19	No gap
44	Types of audit	4.89	4.63	0.26	No gap
45	The qualifications and professional ethics of auditors	4.76	4.59	0.17	No gap
46	The independence, rights and responsibilities of auditors	4.90	4.72	0.18	No gap
47	The process of auditing: evidence and decisions	4.24	3.40	0.84	Small gap
48	Auditing of final accounts and balance sheet	4.12	2.53	1.59	Moderate gap
49	Internal control systems	4.08	2.76	1.32	Small gap
50	Verification of assets	4.01	2.86	1.15	Small gap
51	Investigation of irregularity in books of account	3.47	2.25	1.22	Small gap
52	Procedure for writing audit reports	4.30	3.21	1.09	Small gap
<b>S/N</b>	<b>Taxation</b>	<b>M1</b>	<b>M2</b>	<b>MD</b>	<b>Remark</b>
53	Meaning of taxation	4.87	4.73	0.14	No gap
54	Basic concepts and principles of taxation	4.91	4.62	0.29	No gap
55	Accounting computation of income and profit for tax purposes	4.25	2.88	1.37	Small gap
56	Tax administration; Returns, assessment, appeal,	4.08	3.14	0.96	Small gap

	payment, and claims among others				
57	Business taxation; Basic period of deduction allowed and disallowed, capital allowance, treatment of losses, adjustment of accounts for income tax purpose	4.29	2.13	2.16	Moderate gap
58	Introduction to income tax under partnership	4.11	3.62	0.49	No gap
59	Introduction to company tax	4.64	3.96	0.68	Small gap
60	Capital gains	4.37	2.88	1.49	Small gap
61	Capital transfer	4.29	3.03	1.26	Small gap
62	Current trends in taxation – VAT	4.80	4.62	0.18	No gap

Note. *M1* = mean ratings of business educators, *M2* = mean ratings of business education students, MD = mean difference

Table 2 shows the mean ratings of accounting educators and students for each content of the different course title. The table reveals no gap, small gap and moderate gap between the mean ratings of the accounting educators and students as regards the adequacy of the accounting education curriculum contents.

**Table 2**  
**Summary of the Mean and Computed Gap on the Adequacy of the Curriculum Contents of Accounting Education**

S/N	Course Titles of Accounting Education Curriculum	<i>M1</i>	<i>M2</i>	MD	Remark
1.	Bookkeeping (Principles of Accounting I)	4.65	4.26	0.38	No gap
2	Bookkeeping (Principles of Accounting II)	4.37	3.64	0.73	Small gap
3	Financial Accounting I	4.57	3.62	0.95	Small gap
4	Financial Accounting II	4.47	3.30	1.17	Small gap
5	Cost and Management Accounting	4.60	3.88	0.71	Small gap
6	Advanced Financial Accounting	4.55	3.46	1.09	Small gap
7	Auditing	4.37	3.57	0.80	Small gap
8	Taxation	4.46	3.56	0.90	Small gap
	Aggregate	4.51	3.66	0.84	Small gap

The data in Table 1 show that accounting educators rated 32 curriculum contents of the accounting education as very highly adequate, rated 29 as highly adequate and one as moderately adequate. The graduating students rated 19 curriculum contents of the accounting education as very highly adequate, rated 11 as highly adequate, 30 as moderately adequate and two as lowly adequate. The data in Table 2 show that accounting educators rated four course titles and their curriculum contents as very highly adequate and three as highly adequate while graduating students rated six course titles and their curriculum contents as highly adequate and two as moderately adequate. This shows that small gap exists between the rating of the accounting educators and graduating students on the adequacy of the curriculum contents of accounting education in federal colleges of education in South-South, Nigeria.

**Table 3**  
**Summary of the Gap that Exists Between the Mean Ratings of Accounting Educators and Graduating Students on the Adequacy of the Accounting Education Curriculum Contents**

Variable	N	$\bar{X}$	SD	df	t-value	p-value	Decision
Accounting educators	59	67.51	8.05	194	0.15	0.09	Not Significant
Graduating students	137	59.84	7.11				

Table 3 shows that the p-value of 0.05 at 194 degree of freedom is greater than the alpha value of 0.05 ( $p > 0.05$ ). This means that the gap that exists in the mean ratings between of accounting educators and graduating students on the adequacy of the curriculum contents of accounting education in federal colleges of education in South-South Nigeria is not significant. Therefore, the null hypothesis of no significant difference between the two groups is not rejected.

The results from the first phase of the study informed the content of the semi-structured interview schedules to assist the researchers to obtain in-depth data and descriptive data of the participants' experiences on the research study. Thereafter, qualitative research was conducted.

**Qualitative Phase (Study 2)**

Five accounting educators and six graduating students were used for selected for the qualitative phase of the study. These participants were interviewed for the study because they were willing to share their perspectives after the researchers explained what the research entails. Based on the mixed methods research design, a sample size of three to five was deemed sufficient as a minimum sample size when analyzing qualitative data (Creswell & Creswell, 2018). Semi-interview schedules were interviewed individually was used to capture the participants' viewpoints regarding the curriculum contents of the programme. The semi-interview took place two days after the collection of completed copies of the questionnaire from participants. The reliability and validity of the qualitative data was conducted using member checking which involves important elements like dependability, transferability, credibility and confirmability. Qualitative validity involves the credibility, confirmability, and transferability of the study's findings. In order to promote credibility and confirmability, the researcher utilized his written field notes of the semi-interviews and conducted member checking with his research participants. The participants were called after the interview to cross check for any errors and inaccuracies so that any distortions or misinterpretations can highlight and corrected. Transcripts of the interview were read to not only catch errors but also to ask the participants if they were true reflection of their experiences and perspectives.

To ensure the reliability of the qualitative data, data triangulation by checking written field notes of the interview, audio recordings of the interview, questionnaires and reviewed literature to confirm the data collected and to ensure data saturation. Member checking was also used to confirm the interpretations of the participant's responses whether the transcripts reflect accurately what they said during the interview. To enhance the dependability of the study, data saturation was ensured where nothing new word comes from the participants. To aid transferability in qualitative research, the researchers gave a detailed account of the natural settings where data were collected and provided an in-depth explanation of the qualitative data collected and analysed. The use of written field notes, audio recordings of the interview and completed questionnaire were used in the analysis. After transcribing the audio-recorded interviews, the semi-interview notes were shared to the participants to confirm the overall

credibility of the information and ensure that the interpretations of the study aligned with the participants' viewpoints. Thematic analysis was used to analyze qualitative data obtained for the study.

The semi-interview schedule for accounting educators has the following questions; what is your view on the adequacy of the current curriculum content of accounting education in federal colleges of education for facilitating skills acquisition? Are the curriculum contents of accounting education adequate for students' employability? What are the contents you think should be removed from the present accounting curriculum? Based on your experience, what contents should be added to the present accounting education curriculum?

The semi-interview schedule for final year accounting education students has the following questions; what is your view on the adequacy of the current curriculum content of accounting education in federal colleges of education for facilitating skills acquisition? As a graduating accounting student, do you think that the current curriculum contents of accounting education are in line with the accounting workplace? Based on your SIWES experience, what are the curriculum contents of accounting education you think should be added to the present curriculum? Based on your SIWES experience, what are the curriculum contents of accounting education you think should be removed from the present curriculum?

### **Qualitative Results - Emerging Theme**

Accounting educators that participated in the semi-interview were coded (AE) and graduating students were coded(GS).

#### ***Theme: Need for curriculum enrichment***

Need for curriculum enrichment was the main theme that emerged from the data collected from accounting educators and graduating students on question one. In the responses to the level of adequacy of the curriculum contents of accounting education, most of the participants (9/11) interestingly claimed that the at the level of colleges of education, the accounting education curriculum contents is adequate for students' employability but there is a need for the integration of modern accounting course contents. The participants' comments are;

- *“The accounting education curriculum content is good enough for producing book-keepers and accounting teachers for secondary schools in Nigeria”.*(AE 1)
- *“From my point of view, the accounting education curriculum contents in colleges of education contained what entry level book-keepers supposed to know”.* (AE 2)

One participant, who has about 30 years of experience in teaching accounting education courses in a federal college of education admitted that the level of adequacy of accounting education curriculum content is 'good'. He said that,

- *“The accounting education curriculum content is able to assist students have the basic principles of accounting to do well in the workplace but I want financial management courses to be added to the curriculum”.*(AE 3)

Another one gave a comprehensive picture of the accounting education curriculum:

- *“Yes, partially, the accounting education curriculum content is fine*

*for students' employability but emerging technologies like Oracle and cyber-security for today's fast pace accounting offices are not integrated in the curriculum".(AE 4)*

Representatives of the graduating students acknowledged the adequacy of accounting education curriculum contents for students' employability:

- *"Based on my SIWES performance, the accounting education curriculum content is adequate to help me secure a job in a microfinance bank". (GS 1)*
- *"I was able to teach financial accounting during my teaching experience in a public secondary school, so the accounting education curriculum content in colleges of education prepares me well for a teaching job after graduation". (GS 2)*
- *"I think the accounting education curriculum content is adequate because I can balance the account of the small business I run while schooling in the college right now". (GS 4)*

Some of the research participants had some objections towards accepting the adequacy of accounting education curriculum contents for students' employability:

- *"Although, the accounting education curriculum content is okay, it failed to capture computer-based contents that business organizations are using now". (AE 4)*
- *"I would say the accounting education curriculum contents show what happens in the business organization where i did my I.T but it is too theoretical in the classroom". (GS 6)*
- *"The accounting education curriculum content is not skill-based and ICT oriented .... I mean there are many accounting packages in today's workplace that are not covered in the accounting education curriculum in colleges of education." (AE 5)*

### **General Discussion**

Findings of the study show that accounting educators rated the course titles and curriculum contents of the accounting education in the federal colleges of education in South-South Nigeria as very highly adequate and graduating students rated the course titles and curriculum contents as highly adequate. This finding agrees with that of Ekwe and Abuka (2014) which reported that the accounting education curriculum is adequate for facilitating skills acquisition among students in tertiary institutions. The finding also concurs with Efanimjor and Okolocha (2020) which reported that majority of the curriculum contents of accounting education in business education programme are adequate for the acquisition of accounting skills. However, the finding of this study disagrees with Edet and Udida (2019) which reported that accounting education curriculum contents of business education programme are not adequate for facilitating employability skills acquisition among students. The difference between the finding of the current study and Edet and Udida's study could be due to differences in location, research

design and population. The finding of this study implies that the curriculum and its contents are in line with the goals and objectives of accounting education programme for colleges of education in Nigeria.

Additionally, the study revealed that a small gap exists between accounting educators and their graduating students on the adequacy of the curriculum contents of accounting education in federal colleges of education in South-South, Nigeria. This means that accounting educators and their graduating students are not far apart in their ratings on the adequacy of accounting education curriculum for preparing students for the world of work. This finding corresponds with the study of Ukpong and Udo (2014) who reported that curriculum contents of accounting education is not sufficient for students' acquisition of International Financial Reporting Standards (IFRS) skills. The finding could be attributed to the fact that there are some curriculum contents that do not fully align with current global accounting standards and practices.

Furthermore, the study revealed that the gap that exists between the mean ratings accounting educators and their graduating students in in the area on the adequacy of the curriculum contents of accounting education is not significant. This means that both accounting educators and their graduating students share the same opinions on the adequacy of the curriculum contents of the programme. The finding agrees with that of Ibrahim (2014) who reported that accounting education curriculum contents of business education is comprehensive enough for acquisition of accounting skills among students. This implies that accounting education curriculum contents does not only provide students with sufficient theoretical knowledge but also practical knowledge of the accounting world in the classroom.

### **Conclusion**

The widespread criticisms and suggestions of deficiencies in the current accounting education curriculum by the academia, accounting experts and employers of labour necessitated this study on needs assessment. Based on the findings of the study, there is no basis for the incessant criticisms on the curriculum contents of accounting education in federal colleges of education in South-South Nigeria. Hence, the study concluded that the lack of skills to secure employment among graduates of the programme is related to other factors and not contents of the curriculum although there are few areas the contents do not align with today's sophisticated accounting workplace.

### **Recommendations**

Based on the findings of the study, the following recommendations were made:

1. The National Commission for Colleges of Education (NCCE) should synergize with accounting professional bodies and employers of labour in reviewing the curriculum to enrich the contents so that the graduates of the programme can function effectively as professionals in today's workplace.
2. Curriculum developers should obtain updated information from employers of labour on skills they need from accounting education graduates in order to emphasize them in the curriculum and prescribe requirements for developing them in students for smooth transition from school to work.
3. Accounting educators in federal colleges of education in South-South Nigeria should adopt suitable instructional methods and strategies for effective implementation of the curriculum to equip students with skills they need for smooth transition from school to work.

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*NAU Journal of Technology & Vocational Education, Vol. 7, No. 1, December 2022*

## **RELATIVE EFFECTIVENESS OF BRAINSTORMING AND THINK-PAIR-SHARE STRATEGIES ON STUDENTS' ACADEMIC ACHIEVEMENT AND RETENTION IN BIOLOGY**

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### **Abstract**

The need for higher success in academic achievement of students in biology has always been the concern of science teachers, educational assessors and evaluator. It is necessary to experiment more student-centre methods of teaching. This study, therefore, ascertain the effects of brainstorming and think-pair-share teaching strategies when compared with the usual conventional teaching method. Two research questions were answered and two corresponding hypotheses were tested. The quasi-experimental research design was employed. One hundred and thirty-nine senior secondary school students were sampled. The biology achievement test (BAT) with multiple choice questions was used as the instrument for data collection. The BAT was subjected to face and content validity, while Kuder-Richardson method was used for the reliability, which yielded a coefficient of 0.71. data were collected as pre-test, post-test, and delayed post-test. Mean, standard deviation, and analysis of covariance were used as statistic tools. Findings revealed that students showed higher academic achievement scores with the think-pair-share and brainstorming strategies than the conventional method. Nevertheless, no significant difference was found between the students taught biology with brainstorming and think-pair-share strategies. The implication is that students will report higher academic achievement when student-centre methods are employed in teaching biology in secondary school.

**Keywords.** Academic achievement, biology, brainstorming, retention, secondary school, think-pair-share.

### **Introduction**

The massive growth in technology and scientific outburst is posing great pressure on the education system. The advancement of any nation depends to a large extent on the rate of her scientific and technological development especially in developing countries like Nigeria. The future of every society will be determined by citizens who are able to understand and help shape the complex influence of science and technology in the world (Ungar, 2010). Science is seen as a body of knowledge, a way of investigation and thinking in pursuit of an understanding of nature. (Author & Omosewo, 2006). Science education to which physics, chemistry and biology form the bases focus not only on producing excellent scientists but also, to produce citizens who use their knowledge to advance the society. As a result, students are being encouraged to take up science-related courses within the content of science education, Biology has been identified as a very important subject and as a core subject taught at the senior secondary school in Nigeria.

Biology is the study of living things which includes plants and animals (Amaefuna, 2013). It deals with living organisms including their structure, function, evolution, distribution and inter-relationships. Biology curriculum is designed to continue students' investigation into natural phenomena, deepening students' understanding, interest and retention in biological science and to encourage students' ability to apply scientific knowledge to everyday life. (Federal Ministry of Education, 2009). A lot of reasons are borne in mind while studying biology. These include understanding oneself and environment, appreciation of nature as well as pollution control (Kalra, 2008). Predominantly, the teaching of Biology in secondary schools has been done using conventional method. Due to role dominance of teachers in conventional method which is a traditional teaching method, the students are not engaged in critical thinking and this leads to rote learning with little transfer of knowledge. The traditional/conventional teaching method often used by teachers in teaching Biology includes; lecture/expository method, demonstration and direct instruction. These methods of teaching stresses more on the transmission of knowledge in a manner that emphasizes memorization hence they have been characterized by some educators (Okoro,2011) as a poor method of teaching Biology and other science subjects. The conventional/traditional teaching methods involves unidirectional flow of knowledge from teacher to students and do not encourage process skill acquisition needed for proper understanding of biological principles, concepts and facts. Chidebe (2013) refers to these traditional teaching methods as teacher-centered approach to learning in the sense that the teachers are considered as the custodian of knowledge to be transferred to the students. And as such decides how the transfer takes place. The unidirectional flow of information in traditional teaching method makes students passive and unable to construct meaningful knowledge in the teaching and learning of Biology. Knowing fully well that students are not empty bottles that need to be filled by their teachers, they still have little knowledge that can be clarified and built upon. Okoro (2011) stated that poor academic achievement in schools suggested poor methodology of instruction and therefore called for an in dept investigation. It is therefore logical to say that the teacher is one custodian of knowledge and students are able to generate ideas from problem statement and do not develop problem solving scheme in conventional method.

However, studies have shown that this conventional method has not given the desired outcome in terms of students' achievement and learning processes when compared with innovative teaching methods. (Amaefuna, 2013, Okeke, 2016, Okoro 2011, Osuafor & Ogbaga, 2016). Having established the fact that conventional teaching methods like lecture method is not very appropriate, it is necessary to consider innovative approaches to learning like problem-solving approach, co-operative learning approach, brainstorming and Think-Pair-Share(TPS) amongst others.

Consequently, Nigeria's educational policies and goals are directed towards sciences and technology which are the pivot on which so many professional career courses revolves (Chidebe, 2013). Thus, the educational system needs to develop scientifically literate individuals that possess high competence for rational thought and actions especially amongst the young Nigerians and particularly the adolescents who need to transcend from secondary education to university education or labour market. If the adolescent students possess good skills like the ability to generate ideas (brainstorming), through thinking when posed with problems and possibly working in team (pairing up ideas and sharing of thoughts) especially in areas of creativity right from secondary school, the issues of unemployment on the part of both educated and uneducated ones will be halfway solved. This is because a lot of them would have been employers of labour rather than waiting for government or someone to employ them,

notwithstanding their level of education (Ainley & Fleming, 2004). That is why Olehi (2005) stated that acquiring the highest level of education is not the only solution to the problem of survival but also the ability to create something out of nothing. Olehi (2005) further stated that creating something out of nothing does not occur as a result of one having only a great intelligence but is achieved mostly when individuals at training stage of their career could form group and tries to generate ideas. The idea behind Olehi's statement is referred to as brainstorming.

Brainstorming is a group or individual members' creativity technique by which efforts are made to find solution to a specific problem by gathering a list of ideas spontaneously contributed by its members (Osuafor & Ogbaga, 2016). The term brainstorming was popularized by Alex Faickney Osborn in his 1953 book of "Applied imagination" Osborn claims that brainstorming was more effective than individual working alone in generating ideas. Brainstorming involves thinking freely without restriction hence guided by the following rules according to Dehghan (2013): Withhold criticism within the session, Focus on the number of ideas generated by its group or individual members, Documentation of ideas generated. Combine and improve ideas.

Having stated the rules guiding the brainstorming session, the following stages are used; introducing the brainstorming rules by writing the list of rules on the board to guide the students through the route, stating the subject or problem- the teacher who acts as facilitator picks the topic and gives a little thought-provoking information about the topic to prompt their interest, expressing ideas in a revolving way, exhibiting ideas for combination and improvement and evaluating ideas which result in creative problem solving (Dehghan, 2013). Brainstorming involves critical thinking amongst group members without any form of discouragement. Ajiboye and Ajitoni (2008) observe that children learn best by being interested fully in their own work by seeing, doing, puzzling, verifying their suppositions, experimenting and drawing conclusions themselves on the strength of evidence which they have collected themselves. They can always make mistakes which they then, should rectify by themselves in the light of new information and evidence that is uncovered by them. One may also talk about other related innovative teaching methods that also connote collaborative strategies like co-operative learning, jigsaw model, peer to peer tutoring and Think-pair-share (TPS) amongst others. These pedagogic concepts should be participatory through social interaction, togetherness, and action-oriented communication.

Think-pair-share (TPS) strategy is one of the group discussion strategies and diverse method of learning collaboratively. This strategy was developed by Frank Lyman in 1981. Andrew and Alexandra, (2015) defined think-pair-share as a cooperative learning strategy that encourages students to work together to solve problems or answer questions on an assigned topic. TPS is used to keep all students actively involved in class discussion and provides an opportunity for everyone to share their idea and answer to every question posed by the teacher. As the teacher works to choose appropriate content, it gives the whole lesson preparation and formulation of good cognitive objectives. Think-pair-share strategy is one of the co-operative learning approaches which help learners to solve problems by giving them time to think. Being more willing and less apprehensive about sharing with a larger group gives them the opportunity to change their response if needed and reduce the fear of giving the wrong answer, thereby encouraging them to participate co-operatively and mutually learn between the individuals. This ensures that the contribution of each student works (Bamiro, 2015). Think-pair-share (TPS) strategy includes three components namely; Time for thinking, time for pairing with partner and time for sharing among the larger groups. The use of brainstorming and TPS strategy amongst other collaborative learning approaches unites the cognitive and social aspects of learning, promotes the development of thinking, construction of knowledge, building of learning team

within a larger group during the sharing of ideas thereby encouraging active participation and interaction. One can therefore emphatically state that by virtue of the importance of biology as a school subject, there is need for its effective teaching and learning to bring about good academic achievement.

Achievement is an important academic factor which according to Pierre, (2010), is the outcome of instruction and students' mastery of particular learning contents. Academic achievement is the outcome of education, the extent to which students, teachers or institution have attained their educational goals. It has been identified to be influenced by teaching methods, in all levels of education, students in co-operative situations achieved greater in academics, social and psychological benefits (Okoro, 2011). Specially, collaborative learning has been reported by several researchers to have improve students' academic achievement (Osuafor, Nwanze, Pius & Emerhioma 2018; Osuafor &Ogbaga,2016). Hence co-operative (collaborative) learning has been proven to have positive effects on achievement in learning process. Students' achievement is measured through examinations and continuous assessment. Achievement tests are used to assess a person's performance in a course of study which one has undergone. There are so many strategies in collaborative teaching and learning methods. Since brainstorming and TPS strategies are aspects of collaborative learning and teaching strategies, one would want to determine the effects of both strategies on the achievement of students. It is also important to know that knowledge gained or achieved can become worthless if it is not retained so as to be useful in the future. Thus the need to consider retention

Retention is the ability to store what has been laid out and recall what has been stored in the memory. According to Bichi (2002), retention is the ability to retain (store) and later remember information or knowledge gained after learning. To ensure life-long learning, students have to be actively involved in their educational journey so as to ensure that learning is desired rather than forced, and the subject matter retained for future application. According to Ibrahim, (2002), Biology teachers strive to establish the fact that understanding of the content comes before the memorization. However, due to the fact that Biology is such a content-rich subject, students often move straight into memorization which in the end results in zero retention of knowledge. There are some contents of biology that may require peer interaction, consistent brainstorming, and sharing of ideas between the peer or even teachers to internalize the learning of such contents or topics as the case may be (for example Transport system). Therefore Fuller (2004) advises that when students cannot learn the way we teach them, we should learn to teach them the way they learn which is the student-centered approach. Since Brainstorming and TPS are types of student-centered approaches to learning, one would want to determine the effects of both Brainstorming and TPS strategies on students' retention in biology.

The importance of effective teaching and learning of Biology notwithstanding appears that students learning outcome in it over the years is still not encouraging (Okeke, 2016). According to Chief examiner's report, the percentage of students who obtain credit pass in Biology at West African Senior School Certificate Examination (WASSCE) in Nigeria has been low and their performance is poor. Ahmed and Abimbola (2011) assert that an ineffective teaching method adopted by teachers at senior secondary school level in Nigeria have been identified as one of the major factors contributing to the poor performance of students in Biology. Amaefuna (2013) and Ogunleye (2006) attribute the high failure rate in Biology to a number of factors such as inadequate learning facilities, overpopulated classrooms, overloaded curriculum, poor mastery of concepts and inappropriate use of good teaching methods. Innovative teaching strategies in teaching and learning of biology could improve both achievement and retention irrespective of gender.

Gender is defined as the state of being male or female (Suzane, 2010). Some researches have shown contradictory evidence on students' academic achievement in science due to influence of gender. Different methods of teaching are either gender sensitive or gender bias. Aninweze (2014) identifies sex-role stereotyping and masculine image of science as the origin of the difference between male and females' achievement in science education. While Olson (2002) reports that females performed better than male students when taught mathematics using cooperative learning. Attah (2014) found gender differences in favour of male students. Hence these mixed findings deem it fit to determine the influence of gender on biology students' achievement and retention when brainstorming and think-pair-share are used as teaching strategies. The study of the interaction effect of gender in both brainstorming and TPS strategies on students' achievement and retention will also be necessary to equip the biology teachers on how best to plan their lesson using brainstorming and TPS.

Many researches on the innovative pedagogical methods that will adequately develop students' potentials assess and improve their achievement and retention which include cooperative learning, Jigsaw method, constructivism models, brainstorming and think-pair-share strategies amongst others have been recorded. Some researchers (e. g., Walid, 2013) have carried out studies on Brainstorming as an innovative teaching method in education, and found out that it improves the performance of students in mathematics and computer science. Also, Ogunyebi (2018) finds think-pair-share effective in improving the performance of integrated science students. If brainstorming and TPS are effective and have been used in mathematics, computer science and integrated science, one may want to find out what their effects will be in biology. This study seeks to determine the effects of brainstorming and TPS strategy on Biology students' achievement and Retention.

### **Statement of the Problem**

Biology is seen by science educators to be an important subject as it cuts across several disciplines. However, despite its importance and usefulness, the performance of biology students at senior secondary school level has been poor.

The evidence of poor results is shown by the WAEC chief examiner's report (2007-2018) summarized. Following the chief examiners WASSCE report, it is glaring therefore that a lot of works need to be done towards effective teaching and learning that will foster appropriate interaction between the students and learning material for proper functioning of the school system. Brainstorming and TPS instructional strategies have been found effective in improving students' achievement and retaining of learning materials in some subjects like Mathematics, Computer science and Integrated Science but no such study known to the researcher has been carried out in biology. The need therefore arose to determine the effects of brainstorming and TPS instructional strategies on students' achievement and retention in biology.

### **Research Questions**

The following research questions were answered in this study.

1. What is the difference in the mean academic achievement scores between the students taught biology with brainstorming strategy, think-pair-share strategy and conventional method?
2. What is the difference in the mean retention scores between the students taught biology with brainstorming strategy, think-pair-share strategy and conventional method?

### **Research Hypotheses**

The following corresponding hypotheses were also tested at .05 level of significant

1. There is no significant difference in the mean academic achievement scores between the students taught biology with brainstorming strategy, think-pair-share strategy and conventional method.
2. There is no significant difference in the mean retention scores between the students taught biology with brainstorming strategy, think-pair-share strategy and conventional method.
3. There is no significant difference in the mean academic achievement scores between male and female students taught biology with think-pair-share strategy and conventional method.
4. There is no significant interactive effect of teaching strategies and gender on students' academic achievement in biology.

### **Methods**

This study adopts the quasi-experimental research design, involving three groups – two groups are the experimental groups while one is the control group. The two experimental groups were exposed to brainstorming and think-pair-share strategies, while the control group was taught with the conventional method (lecture method). The choice of this method was born in mind because the researchers do not have the permission to randomize the participants. Hence, quasi-experimental design was considered appropriate for this study.

Using a purposive sampling technique, the sample for this study was 139 senior secondary school students offering biology. The sample was drawn from three intact classes in Awka education zone in Anambra State, Nigeria. The three schools selected for this study represented the three groups, such that students from one school were taught biology using brainstorming strategy (n = 448), another set of students from another school were taught biology using think-pair-share strategy (n = 46), and the students from the last school were taught biology using the conventional method (n = 45).

The instrument used for the study was the biology achievement test (BAT), which consist of 25 multiple choice objective questions (A to D) such that only one response is the correct answer. The items were selected from previous standardized questions from WAEC, NECO, and NABTEB. The BAT was used to collect data to measure the students' academic achievement and retention test. For the psychometric test, the instrument was further subjected to face and content validity. The face validity was carried out with three experts in Biology Education programmes, while the content validity was performed with table of specification. The reliability of the instrument was performed using Kuder-Richardson method. The instrument was administered to 20 biology students and their answers were scored and coded. Thus, a reliability coefficient of 0.71 was obtained

Research assistants were used for data collection. Data were, therefore, collected three different times to measure the students' achievement and retention scores using the BAT. The first data was the pre-test, which was collected two weeks before the experiment. The second data was the post-test, which was collected four days after the experiment. While the third data was the delayed post-test, which was collected four weeks after the post-test. Note that the BAT was used to collect the three data set, but the questions were reshuffled and different paper colours were used at post-test and delayed post-test. To analyse the data, the mean, standard deviation and analysis of covariance (ANCOVA) were employed. The mean and standard deviation were employed for the research questions, while ANCOVA was used to test the

hypotheses at 0.05 level of significance. To ascertain the academic achievement scores, the pretest and post-test scores were used. Similarly, the retention scores of the students were determined from the post-test and delayed post test scores.

**Results**

The results are presented in the order of the research questions and the corresponding hypothesis.

**Research Question 1:** What is the difference in the mean academic achievement scores between the students taught biology with brainstorming strategy, think-pair-share strategy and conventional method?

**Table 1**  
Mean and Standard Deviation of the Mean Achievement Scores among the Group

Groups	N	Pretest		Posttest		Mean Gain
		Mean	SD	Mean	SD	
Brainstorming	48	47.08	10.48	61.33	11.03	14.25
Think-Pair-Share	46	44.00	9.03	63.30	11.94	19.30
Conventional	45	43.33	9.84	50.20	5.38	6.87

Table 1 reveals the pretest and posttest mean achievement scores of the students taught biology using think-pair share, brainstorming and conventional methods. The pretest mean scores for the groups in the brainstorming, think-pair share, and conventional method are 47.08, 44.00, and 43.33 respectively. The posttest mean scores are 61.33, 63.30, and 50.20 respectively. The mean gain for the three groups are 14.25, 19.30, and 6.87 respectively, which depicts that the students in the think-pair share strategy have the highest mean achievement score, followed by those in the brainstorming strategy; while the students in the conventional method have the lowest mean achievement score.

**Hypothesis 1:** There is no significant difference in the mean academic achievement scores between the students taught biology with brainstorming strategy, think-pair-share strategy and conventional method.

**Table 2**  
The ANCOVA Results of Achievement Scores among the Groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	4637.023 <sup>a</sup>	3	1545.674	15.685	.000	.258
Intercept	18524.945	1	18524.945	187.982	.000	.582
Pretest	91.838	1	91.838	.932	.336	.007
Group	4402.099	2	2201.049	22.335	.000	.249
Error	13303.768	135	98.546			
Total	491705.000	139				
Corrected Total	17940.791	138				

R Squared = .258 (Adjusted R Squared = .242)

Data presented in Table 2 reveals the ANCOVA results on the effect of brainstorming, think-pair share and lecture methods on students' academic achievement in biology. The results show a significant difference ( $F = 22.335, p = .000 < .05, \eta^2_p = .249$ ) in pretest and posttest mean scores of the students taught biology with the three methods. The partial eta square of .249 also reveals that the effect is 24.9 percent. In all, the null hypothesis is rejected. The result shows that there is a significant difference in the effect of the three methods on the students' academic performance in biology. Thus, the multiple comparison tests determine the direction of the difference.

**Table 3**  
The Multiple Comparison Test of Achievement Scores between the Groups

(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.
Think-Pair-Share	Brainstorm	2.229	2.066	.282
	Conventional	13.049*	2.082	.000
Brainstorm	Think-Pair-Share	-2.229	2.066	.282
	Conventional	10.819*	2.085	.000
Conventional	Think-Pair-Share	-13.049*	2.082	.000
	Brainstorm	-10.819*	2.085	.000

Table 3 reveals the multiple comparison test of difference in the academic performance of the students. The table reveals no significant difference between think-pair-share and brainstorming ( $p = .282 > .05$ ), but there are significant differences between think-pair-share strategy and the conventional method ( $p = .000 < .05$ ) and brainstorming strategy and the conventional methods ( $p = .000 < .05$ ). Thus, brainstorming and think-pair-share do not have any significant difference between them, but the two strategies are superior to the conventional method in fostering academic performance.

**Research Question 2:** What is the difference in the mean retention scores between male and female students taught biology with brainstorming strategy, think-pair-share strategy and conventional method?

**Table 4**  
Mean and Standard Deviation of the Retention Scores among the Group

Groups	N	Posttest		Delayed Posttest		Mean Gain/Loss
		Mean	SD	Mean	SD	
Brainstorming	48	61.33	11.03	60.33	10.82	- 1.00
Think-Pair-Share	46	63.30	11.94	64.61	13.14	1.31
Conventional	45	50.20	5.38	46.38	10.92	- 3.82

The result presented in Table 4 reveals the mean retention scores of the students taught biology with brainstorming, think-pair-share, and conventional methods. The table reveals that the posttest mean scores are 61.33, 63.30, and 50.20 respectively. Similarly, the respective delayed posttest mean scores are 60.33, 64.61, and 46.38. While the think-pair-share strategy has a mean gain of 1.31, the mean loss for the brainstorming strategy and conventional method are

1.00 and 3.82 respectively. This indicates that the students in the think-pair-share have higher mean retention score than those in the brainstorming strategy.

**Hypothesis 2:** There is no significant difference in the mean retention scores between male and female students taught biology with brainstorming strategy, think-pair-share strategy and conventional method.

**Table 5**

The ANCOVA Results of Mean Retention Scores among the Groups

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	8383.214 <sup>a</sup>	3	2794.405	20.494	.000	.313
Intercept	10236.922	1	10236.922	75.078	.000	.357
Posttest	116.782	1	116.782	.856	.356	.006
Group	5366.486	2	2683.243	19.679	.000	.226
Error	18407.419	135	136.351			
Total	482057.000	139				
Corrected Total	26790.633	138				

Table 5 shows the ANCOVA results on the effect of brainstorming, think-pair share and conventional methods on students' retention in biology. The results show a significant difference ( $F = 19.679$ ,  $p = .000 < .05$ ,  $\eta^2_p = .226$ ) in the mean retention scores of the students taught biology with the three method. From the table, the partial eta square of .305 also reveals that the effect is 22.6 percent. Based on these, the null hypothesis is rejected. Hence, the result shows that there is a significant difference in the effect of the three methods on the students' mean retention scores in biology. Thus, the multiple comparison test determines the direction of the difference.

**Table 6**

The Multiple Comparison Test of Mean Retention Scores between the Groups

(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.
Think-Pair-Share	Brainstorm	4.091	2.418	.093
	Conventional	17.007*	2.782	.000
Brainstorm	Think-Pair-Share	-4.091	2.418	.093
	Conventional	12.916*	2.671	.000
Conventional	Think-Pair-Share	-17.007*	2.782	.000
	Brainstorm	-12.916*	2.671	.000

Table 6 reveals the multiple comparison test of difference in the mean retention scores of the students. The table reveals no significant difference between think-pair shared and brainstorming ( $p = .093 > .05$ ), but there are significant differences between think-pair-share and conventional methods ( $p = .000 < .05$ ) and brainstorming and conventional methods ( $p = .000 < .05$ ). Thus, brainstorming and think-pai-share do not significantly differ in enhancing students'

retention, but the two strategies are superior to the conventional method in enhancing students retention ability.

### Discussion of Findings

From the results used to answer research question 1, it was found that the academic achievement of the students in the three groups increased; although the think-pair-share strategy appears to have more effect. Thus, the findings have shown that the students taught Biology using brainstorming and think-pair-share strategies performed significantly better than those taught with conventional method. The difference may be as a result of the fact that both brainstorming and TPS provides an opportunity for students to take active role in building their own knowledge. This finding is in consonance with the research of Bilal-Adel (2012) who view brainstorming as a lateral thinking process by which students develop ideas or thoughts on solution to problems based on layout criteria. It may also be as a result of new useful ideas and creative thinking that the techniques bring to problems.

The data obtained shows that there is significant difference in the retention scores of Biology student taught using brainstorming and think-pair-share strategies than those taught using conventional method. The variation may not be surprising because there may likely exist an excitement on one's state when one makes contribution and gets motivated. This is in line with the study carried out by Imoka and Agwagah (2006) which stated that retention is a subjective feeling of concentration or persisting tendency to pay attention and enjoy some activity of content presentation of learning materials which learners are interested in to evoke spontaneous interest and motivate them to work for hours.

### Conclusion

While it is important to improve the academic achievement of students in Biology, the appropriate teaching method or technique is a concern among science and technology educationists. This study, therefore, found that think-pair share and brainstorming are good teaching methods that can enhance students' academic achievement and retention in Biology. Hence, it is concluded that think-pair share and brainstorming teaching methods should argument the conventional methods for effective teaching and learning of Biology in secondary school.

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## EFFECTS OF STUDENT-LED SEMINARS ON SECONDARY SCHOOL STUDENTS' ACADEMIC ACHIEVEMENT IN FINANCIAL ACCOUNTING IN ABIA STATE

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### Abstract

This study determined the effect of Student-Led Seminars (SLS) on academic achievement in Financial Accounting among secondary school students in Abia State. Two research questions guided the study and three null hypotheses were tested. Quasi-experimental research design specifically; pre-test, post-test non-equivalent control group design was adopted for the study. Population comprised the entire 1,098 students offering Financial Accounting in public secondary schools in Abia state. A purposive sampling technique was used to draw a sample of 100 SS1 Financial Accounting students. Financial Accounting Achievement Test (FAAT) was used for data collection. The face and content validity of the instrument were established using three experts, while Kuder-Richardson Formula 20 (KR-20) was used to establish the reliability of coefficient of 0.98. Mean and standard deviation were used to answer the research questions while Analysis of Covariance (ANCOVA) was used to test the null hypotheses. Findings of the study revealed among others that SLS is more effective in enhancing students' academic achievement in Financial Accounting than the conventional teaching methods (CTM); which also enhanced academic achievement ability of female students than males in Financial Accounting. It was, therefore, recommended among others that Financial Accounting teachers should use more of SLS in teaching the subject to facilitate better understanding and performance of students.

**Keywords.** Student-Led Seminars, Conventional Teaching Method, Academic Achievement, Financial Accounting, Gender.

### Introduction

Education is the process by which individuals are encouraged and equipped to develop potential skills and fills the gap between literacy and illiteracy in the society. It has the ability to create opportunities for societies to grow. According to Lopez, Najafi, Rogoff and Mejia-Arauz (2012), education can be formal as in the case of structured learning or informal in the case of unstructured learning. Olawolu and Kaegon (2012) averred that education is a positive support for empowerment as it remains the key to empower both individuals and the nation as a whole. However, the quality of education received is largely dependent on the quality of the teacher. This is why Gagliano et al. (2016) observed that education is what a teacher imparts and learning is what a student receives.

Instruction at all levels of education, especially in secondary schools, has to be practical oriented for effective inculcation of values and acquisition of competencies necessary for success in employment, poverty eradication and self-reliance for individuals and the nation through vocational subjects like marketing, fishery and Financial Accounting among others. Financial Accounting as a vocational subject is very vital to everyday business activities.

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According to Tunji in Behn (2012) Financial Accounting deals with financial performances from payroll, cost, capital expenditure and other obligations to sales, revenue and owner's equity. Chew and Parkinson (2013) explained that Financial Accounting is the preparation of financial statements that can be consumed by the public and the relevant stakeholders using either Historical Cost Accounting (HCA) or Constant Purchasing Power Accounting (CPPA). Financial Accounting as a subject has the objective of enabling students to know facts that will help them handle their personal financial matters and tackle accounting problems in employment.

Despite the relevance of the Financial Accounting to students, employers and the nation, several factors such as teacher personality, qualification and satisfaction, teaching methods adopted by teachers, use of instructional materials, and students' interest and participation among others hinder its effective teaching and learning in schools. According to Olowolagba (2018), there has been a continuous struggle to maintain the popularity of Financial Accounting in Abia State which has not been as successful as expected because student enrolment continues to dwindle as a result of the record of poor performance. In order to reverse the trend of performance and get more students to enroll in the subject, there is a need to revisit the curriculum and teaching methods adopted by teachers to bring in modern methods such as SLC that may be more effective than the popularly used conventional teaching methods (CTM).

Gender is a major factor to be considered when revisiting the curriculum and teaching method used in Financial Accounting. Galdas, Johnson, Percy and Ratner (2010) observed that gender creates differences in the societal expectations for the male and female based on the behavior and ideologies that are deemed appropriate for each. To achieve effective teaching and learning of Financial Accounting in secondary schools, there is need to consider the views of both male and female students which is where Student-Led Seminars (SLS) becomes essential to the teacher. In SLS, the teacher allows students to source for their own information while playing the role of guidance or facilitator. This method is also called Socratic Method because students are not spoon-fed information but are forced to become curious and learn the way that they deem fit for themselves while following the teacher's guidelines. Kadayam, Ishtiyag and Venkatramana (2014), defined SLS as a teaching-learning method where the teachers understand the students and give them a chance to develop themselves at their own pace without hindering the lesson timeline. SLS can be formal or informal depending on the personality and teaching style of the teacher.

### **Purpose of the Study**

The main purpose of this study was to determine the effect of student-led seminars (SLS) on academic achievement in Financial Accounting among secondary school students in Abia state. Specifically, the study determined the:

1. Differences in the mean achievement scores of students taught Financial Accounting using student-led seminars (SLS) and those taught using conventional teaching method (CTM).
2. Difference in the mean achievement scores of male and female students taught Financial Accounting with SLS.

### **Research Questions**

The study was guided by the following research questions:

1. What are the differences in the mean achievement scores of students taught Financial Accounting using student-led seminars and those taught using conventional teaching method?
2. What difference exists in the mean achievement scores of male and female students taught Financial Accounting with SLS?

### **Hypotheses**

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

1. There is no significant difference in the mean achievement scores of students taught Financial Accounting with SLS and those taught with CTM.
2. Gender has no significant influence in the mean achievement scores of students taught Financial Accounting with SLS.
3. There is no significant interaction effect of teaching methods and gender on students' achievement in Financial Accounting.

### **Methods**

The study used quasi- experimental research design precisely, pre-test post-test non-equivalent control group design. This study was conducted in Abia state using public secondary schools that offer Financial Accounting. The population comprised all the 1,098 students that offered Financial Accounting in the state the academic year; purposive sampling was used to draw a sample size of 100 students study based on student population and availability of qualified Financial Accounting teachers. SS1 students were used for this study because they were in the foundation class being taught Financial Accounting. Instrument used for data collection was Financial Accounting Achievement Test (FAAT). The face and content validity of FAAT was established by three experts from the Faculty of Education in Nnamdi Azikiwe University, Awka. The reliability of FAAT was determined using Kuder-Richardson Formula 20 (KR-20). The instrument was pilot tested using SS1 students of Financial Accounting from Nnamdi Azikiwe University, High School at Awka which is not a part of the study population. A reliability co-efficient value of 0.98 was obtained which indicated that FAAT was reliable for the study as recommended by Uzoagulu (2011) that a research instrument with reliability coefficient value of 0.70 and above is reliable.

The treatment was administered by the researchers with the help of two research assistants who are Financial Accounting teachers in the two schools used for the study. The researchers clearly briefed the research assistants about study and what they were required to do. Pre-test was administered before the start of the treatment after which the experimental group was taught with SLS while the control group was taught with CTM. Post-test was administered to the two groups at the end of the treatment.

Experimental bias was controlled by:

1. Initial group difference - the intact classes were used for the study to avoid disruption of the normal class procedures.
2. Teacher variable - the regular Financial Accounting teachers in the schools taught both the experimental and control groups to avoid any extra attention.
3. Diffusion -the schools used were located in different local government areas of the state to ensure that the experimental group has no influence on the control group.

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Data collected for the study were analyzed using the arithmetic mean to answer the research questions. The null hypotheses were tested using analysis of covariance (ANCOVA) at 0.05 level of significance. The decision was that where the p-value is less than alpha level (0.05), the null hypothesis was rejected and vice-versa. The Statistical Package for Social Science (SPSS) version 23.0 was used in the analysis both for the research questions and hypotheses.

**Results**

The findings are presentated in the following tables

**Table 1. Pre-test and post-test mean achievement scores by Method**

Techniquex	N	Pre-test Mean	Post-test Mean	Gained Mean	Remark
SLS	72	13.31	35.47	22.16	Effective
CTM	28	7.71	21.79	14.08	

Data in table 1 reveal that the students taught financial accounting with SLS had pretest mean score of 13.31 and post-test mean score of 35.47 with gained mean 22.16 while those taught with CTM had pre-test mean score of 7.71 and post-test mean score of 21.79 with gained mean 14.08. The post-test mean achievement score for SLS is above that of CTM, which means that SLS is more effective in enhancing students’ academic achievement in Financial Accounting than CTM.

**Table 2. Pre-test and Post-test mean achievement scores by Gender**

Gender	N	Pre-test Mean	Post-test Mean	Gained Mean	Remark
Male	18	14.23	34.40	29.17	Effective
Female	28	12.16	35.81	23.65	

Table 2 shows that the male students taught Financial Accounting with SLS had pre-test mean achievement score of 14.23 and post-test mean score of 34.40 with gained mean of 20.17 while the female students had pre-test mean score of 12.16 and post-test mean score of 35.81 with gained mean of 23.65. The mean gain difference of 3.48 is in favor of the female students. This means that SLS is more effective in enhancing female students’ achievement in Financial Accounting than males.

**Table 3. ANCOVA on difference in achievement scores by Method**

Source	SS	Df	MS	F	P-value	Decision
Corrected Model	3837.796 <sup>a</sup>	2	1918.898	80.603	.000	
Intercept	16335.874	1	16335.874	686.190	.000	
Pretest	61.415	1	61.415	2.580	.111	
Method	3420.172	1	3420.172	143.665	.000	Significant
Error	2309.244	97	23.807			
Total	106256.000	100				
Corrected Total	6147.040	99				

Table 3 shows that at 0.05 level of significance, df - 1, 99; the calculated F is 143.67 with P-value of 0.000 which is less than 0.05. This means that there is significant difference in

post-test mean achievement scores of students taught Financial Accounting using SLS and those taught with CTM. Therefore, the null hypothesis is rejected.

**Table 4. ANCOVA on the differences in achievement Scores by Gender**

Source	SS	df	MS	F	P-value	Decision
Corrected Model	140.557 <sup>a</sup>	2	70.279	3.086	.052	
Intercept	15121.014	1	15121.014	663.967	.000	
Pretest	37.088	1	37.088	1.629	.206	
Gender	79.156	1	79.156	3.476	.067	Not Significant
Error	1571.387	69	22.774			
Total	92308.000	72				
Corrected Total	1711.944	71				

It is observed in Table 4 that at 0.05 level of significance, df -1, 71; the calculated F is 3.48 with P-value of 0.067 which is more than the alpha value of 0.05. This means that there is no significant difference in post-test mean achievement scores of male and female students taught financial accounting using SLS. Therefore, the null hypothesis is not rejected.

**Table 5. ANCOVA on the interaction effect by teaching methods and gender**

Source	SS	df	MS	F	P-value	Decision
Corrected Model	3983.734 <sup>a</sup>	4	995.934	43.736	.000	
Intercept	15585.017	1	15585.017	684.405	.000	
Pretest	36.919	1	36.919	1.621	.206	
Method	3453.866	1	3453.866	151.674	.000	
Gender	135.398	1	135.398	5.946	.017	
Method * Gender	4.349	1	4.349	.191	.663	Not Significant
Error	2163.306	95	22.772			
Total	106256.000	100				
Corrected Total	6147.040	99				

Data in Table 5 indicate that at 0.05 level of significance, df – 1,99 ; the calculated F is 0.19 with P-value of 0.66 which is greater than 0.05. This means that there is no significant interaction effect of teaching methods and gender in the post-test mean achievement scores of students taught Financial Accounting with SLS. Therefore, the null hypothesis is not rejected.

## Discussion

Findings of the study show that SLS is more effective in enhancing students' academic achievement in Financial Accounting than CTM. Similarly, the academic achievement of students taught financial accounting using SLS differed significantly from that of students taught using CTM in favor of the treatment group. These finding concur with that of Worth (2015), which revealed that SLS afforded students control of their learning spaces in a way they had not experienced before and supported their grasp on learning outcomes. The findings also agree with the finding of Ridley (2015) that SLS enhanced the academic achievement of students. In agreement, Haritha, Phani Madhavi and Devi Madhavi (2019) stated that SLS is a good academic activity and is helpful in learning. SLS strategy helps students to engage in higher

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order thinking tasks and enable them to overcome nervousness and improve self-confidence and personality development.

The researcher is of the opinion that the significant difference in the academic achievements between the SLS group and conventional group could be due to the benefits of using SLS. It could be that SLS sessions were more engaging and contain stimulating debates making students feel like they were learning practical knowledge and not textbook knowledge which led to the increase in their academic achievement. Similarly, SLS introduces novel and new dimensions to learning and it could be this novelty that stimulated students' interest by capturing their attention which is evidenced by their high post-test mean achievement score. Palappallil, Sushama and Ramnath (2016) stated that student-led seminar created more interest, enthusiasm and inspiration to learn a topic when compared to CTM. SLS also increased peer coordination and group dynamics and enhanced communication skills among students. This supports the earlier assertion of Hirschy and Wilson (2014) that SLS helps to build positive students' self-perceptions, reinforces their self-esteem and reduces anxiety during test or examinations.

Findings of the study show that female students taught Financial Accounting using SLS performed better than their male counterparts with significant difference in their post –test mean achievement scores. This finding disagrees with the finding of Kashu (2014) which revealed that males obtained higher academic achievements than females overall and across subjects. The findings also disagree with Sam (2016) which reported that male students performed better in Financial Accounting than female students. Additionally, Eze, Ezenwafor and Obidile (2016) found that male and female students taught Financial Accounting using problem-based teaching method (PBTM) performed better with higher post-test scores than those taught with lecture teaching method (LTM). However, their study revealed that there was no significant difference in the academic achievement means scores of male and female students taught Financial Accounting using PBTM.

The findings of this study is not surprising to the researchers because normally, females are more sociable than males and the setting of the SLS might have given female students opportunity to express themselves and share ideas concerning Financial Accounting concepts which might have contributed to their improved performance in the subjects more than the male students. This fact agrees with Rampersad and Patel (2014) which revealed that level of social interactions among students determine their academic success.

### **Conclusion**

Based on the findings of the study, the researchers conclude that student-led seminar is an innovative teaching strategy that gives students the opportunity to work together with a team spirit and yet be independent learners. Therefore, it is more effective in enhancing students' academic achievement in Financial Accounting than conventional teaching method.

### **Recommendations**

In the light of the findings of the study, the following recommendations were made:

1. Financial Accounting teachers should use more of SLS in teaching in order to enable students actively participate in classroom teaching and learning process to enhance their academic achievement.
2. Financial Accounting teachers should create effective classroom management in such a way that students can work collaboratively for improved learning and academic achievement.

3. Secondary school administrators should organize capacity building programmes such as workshops, seminars, symposiums, conferences and exhibition on SLS to enable teachers learn how to effectively apply it in teaching Financial Accounting.
5. Curriculum planners should incorporate SLS in tertiary education curriculum to equip teacher-trainees with skills to appropriately apply it in teaching Financial Accounting and other school subjects when employed. They should also reflect it in the schemes of work and other curriculum materials in Financial Accounting at the secondary school level.
6. Financial Accounting teachers should ensure that they do not bring into the instructional process, learning experiences and resources that could encourage gender bias.

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## **EFFECT OF COOPERATIVE LEARNING STRATEGY ON STUDENTS' ACADEMIC ACHIEVEMENT AND INTEREST IN FINANCIAL ACCOUNTING IN ABIA STATE**

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### **Abstract**

This study determined the effect of cooperative learning strategy on secondary school students' academic achievement and interest in Financial Accounting in Abia State. Two research questions and two null hypotheses guided the study. The design of the study was quasi-experimental design, with pretest and posttest non-equivalent control group. The population of the study comprised 846 public senior secondary school two (SS 2) students in Abia State. A sample of 55 students was drawn using purposive sampling technique for the study. The instruments for data (achievement test – FAAT, and interest questionnaire – FAIQ) were validated by three experts. Reliability coefficients of 0.80 and 0.79 were obtained using Kuder Richardson formula 20 and Cronbach's alpha respectively. Mean and standard deviation were used to answer the research questions and ANCOVA was used to test the null hypothesis at 0.05 level of significance. The findings revealed that the students taught financial accounting using cooperative learning strategy performed better than their counterparts taught using lecture method. Also, cooperative learning strategy enhanced the interest of students more than those taught using lecture method. Based on the findings of the study, it was concluded that cooperative learning strategy has proved to be more efficacious in enhancing students' academic achievement and interest in Financial Accounting than lecture method. Two recommendations were made based on the findings of the study.

**Keywords.** Cooperative Learning, Academic Achievement, Financial Accounting, Interest Introduction.

### **Introduction**

Accounting is an act of identifying, interpreting and disseminating information on the financial state of a business for easy assessment by the financial users for a particular purpose. Accounting as an important aspect of any business, plays a major role in stating the financial condition of an organization and interpreting the mode of operation as well as the income, profit and loss of an individual or organization. Audu, Aigboduwa and Okoye (2013) defined accounting as an integrated discipline which is found in diverse areas of socio-economic activities. The American Institute of Certified Public Accountants (AICPA, 2010) defined accounting as the act of identifying, recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are of financial character and interpreting the result thereof. Accounting is classified into three major branches. They are cost accounting, management accounting and financial accounting. In this study, financial accounting is to be considered.

Financial accounting is one of the branches of accounting that deals on the profit and loss of a business in a particular period of time. It is one of the core subjects of vocational education

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taught at the senior secondary level of education. Thomas and Ward (2009) defined financial accounting as the act of classifying and recording of monetary transactions and of the financial results of the activities of an entity. It is the basic fundamentals which guide accountants in recording, appreciating and assessing accounting information as well as the preparation and interpretation of financial statements. Igben (2004) opined that financial accounting is the process of collecting, recording, presenting, analysing and interpreting financial information for the users of financial statements.

The major aim of teaching and learning exercise is to promote learning about financial matters. Ayeni (2011) asserted that teaching is a continuous process that involves bringing about desirable changes in learners through the use of appropriate teaching methods. The general objectives of teaching financial accounting at senior secondary school level is to prepare the students who want to further offer the subject at advanced level and lay proper foundation for those students. Osuala (2009) posited that the aims of financial accounting are to give students additional vocational skills that will enhance their opportunities for future occupational success; to enable students become proficient in financial accounting transactions and management; to equip students with better understanding of business practice and procedure; to provide vocational training to students in the practical knowledge of daily recording of activities; and to help students understand the cycles and steps involved in financial accounting so that the relations of each step to others are properly understood. Francis (2014) opined that every individual irrespective of the social status requires the knowledge of financial accounting to meet daily activities.

These important objectives of introducing the subject might not be achieved or realized if the financial accounting teachers' roles are not properly played. According to Braun and Sellers (2012), the roles of financial accounting teachers are to teach their students communication skills, positive work ethics and appropriate professional behaviour besides providing them with accounting knowledge and skills. Accounting Education Change Commission (AECC) cited in Raluca (2016) stated that accounting programs should not focus primarily on memorization of technical facts but students should be taught skills and strategies that will help them to learn more effectively and how to use the effective learning strategies to continue to learn throughout their lifetimes. The use of appropriate teaching method enhances the academic achievement of students.

Achievement is the level of success made by an individual or a group of people after carrying out a task. Academic achievement is an academic position a student occupies in his class against the position of others in the class. It is the outcome a student attains after being subjected to lessons or task within a period of time. Agboh (2015) stated that academic achievement is the learning outcome - the determination of the extent to which a student has achieved her educational goal, and which can be measured by any form of assessment technique. Akinbobola (2006) described achievement of students as learning outcomes which include the knowledge, the skill and experiences acquired in both classroom and laboratory practices. It has been recorded that despite the efforts made by the teachers, parents, Government and students over the years to improve the performance of students, there has been consistent low performance of students in financial accounting. The Head of National Officers reports (WAEC, 2018) announced the decline in the overall performance of candidates that obtained credit pass and above in minimum of five subjects including general subjects and Financial accounting, from 59.22 percent in the year 2017 to 49.98 percent in 2018 May/June examinations. The poor performances in the subject and other core subjects have made a lot of business subject students unable to gain admission into tertiary institutions. Musa (2015) had earlier observed that a

number of students in Federal Government Colleges in Nigeria wrote WAEC and NECO examinations a number of times before they passed financial accounting and other important subjects. The author further stated that some of these students still failed after several attempts, resulting to inability to get admission into institutions of higher learning and some students cannot even start their own businesses to be self a reliance due to lack of skills.

Teaching-learning experience has shifted from teacher-centered method to students-centered method. Chang (2002) opined that teaching methods work effectively mainly if they suit learner's needs since every learner interprets and responds to questions in a unique way. Cooperative learning strategy is one the student-centered teaching methods that promotes interaction among students during lesson. Cooperative learning strategy is teaching method whereby the students are split into heterogeneous groups to carry out a task or project or assignment, the teacher acts as a guide or facilitator. Jimoh, Idris and Olatunji (2016) described cooperative learning as an instructional method that allows students to learn in group under the guidance of a teacher. The authors defined cooperative learning as an instructional process in which students learn by working in small groups and helping one another to learn for a common goal. Cooperative learning is a teaching method that involves students in learning process in order to understand and learn content of the subject (Slavin, 2011). Gull and Shehzad (2015) opined that cooperative learning has edge over other teaching methods in terms of its effectiveness for improved cognition, social skills and motivation.

Cooperative learning strategy is not just about splitting and arranging the students to sit in groups during lessons, it requires careful monitoring of learning by the teacher or facilitator to ensure that the students are doing what they are expected to do in their various groups for effectiveness. Bennett and Rolheiser in Grech (2013) noted that ill-conceived group work is one of the least effective approaches in the teaching and learning process. Egbulefu, Amaele and Sunday (2015) adduced that cooperative learning is the instructional use of small groups in such a way that student's work together to achieve shared goals. The students in cooperative learning groups which should be heterogeneous deliberately work actively and interdependently to achieve their goals for individuals and the group or team. Opedcam and Everart (2012) identify five basic characteristics of team-based learning whereas George (2004) called them cooperative learning principles proposed for cooperative learning. They are; heterogeneous grouping, collaborative skills, group autonomy, simultaneous interaction, individual accountability, equal participation, positive interdependence and cooperation as a value. To enhance achievement among students in financial accounting, teaching method that promotes interaction among students is essential hence the need for use of appropriate teaching method. Boyle and Dunleavy in Agboh (2015) stated that students' achievement in learning are determined by factors such as teacher's ability, motivation, interest, meaningfulness of subject matter, methods of instruction, memory capacity of the learners and gender of the students.

Interest is an act of having a person's attention engaged in something. Igboanugo (2011) asserted that interest as an aspect of affective domain is a construct that has to do with one's readiness to like or dislike something. It could be aroused in individual by activity that tends to satisfy the individual's needs (Geoscience, 2007). Suwaid and Dambata (2009) opined that low interest leads to poor achievement of students. Mtseem in Alachi, Owadara and Iwu (2016) affirmed that teaching method affects the responses of students and determines their level of motivation, interest and involvement in a lesson in such a way that promotes achievement.

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### **Purpose of the Study**

This study determined the effect of cooperative learning strategy on secondary school students' academic achievement and interest in Financial Accounting in Abia state. Specifically, the study ascertained the:

1. Difference between the mean achievement scores of students taught financial accounting with cooperative learning strategy and those taught with lecture method.
2. Difference between the mean interest scores of students taught financial accounting using cooperative learning strategy and those taught with lecture method.

### **Research Questions**

The following research questions guided the study:

1. What is the difference in the mean academic achievement scores of students taught financial accounting with cooperative learning strategy and those taught with lecture method?
2. What is the difference in the mean interest scores of students taught financial accounting with cooperative learning strategy and those taught with lecture method?

### **Research Hypotheses**

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

1. There is no significant difference in the mean academic achievement scores of students taught financial accounting using cooperative learning strategy and those taught with lecture method.
2. There is no significant difference in the mean interest scores of students taught financial accounting using cooperative learning strategy and those taught with lecture method.

### **Methods**

The study employed quasi-experimental design, with pretest-posttest non-equivalent control. According to Nworgu (2015), quasi experimental design is a kind of experimental design where random assignment of subjects or respondents to experimental and control groups is not possible. The justification for the choice of this design is because there was no room for randomization of the subject. Hence, intact classes were used for the study. The population comprised of 846 public senior secondary school two (SS 2) financial accounting students of the 2018/2019 session in Abia State. A sample of 55 SS 2 financial accounting students was drawn from four public schools for the study, which is made up of two intact classes each for experimental and control groups. Multistage sampling technique was adopted. First stage involved school selection, while the second stage involved assigning of groups. To select the schools for the study, simple random sampling technique was employed. While purposive sampling technique was adopted in assigning groups such that there were two schools for the experimental group ( $n = 25$ ) and two schools for the control group ( $n = 30$ ).

The instrument used for collected data were financial accounting achievement test (FAAT) adapted from WAEC past question between 2007 and 2017 based on the financial accounting topics of accounting for non-profit making organizations and manufacturing account which was part of the scheme of work for SS2 students. Also, financial accounting interest questionnaire (FAIQ) was used to measure the interest of students in financial accounting. FAAT and FAIQ were used for pretest and posttest. The instruments were validated by three experts. The

instruments were subjected to reliability test using Kuder Richardson formula 20 (KR-20) and Cronbach's alpha respectively. The reliability coefficients are 0.80 and 0.79 respectively.

The regular financial accounting class teachers were used for the study in both experimental and control groups. Before the experiment in each of the sampled schools, pretest was used to stratify the students into heterogeneous groups. Then, groups of mixed abilities were formed in the class. The financial accounting teachers were briefed on the modalities for the experimental group on the application of the cooperative learning strategy. The teacher explained the features and practice of cooperative learning instructional strategy to the students. The lecture method was used in the control group without stratifying the students. The experimental class teacher was given note of lesson prepared by the researcher while the researcher vetted the lesson plan prepared by the financial teacher in the control group to ensure that the teacher did not deviate from the procedures of instructions commonly used. The procedure lasted for six weeks. The data were analyzed using mean and standard deviation scores to answer the research questions and analysis of covariance (ANCOVA) was used to test the null hypotheses at 0.05 level of significance.

## Results

**Research Question 1.** What is the difference in the mean academic achievement scores of students taught Financial Accounting with cooperative learning strategy and those taught with lecture method?

**Table 1.** The mean achievement scores of students taught Financial Accounting using cooperative learning strategy and lecture method

Groups	N	Pre-test Mean	SD	Post-test Mean	SD	Mean Gain
Experimental	25	17.00	2.27	58.04	6.07	41.04
Control	30	14.17	4.73	31.23	7.17	17.06
Mean Difference		02.83		26.81		23.98

Table 1 shows that the post-test mean score of 58.04 for the experimental group is greater than their pre-test mean score of 17.00, with a mean gain of 41.04. For the control group, the post-test mean score of 31.23 is greater than the pre-test mean score of 14.17 with a mean gain of 17.06. Hence, the mean gain of the experimental group is almost three times that of the control group. The mean difference in the mean achievement scores between the students taught financial accounting using cooperative learning strategy and lecture method is 23.98. This shows that the cooperative learning strategy is more effective in enhancing students' academic achievement in Financial Accounting than the lecture method.

**Research Question 2.** What is the difference in the mean interest scores of students taught Financial Accounting with cooperative learning strategy and those taught with lecture method using their pretest and post test scores?

**Table 2.** The mean interest scores of students taught financial accounting using cooperative learning strategy and lecture method

Groups	N	Pre-test Means	SD	Post-test Means	SD	Mean Gains
Experimental	25	21.00	4.84	52.84	4.48	31.84
Control	20	20.77	5.33	40.43	6.34	19.66

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Table 2 shows that the post-test mean interest scores of 52.84 for the experimental group is greater than that of pre-test mean score of 21.00 with a mean gain of 31.84. In the control group, the post-test mean interest score of 40.43 is greater than the pre-test mean interest score of 20.77 with a mean gain of 19.66. Thus, the mean gain of the experimental group is greater than that of the control group of 19.66. This shows that the cooperative learning strategy is more effective in enhancing students' interest in Financial Accounting compared to lecture method.

**Hypothesis 1.** There is no significant difference in the mean academic achievement scores of students taught Financial Accounting using cooperative learning strategy and those taught using lecture method.

**Table 3.** ANCOVA test of significant difference in the mean achievement scores of students taught Financial Accounting with cooperative learning strategy and lecture method

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Decision
Corrected Model	9540.91 <sup>a</sup>	4	2385.23	53.29	.00	
Intercept	4706.58	1	4706.58	105.16	.00	
Pretest (Covariate)	55.23	1	55.23	1.23	.27	
Treatment	7408.30	1	7408.30	165.52	.00	S
Error	2237.92	50	44.76			
Total	114163.00	55				
Corrected Total	11778.84	54				

a. R Squared = .810 (Adjusted R Squared = .795). S= Significant

Data presented in Table 3 reveals a calculated F-ratio of 165.52 with a p-value of 0.00 which is less than the alpha level of 0.05. This means that there is a significant difference in the mean academic achievement scores of students taught Financial Accounting using cooperative learning strategy and those taught using lecture method. Therefore, the null hypothesis was rejected.

**Hypothesis 2.** There is no significant different in the mean interest scores of students taught Financial Accounting using cooperative learning strategy and those taught using lecture method.

**Table 4.** ANCOVA test of significant difference in the mean interest scores of students taught Financial Accounting with cooperative learning strategy and lecture method

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Decision
Corrected Model	2117.901 <sup>a</sup>	4	529.48	16.26	.00	
Intercept	6751.539	1	6751.54	207.38	.00	
Pre interest	3.734	1	3.73	.12	.74	
Treatment	1991.218	1	1991.22	61.16	.00	S
Error	1627.808	50	32.56			
Total	120494.000	55				
Corrected Total	3745.709	54				

a. R Squared = .565 (Adjusted R Squared = .531). S = Significant

Table 4 shows that the difference in mean interest scores of students between the groups taught using cooperative learning strategy and lecture method is significant since the worked F-

ratio of 61.16 is significant at  $P < .00$ . The difference in the mean interest scores between the treatment groups is therefore significant at  $P < .05$ . Therefore, the null hypothesis was rejected.

### **Discussion**

The findings of this study revealed that students who were taught financial accounting with cooperative learning strategy achieved higher posttest mean scores than those taught with lecture method. This result is in line with the study carried out by Gull and Shehzad (2015) which showed that cooperative learning strategy has positive effect on students' academic achievement than those taught social studies using lecture method. The academic achievement of students taught Financial Accounting using cooperative learning strategy differed significantly from that of students taught using lecture teaching method in favour of the experimental group. This agrees with Egbulefu, Amaele and Sunday (2015) and Altun (2015) who reported that there was a significance difference in students' academic achievement scores in favour of those taught with cooperative learning strategy. The similarities among the findings revealed that the use of cooperative learning strategy could enhance academic achievement of students in different subjects or disciplines.

Findings of the study revealed that students taught Financial Accounting using cooperative learning strategy had higher interest scores than those taught using lecture teaching method. These findings are in line with the finding of Igboanugo (2011) which revealed that cooperative learning strategy was more efficacious than the peer-teaching in enhancing students' achievement and interest in difficult chemistry concepts. Also, there is significant difference in the mean interest scores of students in the experimental group and those in the control group in favour of the experimental group. The finding also agrees with that of Umaru, Umma and Mustapha (2014) which revealed that cooperative learning strategy significantly affected students' interest and achievement in Biology.

### **Conclusion**

Cooperative learning strategy has proved to be more efficacious in enhancing students' academic achievement in financial accounting than lecture method. Financial accounting as a subject should be taught using more cooperative learning strategy to help achieve the objectives of introducing financial accounting in senior secondary schools. The higher improvement in the mean interest scores in students exposed to cooperative learning strategy as found in the study could be as a result of some of its attributes and elements such as individual accountability, simultaneous interaction, collaborative skill and positive interdependent. Also, cooperative learning strategy enables equal participation which fosters interest and positive achievement among students.

### **Recommendation**

1. Financial accounting teachers should encourage students to use cooperative learning strategy to enhance their academic achievement irrespective of their gender as teachers require students' cooperation for its effectiveness.
2. The Government should organize seminars, workshops and conferences so that practicing teachers in the field would be opportune to learn how to make the best use cooperative learning strategy.

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*NAU Journal of Technology & Vocational Education, Vol. 7, No. 1, December 2022.*

## **PERCEIVED BENEFITS OF E-LEARNING TECHNOLOGIES BY BUSINESS EDUCATION STUDENTS: IS AVAILABILITY A CONCERN IN UNIVERSITIES**

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### **Abstract**

The study explored the benefits of e-learning technologies in business education programmes in universities by considering the concerns of the availability of the technologies. Two research questions and two hypotheses were raised and formulated respectively to guide the study. The study adopted a descriptive survey research design. The population of the study comprised 521 Business Education students at the University of Benin and Benson Idahosa University, out of which 100 students were used as a sample, using the disproportionate stratified random sampling technique. A structured questionnaire containing 17 items was the instrument used for data collection. Having validated the instrument, its reliability was determined using Cronbach's alpha method, which yielded a coefficient 0.84. Data collected were analyzed using mean and standard deviation for the research questions, while t-test and Analysis of Variance (ANOVA) were used to test the hypotheses. The findings of the study revealed that students had several positive perceptions about e-learning technologies for enhancing business education programme to bridge the gap that exists between theories and practice in learning. However, availability of the e-learning resources is a concern because students perceived that the resources were not available in their institutions as expected. Based on the findings it was recommended that relevant shareholders in education should provide adequate e-learning technologies for the teaching and learning process of business education courses.

**Keywords.** Availability, benefits, business education programme, e-learning technologies.

### **Introduction**

While it is important to state that the traditional approach to learning has over time helped both teachers and students, modern approaches to learning involving the use of technologies have continued to evolve. In recent times, there have been advances in the development of software technology in particular in the field of education. The traditional approach to teaching has been the main and most common medium of teaching and learning all around the world. It is teacher-centered. A traditional classroom is where a teacher moderates and regulates the flow of information and knowledge. A traditional classroom is an educational place where the teacher delivers knowledge to the students in person without any third-party medium. Traditional classrooms have a schedule, and the student is expected to follow the same to learn a particular subject or lesson. In recent times, e-learning resources have been recommended by education stakeholders (Baber, 2020; Beluce & Oliveira, 2015).

E-learning is a learning experience delivered electronically. It is referred to as the use of electronic media and information communication technologies (ICT) in education. E-learning is the act of taking a course online using a modem, wireless or capable connections to access academic course materials from a computer, smartphone, or other devices (Almaiah, Al-Khasawneh, & Althunibat, 2020). E-learning is an inclusive term that describes educational

technology that electronically or technologically supports learning and teaching. Bermejo (2005) defined e-learning as an education that uses computerized communication systems as an environment for communication, the exchange of information, and interaction between students and instructors.

The development of e-learning in Nigeria could be traced back to the development of telecommunication which began in the year 1886 when e-cable connections were established by the colonial masters between Lagos and the colonial office in London to transmit information and receive feedback. By 1893, all government offices in Lagos were provided with telephone services for easy communication, and later, other parts of the country were provided with telephone services (Ajadi & Salawu, 2008). They further stressed that in Nigerian schools, the commonest type of e-learning adopted was in the form of lecture notes on CD-ROM which cannot be played when the learner desire. The challenge of this method is that number of students per computer was unattractive as compared to when lectures are being received in the classroom.

E-learning is a student-centered learning model. Students who study online can plan their schedule, without having to make sacrifices to meet the class attendance requirements of teachers and traditional universities. This can lead to increased student satisfaction and reduced stress resulting in improved learning outcomes. Virtual learning does not need physical lecture halls, which saves costs. An e-learning package can be reused as often as the user wishes without additional costs. E-learning is also flexible in terms of time and place. Learning content is usually made available in short modules and can be paused at any time, during your free time at work – the learning material can be easily made part of your daily routine. Without physical limitations, anyone with internet access can simultaneously access learning opportunities.

With the emergence of the internet and new technologies, e-learning has become a promising solution for Universities that are currently in an environment of intense change. Students are digital natives and use technology as an integral part of their everyday lives. Of most interest is the fact that they use technology extensively for internet searching, socializing, and communication. Students are undergoing a learning process outside the formal environment (the university). Most students study other courses online as a hobby, get informed and gain knowledge, communicate, share materials, information, training, etc., and get their degrees or certificates, in another environment than the formal one.

Studies by the National Center for Education Statistics show a growing demand and acceptance of online learning (Waits & Lewis, 2003), while students who have been involved in e-learning courses are generally positive about their experiences. Furthermore, studies show that students' perception of e-learning in university education may be influenced by several variables. Keller and Cernerud (2002) have identified variables such as age, gender, previous experience with computers, technology acceptance, and individual learning style as major predictive factors when discussing acceptance of technology by students.

Given the benefits of e-learning technologies to students, as theorized in the literature, there is a need to continually embark on studies about the adoption of e-learning in the educational setting. Similarly, since business education programmes (e.g., accounting, office technology, marketing, and consumer education) are meant to produce ICT-based competent graduates needed in modern organizations, concerns about the availability and perceived adoption of e-learning technologies by prospective graduates become of utmost importance. Hence, this study intends to explore students' perceptions of e-learning technologies and if these e-learning technologies are available in Business Education programme in tertiary institutions.

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### Research Questions

The study answered the following research questions:

1. What are students' perceptions about e-learning technologies in business education programme in tertiary institutions?
2. Are e-learning technologies available for the teaching-learning process in business education programme in tertiary institutions?

### Hypotheses

The following null hypotheses were tested at a 0.05 level of significance:

1. There is no significant difference between male and female student's perception of e-learning technologies in business education programme in tertiary institutions.
2. There is no significant difference in the mean rating of students' perception of e-learning technologies by academic level.

### Methods

The study adopted a descriptive survey research design. The population of the study comprised five hundred and twenty-one (521) Business Education 100 level, 200 level, and 400 level students in the University of Benin and Benson Idahosa University, out of which 100 students were used as a sample, using the disproportionate stratified random sampling technique. Questionnaire was structured by the researchers for data collection. The questionnaire comprises 2 sections; Section A (Demographic Data) and Section B (Survey Statements) - which consist of 17 items that addressed the two research questions raised in this study. The questionnaire is a 4-point rating scale. The questionnaire was subjected to face validity. The reliability test of the instrument using Cronbach's alpha yielded a reliability coefficient of 0.84. Data were collected by the researchers with the help of two research assistants. All administered questionnaires were carefully completed and retrieved. Hence there was no missing data.

The data collected from the respondents were analyzed using mean ( $\bar{x}$ ), standard deviation, two independent sample t-test, and Analysis of Variance (ANOVA). The mean and standard deviation were used to answer the research questions, while two independent sample t-test and ANOVA were used to test hypotheses 1 and 2 respectively at 0.05 level of significance. Decision rule was based on the mean value of 2.50 such that any calculated mean ( $\bar{x}$ ) equal or greater than 2.50 was regarded as agree while any mean ( $\bar{x}$ ) less than 2.50 was regarded as disagree. Based on the hypothesis, the probability value ( $p$ ) was used. If P-value was less than or equal to 0.05, the null hypothesis will be rejected but if the P-value is higher than 0.05, the null hypothesis will be accepted.

### Results

**Research Question 1:** What are student's perception about e-learning technologies in business education programme in tertiary institution?

**Table 1: Mean and standard deviation showing student's perception about e-learning technologies in business education programme in tertiary institution**

S/N	Items	Mean	SD	Remarks
1	E-learning technologies facilitates understanding of lectures.	3.76	.553	Agreed
2	E-learning technologies facilitates understanding of teaching materials.	3.59	.621	Agreed

3	E-learning would make the teaching and learning of business education courses more interesting.	3.74	.505	Agreed
4	E-learning would lead to effective participation on the part of the students.	3.67	.620	Agreed
5	E-learning makes information easy to grasp and absorb.	3.61	.618	Agreed
6	E-learning gives room for students to be conversant with the operation of modern technologies.	3.72	.552	Agreed
7	The knowledge of e-learning would enable students to fit into the labour market in the present world of technology.	3.78	.484	Agreed
8	E-learning learning helps students to be in sync with modern learners.	3.66	.590	Agreed
9	Students prefer online and computer-based test over the paper and pen test.	3.03	.979	Agreed
10	E-learning technologies have been of great help to me in gaining access to information from different sources.	3.65	.730	Agreed
<b>Aggregated</b>				<b>Agreed</b>

Note: SD = Standard Deviation

In response to research question one, Table 1 shows that the respondents rated item one to ten as agreed with mean ratings ranging from 3.03 to 3.78; while the standard deviation also ranges from .484 to .979. With these results, the aggregated mean rating shows that students had positive perception about e-learning technologies for enhancing business education programme in universities.

**Research Question 2:** What is the level of availability of e-learning technologies in business education programme in tertiary institutions?

**Table 2: Mean and standard deviation showing availability of e-learning technologies in business education programme in tertiary institutions**

S/N	Item	Mean	SD	Remarks
11	There are enough computers for business education programme in my school.	2.41	1.261	Disagreed
12	There are enough overhead projectors for business education programme in my school.	2.44	1.284	Disagreed
13	There are enough printers for business education programme in my school.	2.46	1.198	Disagreed
14	There are enough photocopier for business education programme in my school.	2.47	1.186	Disagreed
15	There are enough interactive whiteboard for business education programme in my school.	2.32	1.141	Disagreed
16	There are enough audio enhancement for business education programme in my school.	2.40	1.181	Disagreed
17	There are enough scanners for business education programme in my school.	2.35	1.242	Disagreed
<b>Aggregated</b>				<b>Disagreed</b>

Note: SD = Standard Deviation)

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The data analysis presented in Table 2 depict that the respondents' rated item 11 to 17 as disagreed with a mean rating ranging from 2.32 to 2.47 while the standard deviation also ranges from 1.141 to 1.284. With these results, the aggregated mean score shows that there is a low level of availability of e-learning technologies in business education programme in universities.

**Hypothesis 1:** There is no significance difference between male and female student's perception of e-learning technologies in business education programme in tertiary institutions.

**Table 3: The t-test of difference between male and female student's perception of e-learning technologies in business education programme in tertiary institutions**

Respondents	N	Mean	SD	df	t-value	p-value	Decision
Male	37	3.59	.339	98	-.640	.524	NS
Female	62	3.65	.468				

Note. NS = not significant

The test of the hypothesis, as presented in Table 3 reveals mean responses of the difference between male and female students' perception of e-learning technologies in business education programme in tertiary institutions. Male had a mean of 3.59 and female 3.65 while their corresponding standard deviations are .339 and .468. The t-value of -.640, at degree of freedom of 97, which shows it was not significant at p-value of .524. Testing at an alpha value of .05, the null hypothesis was retained since the p-value is greater than alpha value. Thus, there is no significance difference between male and female student's perception of e-learning technologies in business education programme in tertiary institutions.

**Hypothesis 2:** There is no significance differences in mean rating of student's perception of e-learning technologies by students' academic level.

**Table 4: ANOVA showing difference in mean rating of student's perception of e-learning technologies by students' academic level**

Sources of Variance	SS	df	MS	F	Sig.	Decision
Between Groups	1.623	2	.811	4.810	.010	Significant
Within Groups	16.363	97	.169			
Total	17.986	99				

From Table 4, the data shows that the F-value of 4.810 with a significance of .010, which is lower than the 0.05 level of significance Hence, the null hypothesis was rejected. Therefore, the null hypotheses which states that there is no significance differences in mean rating of student's perception of e-learning technologies by level is not retained. Consequently, there is a significance difference in mean rating of student's perception of e-learning technologies by level. Thus post hoc test of multiple comparisons was carried in order to determine were the significance lies in the ability level.

**Table 5: Post Hoc Test of Multiple Comparison**

(I) Level	(J) Level	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound Upper Bound	
100 Level	200 Level	.119	.108	.276	-.10	.33
	400 Level	.293*	.095	.003	.10	.48
200 Level	100 Level	-.119	.108	.276	-.33	.10
	400 Level	.174	.104	.098	-.03	.38
400 Level	100 Level	-.293*	.095	.003	-.48	-.10
	200 Level	-.174	.104	.098	-.38	.03

Table 5 shows the post hoc comparison test between the groups based on level of students. The data indicate that the paired comparison between 100 level and 400 level students showed a mean difference of .293 and a significance of 0.003 which is less than the 0.05 level of significance. This, therefore, indicates that there was a significant difference between 100 level and 400 level students. This means 100 level students had different perception compared to 400 level students with regards to the benefits of e-learning technologies in enhancing business education programmes.

### Discussion

The result of student's perception of e-learning technologies in business education programme in universities revealed that students had positive perceptions about e-learning technologies enhancing business education programme in universities. This finding corroborates with that of Rasha (2014) study of students' perception of e-learning.

Based on the result of the level of availability of e-learning technologies in business education programme in tertiary institutions, the findings indicated that there is a low level of availability of e-learning technologies in business education programme in tertiary institutions. This finding is in line with that of Madu and Pam (2011) who found out that only a few e-learning facilities were available for teaching and learning in tertiary institutions. He further stated that for teaching and learning to take place effectively in business and management courses, and for students to be able to acquire relevant skills, there is a need for adequate provision of all relevant technologies that will enhance the teaching process.

The result of no significant difference between male and female student's perception of e-learning technologies in business education programme in tertiary institutions revealed that there is no significant difference between male and female student's perception of e-learning technologies in business education programme in tertiary institutions. This finding aligns with that of Olatunji (2011) who noted that the usage of e-learning resources is not influenced by gender. His study shows that both male and female business education students in tertiary institutions in Enugu State did not significantly differ in their perception of e-learning technologies in education.

With respect to the test of no significant differences in the mean rating of student's perception of e-learning technologies by their academic levels, the findings depicted that there is a significant difference in mean rating of student's perception of e-learning technologies by level, this is because 400 level students have been exposed in practice and use of some of the e-learning technologies over time in the department compared to 100 level students who are less experienced and a junior in the level of study. This finding is in support of that of Longjohn,

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Okafor, and Ajala (2020), who revealed that the level of study influences undergraduate students' perception of e-learning slightly.

### **Conclusion**

Based on the findings of the study, it was concluded that students had positive perceptions of e-learning technologies in enhancing business education programmes in universities. The study also concludes that e-learning technologies that will improve the academic performance of students and bridge the gap that exists between theories and practices were not available as expected for teaching and learning business education courses in the sampled universities.

### **Recommendations**

Based on the findings of the study, the following recommendations were made;

1. Relevant shareholders in education should provide adequate e-learning technologies for the teaching and learning process of business education courses in tertiary institutions.
2. The government should make internet connectivity a priority for higher education by creating free and accessible wifi.

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## **ICTS INSTRUCTIONAL COMPETENCIES POSSESSED BY LECTURERS FOR IMPLEMENTING OTM CURRICULUM IN PUBLIC TERTIARY INSTITUTIONS IN RIVERS STATE**

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### **Abstract**

In the recent times, implementation of office technology and management (OTM) curriculum largely depends on ICTs instructional competencies. Therefore, this study determined the level of ICT instructional competencies possessed by lecturers for implementing OTM curriculum in public tertiary institutions in Rivers State. One research question guided the study and three null hypotheses were tested. Descriptive survey research design was adopted. From a population of 69 OTM lecturers, the census survey sampling was employed. A five-point response options questionnaire was used for data collection, and it was validated by expert. The reliability of the instrument was established using Cronbach's alpha which yielded a alpha coefficient of 0.93. Mean was used to answer the research question, while one-way analysis of variance (ANOVA) and t-test were used to test the null hypotheses at 0.05 level of significance. Findings revealed that the lecturers possessed ICTs instructional competencies at a high level for the implementing OTM curriculum. The lectures do not differ significantly in the level they possessed ICTs competencies for OTM curriculum implementation based on their level of education, teaching experience and institution ownership. Therefore, it was recommended that OTM lecturers should consciously engage in further ICTs trainings to sustain and improve their ICTs instructional competencies for effective curriculum implementation in their areas of operations.

**Keywords.** ICTs, instructional competencies, lecturers, curriculum implementation, public tertiary institutions.

### **Introduction**

Curriculum is the totality of all the experiences, skills, competencies and attitudes learners are expected to learn and acquire under the guidance of lecturers (Ukata et al., 2017). This means that for learners to acquire appropriate skills and competencies, the curriculum must be implemented effectively. Curriculum implementation is a network of various activities that are involved in translating curriculum contents design into classroom activities and changing the people's attitudes to accept and participate in such activities.

Office Technology and Management (OTM) is an academic programme offered in Nigerian tertiary institutions. In the polytechnics, it is called Office Technology and Management (OTM), while in the colleges of education and universities it is offered as an option in the Business Education programmes with the programme name - OIM, Office Information System, Office Education and Technology Management (OETM), or Office Management and Technology (OMT). The National Board for Technical Education (NBTE), which is the supervisory agency for polytechnic education in Nigeria, introduced OTM in 2004 to replace the former Secretarial Studies programme (Ukata, 2019), while National Commission for Colleges

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of Education (NCCE) and National University Commission (NUC) are responsible for colleges of education and universities. The curriculum for OTM was enriched with several ICT courses in order to equip graduates of the programme with 21<sup>st</sup> Century employability skills. It was designed in modular approaches with theoretical ICT knowledge and intensive practical training to equip students with modern office and secretarial skills for employment in various fields of endeavours. Expectedly, implementing the new ICT-driven Office Technology and Management (OTM) curriculum threw up various new issues such as the level of ICTs instructional competencies of the lecturers (Oludele & Dosunmu, 2013; Ukata, 2019). The OTM curriculum as designed incorporates six components namely; Office Application Software, Office Technology, Business and Administrative Management, Numeric Component, General Studies and Students Industrial Work Experience Scheme (SIWES) (Oludele & Dosunmu, 2013).

The objectives of OTM curriculum include to adequately equip graduates with skills to effectively and efficiently use different ICTs resources, to provide students with ICT based teaching/learning skills, competencies and approaches for the global work place and to expose them to the industrial work experiences to practice the skills before and after graduation (Ukata, 2019; Umukoro, 2014). In order to achieve these objectives, OTM lecturers are expected to possess ICTs instructional competencies to be able to implement the curriculum. The OTM curriculum has been implemented in Nigerian tertiary institutions for close to two decades yet there are reports from employers in Nigeria generally and Rivers State in particular that the OTM graduates do not seem to demonstrate adequate level of ICT skills and competencies for effective performance in the 21<sup>st</sup> Century workplace (Oludele & Dosunmu, 2013; Ukata, 2019).

Consequently, scores of the graduates remain unemployed several years after graduation which could be due to lack of ICTs instructional competencies among OTM lecturers to effectively implement the curriculum and help develop students' employability skills. Instructional competencies are standards possessed by lecturers that are concerned with application of professional knowledge, skills, proficiencies, attitudes and behaviour within the workplace which are underpinned by their professional values. Instructional competence is also a cognitive structure that facilitates specified changes in behaviours of the learners. Kumar (2013) explained that instructional competencies cover a broad range of skills, proficiencies, competencies, attitudes and behaviours that represent the ability to deal with complex and unpredictable situations in informal and formal environments. ICTs instructional competencies required of OTM lecturers for adequate curriculum implementation include but not limited to effective use of basic and advanced ICTs hardware and software to teach learners. Kurt (2015) asserted that ICT instructional competencies enable lecturers to adopt materials such as overhead projectors, slide projectors, opaque projectors, computers, various software, LCD projectors, camcorders, digital cameras, scanners, the internet, social media platforms, online classrooms, satellite, interactive television, audio, video conferencing and artificial intelligence among others for teaching ICTs-related employability skills.

Over the decades, even with the evolution of effective classroom management, most OTM lecturers and students have depended on orthodox instructional techniques like "write with chalk and talk", "talk and write", "write and explain," "listen and take note", and "memorize and recite". These techniques have proved to be grossly inadequate for effective OTM curriculum implementation especially when used alone (Ukata, 2019). Such instructional techniques popularly known as teacher-centered or lecture method which regard students as empty vessels to be filled by the lecturer are incapable of developing the needed employability skills in OTM students (Ukata et al., 2017). In view of the above, there is need for OTM lecturers to adopt techniques that are learner-centered which regard students as active participants in the

instructional process with ample use of ICTs (Erik, 2017). Azih and Ama (2019) asserted that adequate possession of competencies by lecturers for utilizing basic computer users software will facilitate effective curriculum implementation in any field of learning.

Lecturers' ICTs competencies and instructional strategies can positively influence OTM students' skills acquisition to a great extent (Umoru & Shaibu, 2018). Furthermore, Nnaji and Hauwa (2019) posited that lecturers' possession of competencies in teaching office applications and keyboarding will lead to acquisition of employability skills among students.

However, Nwaukwa (2015) lamented that majority of business teachers lacked computer skills required to integrate new technologies for successful instructional delivery as required for implementing ICT-based curriculum. Also, Fadare (2014) identified problems and bewailed that business teachers in tertiary institutions are not adequately utilizing computer for instructional delivery due to their lack of new technology skills and modern instructional competencies this may be because cooperative instructional delivery were not adopted. ICTs instructional competencies lead to employability skills which are set of skills, attitudes and behaviours that are necessary for gaining and progressing in employment. These employability skills delivered to learners through ICTs instructional competencies enhance employees' work performance by minimizing errors and promoting collaboration with co-workers, as well as reduce unemployment in the society because they make graduates employable and marketable (Joshua, 2021). Osaro (2021) averred that many countries now regard ICTs skills as part of core skills graduates must possess for gainful employment. ICTs employability skills cover effective use of computer hardware and software, internet, media and broadcasting, libraries and documentation centers, network-based information services and other related information and communication activities.

The subjects for this study are male and female OTM lecturers with different levels of educational attainment and years of teaching experience in state and federal public tertiary institutions in Rivers State. Mohammad et al, (2011) averred that how well lecturers demonstrate ICTs instructional competencies depend on their level of educational qualification, training and retraining, age and teaching experience. For example, lecturers with higher degrees such as (PhD and M.Sc./M.Ed.) are expected to possess higher level of ICTs instructional competencies than those with HND/B.Sc./B.Ed. According to Scholars (2013), teaching experience and age are among the factors that influence lecturers' level of ICTs instructional competencies because younger and experienced lecturers are more likely to possess them at a higher level than older and less experienced ones. Also, lecturers who have spent 10 years and above in teaching OTM courses are expected to possess higher level of ICTs instructional competencies for effective curriculum implementation than those with less than 10 years teaching experience.

Public tertiary institutions in the study are owned either by federal or state government and according to Top Education Degrees (2020) institution ownership plays a major role on the level of ICTs instructional competencies possessed by OTM lecturers for developing employability skills among students. Consequently, the study tested the influence of these respondent variables on the level of ICTs instructional competencies possessed by the lecturers.

### **Problem of the Study**

The OTM curriculum that is ICT-based has been implemented several years in Nigeria tertiary institutions for instructional delivery. The possession and application of ICTs instructional competencies by OTM lecturers are expected to enable its graduates acquire the ICTs skills and seamlessly secure paid employment in public and private organizations or be self-employment. However, it is often observed that many graduates of the programme are

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unemployed years after graduation causing the level of graduate unemployment to continue to increase; thereby defeating the main objective OTM which is acquisition employability skills. Drawing from these concerns, the researchers are worried that OTM graduates from the tertiary institutions are judged unemployable by employers of labour due to lack of ICT-based employability skills despite the rich contents of the curriculum over the years. The popular view that the ugly situation is due to the level of ICTs instructional competencies possessed by lecturers for effective OTM curriculum implementation has little or no empirical evidence. It is, therefore needful, to conduct this study to determine the level of ICTs instructional competencies possessed and applied by OTM lecturers for effective teaching of practical courses in the curriculum for developing employability skills among students in public tertiary institutions in Rivers State. Findings of the study will provide empirical data to enable stakeholders suitably address the lack of employability skills among OTM graduates to reduce the level of graduate unemployment.

### **Purpose of the Study**

The purpose of this study was to determine the level of ICTs instructional competencies possessed by OTM lecturers in public tertiary institutions in Rivers State in implementing the curriculum for developing students' employability skills.

### **Research Question**

One research question guided the study, thus

1. At what level do OTM lecturers in public tertiary institutions in Rivers State possess ICTs instructional competencies for the implementing of OTM curriculum?

### **Hypotheses**

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

1. Lecturers do not differ significantly in the mean ratings on their level of ICTs instructional competencies possessed for implementing OTM curriculum in public tertiary institutions in Rivers State based on educational attainment (PhD, M.Sc./M.Ed., and B.Sc./B.Ed./HND).
2. Years of teaching experience (1-5, 6-10, and above 10 years) do not significantly measure lecturers' mean ratings on their level of ICTs instructional competencies possessed for implementing OTM curriculum in public tertiary institutions in Rivers State.
3. There is no significant difference in lecturers' mean ratings on their level of ICTs instructional competencies possessed for implementing OTM curriculum in public tertiary institutions in Rivers State based on institution ownership (federal and state).

### **Methods**

The study adopted the descriptive survey research design. Population of the study was all the 69 OTM lecturers from the five public tertiary institutions (two universities, two polytechnics and one college of education) in Rivers State that offer OTM programme. Census survey was adopted to sample all the 69 OTM lecturers because it is of manageable size. The instrument used for data collection was a self-designed five-point response options questionnaire titled "Level of lecturers' ICTs instructional competencies possessed for implementing OTM curriculum". It contains 13 items with rated as very high level, high level, moderate level, low level and very low level. The questionnaire was subjected to face and content validation by three

experts from the Faculty of Education in Nnamdi Azikiwe University, Awka. The measure of internal consistency method was used to establish the reliability of the instrument. The instrument was administered to 20 lecturers from the University of Uyo who were not part of the population of the study. The Cronbach's alpha was applied to compute the reliability coefficient which yielded alpha value of 0.93. This high reliability coefficient value shows that the instrument was reliable for the study as recommended by Nworgu (2015) that a research instrument with a reliability index of 0.70 and above is reliable.

The researchers personally administered the copies of the questionnaire to the respondents in their schools with the help of four research assistants who were adequately briefed on the modalities to follow. The researchers first visited each of the tertiary institutions and sought consent from the relevant Heads of Department for the study. Thereafter, the researchers and assistants visited each school and handed over the required number of copies of the instrument to the Heads of the Department to distribute to the OTM lecturers for completion and, revisited after five working days to retrieve the completed copies. Sixty-five copies of the instrument were correctly filled, retrieved and used for data analysis.

The arithmetic mean and standard deviation were used to answer the research question and ascertain how homogeneous or heterogeneous the respondents' opinions were relative to the questionnaire items and the aggregated mean. The one-way analysis variance (ANOVA) and independent sample t-test were used to test the null hypotheses at 0.05 level of significance. The ANOVA was used for the first two null hypotheses because it measured one categorical independent variable with three levels. The independent sample t-test to test null hypothesis 3 because it contained one independent variable with only two levels. A null hypothesis was rejected where the calculated significant (Sig.) value, (p- value) was greater than or equal to ( $\geq$ ) the alpha value of 0.05. Otherwise, the null hypothesis was not rejected. The data analysis was carried out using Statistical Package for Social Sciences (SPSS) version 25.

## Results

**Research Question 1.** At what level do OTM lecturers in public tertiary institutions in Rivers State possess ICTs instructional competencies in implementing the curriculum for developing students' employability skills?

**Table 1**  
**Respondents' mean ratings on their level of ICTs instructional competencies possessed for implementing OTM curriculum**

SN	ICT Competencies (Ability to...)	$\bar{X}$	SD	Remarks
1	Identify parts of the compute	3.60	.88	High Level
2	Explain functions of the parts the computer	3.67	.92	High Level
3	Explain roles of the operating system in computer usage	3.75	.81	High Level
4	Correctly illustrate how to password documents on desktop	3.76	.78	High Level
5	Give correct instructions on how to manage files	3.72	.85	High Level
6	Provide correct guides in using storage devices	3.56	.84	High Level
7	Tutor how to convert documents using different file formats online	3.47	.88	Moderate Level
8	Deliver lesson through different social media platforms	3.64	.89	High Level
9	Educate how to edit text professionally	3.55	.88	High Level

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10	Teach how to use different ICT instructional aids	3.52	1.03	High Level
11	Explain how to manage database successfully	3.33	.94	Moderate Level
12	Teach how to use different Microsoft Word application	3.58	.91	High Level
13	Provide suitable guides on how to analyse data using Statistical Package for Social Sciences	3.75	1.07	High Level
	Aggregate	3.60		High Level

Table 1 shows that 11 out of the 13 items of ICTs instructional competencies for implementing OTM curriculum to enable students acquire employability skills have mean scores ranging from 3.55 to 3.76 which means that the OTM lecturers possessed them at a high level. The remaining two competencies have mean scores of 3.33 and 3.47 which means that the lecturers possessed them at a moderate level. However, the aggregate mean score of 3.60 shows that OTM lecturers in the area of ICTs instructional competencies possessed for implementing curriculum to enable students acquire employability skills at a high level. The standard deviations for 11 out of 13 listed items ranged within 0.78 to 0.94 which shows that respondents were homogeneous in their opinions. Standard deviations of 1.03 to 1.07 for the remaining two items indicate that respondents were heterogeneous in their opinions.

**Hypotheses Testing**

**Table 2.**

**ANOVA summary on the level of ICTs instructional competencies possessed by OTM lecturers for implementing curriculum based on educational attainment**

Sources of Variance	Sum of Squares	df	Mean Square	F-cal.	Sig.	Decision
Between Groups	2.258	2	1.129	1.288	.283	Accept H <sub>01</sub>
Within Groups	54.357	62	.877			
Total	56.615	64				

Table 2 shows a calculated F-value of 1.28 with a significant (sig.) p-value of 0.28 which is greater than the alpha value of 0.05 (0.28 > 0.05) at degrees of freedom of 2 and 62. Therefore, the null hypothesis (H<sub>01</sub>) was accepted. This means that there is no significant difference in the mean ratings of the lecturers on their level of ICTs instructional competencies possessed for implementing the OTM curriculum based on educational attainment.

**Table 3. ANOVA summary on the level of ICTs instructional competencies possessed by OTM lecturers for implementing curriculum based on years of teaching experience**

Sources of Variance	Sum of Squares	df	Mean Square	F-cal.	Sig.	Decision
Between Groups	1.641	2	.820	1.061	.352	Accept H <sub>02</sub>
Within Groups	47.959	62	.774			
Total	49.600	64				

Data on Table 3 show a calculated F-value of 1.06 with a significant (sig.) p-value of 0.35 which is greater than the alpha value of 0.05 (0.35 > 0.05) at degrees of 2 and 62. Therefore, the null hypothesis (H<sub>02</sub>) was accepted. This means that there is no significant difference in the mean ratings of the OTM lecturers on their level of ICTs instructional competencies possessed for implementing curriculum for students to develop employability skills based on years of teaching experience.

**Table 4. The t-test on the level of ICTs instructional competencies possessed by OTM lecturers for implementing curriculum based on institution ownership**

Ownership	N	$\bar{X}$	SD	Df	t-value	Sig.	Decision
State	48	3.50	.92	63	-.82	.41	Accept $H_{03}$
Federal	17	3.70	.77				

Table 4 shows a calculated t-value of -0.82 with a significant (sig.) p-value of 0.41 which is greater than the alpha value of 0.05 ( $0.41 > 0.05$ ) at 63 degrees of freedom. Therefore, the null hypothesis was accepted. This means that the OTM lecturers do not differ significantly in their level of ICTs instructional competencies possessed for implementing curriculum for students to develop employability skills based on institution ownership.

### Discussion

Findings of the study show that the OTM lecturers possessed ICTs competencies at a high level for implementing the curriculum for students in public tertiary institutions in Rivers State to acquire employability skills. This finding disagrees with Nwaukwa (2015) who lamented that majority of business teachers lacked computer skills required to integrate new technologies for successful instructional delivery as required for implementing ICT-based curriculum. Also, finding of the study differed from Fadare (2014) who identified problems and bewailed that business teachers in tertiary institutions are not adequately utilizing computer for instructional delivery due to their lack of new technology skills and modern instructional competencies this may be because cooperative instructional delivery were not adopted.

The findings of the study also show that the level of ICT instructional competencies possessed by the OTM lecturers was not influenced by their educational attainment. This finding disagrees with the report of Mohammad et al., (2011) that how well lecturers demonstrate ICTs instructional competencies depend on their educational attainment which affects their understanding of the subject matter, selection of tools, use of appropriate instructional strategies and application of classroom management skills in teaching. The findings further show that the lecturers do not differ significantly in their level of ICTs instructional competencies possessed for implementing curriculum as a result of years of teaching experience. This finding also disagrees with Scholars (2013) who affirmed that teaching experience and age are factors that influence lecturers' ICTs instructional competencies possession, because younger and experienced lecturers are more likely to possess them at a higher level than older and less experienced ones. Finally, the findings of this study shows that institution ownership do not influence the level of ICTs instructional competencies possessed by OTM lecturers in public tertiary institutions in Rivers State. This finding is at variance with Top Education Degrees (2020) which reported that institutional ownership plays major roles on lecturers' level of possessed ICTs instructional competencies for developing employability skills among students. This finding could be as a result of the fact that federal institutions do not provide better salary packages, teaching environments, aids, laboratories, motivation and staff development programmes than state institutions.

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### **Conclusion**

Based on the findings of the study, it was concluded that the level at which OTM lecturers in public tertiary institutions in Rivers State possessed ICTs instructional competencies for implementing OTM curriculum is adequate to develop employability skills of students. Also OTM lecturers do not differ significantly in their mean ratings based on educational attainment, years of teaching experience and ownership of their institutions. This means that there could be other institutional or student related factors which are responsible for the lack of employability skills among graduates of the programme.

### **Recommendations**

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

- 1.—Since whatever knowledge one acquires remains with them, the OTM lecturers should make personal sacrifices from their earnings and engage in training through short courses, seminars and conferences to sustain, improve and update their ICTs instructional competencies for effective curriculum implementation and sustained relevance in their areas of operations.
- 2.—Heads of Departments of OTM programme should encourage lecturers by recommending them for sponsorship to suitable training programmes, workshops, seminars and conferences to enhance their ICTs instructional competencies for effective curriculum implementation.
- 3.—State and federal governments should increase provision of relevant ICTs resources for effective OTM curriculum implementation to facilitate employability skills acquisition for students' success in employment upon graduation.
- 4.—Management of institutions that offer OTM programme should ensure regular power supply in the laboratories for adequate utilization of available ICTs resources by lecturers and students.

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*NAU Journal of Technology & Vocational Education, Vol. 7, No. 1, December 2022*

## **ENTREPRENEURS' RATINGS OF FINANCE OPERATIONAL STRATEGIES NEEDED FOR IMPROVING THE PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN DELTA STATE**

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### **Abstract**

This study investigated entrepreneurs' ratings of finance operational strategies needed for improving the performance of small and medium enterprises in Delta State. A research questions guided the study while null hypotheses was formulated. The descriptive survey research design was adopted for the study. The study was conducted in Delta State. The population for this study consisted of 1,310 registered small and medium scale enterprises with the Delta State Ministry of Trade, Investment, Commerce and Industry. A sample of 393 entrepreneurs of small and medium scale enterprises in Delta State was used for the study using proportionate stratified sampling technique. The instrument used for data collection was a 40-item questionnaire, which was validated by three experts. The instrument was subjected to test of internal consistency using Cronbach's alpha method, and a coefficient of 0.83 was obtained. Mean and standard deviation was used to answer the research questions while analysis of variance was used to test the null hypotheses at 0.05 alpha level. The findings revealed that entrepreneurs rate finance operational strategies as greatly needed for improving the performance of SMEs in Delta State. The finding also revealed that there was a significant difference in the mean ratings of entrepreneurs on finance operational strategy needed for improving performance of SMEs based on their years of experience. Based on the findings, it was recommended amongst others that the Department of Small and Medium Scale Enterprises with Delta State Ministry of Trade, Investment, Commerce and Industry should set up personnels to check up the financial internal control system of small and medium enterprises.

**Keywords.** Operational strategies, finance, marketing, SMEs, performance.

### **Introduction**

The review on small business activities establishes the commitment of the World Bank Group to the development of the SMEs sector as a core element in its strategy to foster economic growth, employment and poverty alleviation (World Bank Report, 2012). In this light, entrepreneurs, government and the general public have come to recognize the importance of financing SMEs and have consequently acknowledged that the growth of these SMEs constitutes one of the cornerstones of economic development. One of the common features of SMEs is that they are either sole proprietorship or partnership and have centralized management structure (Udechukwu, 2011). The establishment of these small and medium scale enterprises would indeed help to salvage the country from the shackles of poverty and unemployment. This is why SMEs are identified in the global and domestic economies as the engine of growth and development.

Most economies today are characterized by a large number of SMEs which are domiciled in the informal sector and account for employment of large proportion of the productive population. Various special measures and programmes have been designed and

policies enunciated and executed by government to encourage SMEs development in order to make them more vibrant in Nigeria (Jennings & Disney, 2016). Jennings and Disney enumerated the measures and policies to include: (1) fiscal incentives and protective fiscal policies; (2) specialized financial institutions and funding schemes for the SMEs; (3) favourable tariff structure; (4) selective exemption and preferential treatment in excise duties; and (5) establishment of export processing zones.

It is however worrisome that despite these measures, policies, programmes and support aimed at revamping SMEs, they have continued to perform below expectation especially Nigeria. Different people, organizations and entrepreneurs have suggested various reasons as to why SMEs have not been able to live up to their billing financial management challenges, these include insufficient use of new technologies, lack of operational business-related training, high rate of taxes and other bureaucratic problems (Abdulsaleh & Worthington in Hande, 2015). Thus for SMEs to survive and remain competitive in such challenging situations, they need to practice operational strategic processes (Dansoh, 2015).

Operational strategy is concerned with how each part of the business is organized to deliver the corporate and business-unit level direction. According to Slack (2010), operational strategy is the development of a short-term plan for using the major resources of the firm for a high degree of compatibility between the resources and the firm's long-term corporate strategy. It includes the pattern of strategic decisions and actions which set the roles, objectives and activities of operations. Slack further encapsulated that operational strategy is how competitive environment changes and what the operation has to do in order to tackle current and future challenges. In the context of this study, operational strategy refers to entrepreneurs plans and activities in contributing to small business enterprises' ability to achieve competitive edge within a short-term in a market place.

It is important to note that unstable business environments call for increased utilization of comprehensive but flexible operational strategy. This is because, operational strategy enables SMEs to be forward looking and vigilant in order to cope with these unstable business environments and ensure survival and growth. Entrepreneurs who engage in operational strategies in their businesses are more likely to achieve improved business performance. Sequel to this, Coulter (2009) posited that operational strategies are the short-term (less than a year) goal-directed and actions of the organization's various functional areas. Furthermore, Slack (2010) highlighted four levels of operational strategies that can be used to improve performance of SMEs, namely; finance operational strategy, information technology operational strategy, marketing operational strategy and human resource (personnel) operational strategy. But finance operation strategy is considered in this topic.

Operators of SMEs depend to a large extent on the financing policy that it promotes. In this respect, entrepreneurs in general and financial managers in particular ensure that operational financial strategy necessary to the firm forms the capital structure of an enterprise through choice of share structure, debts and bonds by optimizing financial costs (Myers, 2014). It also involves enterprise asset management. In order to generate optimal revenues, the company establishes the structure of the investments of previously accumulated cash. Following this, the day-to-day running of financial transactions plays a paramount role in the development of operational financial strategy for improving the performance of SMEs. Therefore, the practices of marketing operational strategies are needed for enhancing SMEs performance.

Performance can therefore be defined as how efficiently and effectively a firm utilizes its resources in generating economic outcomes (Barney, 2014). According to Ardiouman and Asma (2015), performance can be described in terms of output such as profitability or quantified

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objectives. Similarly, Haghghinasab, Sattari, Ebrahimi, and Roghanian, (2013) reiterated that performance can be measured based on growth, market share and profitability. Most SMEs measure performance based on monetary success which is measured by sales turn over and profitability.

When the behaviour of management is right, then the anticipated levels of output would be achieved and vice versa for failure. When behaviours of management towards marketing strategies are geared on a right direction, then this positively affect the performance of SMEs. But when it is not, problems that could emanate include; inability to capture market opportunities, marketing problems, production problems such as poor standardization and low-quality products, poor maintenance of enterprise's working capital ratio, poor data management and management support services, poor human capital management and poor employee relations (Ebitu, 2015).

A study of Ebitu (2016) exposed that in the southern part of Nigeria, marketing problems such as difficulty in managing firm's advertising, lack of adequate marketing research, unawareness of competition, poor branding and packaging, low level of knowledge on business market analysis, poor promotion, poor segmentation strategy, poor pricing technique and unplanned distribution contribute negatively in affecting SMEs' profit margin and their sales volume. It could be observed that most of these problems were as a result of the fact that most of the managers of the SMEs are not knowledgeable about operational strategies.

More so, informal investigation and observations made by the researcher have revealed that SMEs in Delta State especially new enterprises are performing below expectations all government interventions. The coronavirus pandemic period rendered many SMEs dysfunctional, and this could be attributed to monumental challenges such as weak strategic orientations, poor infrastructure, poor feasibility studies among others. However, the researcher's affirmed that this situation highlighted above has rather become more confusing and critical as the degree of poverty, unemployment and hunger which SMEs are supposed to reduce continue to increase to an alarming rate, in spite of all the interventions, strategies, drastic measures and incentives provided yearly.

It could be noted that this situation may be attributed to low espousal of operational strategies among the operators of SMEs in Nigeria. The problem of this study is that operational strategies by SMEs in Delta state is not clearly known and will depend on how they are rated by the operators. This is important to provide empirical evidence on how to improve the performance of SMEs in the area hence this study on entrepreneurs' ratings of operational strategies needed for improving SMEs operations in Delta state.

Following this, the successful implementation and achievement of these operational strategies can improve on SMEs competitive advantage and provide direct economically significant contribution to enterprise performance (Tavitiyaman, Qu, & Zhang, 2011). In order words, the falling standard of SMEs performance can be improved by successful practice of the operational strategies highlighted in the study. Sequel to this one must not forget in a hurry that there are factors that seem to influence entrepreneurs' ability to carry out operational strategies, one of which is years of experience.

Wanigasekara and Surangi (2011) defined experience as the duration in which an individual has been carrying out a job. Toohey (2009) defined experience as knowledge or skill in a particular job or activity. Toohey also revealed that experience takes many guises (e.g., industry experience, startup experience, e.t.c.) and breadth of experience is shown to be an important factor driving the performance of firms, with the number of previous jobs positively related to new firm performance. Wanigasekara and Surangi (2011) elaborated that most

researchers have found a strong link between business experience and business performance. The likelihood of failure has also been found to be associated with owner/manager's work experience prior to business launch. For example, businesses where the owner had 10 years of work experience and/or four or more years of college/university education are less likely to fail (Boden & Nucci, 2010). It is against this background that the researcher investigated entrepreneurs' ratings of operational strategies needed for improving SMEs performance in Delta state.

The main purpose of the study is to determine entrepreneurs' ratings of operational strategies needed for improving the performance of small and medium enterprises in Delta state. Specifically, the study determined entrepreneurs' ratings of Finance operational strategy needed for improving the performance of SMEs.

### **Theoretical Underpinning**

The theory on which this study is predicated is the systems theory.

Systems theory was propounded in the 1940's by biologist Ludwig Von Bertalanffy (1901 - 1972). The theory viewed human organization as systems (conceptual systems) of interacting components such as system aggregates, which are carriers of numerous complex processes (organizational behaviours) and organizational structures. Systems theory focuses on relationships between parts of a system. Rather than reducing an entity such as a business into parts, systems theory focuses on the arrangements of and relations between the parts and how they work together as a whole. The way the parts are organized and how they interact with each other determine the properties of that system. The behaviour of the system is dependent on the properties of the elements. According to Bertalanffy, a system may be defined as a set of interdependent parts that relate in the accomplishment of some purpose. The systems theory views institutions as systems that procure and transform inputs into outputs which are subsequently discharged into their external environment in the form of goods and services. Inputs can be in form of people, materials, money or information.

Systems theory makes provision for people to explore and characterize the system of their interest, its environment and its components and parts. Entrepreneurs can acquire a systems view of management by integrating systems concepts and principles in their thinking and learning to use them in representing the world and their experiences. Systems theory empowers people to think of themselves, the environments that surround them and the groups and organizations in which they live in a new way.

The systems theory relates to this study because it gives the entrepreneurs insights into ways of knowing, thinking and reasoning in their operations of business ventures as a system of interdependent parts for improved business performance. In other words, the relevance of systems theory in this study is that it helps entrepreneurs to look at the organization more broadly. It has also enabled entrepreneurs to interpret patterns and events in the business - that is, by enabling entrepreneurs to recognize the various parts of the organization, and in particular, the interrelatedness of the parts so as to bring about a better performance in the business activity.

### **Research Questions**

One research questions guided the study:

1. What are entrepreneurs' ratings of finance operational strategy needed for improving the performance of SMEs?

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**Hypotheses**

One hypothesis was tested at 0.05 level of significance:

3. There is no significant difference in the mean ratings of entrepreneurs on finance operational strategy needed for improving performance of SMEs based on their years of experience (below 5 years; 6 years – 10 years; 11 years and above)

**Methods**

The descriptive survey research design was adopted for the study. The study was conducted in Delta State. The population for this study consisted of 1,310 registered small and medium scale enterprises with the Delta State Ministry of Trade, Investment, Commerce and Industry. A sample of 393 entrepreneurs of small and medium scale enterprises in Delta State was used for the study using proportionate stratified sampling technique. The instrument is titled “Questionnaire on Operational Strategies Needed for Improving Small and Medium Scale Enterprises (QOSNIMSE)”. A validated instrument has two sections, A and B. Section A contained information on personal data of the respondents while section B contained 40 item. The instrument was subjected to test of internal consistency using Cronbach Alpha Method and an overall co-efficient of 0.83 was obtained. The data collected were analyzed using the arithmetic mean and standard deviation to answer the research questions while Analysis of Variance was used to test the null hypotheses at 0.05 alpha level.

**Results**

**Research Question:** What are entrepreneurs’ ratings of finance operational strategy needed for improving the performance of SMEs?

**Table 1: Mean and standard deviation on finance operational strategies needed for improving the performance of SMEs**

S/ N	finance operational strategies needed	X	SD	Remark
1	Adopting weekly cash budgeting	3.73	0.56	Greatly needed
2	Keeping good records of account statements	3.51	0.73	Greatly needed
3	Establishing standard for using company’s materials	4.44	0.80	Greatly needed
4	Making use of appropriate financial internal control system	4.51	0.73	Very Greatly needed
5	Investing business finances wisely in order to yield profit	4.63	0.65	Very Greatly Needed
6	Keeping records of cash receipts	3.29	0.84	Greatly needed
7	Preparing enterprise’s pay rolls for staff salaries	3.93	1.19	Greatly needed
8	Maintaining enterprise’s working capital ratio	3.88	0.89	Greatly needed
9	Establishing standard for using materials	3.64	0.55	Greatly needed
	Cluster Mean	3.95		Greatly needed

The analysis in Table 1 reveals the item-by-item analysis of entrepreneurs’ ratings of finance operational strategy needed for improving the performance of SMEs. The cluster mean of 3.95 therefore summarized that entrepreneur’s rate that finance operational strategies are greatly needed for improving performance of SMEs. The standard deviation scores ranging from 0.55 – 1.19 shows that the respondents’ mean scores are not wide apart.

**Hypothesis:** There is no significant difference in the mean ratings of entrepreneurs on finance operational strategy needed for improving performance of SMEs based on their years of experience (below 5 years; 6 years – 10 years; 11 years and above)

**Table 2: ANOVA on mean ratings of entrepreneurs by years of experience on finance operational strategy needed for improving performance of SMEs**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	948.706	2	474.353	42.281	.000
Within Groups	4151.042	370	11.219		
Total	5099.748	372			

Data in Table 2 show the significant difference in the mean ratings of entrepreneurs on finance operational strategy needed for improving performance of SMEs based on their years of experience. The analysis revealed that  $p$ -value (0.000) is less than the alpha level  $\alpha = 0.05$ ,  $p(0.000) < 0.05$ . This result indicates that there was a significant difference in the mean ratings of entrepreneurs on finance operational strategy needed for improving performance of SMEs based on their years of experience. Therefore, the null hypothesis is rejected.

### Discussion of Findings

The findings indicate that entrepreneurs rate finance operational strategies as greatly needed for improving performance of SMEs. Such a strategy include; adopting weekly cash budgeting; Keeping records of account statements; Establishing standard for using company's materials; Keeping records of cash receipts; Preparing pay rolls for staff salaries; Maintaining enterprise's working capital ratio; and Establishing standard for using materials. This finding was in line with the finding of Ruri and Omagwa (2018) that maintaining working capital ratio and retaining earnings improved financial performance of SMEs in Emubu County. The findings also agreed with the finding of Sibanda, Hove-Sibanda and Shava (2018) that a significant positive relationship between access to finance and SMEs exporting behaviour does exist.

From the test of the hypothesis, years of experience showed a difference in the mean ratings about financial operational strategy needed for improving performance of SMEs. This finding opposed the finding of Ruri and Omagwa (2018) who found no significant effect in this regard. The difference in both finding could be as a result of different raters of operational financial strategies and also geographical location.

### Conclusion

In the view of the findings of this study, it was concluded that entrepreneurs rated all finance operational strategies greatly needed for improving performance of SMEs in Delta State. This is so because operational strategies provide objectives, allocate resources and coordinate these resources among different forms of operations of organizations. This will also go a long way in improving business performance looking at the enormous benefit that can be achieved from operational strategies.

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## **COMPARATIVE EFFECT OF LECTURE METHOD AND MULTIPLE INSTRUCTIONAL APPROACH ON STUDENTS' COGNITIVE ACHIEVEMENT IN BASIC TECHNOLOGY IN OSUN STATE**

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### **Abstract**

The study compared the effect of lecture method and multiple instructional approach on students' cognitive achievement in basic technology. Two research questions were answered and two null hypotheses were tested at 0.05 level of significance. Quasi-experimental design was adopted for the study, specifically, the non-equivalent control group design. The study was carried out in Ilesa Education Zone of Osun State. The population of the study was 1,876 JSS two students, while the sample comprised 80 JSS two students drawn from two intact classes in two junior secondary schools in Ilesa. Experimental group was taught using multiple instructional approach, while the Control group was taught using lecture method. The treatment lasted for four weeks after pretest has been administered using Basic Technology Achievement Test (BTAT) as instrument for data collection. The instrument was subjected to face and content validity. Test-retest method was adopted to establish reliability of the instrument which yielded a coefficient of 0.75. Data collected were analyzed with mean and analysis of covariance (ANCOVA). The result revealed that students taught with multiple instructional approach performed better than students taught with lecture method in basic technology. There was no significant difference in the mean scores of male and female students in basic technology after the treatment. Based on the findings of the study, it was recommended that relevant agencies should instruct basic technology teachers to adopt multiple instructional approach when teaching to enhance students' cognitive achievement.

**Keywords.** Basic technology, cognitive achievement, lecture method, multiple instructional approach.

### **Introduction**

Basic Technology is an integrated subject that introduces students to basic rudiments of technology and vocational education as it provides basic knowledge of woodwork, metalwork, technical drawing among others at the introductory level. Basic technology is a pre-vocational subject offered at junior secondary schools as post primary education. According to Uwameiye and Ojikutu (2008), basic technology exposes students at the junior secondary school (JSS) level to technology through exploratory activities. Its objectives among others include; enabling students to explore their environment with their hands. It is designed to be taught in junior secondary school which is also known as upper basic school.

At junior secondary school level, basic technology was designed to be taught so as to achieve the specific lay down objectives. In order to facilitate the process of knowledge transmission, teachers need to apply appropriate instructional approach. Abubakar, (2015) reiterated that the major role of instructional approaches is to provide a wide range of alternative avenues through which the same unit of instruction can be presented to learners. Most teachers

today apply lecture method which is teacher centered approach to promote interest, analytical research, critical thinking and enjoyment among students but eventually fail to achieve lesson's objectives and results to poor cognitive achievements (Hesson & Shad, 2007). Transferring knowledge requires teachers to use the appropriate approaches and pedagogy that best suits the learner and suit the objectives and desired outcomes.

Adunola (2011) maintains that teachers need to be conversant with numerous instructional approaches that take recognition of the magnitude of complexity of the concepts to be covered. Ndirangu (2007) opined that, the choice of a particular method or approach of teaching by the teacher is determined by the number of factors which includes the content to be taught, the objectives which the teacher plans to achieve, availability of teaching and learning resources and instructional approach adopted by teacher just to mentioned a few.

Reports from different states in Nigeria indicated poor cognitive achievement of students in their Junior Secondary School Examination in Basic Technology (Nwoji, 2000; Lenga, 2001). Akpan, Usoro, Akpan, and Ekpo (2010) opined that many students cannot interpret simple machine drawings. Few or no student on completion of the subject can even construct simple electric circuit correctly in terms of using switch, battery, copper wire and electric bulb. This poor cognitive achievement of students in basic technology could be further ascribed to insufficient tools, equipment, materials and above all lack of suitable instructional approach adopted by teachers among others to teach the subject. The main purpose of teaching at any level is to bring out a significant change in the learner (Tebabal & Kahssay, 2011).

Poor cognitive achievement by majority of the students in various subject areas is basically linked to the application of ineffective instructional approach used by teachers to impart knowledge. Common instructional approach use today by teacher is lecture method which does not cater for learners' preference to learn and it results to poor cognitive achievement in basic technology. This therefore calls for new innovation in teaching basic technology. Such new innovation according to researcher's view is called multiple instructional approach.

Multiple instructional approach (MIA) is referred to the approach which permits more than two approaches to be combined together as an entity during learning process. It comprises more than two approaches used simultaneously just to motivate students to learn and sustain this throughout the teaching of specific topics. Ayeni (2011), referred to MIA as the approach that allows teacher to inject varieties in teaching thereby stimulating learning and maintaining learners' interest throughout the teaching period. Multiple instructional approach used in this study is embedded in Jean Piaget theory in 1972 with the assumptions that all learning is the child's own activity as the child interacts with the physical and social environment. From the observations of Odundo (2013) after investigated the effect of instructional approaches which comprised lecture, dictation and chalkboard notes used together simultaneously on learners' achievement in Business studies in secondary schools, discovered that multiple instructional approach prove to improve students' achievement in sciences and technology related subjects like basic technology more than the traditional single instructional lecture method. His findings is also in line with that of similar studies by Ogbuanya, (2010) who carried out a study on the effect of multiple intelligence-based instructional approach on students' cognitive achievement in Electrical Electronics. Three instructional strategies which were simultaneously used comprised active learning, collaborative learning and authentic learning techniques. It was also revealed that group taught through multiple instructional strategies performed excellently better than those taught through conventional lecture method.

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Multiple instructional approach used in this study comprised the combination of discussion, cooperative learning and simulation approaches Simulation is an approach which involves students playing roles in simulated situations in order to learn specific skills and concepts transferable to real life Cooperative learning allows students to work together in small groups on a common learning task and at the same time depend on one another for the outcome Discussion is an approach in which the teacher leads or guard students in expressing their opinions and ideas with a view to identify and solve problems collectively. Discussion is an approach which engages teachers together with students in thinking and developing social, talking and listening skills as it gives students an opportunity to be listened to and guided in a non-threatening atmosphere (Akinleye, 2010). In this study each topic selected to be taught in basic technology was divided into three sections and each section was taught with the each approach described in the study simultaneously.

Gender differentiation is an old and long controversial issue both in the society and in education. Different opinions and view abound on the issue of gender i.e male and female and its effect on student achievements especially in sciences and technology related subjects. There are two strong opposing schools of thoughts as regards to the effect of gender and cognitive achievement. As some educators back up some sex other educators are against it. This is one of the issues of contention in Nigeria today.

In recent times educators have expressed diverse views about gender and achievement. While some of these educators are of the view that male students do better than female students especially in science and technology, others disagree with this view arguing that achievement is a factor that is dependent on several factors such as socio-economic background, instructional approaches among others. Obiekwe (2008) who found that girls achieved more than boys in science and technology related subjects, and that female learners show some superiority over male learners.

Notwithstanding Okoro (2011) found out that male students achieve higher than their female counterparts in science and technology related subjects. Although Okeke (2007) and Nzewi (2010), are of the view that females achieve as high as their male counterparts when given equal opportunities. Notwithstanding, this study also join the queue to actually determine if gender is independent of either lecture method or multiple instructional approach.

Despite Osun State government efforts to improve the standard of education by providing the required human resources such as teachers, supervisors and material resources like textbooks, well equipped workshops comprised some basic machines in metal work, woodwork, automobile just to mentioned a few that are needed for the implementation of education at all levels, students' performance in basic technology in both internal and external examination is still very poor in recent years. This situation makes one to wonder what could be the causes of this persistent poor performance of students in basic technology examination. Some scholars attributed this high failure rate in science and basic technology to various factors which could be institutional and non- institutional. In support, Okolie, Elom and Inyiagu (2014) observed that poor performance of students in basic technology has been so high in many Nigerian public schools in the recent years.

It is against these backdrops that this study intends to find out the most effective approach of teaching basic technology by comparing the effect of lecture method and multiple instructional approach on students' cognitive achievement in basic technology in Osun state junior secondary schools. This study also looked into gender as one of its variables.

### **Purpose of the Study**

The purpose of this study was to compare the effect of lecture method approach and multiple instructional approach on students' cognitive achievement in junior secondary school Basic Technology in Osun State. Specifically, the study determined the

1. difference between cognitive achievement mean scores of JSS students taught Basic Technology using lecture method and multiple instructional approach,
2. gender difference between cognitive achievement mean scores of JSS students taught Basic Technology using lecture method and multiple instructional approach.

### **Research Questions**

The following research questions guided the study:

1. What is the difference between cognitive achievement mean scores of JSS students taught Basic Technology using lecture method and multiple instructional approach?
2. What is the gender difference between cognitive achievement mean scores of JSS students taught Basic Technology using lecture method and multiple instructional approach?

### **Hypotheses**

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

1. There is no significant difference in cognitive achievement mean scores of JSS students taught basic technology using lecture method and multiple instructional approach.
2. There is no significant difference in cognitive achievement mean scores of male and female JSS students taught basic technology using lecture method and multiple instructional approach.

### **Methods**

This study adopted quasi-experimental design. Specifically, pretest posttest design with experimental and non-equivalent control group was used. The area of the study was Ilesa in Osun State. The population for the study comprised 1,876 from total number of 18 public junior secondary schools in Ilesa educational zone from academic record of State Universal Basic Education Board Osogbo, 2018/2019. Two intact classes of 80 students selected from two schools from the population of the study formed the sample size of the study. They were assigned experimental and control groups and taught four selected topics (energy conversion; basic electricity; woodwork practice; and basic knowledge of computer) used for the study.

Basic Technology Achievement Test (BTAT) was the instrument used for data collection. It comprised 40 objectives questions designed by the researcher. Face validity of the instrument was established by three experts from the Department of Technology and Vocational Education, Nnamdi Azikiwe University Awka while content validity was established using table of specifications designed for the study. To establish reliability, test-retest method was adopted and Pearson Product Moment Correlation was used to establish Correlation Co-efficient of 0.75.

Basic Technology Achievement Test was administered as pre-test to get the baseline data after the training of the research assistants in the first week. Thereafter, the experiment commenced between second weeks to fifth week. The experimental group was taught using Multiple Instructional Approach, while the control group was taught with Lecture Method Approach. Four topics taught for four weeks were energy conversion, basic electricity,

woodwork practice, and basic knowledge of computer. Each topic was divided into three sub-topics and taught simultaneously with three approaches starting from discussion, cooperative learning and ended with simulation approaches. The last week was used for posttest activity of the two groups using BTAT after reshuffled. The data was collected using BTAT, analyzed with mean and tested with analysis of covariance (ANCOVA) at 0.05 level of significance. When  $f_{cal}$  was lower than the level of significant null hypothesis was rejected but when  $f_{cal}$  was higher than the level of significant, null hypothesis was accepted. Scores obtained were compared to determine the better approach between the two approaches used.

## Results

**Research Question 1:** What is the difference between the cognitive achievements mean scores of JSS students taught Technology using lecture method and multiple instructional approach?

**Table 1**

Mean Scores of JSS students' Cognitive achievement taught Basic Technology using lecture method and multiple instructional approach

Group	N	Pre-test	Post-test	Mean gain	Mean Difference
Lecture method	33	41.79	57.89	16.10	10.16
Multiple instructional approach	47	38.96	65.72	26.76	

The data on students' cognitive achievement mean scores in Table I revealed that students taught Basic technology using lecture had mean score of 57.89 while cognitive achievement mean score of students taught with multiple instructional approach was 65.72. Also the multiple instructional approach group had a mean gain score of 26.76 over the lecture group who had a gain score 16.10. The mean difference between the two groups was 10.16. It was revealed that students taught basic technology using multiple instructional approach therefore performed better than students taught using lecture method.

**Research Questions 2:** What is the gender difference between cognitive achievement mean scores of JSS students taught Basic Technology using lecture method and multiple instructional approach?

**Table 2**

Mean of gender difference between cognitive achievement scores of JSS students taught Basic Technology using lecture method and multiple instructional approach.

Gender	N	Pre-test	Post-test	Mean gain	Mean Difference
Male	42	41.08	65.11	24.03	3.18
Female	38	39.26	60.11	20.85	

Data in Table 2 revealed mean achievement score of 65.11 for male students, while the female students had mean achievement score of 60.11. Male students had mean gain score of 24.03 in basic technology while their female counterparts had mean gain score of 20.85. The mean difference between the two groups was 10.16. Male students therefore, performed better

than their female counterparts in taught basic technology using lecture method and multiple instructional approach.

**Hypothesis 1:** There is no significant difference in cognitive achievement mean scores of JSS students taught basic technology using lecture method approach and multiple instruction approach.

**Table 3**

Analysis of Covariance of Students' Cognitive Achievement taught Basic Technology using lecture method approach and multiple instruction approach

Sources of Variation	Sum of Squares	df	Mean Square	F	Sig
Corrected model	11613.487	4	2903.372	37.258	.000
Intercept	2623.714	1	2623.714	33.669	.000
Pretest	9974.333	1	9974.333	127.996	.000
Instructional Approaches	2128.256	1	2128.256	27.311	.000
Gender	146.749	1	146.749	1.883	.174
Error	5844.501	75	77.927		
Total	329833.000	80			
Corrected total	17457.987	79			

Base on hypothesis 1, data in table 3 showed that there was a significant difference for mode of instruction on cognitive achievement mean score of JSS students taught basic technology as  $F(1,75)=27.311$ ,  $p<0.001$ . The null hypothesis therefore was rejected, indicating that there was significance difference in cognitive achievement mean score of JSS students taught basic technology using multiple instructional approach and those taught using lecture method.

**Hypothesis 2:** There is no significant difference in cognitive achievement mean scores of JSS male and female students taught basic technology using lecture method approach and multiple instruction approach

In Table 3, it was revealed no significant mean for gender difference between cognitive achievement mean score of students in basic technology as  $F(1,75)=1.883$ ,  $P>0.5$ . The null hypothesis was accepted indicating that there was no significant difference in cognitive achievement mean scores of JSS male and female students taught basic technology using lecture method and multiple instructional approach.

**Discussion of Findings**

Multiple instructional approach was superior to lecture method approach in facilitating students' cognitive achievement in basic technology. The differences in performance might have been because of the fact that the students were required to find out facts through discussion between them and their teachers, cooperative learning among themselves among others thereby imbibing the scientific processes involved in learning basic technology, which enabled them to perform better than their counterparts taught basic technology using lecture method approach. When the students generate their own question, analyze and discuss their findings and finally construct their understanding they seemed to understand their own information better than the

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ones the teachers introduced to them. The multiple instructional approach might have been more effective because the instructions were characterized by active student's involvement, thereby capturing the interest of the students and maximizing comprehension of the subject matter. From the observations of Odundo (2013), it was indicated that multiple instructional approach prove to improve students' achievement in sciences and technology related subjects like basic technology more than the traditional instructional methods like lecture and demonstration. The findings of this study are also in line with that of similar studies by Ogbuanya, (2010) who carried out a study on the effect of multiple intelligence-based instructional approach on students' cognitive achievement in Electrical Electronics which happened to be one of vocational subjects in government technical colleges. Her finding revealed that the student taught through multiple instructional approach performed significantly better than those taught through conventional lecture methods.

The results of the study showed that male students performed better than their female counterparts in basic technology. This could be as a result of the different socialization processes of male and female students in which the male persons are expected to explore their environment while the female ones are to conform or maintain their existing environment notwithstanding, male students performed significantly better than female students in basic technology. The finding did not support that of Obiekwe (2008) who found that girls achieved more than boys in science and technology related subjects, and that female learners show some superiority over male learners.

Notwithstanding Okoro (2011) found out that male students achieve higher than their female counterparts in science and technology related subjects. Although Okeke (2007) and Nzewi (2010), are of the view that females achieve as high as their male counterparts when given equal opportunities. Based on this study, males performed better than their female counterparts when taught with multiple instructional approach probably because males tend to explore their environment more than the females who tend to conform to the environment they found themselves.

### **Conclusion**

The study clearly revealed that multiple instructional approach has significant effect on students' academic achievement. It makes learning interactive, increased social interaction, cooperative among others. It is therefore concluded that the use of multiple instructional approach improves students' academic achievement in Basic Technology. Based on the findings of this study, Ministries of Education, zonal inspectors of education, school principals among others should instruct teachers to teach basic technology and other vocational subjects with multiple instructional approach.

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## **DEVELOPMENT OF LEADERSHIP SKILL THROUGH INTERNSHIP AS PERCEIVED BY BUSINESS EDUCATION STUDENTS IN UNIVERSITIES IN ANAMBRA STATE**

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### **Abstract**

This study focused on the development of leadership skills through internship as perceived by business education students in universities in Anambra State. One research question guided the study while one null hypothesis was tested at 0.05 level of significance. The study adopted descriptive survey research design. The population of the study consisted of 619 business education students in the three universities offering the programme. The entire population was used for the study. A structured questionnaire was the instrument used for data collection. The reliability of the instrument was established using Cronbach's alpha and it yielded an overall coefficient of 0.81. Mean and standard deviation were used to analyse data to answer the research question and determine the cohesiveness or otherwise of respondents' mean rating. t-test was used to test the null hypothesis. The findings of the study revealed that the students perceive internship as a model for the development of leadership skills. However, the result shows that male and female business education students differ significantly in their mean ratings regarding how they perceive the development of leadership skills in internship. Based on the finding, it was concluded that business education students perceive internship as a model that will increase leadership skill development. Consequently, it was recommended among others that there is need for a structured leadership skill acquisition programme for business education students.

**Keywords.** Business education, leadership skills, internship.

### **Introduction**

Education is regarded as an instrument for imparting knowledge and abilities from one person to another with the aim of producing a generation who will be useful to themselves and the society. Education provides knowledge and skills to the students as well as shaping their behaviour. Educationalists and policy makers in the universities are recently paying a closer attention to that type of education systems that focus on making graduates to be useful upon graduation. That is why education system has shifted from theoretical aspect to practical aspect in the ever-dynamic world. For this reason, agricultural education, business education, technical education, entrepreneurship education and so on was introduced in universities curriculum to help the students to be self reliant and self-employed upon graduation without waiting for the white-collar jobs which may not be available at the point of graduation. However, this study is focused on business education.

Business education is the type of education that impact both innovative and creative skills in their learners. Business education is a design field of study for the development of skills, attitudes, aptitude as well as creation of awareness, competencies and efficiency in the

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office work and business world. Shaibu et, al. (2020) business education is a veritable tool that is used to alleviate social vices in every sphere of life. Shaibu, et al. further stressed that business education is a diverse discipline that is included in all levels of educational delivery system such as primary, secondary, and post secondary. Obi (2021) business education as a discipline is expected to expose its recipients to diversity curricula; hence, it is that type of education that inculcates in its recipients' attitudes, knowledge, skills, values that is required in the business world. It should be a means of producing healthy, literate, self-driven citizens for employability and self-reliant globally for sustainable development in the changing world. Amesiet al. (2022) business education has been recognized as a course of study that equips its students with different skills that are necessary for job placement in business related careers and for self employment. Dambo and Wokocha (2021) business education is a programme of study put together for the empowerment of learners with requisite skills needed to function in the world of work. Amesi and Allison (2022) conducted a study on assessment of digital skills acquired by university business education students for employability in Rivers State and the findings revealed that university business education students in Rivers State University and Ignatius Ajuru University of Education acquired audio-visual content creation skills and software skills for employability in Rivers State. Iwuoha, et al. (2021) carried out a study on entrepreneurial skill acquisition required by business education graduates for employment generation in Imo State and the findings of the study revealed that entrepreneurs skill of planning, communication, management, goal setting, problem solving, risk bearing among others are needed for employment generation by business education graduates. Business education plays an important role in the growth and development of Nigeria economy. It develops and enhances student's attitudes in workplace situations upon graduation. Business education is an academic programme designed to provide learning situations for acquiring skills and these skills are made possible through the knowledge and experience gained from the classroom and internship.

Internship is a process in which business education students are involved in practical work situations, enabling them to establish leadership skill development goals. Internship programmes provide learning opportunities for business education students to experience leadership skill development and activities associated with creative and innovative skills. Bender (2020) internships expose students to discipline-specific knowledge. An internship can help a student develop professionalism, leadership skills, and interpersonal skills. Additional soft skills, such as attitude and work ethic, along with the technical hard skills necessary for a profession, are in demand today (Gale et al., 2017 as cited in Bender, 2020). Thompson, et,al.(2021) Internships are a form of experiential learning whereby students can apply and practice their skills in a professional setting while gaining career and life experience. Haddad-Adaimi,et,al. (2022) internship is integral to many undergraduate degree programs that require practical skill application. Internship programme gives the students an opportunity to experience how the theory works in the real life and many organizations also prefer graduates with training experience.

Business education students' internship programme in universities in Anambra State comes under the student industrial work experience scheme (SIWES). SIWES is a compulsory six months programme for all business education students. Each university in Anambra state has a SIWES unit with a director and other staff charged with the responsibility of coordinating students' industrial training which comes in the second semester of the 300 level. It is expected that the experience will be of immense benefits to business education students but it appears that the students are not benefitting as expected due to some challenges that plagued the system. The challenges include placement of students without giving credence to the relevance of the

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workplace to their course of studies, attitude of the students in the programme, assigning courses to the students during the period of the programme and inadequate supervision among others. The students on their part believe that internship programme is all about getting practical learning experiences fulfill academic requirement and have something to beef up the resume. Isibor and Okara (2020) conducted a study on the assessment of effectiveness of SIWES undertaken by technical college students in Delta and the result revealed that technical and vocational student acquired various skills to little extent during industrial attachment. Auru and Wakili (2020) carried out a study on the effect of students' industrial work experience scheme on students' readiness for world of work and the result indicated that SIWES does have some positive impact on students. According to Ojokuku et al. (2015) SIWES prepares students to contribute to the productivity of their employers and national development immediately after graduation and as well creates enabling environment where they can develop and enhance their personal attributes such as critical thinking, creativity, initiative, resourcefulness, time management, presentation skills, interpersonal skills and leadership skills amongst others.

Leadership skills are the strengths and abilities individuals demonstrate that help them oversee processes, guide initiatives and steer their employees towards the achievement of goals. Leadership skills are the tools, behaviours, and capabilities that a person needs in order to be successful at motivating and directing others. It is the ability to help people grow in their own abilities. Leadership skills are the skills required to engage with, motivate, and persuade people to buy-in to a vision, objective, or goal. Oke (2019) averred that leadership skills are abilities that motivate, instruct and offer guidance, enable students to collaborate, solve problems or succeed at assigned responsibilities. Dahar et al. (2016) opined that leadership skills are essential in taking thoughtful decisions about organization's mission and goals and properly allocate resources to achieve them by the executives. The authors outlined valuable leadership skills to include the ability to delegate, inspire and communicate effectively. Neva et al. (2014) asserted that universities and higher education institutions focused on developing students' leadership skills as a means of preparing them for the job market. Bolanle (2019) carried out a study on principals' leadership skills and school effectiveness: the case of South Western Nigeria and the findings revealed that there was a significant relationship found between principals' leadership skills and school effectiveness. Emeasoba et al. (2020) conducted a study on the organization and leadership skills required of business education students for job performance in universities in south east, Nigeria and the findings of the study showed that there is no significant difference between the mean ratings of male and female business education lecturers on the identified organisation and leadership skills required of business education students for job performance. Isibor *et al* (2020) carried out a study to explore issues and challenges of leadership skill among early career doctors in Nigeria using a mixed-method approach: charting study. Findings from the study shows that 91.1% of the ECDs perceived leadership skills as essential skills needed by a doctor while 44.1% of them were yet to be formally trained on medical leadership. Almalki et al. (2016) conducted a study to analyze existing leadership skills of undergraduate engineering students in central Florida. Findings of the study revealed that undergraduate engineering students lack the visionary leadership skills compared to directing including cultivating leadership styles. Sucharitha et al. (2018) conducted a study on perception of the impacts of a national internship program on leadership skills among medical interns in Chennai and findings from the study show that the respondents admitted they were deficient in the understanding of leadership traits as it was not required of them as medical undergraduates. They perceived that internship period provided them multiple platforms to develop leadership skills such as demonstrating personal qualities, working with others, goal setting and delivering

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services individually thereby overcoming a training gap in the undergraduate programme. Radu, et.al. (2017) opined that men's leadership skills are more powerful and more important than women's skills or vice versa, but it is clear that gender differences do exist and people should capitalize on them.

Business education students in universities in Anambra State, Nigeria to be used in this study consist of males and females. Therefore, gender is taken into consideration in determining the development of leadership skills through internship as perceived by business education students in universities in Anambra State. According to World Health Organisation (WHO, 2017), gender is seen as the result of socially constructed ideas about the behavior, actions and roles a particular sex performs. Gender is a term used to exemplify the attributes that a society or culture constitutes as "masculine" or "feminine" (Albalawi, 2019). A lot of research has been carried out on the outcome of internship in different fields of learning but little or no effort has been given to the development of leadership skills through internship as perceived by business education students. Thus, development of leadership skills through internship as perceived by business education students in universities in Anambra State, Nigeria has not been fully researched on. This makes it imperative to conduct this study in order to provide empirical evidence for objective remedial actions by relevant stakeholders.

**Statement of the Problem**

Internship is a programme designed to bridge the gap between theory and practice. All universities in Anambra State, Nigeria provide the internship programme in line with SIWES regulation to allow students to gain practical skills in their respective fields of study. However, it appears that many students are not benefitting from the programme as expected due to several challenges in its execution, ranging from not assigning students in the organization related to their discipline, inadequate supervision of the students by both institution and industrial supervisors among others to students' use of the period as a period of writing carryover. Based on these challenges, students perception regarding internship seems not to be met as most of them return back to the campus without improvement in the acquisition requisite skills, hence the need for this study.

**Purpose of the Study**

The purpose of the study was to examine the development of leadership skills through internship as perceived by business education students in universities in Anambra State, Nigeria.

**Research Questions**

The following research question guided the study:

1. What are the perceptions of business education students regarding development of leadership skills during internship?

**Hypotheses**

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

1. There is no significant difference in the mean ratings of male and female business education students regarding their perception on development of leadership skills during internship.

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## Methods

Descriptive survey research design was adopted for the study which was carried out in Anambra State, Nigeria. The population of 619 business education students was used for the study using census survey sampling. Instrument for data collection was a 12 item four- point response option questionnaire ranging from Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The instrument was validated by three experts, two in the field. of business education and one in educational measurement and evaluation from Nnamdi Azikiwe University, Awka. To establish the reliability of the instrument the researcher administered it to 20 business education students of Enugu State University. The resulting responses were used to obtain the measure of internal consistency of the instrument using cronbach Alpha and it yielded reliability co-efficient of 0.81. The instrument was administered to the study population in their schools personally by the researchers with the help of three research assistants, using on the spot method to facilitate a high response rate. Out of the 619 questionnaires, 617 copies of the questionnaire (representing 97 percent) were retrieved and used for the data analysis.

## Results

**Research Question 1:** What are the perceptions of business education students regarding development of leadership skills during internship?

**Table 1**

Mean and Standard Deviation on Development of Leadership Skills before Internship

SN	Item Statements	Mean	SD	Remark
1	I perceive internship as building ability to learn to use diplomacy in handling difficult task	3.38	.830	Agree
2	I perceive internship as building ability to learn to follow directives	3.12	.851	Agree
3	I perceive internship as building ability to learn to give clear direction	3.44	.704	Agree
4	I perceive internship as building ability to learn to take responsibility for decision	3.14	.920	Agree
5	I perceive internship as building ability to learn to become comfortable being a member of a group	3.03	.900	Agree
6	I perceive internship as building ability to learn to be a good listener	3.26	.752	Agree
7	I perceive internship as building ability to learn to be a good team leader	3.33	.716	Agree
8	I perceive internship as building ability to learn to be flexible and dynamic in handling issues	3.21	.778	Agree
9	I perceive internship as building ability to learn to lead discussions	3.35	.743	Agree
10	I perceive internship as building ability to learn to listen carefully to opinions of group/team member	3.21	.868	Agree
11	I perceive internship as building ability to learn to take responsibility for actions	3.19	.751	Agree
12	I perceive internship as building ability to learn to cooperate and work in a group	3.25	.770	Agree
	Aggregate	3.23	.733	Agree

Note. SD = standard deviation

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The results of Table 1 show the mean responses on the business education students' perception of the development of leadership skills during internship. The table shows that the mean responses range from 3.03 to 3.44, while the standard deviation range from 0.706 to 0.920. The mean results depict that the students agree with all the 12 items of leadership skills development during internship. The aggregate mean of 3.23 indicates that the students perceive internship as a model for the development of leadership skills before their placement.

**Table 2**

The t-test on Gender difference about Development of Leadership Skills in Internship

Gender	N	Mean	Std. Dev.	df	t-value	p-value	Decision
Male	121	3.21	.696	351	.275	.784	Not significant
Female	496	3.24	.751				

Data shown in Table 2 represent the results of the t-test about the difference between male and female business education students' perception of development of leadership skills in internship. The table shows the difference in mean perception between male ( $M = 3.21$ ) and female ( $M = 3.24$ ) is not significant ( $t = 0.275, p = 0.784$ ). This means that the null hypothesis is not rejected. Thus, there is no significant difference in the mean ratings of male and female business education students regarding their perception on development of leadership skills in internship.

**Discussion of Findings**

The result of the data analysis in respect of research question 1 as presented in table 1 showed the response of business education students' perception of development of leadership skills in internship in Anambra State. The findings reveals that the mean results for four items of development of leadership skills during internship correspond to agree, while the mean results for the rest seven items of development of leadership skills during internship correspond to disagree. The aggregate mean of 2.40, therefore, indicates that the students do not perceive increase in their development of leadership skills during the internship. This finding conforms to the study of Bolanle (2019) which found that there is a significant relationship between principals' leadership skills and school effectiveness. In line with this, Isibor *et al* (2020) found that 91.1% of the ECDs perceived leadership skills as essential skills needed by a doctor while 44.1% of them were yet to be formally trained on medical leadership. About three out of every 10 (23.6%) of surveyed ECDs that have ever held leadership positions in a medical setting encountered major leadership challenges during the experience due to their lack of training on leadership skills development. Also Almalki, et.al. (2016) found that undergraduate engineering students lack the visionary leadership skills compared to directing including cultivating leadership styles. This assertion is validated by the research result of Sucharitha, et.al. (2018) which established that the respondents admitted they were deficient in the understanding of leadership traits as it was not required of them as medical undergraduates and also they perceived that internship period provided them multiple platforms to develop leadership skills such as demonstrating personal qualities, working with others, goal setting and delivering services individually thereby overcoming a training gap in the undergraduate programme. Blackwell and Cummins (2017) result indicated that students did perceive to have gained the intended leadership skills as related to the four practical and four adaptive skills set forth by the programme curriculum.

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## Recommendation

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

1. Leadership skill development programmes are highly recommended to become an integral part of training programmes in universities in Anambra State, Nigeria.
2. Business education students should be periodically assessed on leadership skills development during their training as a means of achieving optimum results.

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## **SUPERVISORS' RATING OF PEOPLE SKILLS POSSESSED BY OFFICE TECHNOLOGY AND MANAGEMENT (OTM) GRADUATE WORKERS FOR EFFECTIVE WORK PERFORMANCE IN ANAMBRA STATE**

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### **Abstract**

The need to ensure that Office Technology and Management (OTM) students in Nigerian institutions are adequately equipped with requisite skills for effective work performance necessitated this study. The study ascertained supervisors' rating of people skills possessed by graduates of the programme working in organizations in Anambra State. One research question guided the study and three null hypotheses were tested. The study employed descriptive survey research design. Population of 304 supervisors from public and private organizations in Anambra State was studied. Census survey sampling technique was used. A structured 5-point rating scale questionnaire containing nine items which was validated by experts was used for data collection. The reliability of the instrument was tested using Cronbach's alpha method of internal consistency and it yielded reliability coefficient value of 0.75 indicating that the instrument is valid. The arithmetic mean was used to answer the research question while t-test and ANOVA was used to test the null hypotheses 0.05 level of significance. Findings revealed that OTM graduate workers in public and private organizations in Anambra State fairly possessed people skills. Type of Organization, gender and work experience had significant influence in the supervisors' ratings. Based on the findings, it was concluded that the OTM graduates were not adequately equipped with requisite skills for effective work performance upon in the course of their training. It was, therefore, recommended among others that OTM graduate workers in Anambra State should engage in self-development programmes to improve their people skills for effective work performance.

**Keywords.** Supervisor, people skills, OTM graduates, work performance.

### **Introduction**

Today every organization considers human resources a fundamental component and views their quality as a major determining factor to the level of success the enterprise can achieve. Effective work performance of human resources in an organization is determined by the level of skills and competencies they acquired during training. There is a paradigm shift in the workspace skills required in the current era. It appears that employers desire employees who possess generic skills more than technical skills. Climatti (2016) averred that the current era of globalization and hyper market competition, has changed and workers are considered key elements not only in relation to their ability to perform specific tasks but their transversal competencies also called generic skills.

In the current global economic recession, a person requires flexibility, creativity and emotional mastery in order to take on different tasks and learn from experiences. This explains that generic skills are very important for Office Technology and Management (OTM) graduates

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to perform intelligently and confidently, acquire new knowledge, interact and socialize, remain competitive and adapt according to demands of the workplace (Singh & Gera, 2015). Singh and Gera (2015) posited that there is no definite list of generic skills but they can be classified into six major areas including basic or fundamental skills, people skills, personality skills, thinking or conceptual skills, business related skills and community related skills. The focus of this study was people skills because they are considered very important in the work place where different individuals must cooperate in order to successfully achieve their objectives and those of the organization.

People skills are patterns of behaviour and behavioural interactions. According to McQuerry (2019), people skills refer to the ability of an individual to listen, communicate and to relate well with others on a personal or professional level. McQuerry explained that anyone who wants to succeed in any field of endeavour needs to be fluent in a particular set of skills especially people skills. As a broad term, people skills cover a set of three related abilities, namely; personal effectiveness, interaction skills, and intercession skills. People skills denote the ability of individuals to communicate effectively with people in a friendly way especially in business. According to Rifkin in Nijhuis (2012), people skills cover the ability of an individual to effectively communicate, understand, empathize and interact with others respectfully as well as develop productive working relationship to minimize conflict and maximize rapport. They include ability to build sincerity and trust, moderate behaviors (less impulsive) and enhance agreeableness. Furthermore, people skills include ability to empathize, trust, be honest, patient and flexible, have good judgment, support and motivate others. All these are necessary for a worker to relate well with others without conditions for a positive influence.

This is an area of exploration about how people behave and how they are perceived irrespective of their thinking and feelings. Smith (2013) observed that in business, humane connection among people helps to promote productivity. In the same vein, Wheatley in Alase and Akinbo (2022) asserted that a healthy relationship is requisite for effective functioning of organizations because it is through healthy relationship that profitable trajectory can be maintained within an organization. Alase and Akinbo (2022) opined that a healthy interpersonal relationship between and among the workforce in the organization has been judged to yield dividends to the organization which promotes its existence. Ethridge in Njoku, Ogbo and Okafor (2020) averred that positive interpersonal relationship with the staff is associated with shared vision and norms, openness of governance and trust in relationships which produce committed and contented staff members in organizations.

An employee with these top-notch skills will always win with a heart for effective performance in the organization. Smith (2013) summarized people skills as various attributes and competencies that allow one to play well along with others. Smith explained that an ounce of people sensitivity is worth a pound of cure when it comes to daily human interaction and mitigating conflicts. A work force that possesses adequate people skills will lead to reduction of bad behaviour and make positive behaviour contagious in the office. Smith explained that wise managers know that they need a team with strong people skills because whenever there is a choice between a savvy job candidate or an employee seeking promotion, the one with excellent people skills and less technical ability will usually be considered before those with excellent technical ability who lack people skills. Possession of people skills will enable OTM graduates workers relate well with their supervisors and other workers in their organizations to ensure effective work performance which will enhance social and economic development. Unfortunately, Lucas (2020) observed that the display of empathy which is an aspect of people skills in the workplace has stalled because leaders in organizations are not doing enough to

display empathy as an essential workplace skill. The attributes that constitute people skills include ability to relate well with others, communicate effectively, being patience with others, trust worthy and knowing how and when to show empathy. People skills also include active listening, flexibility, good judgment, negotiation skills, great sense of humor, honesty, awareness of body language and being supportive and motivating others. All these people skills enable OTM graduate workers stay on the job.

Office Technology and Management (OTM) programme is one of the programmes offered in most polytechnics, universities and colleges of education in Nigeria. Baba and Akarahu in Ezenwafor and Gude (2020) asserted that OTM aims at producing competent graduates with appropriate skills, abilities and competencies (both mental and physical) as equipment for them to live and contribute to the development of the society. Graduates of OTM occupy positions as secretaries, administrative professionals, office technologist, information managers and office administrators. The use of secretarial services permeates all facets of a country's socio-economic and political life ranging from schools, hospitals, corporate settings, legal and medical offices as well as large and small-scale businesses. Amoor in Amoor and Magaji (2015) asserted that functions of professional secretaries in both private and public sectors of the economy have gone far beyond their traditional orthodox duties as professional secretaries are currently charged with the responsibilities of manipulating and managing database, creating presentations and reports using suitable computer software and digital graphics.

Professional secretaries use computers to generate and process information, store, retrieve and disseminate information to staff as well as handle administrative responsibilities with little or no supervision. Secretaries are administrative office managers and image makers of the organization and since no business can afford to lose its image, the role of the secretary in the office cannot be over emphasized in her interferences with executives, colleagues and the outside world. These secretaries work under executives that supervises their affairs in the organization.

A supervisor according to Ezenwafor and Gude (2020) is a higher officer in an organization who has other workers as subordinates and he motivates, directs and controls their activities towards achieving the set goals and objectives of the organization. For the purpose of this study, supervisors are office personnel or administrative personnel who supervises and assess the subordinates delegated to him including the OTM graduate workers for effective guidance to achieve the organizations' goals and objectives. These OTM graduate workers and their supervisors can be found in both public and private organizations. Supervisors comprised of male and female and their ways of perception could be different. Olayinka and Warren (2019) reported that a significant difference exists between male and female school leadership while Garba (2019) asserted that gender bias may influence the responses of supervisors regarding their supervisees' work performance. On the other hand, years of experience could affect the supervisors rating of people skills of their OTM graduate workers. Adebayo in Osahon (2018) noted that the experience of an assessor is a significant factor that can influence their assessment. However, Osahon (2018) revealed that level of experience of employers do not have significant influence their assessment of the application of interpersonal skills by OTM graduate workers.

### **Problem of the Study**

It has been widely observed that employees' attitude to work in public establishments in Anambra State and other states of Nigeria is generally poor. Some employees could have rude

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behaviour towards their supervisors, colleagues and clients. Some of these employees exhibit insolence behaviour and are mostly impatient, finding it difficult at times to listen and assist both visitors and their colleagues. Clients/customers witnessing rudeness amongst employees tend to generalize their feelings to all employees of such organizations and some may decide never to visit the organizations for any cause. Rudeness to supervisors, colleagues and clients has immediate and long-term detrimental effects on workers' engagement, commitment and performance and as well impacts negatively on workplace relationships, productivity and job satisfaction. Scholars have expressed unsatisfactory discovery of people skills deficiency among employees in different public and private organizations within and outside Nigeria. Schooley (2017) observed that tasks are increasingly more difficult because new employees enter today's workforce lacking relevant people skills to be viable workers.

Office technology and management graduate workers are found in different organizations as executive assistants or executives and regarded as the image of their organizations. The big question then is "Do these OTM graduate workers adequately possess people skills to be able to relate and influence their colleagues, supervisors and customers positively for effective work performance". The problem of this study, therefore, is that the level of people skills possessed by OTM graduate workers in public and private organizations in Anambra State is not clearly known and could be a contributory factor to the poor attitude observed among them which negatively affect their effectiveness in work performance. This requires empirical evidence to guide objective remedial actions by supervisors in OTM education to ensure that graduates of the programme possess people skills at a suitable level for effective work performance in their organizations, hence the study.

### **Research Question**

What is the rating of supervisors on the level of people skills possessed by OTM graduate workers for effective work performance in public and private organizations in Anambra State?

### **Hypotheses**

The following hypotheses were tested at 0.05 level of significance:

1. Supervisors from public and private organizations in Anambra State do not differ significantly in their mean ratings on the level of people skills possessed by OTM graduate workers for effective work performance.
2. Male and female supervisors do not differ significantly in their mean ratings on the level of people skills possessed by OTM graduate workers for effective work performance in public and private organizations in Anambra State.
3. Experience does not significantly influence supervisors' mean ratings on the level of people skills possessed by OTM graduate workers for effective work performance in public and private organizations in Anambra State.

### **Methods**

Descriptive survey research design was used for the study. The study was carried out in Anambra State. The population of the study comprised 304 supervisors drawn across public and private organizations in Anambra State. The supervisors are male and female and their year of experience is categorized into 0-5years, 6-10years and above 10years. Census survey is the sampling technique was used since the whole population were studied. The instrument used for data collection was a 5-point Likert type structured questionnaire titled, "People Skills Assessment Questionnaire (PSAQ)", containing nine people skills with options: very much

possessed (VMP), much possessed (MP), fairly possessed (FP), little possessed (LP) and very little possessed (VLP). The instrument was validated by three experts from the Faculty of Education, Nnamdi Azikiwe University Awka, Anambra State. The reliability of the instrument was tested using Cronbach's alpha method of internal consistency and it yielded reliability coefficient value of 0.75 indicating that the instrument is valid, in support Olayiwole in Oluwasina (2019) stated that an instrument is considered reliable when its reliability coefficient is close to one. The data collected were analyzed using mean and standard deviation to answer the research question and determine the spread of respondents' mean ratings. The null hypotheses were tested using t-test and ANOVA at 0.05 level of significance. A null hypothesis was rejected where the p-value is equal to or greater than the alpha level of 0.05 ( $p > 0.05$ ), otherwise the null hypotheses was accepted. The analyses were carried out using SPSS version 25.0.

## Results

**Table 1: Supervisors' mean ratings on the level of people skills possessed by OTM graduate workers**

		N=304		
S/N	People Skills	Mean	SD	Remarks
<b>Ability to:</b>				
1	Relate with supervisors	3.63	0.94	Much Possessed
2	Relate well with colleagues	3.62	0.99	Much Possessed
3	Maintain transparency in the office	3.41	1.03	Fairly Possessed
4	Negotiate effectively with clients	3.05	0.98	Fairly Possessed
5	Maintain a network of colleagues in other offices	3.12	0.89	Fairly Possessed
6	Assist individuals with their challenges	3.14	1.06	Fairly Possessed
7	Promote team work in the organization	3.22	1.01	Fairly Possessed
8	Treat visitors with courtesy	3.08	1.14	Fairly Possessed
9	Take responsibility for errors	2.92	0.97	Fairly Possessed
<b>Cluster Mean</b>		<b>3.24</b>		<b>Fairly Possessed</b>

Table 1 reveals that two out of nine people skills have mean ratings are 3.62 and 3.63 indicating that skills are much possessed by their OTM graduate workers. The remaining seven items have mean rating from 2.92 to 3.41 indicating fairly possessed skills by their OTM graduate workers. The cluster mean 3.24 indicates that OTM graduate workers fairly possessed people skills. The standard deviations for all the items are within the same range which implies that the respondents are not wide apart in their mean ratings.

**Table 2: The t-test on the ratings of people skills possessed by OTM graduate workers based on supervisors organization types**

Type of Organization	N	Mean	SD	df	Sig	t-cal	P-Value	Remarks
Public	165	3.48	0.79	300	0.05	5.91	0.00	Significant
Private	139	2.96	0.73					

Table 2 reveals that at  $df = 302$ ,  $t = 5.91$  and  $p = 0.00$  which is less than 0.05 alpha level of significance. This implies that there is significant difference in the mean ratings of supervisors from organizations in Anambra State on the level of people skills possessed by OTM graduate workers for effective work performance. Therefore, the null hypothesis was rejected.

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**Table 3: Summary of t-test of male and female supervisors’ mean ratings on the level of people skills possessed by OTM graduate workers**

Gender	N	Mean	SD	df	Sig	t-cal	P-Value	Remarks
Male	158	3.09	0.80	302	0.05	-3.42	0.00	Significant
Female	146	3.40	0.78					

Table3 shows  $t = -3.42$  ( $df = 302$ ) with a  $p = 0.00$  which is less than alpha level of 0.05 ( $p\text{-value}=0.00 < \alpha \text{ level}=0.05$ ). The result indicates that there is a significant difference in the mean ratings of male and female supervisors on the level of people skills possessed by OTM graduate workers in public and private organizations in Anambra State for effective work performance. Therefore, the null hypothesis was rejected.

**Table 4: Summary of one-way Analysis of Variance (ANOVA) on work experience influences of supervisors’ mean ratings on the level of people skills possessed by OTM graduate workers**

Source of Variance	Sum of Squares	df	Mean Square	F	P-Value	Remarks
Between Groups	12.61	2	6.30	10.30	0.00	Significant
Within Groups	184.17	301	0.61			
Total	196.78	303				

Table 4 shows  $F = 10.30$  ( $df = 2, 301$ ) with a  $p = 0.00$  which is less than alpha level of significance ( $p\text{-value}=0.00 < \alpha \text{ level}=0.05$ ). This means that work experience significantly influences supervisors’ mean ratings on the level of people skills possessed by OTM graduate workers in public and private organizations in Anambra State for effective work performance. Therefore, the null hypothesis was rejected.

**Discussion**

The findings of the study revealed that OTM graduate workers in public and private organizations in Anambra State fairly possessed people skills. The finding agrees with that of Osahon (2018) which reported that interpersonal skills are moderately applied by OTM graduates in Edo and Delta State. Lucas (2020) reported the finding of Businessolver on workplace empathy study which revealed that the display of empathy in the workplace has stalled because leaders were not doing enough to display empathy skill. This means that the OTM graduate workers in public and private organizations in Anambra State are not performing their functions effectively due to their lack of requisite people skills which are major tools for effective work performance of workers. The fact that the finding agrees with Osahon (2018) showed that since after the study, much has not been done to enhance skills acquisition of students in the programme which defeats the aim of research. It is expected that Osahon’s report should trigger objective actions by stakeholders in OTM education to address the lapses in the curriculum and its implementation to enhance students’ skills acquisition.

The study revealed a significant difference between the mean ratings of supervisors in public organizations and their counterparts in private organizations in Anambra State on people skills possessed by their OTM graduate workers for effective work performance. This finding is at variance with that of Osahon (2018) which reported that there is no significant difference in the mean ratings of employers in public and private organizations on application of interpersonal skills by OTM graduate workers in Edo and Delta States.

Furthermore, the study found that male and female supervisors differed significantly in their mean ratings on the level of people skills possessed by OTM graduate workers. This finding agrees with the report of Olayinka and Warren (2019) that a significant difference exists between male and female school leadership. This finding could be as a result of supervisors' personality traits as female supervisors could be practicing feminine style of leadership which differs from masculine style of leadership to create the significant difference.

Finally, it was found that work experience significantly influenced supervisors' mean ratings on the level of people skills possessed by their OTM graduate workers. The finding is in variance with that of Osahon (2018) which revealed that level of experience of employers did not have significant influence on assessment of application of interpersonal skills by OTM graduates. This finding of the study confirms the expectation that the longer supervisors stay on a supervisory role, the more understanding they gain about their supervisees' personality and skills.

### Conclusion

The findings of the study revealed that people skills were fairly possessed by OTM graduate workers in public and private organizations in Anambra State. Based on this finding, it was concluded that either the current curriculum content of OTM programmes or its implementation may not be adequate to inculcate the people skills required by the graduates for effective work performance in the labour market of the current era.

### Recommendations

Based on the findings and conclusion of the study, the following recommendations were made.

1. OTM graduate workers in Anambra State should engage in self-development programmes to improve their people skills for effective work performance.
2. Employers and supervisors of OTM graduate workers should motivate their employees to improve on the people skills by organizing workshops, seminars and short courses.
3. The curriculum planners should regularly review the OTM curriculum in order to incorporate and emphasize on the people skills needed by graduates.

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## **APPRAISAL OF ANALYTICAL THINKING AND PRESENTATION SKILLS ACQUIRED FOR JOB CREATION BY GRADUATING BUSINESS EDUCATION STUDENTS OF TERTIARY INSTITUTIONS IN SOUTH EAST NIGERIA**

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### **Abstract**

This study determined an appraisal of acquisition of analytical thinking and presentation skills for job creation by graduating business education students in South-East Nigeria. Two research questions guided the study while four null hypotheses were tested at 0.05 alpha level. Descriptive survey research design was employed. The population consisted 1,064 graduating business education students from all public universities and colleges of education in the area. A total of 500 of these group of students were sampled using the proportionate stratified sampling technique. Instrument for data collection was a structured questionnaire titled “Acquired Job Creation Skills Questionnaire (AJCSQ)” which has two clusters on a five-point scale. The instrument was validated by three experts. The reliability co-efficient was 0.74 and 0.88 were obtained using Cronbach alpha method. Out of 500 questionnaires distributed, 461 copies were retrieved which represented 92.5 percent retrieval. The data collected were analyzed using mean and standard deviation in answering the research questions and to check the respondent responses to the mean. *t*-test was used for testing the null hypotheses at 0.05 level of significance. Findings revealed that graduating business education students of tertiary institutions in South-East Nigeria moderately acquired analytical thinking skills for job creation and little acquired presentation skills for job creation. There was no significant difference in the acquisition of analytical thinking skills whereas there was significant difference on presentation skills as a result of gender and institution type. Based on the findings, it was concluded that Business Education programme is a veritable tool for preparing students to acquire relevant skills and should be enhanced in order to adequately prepare students for job creation on graduation. It was therefore recommended that lecturers should adopt suitable instructional strategies to enhance students’ acquisition of the vital job creation skills while curriculum developers should integrate relevant skills to the programmes and stipulate resources that will ensure their adequate inculcation in students to enable them create jobs on graduation and reduce the level of unemployment in society.

**Keywords.** Analytical thinking skill, presentation skill, job creation, graduating business education students.

### **Introduction**

Business education is being offered in many universities, colleges of education and polytechnics under office technology and management in Nigeria. It is a programme of study offered to learners in order to prepare them as producers and wise consumers of business products Ugwuoke, (2011). This is why Ugwuoke (2011) posited that business education is a major component of Vocational Technical Education programme that prepares individuals for careers in business and also to be intelligent consumers of economic goods and services. Business education is a vocational discipline that develops skills in recipients to enable them

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contribute significantly to the economic development of a nation. In other words, business education enables students to acquire office, business and job creation skills for effective performance in the world of work. Consequently, graduates of the programme are expected to possess both intellectual abilities and vocational skills which will help them to earn a living in the contemporary and ever-changing business environment by succeeding in paid-employment, self-employment or job creation. According to Oboreh and Nnebe (2019), where appropriate skills, attitude and knowledge accompanied with appropriate practical work are taught to the students, they would on graduation become self-employed and employers of labour thereby creating jobs for themselves. This will reduce or eradicate the rate of unemployment and move Nigeria from a consumer to a producer nation (Okah and Odelola, 2009).

In the midst of unemployment and its corresponding vices such as kidnapping, child trafficking, terrorism among others that affect the promising youths and graduates in the society, Business education as a highly skilled programme is necessary to correct the societal malady. This cankerworm called unemployment has remained one of the fundamental challenges threatening the economic development and stability of Nigeria. This makes the situation in Nigeria so gloomy with seven out of ten graduates being either unemployed, underemployed or simply unemployable, (Ayoola, 2008).

In order to ensure that graduates of business education programme are adequately engaged upon graduation for functionality and sustenance, it is important that they equip themselves with job creation skills. According to Ritter, Stevenson and Brown (2020), job creation is the process of creating new jobs, especially providing work for people who are unemployed. It is the process by which the number of jobs in an economy increases. Edgmand, Moowaw and Olson (1996) revealed that job creation could come in the form of policy suggestions to reduce structural unemployment which includes providing government training programmes to the structurally unemployed, paying subsidies to firms that provide training to displaced workers, helping the structurally unemployed to relocate to areas where jobs exist and inducing prospective workers to continue or resume their education. Job creation skills are also the embodiment of all kinds of skills which an individual is expected to acquire to become functional and self-reliant in the society (Umunadi, 2014). The International Labour Organisation (ILO, 2014), opined that job creation skills refer to the various abilities that facilitate the creation of more and better-quality jobs in order to boost economic growth, reduce unemployment, poverty and increase social cohesion. Shafie and Nayan (2010) and Nwagwu (2016) outlined skills sets for job creation to include interpersonal skills, communication skills, financial management skills, human resource management skills and social and emotional intelligence skills. Others are digital literacy skills, analytical thinking skills, career management skills and presentation skills among others. This study focused on analytical thinking and presentation skills as they appear to be very important and cover the others.

Analytical thinking skills are the ability to collect, gather, visualize and analyze information in details. They include the ability to see a problem or situation from different points of view. Analytical thinking skills allow one to solve complex problems by making decisions in the most effective way. Analytical thinking skills encompasses a very broad range of skills, qualities and attitudes. It includes the following: paying attention to detail, ability to think critically, ability to make decision, and researching skills in order to analyze a question or problem and reach a solution (Kaila, 2017). Analytical thinking skills, while practical in nature, mostly involve one's ability to perceive, organize, and assimilate information (Shannon, 2017). On the other hand, Bakshov (2014) highlighted stages of analytical thinking skills to include:

- a. Description of the problem: This stage involves presenting and reasoning what kind of problem the problem is.
- b. Finding the solutions: This involves putting forward the tools, techniques and methods to be used to solve the problem.
- c. Application: This stage involves selecting the methods or tools to be used in implementing the course of action.
- d. Production of the answer to the problem (solution): This involves evaluating the results obtained from the first three steps and finding the answer/feedback as to the success of the outcome of the chosen solution.

However, Imeokparia and Edoagbonya (2012) noted that the level of thinking skills of the graduates was not as high as their personal quality skill while Agboeze, Onu and Ugwoke (2013) specifically affirmed that the ability to analyze, evaluate and challenge assumptions, information and opposing point of view are essential critical thinking skills required by students. The modern world requires that people become deeper and better thinkers in order to respond to and help shape today's information-rich globe given that all teachers want their students to be high quality thinkers. Acquisition of analytical thinking skills will enable graduating business education students achieve academic success, stand out during employment interviews and succeed in paid or self-employment and job creation upon graduation.

Another important skill set for job creation is Presentation skill. It is among the most important skills students must acquire when they start life after graduation. The skill of PowerPoint under presentation skill has become an ingrained part of many instructional settings, particularly in large classes and in courses more geared toward information exchange than skill development. According to Lari, 2014, PowerPoint gives the user the opportunity to incorporate visual and auditory aspects to a presentation. It permits variety of manipulations by editing or text modification, removal of existing slides and addition of new slides to make lesson more organized and flexible. Appropriate use of PowerPoint can enhance the teaching and learning experience for both staff and students. It provides encouragement and support to staff by facilitating the structuring of a presentation in a professional manner. Graduates of business education can boldly engage in self-employment and job creation as they will be well equipped and have won the battle of stage fright. Clayton (2017) affirmed that acquisition of presentation skills enable students to enter into debates, sustained reasoning and presentations to make classroom discussions more interactive. Girard and Trapp (2011) outlined the potential benefits of students' oral presentations to include greater class interaction and participation, increased interest in learning new perspectives not covered, improvement in communication and presentation skills development. All these equip the students to boldly engage in self-employment and job creation on graduation as they have won the battle of stage fright.

Ozaslan and Maden (2013) concluded in their study that students learned better if the course material was presented through some visual tools. They, also, reported that teachers believed that PowerPoint presentations made the content more appealing; therefore, they helped them to take students' attention. The results of Corbeil's study (2007) showed that students exposed to power-point presentations preferred them over the textbook presentations; she believed that the students were learning better when their attention was captured via highlighting, colour, different fonts, and visual effects. PowerPoint can be a highly effective tool to aid learning, but if not used carefully, may instead disengage students and actually hinder learning. According to Karen (2017), potential benefits of using presentation graphics include engaging multiple learning styles, increasing visual impact, improving audience focus, providing annotations and highlights, analyzing and synthesizing complexities, enriching curriculum with

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interdisciplinarity, increasing spontaneity and interactivity. Contextually, presentation skill is the set of abilities that enable an individual to interact with audience, transmit the messages with clarity, interpret and understand the mindsets of the listeners and hence, result in effective communication. Acquisition of this skill will enable graduating business education students to participate fully in their learning and demonstrate their ability to communicate competently to achieve success in their career, enhance job creation and reduce unemployment in the society.

Due to the teeming population of youths in the country, it is evident that government alone does not have the capabilities to create jobs optimally. It is therefore, imperative that students, especially students of business education programmes should adequately acquire the theoretical and practical job creation skills, knowledge and attitudes to enable them create jobs for themselves and others after graduation. This makes job creation a collective responsibility of the government and the different individuals which will increase employment opportunities and reduce vices such as kidnapping, terrorism, prostitution, and insecurity among others in the society.

The subjects to be used in this study include male and female graduating business education students from different tertiary institutions in South East, Nigeria. Gender refers to the roles of men and women that are socially or culturally-based. Okeke (2007) explained that gender is socially or culturally constructed characteristics, qualities, behaviours and roles which different societies ascribe to females and males. The author further explained that gender relates to the difference in sex and how it affects people's dispositions and perception toward academic and other activities. It is possible that gender could influence the level of job creation skills acquired by graduating business education students. For instance, Shafie and Nayan (2010) explained that male and female business education students did not have influence on their level of acquisition of job creation skills. On the contrary, Jackson (2013) stated that gender was a factor that affected the extent of acquisition of employability skills by business students. This inconclusive argument calls for further investigation on whether gender has influence on the students' level of acquired job creation skills as covered in this study.

Accordingly, institutions type in this study refers to universities and colleges of education. Niemela (2016) posited that institutions differ in their responsibilities to provide business education students with opportunities for work experience to enable them gain competitive advantage in employment upon graduation. However, Okoye (2018) reported that the type of institution did not influence the level of job creation skills acquired by graduating business education students. Therefore, investigating into the influence of institution in the students' level of acquired job creation skills will help institution managers address the issues more suitably.

### **Statement of the Problem**

It is a known fact that practical skills acquisition requires relevant equipment and suitable teaching methods. Currently, industries/employers are demanding skilled labour force in view of the increasing and emerging technological practices. The reason so many students of the programme do not seem to get engaged by creating their own jobs or and securing paid employment upon graduation could be attributed to lack of essential skills and competencies needed for sustainability and functionality in the society. These skills create a gap in the body of knowledge and which needs to be filled so that as business education students' graduate, they could stand on their own either in creating job for themselves and others or securing paid employment in order to compete with the few existing job vacancies that come up from time to time. As a result, students must be trained and developed to acquire new but improved life-long

skills and knowledge such as analytical thinking and presentation skills among others. Therefore, it is essential to address this problem in order to reduce the high rate of graduate unemployment in the country. A major step towards addressing this problem objectively could be to give students opportunity to appraise themselves on their acquisition of different job creation sub skills to help them discover their weaknesses and address them before they graduate. This makes it imperative to conduct this study on acquired analytical thinking and presentation skills by graduating business education students for job creation of tertiary institutions in South East Nigeria to provide empirical evidence for necessary actions by relevant stakeholders.

### **Purpose of the Study**

The purpose of this study was to ascertain the appraisal of graduating business education students of tertiary institutions in South East Nigeria on their acquired job creation skills. Specifically, the study seeks to ascertain the appraisal of acquired:

1. Analytical thinking skills for job creation.
2. Presentation skills for job creation.

### **Research Questions**

1. What is the appraisal of graduating business education students of tertiary institutions in South-East Nigeria regarding their acquired analytical thinking skills for job creation?
2. What is the appraisal of graduating business education students of tertiary institutions in South-East Nigeria regarding their acquired presentation skills for job creation?

### **Hypotheses**

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

1. Respondents from universities and colleges of education do not differ significantly in their mean ratings on acquired analytical thinking skills for job creation.
2. Male and female graduating business education students do not significantly differ in their mean ratings on their acquired analytical thinking skills for job creation.
3. Respondents from universities and colleges of education do not differ significantly in their mean ratings on acquired presentation skills for job creation.
4. Male and female graduating business education students do not significantly differ in their mean ratings on their acquired presentation skills for job creation.

### **Methods**

The study adopted descriptive survey research design. Descriptive survey is considered appropriate for this study since data were collected from the subjects using a questionnaire to appraise the level of their acquired job creation skills. The study was conducted in South-East, Nigeria with a population of all 1,064 graduating Business Education students from all 14 public tertiary institutions (seven universities and seven colleges of education covering Abia, Anambra, Ebonyi, Enugu and Imo State in the area. A sample size of 500 drawn using the proportionate stratified random sampling technique was studied. Instrument used for data collection was structured questionnaire developed by the researcher based on insight gained from reviewed literature and the specific purposes of the study and titled "Acquired Job Creations Skills Questionnaire (AJCSQ)". The instrument has two main sections of A and B. Section A contained two items on the respondent's bio data while Section B was split two clusters of B1 and B2 in line with the research questions on a five-point scale of Very Much Acquired (VMA), Much Acquired (MA1), Moderately Acquired (MA2), Little Acquired (LA) and Very Little

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Acquired (VLA). The instrument was face validated by three experts in the Faculty of Education, Nnamdi Azikiwe University, Awka; two in Business Education and one in Educational Measurement and Evaluation. In order to establish the reliability of the instrument, a trial testing was carried out by administering it to 40 final year students from Delta State University, Abraka and Federal College of Education (Technical) Asaba which are outside the study area using Cronbach alpha to obtain reliability co-efficient values of 0.79, 0.89, for the clusters B1 and B2 and overall reliability co-efficient value of 0.82. These high reliability coefficient values indicate that the instrument was reliable for the study in line with Nworgu (2015) who recommended that research instrument with reliability co-efficient value of 0.70 and above is reliable. Mean and standard deviation were used to answer the research questions and determine the homogeneity of the respondents means. Decision was based on the cluster mean for in relation to the real limits of numbers on a Five-point scale. A null hypothesis were tested at 0.05 level of significance using t-test. A null hypothesis was not rejected where the p-value was equal to or greater than the alpha level ( $p \geq 0.05$ ) but was rejected where the p-value was less than the alpha level ( $p < 0.05$ ). Statistical Package for Social Sciences (SPSS) Version 23 was used for the analysis.

### Results

**Research Question 1:** What is the rating of graduating business education students of tertiary institutions in South-East Nigeria regarding their acquired analytical thinking skills for job creation?

**Table 1. Respondents' Mean ratings on acquired analytical thinking skills for job creation**

S/ N	Analytical skills (Ability to)	X	SD	Remarks
1	Gather, visualize and analyze information in details.	3.3	0.8	MA
2	Solve complex problems by making suitable decisions	3.1	0.8	MA
3	Handle events in an integrated manner	3.2	0.8	MA
4	Follow instructions properly in order to avoid mistakes	3.6	0.6	McA
5	Evaluate situations with an independent mind	3.4	0.7	MA
6	Apply logical thinking to break complex problems into component parts	3.4	0.7	MA
7	Use computer and networks to analyze data.	2.6	0.5	MA
8	Relate concepts and reasons	3.3	0.5	MA
9	Summarize information in a concept	3.0	0.6	MA
10	Process ideas through theory, quantitative and technological knowledge	2.5	0.6	MA
	<b>Cluster Mean</b>	<b>3.1</b>		MA
		<b>9</b>		

Note. McA = much acquired MA = moderately acquired

Table 1 shows that one of the analytical thinking skills have mean score of 3.69 which indicates that it was much acquired by the subjects. The remaining nine with mean scores ranging between 2.52 and 3.43 were very moderately acquired. Therefore, Cluster mean score of 3.19 shows that the Graduating Business Education Students moderately acquired analytical thinking skills for job creation. Therefore, standard deviation for all the items are within the same range showing that the respondents were not wide apart in their mean ratings.

**Research Question 2:** What is the rating of graduating business education students of tertiary institutions in South-East Nigeria regarding their acquired presentation skills for job creation?

**Table 2. Respondents' Mean ratings on acquired presentation skills for job creation**

S/ N	Presentation skills (Ability to)	X	SD	Remarks
1	Incorporate visual and auditory aspects to a presentation	2.4	0.7	LA
		2	8	
2	Relate information accurately to an audience	3.5	0.6	McA
		0	9	
3	Deliver a public speech	2.5	0.6	MA
		4	7	
4	Listen to target audience comments/observation after presentation	3.5	0.9	McA
		9	6	
5	Communicate effectively during presentations	1.8	1.2	LA
		7	9	
6	Design effective product promotion fliers	1.9	0.8	LA
		3	5	
7	Use emails to promote product	1.5	0.6	LA
		5	3	
8	Proof read and correct errors in a presentation	2.5	0.7	MA
		3	4	
9	Use appropriate font sizes and types to make presentation clear	2.6	0.6	MA
		5	4	
10	Use appropriate animation to improve presentation	1.9	0.6	LA
		1	8	
	<b>Cluster Mean</b>	<b>2.4</b>		<b>LA</b>
		<b>5</b>		

Note. McA = much acquired, MA = moderately acquired, LA = little acquired

Table 2 shows that two of the presentation skills have mean scores ranging between 3.50 and 3.59 which indicates that they were much acquired by the subjects. The remaining eight with mean scores ranging between 1.55 and 2.65 were little or moderately acquired. Therefore, Cluster mean score of 2.45 shows that the Graduating Business Education Students acquired little presentation skills for job creation. Therefore, standard deviation for all the items are within the same range showing that the respondents were not wide apart in their mean ratings.

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**Hypothesis 1:** Respondents from universities and colleges of education do not differ significantly in their mean ratings of their acquired analytical thinking skills for job creation.

**Table 3: The t-Test analysis of mean ratings of respondents from universities and colleges of education on their acquired analytical thinking skills for job creation**

Variables	N	$\bar{X}$	SD	Df	sig.	Remark
University	160	34.21	3.37	459	0.896	Not Significant
College	301	34.17	3.36			

Table 10 shows that at 459 degrees of freedom, the p- value of 0.896 is greater than the  $\alpha$ -level of 0.05 ( $0.000 < 0.05$ ,  $df = 459$ ). This means that graduating business education students from universities and colleges of education do not differ significantly in their mean ratings on acquired analytical thinking skills for job creation. Therefore, the null hypothesis was accepted.

**Hypothesis 2:** Male and female graduating business education students do not significantly differ in their mean ratings on their acquired analytical thinking skills for job creation.

**Table 4. The t-Test analysis of male and female respondents mean ratings on their acquired analytical thinking skills for job creation**

Variables	N	$\bar{X}$	SD	Df	sig.	Remark
Male	176	33.97	3.49	459	0.281	Not Significant
Female	285	34.32	3.28			

Table 4 shows that at the 459 degrees of freedom, the p-value of 0.281 is greater than  $\alpha$ -level of 0.05 ( $0.000 < 0.05$ ,  $df = 459$ ). This means that male and female graduating business education students do not differ significantly in mean ratings on acquired analytical thinking skills for job creation. Therefore, the null hypothesis was accepted.

**Hypothesis 3:** Respondents from universities and colleges of education do not differ significantly in their mean ratings on acquired presentation skills for job creation.

**Table 5. The t-Test analysis of mean ratings of respondents from universities and colleges of education on their acquired presentation skills for job creation**

Variables	N	$\bar{X}$	SD	Df	sig.	Remark
University	160	34.36	3.66	459	0.000	Significant
College	301	33.12	3.45			

Table 5 shows that at 459 degrees of freedom, the p- value of 0.000 is less than the alpha  $\alpha$  level of 0.05 ( $0.000 < 0.05$ ,  $df = 459$ ). This means that graduating business education students from universities and colleges of education differed significantly in their mean ratings on acquired presentation skills for job creation. Therefore, the null hypothesis was rejected

**Hypothesis 4:** Male and female graduating business education students do not significantly differ in their mean ratings on their acquired presentation skills for job creation.

**Table 6. The t-Test analysis of male and female respondents mean ratings on their acquired presentation skills for job creation**

Variables	N	$\bar{X}$	SD	Df	sig.	Remark
Male	176	34.17	3.64	459	0.003	Significant



Table 6 shows that at 459 degrees of freedom, the p- value of 0.003 is less than the alpha  $\alpha$  level of 0.05 ( $0.000 < 0.05$ ,  $df = 459$ ). This means that graduating business education students from universities and colleges of education differed significantly in their mean ratings on acquired presentation skills for job creation. Therefore, the null hypothesis was rejected.

## **Discussion of Findings**

### ***Analytical Thinking Skills for Job Creation***

The findings revealed that graduating business education students of tertiary institutions in South-East Nigeria moderately acquired analytical and thinking skills for job creation. This means that the subjects have inadequate ability for analytical thinking skills required in following instructions, handling events properly and processing ideas thoroughly. This finding partly agrees with that of Imeokparia and Edoagbonya (2012) that the level of thinking skills of the graduates was not as high as their personal quality skills. However, Bakshov (2014) highlighted stages of analytical thinking skills such as description of the problem, finding the solutions, application and production of the answer to the problem to include essential elements that could enhance students thinking skills. The moderate level of acquisition of these relevant skills for job creation by the subjects studied reveals that the business education programme of institutions in the area of study is not adequately preparing students to become successful job creators. The findings further revealed that male and female graduating business education students from universities and colleges of education did not differ significantly in their mean ratings on their acquired analytical thinking skills for job creation. The finding agrees with Agboeze, Onu and Ugwoke (2013) that male and female lecturers did not differ significantly in their mean ratings as regards adult and vocational education students' demonstration of critical thinking.

### ***Presentation Skills for Job Creation***

The findings of the study revealed that graduating business education students of tertiary institutions in South-East Nigeria acquired little presentation skills for job creation. This means that graduating students are poor when it comes to presentation skills with the use of technology such as incorporating visual and auditory aspects to a presentation and use of appropriate animation to improve presentation. This finding disagrees with that of Jonah (2012) that student preferred using the computer in designing their works while and also supports Ozaslan and Maden (2013) that students learn better if the course materials was presented through visual tools. They, also, reported that teachers believed that PowerPoint presentations made the content more appealing; therefore, they helped them to take students' attention. These findings could be as a result of inadequate provision and utilization of ICT resources and presentation software in the business education programmes in the institutions covered. The findings further indicated that male and female graduating business education students from universities and colleges of education differed significantly in their mean ratings on acquired presentation skills for job creation. This means that institution type has influence on their level of exposure to presentation skills for job creation. The finding is in tandem with that of Jonah (2012) showing that there was gender difference in the response of students on use of computer in learning graphic design in selected high schools in Central Region of Ghana.

## **Conclusion**

Based on the findings of the study, it concluded that the programme is a veritable tool for equipping graduates with relevant skills for job creation in line with its objectives. However,

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the programme needs to be enhanced in order to effectively pursue the objective of producing graduates, that will be successful job creators to curb the level of graduate unemployment in the society.

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## **FUNDING-RELATED ADMINISTRATIVE IMPEDIMENTS TO THE EFFECTIVE IMPLEMENTATION OF ENTREPRENEURSHIP EDUCATION PROGRAMME IN UNIVERSITIES IN SOUTH-EAST NIGERIA**

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### **Abstract**

The laudable objectives of entrepreneurship education have not been achieved because of the chunk of graduates unemployed, seemingly due to lack of requisite skills for employment in modern offices. This problem prompted this study to investigate funding-related administrative impediments to the effective implementation of entrepreneurship education programme in universities in south-east Nigeria. One research questions guided the study while two null hypotheses were formulated. The study adopted a descriptive survey research design. The entire population of 79 administrative staff of entrepreneurship development centres in universities in South East, Nigeria was used for data collection. Questionnaire was used to collect data. The questionnaire was validated by three experts, and its internal consistency yielded a co-efficient value of 0.79 using Cronbach Alpha Method was obtained. Mean and standard deviation was used to answer the research questions while t-Test was used to test the null hypotheses at 0.05 level of significance. Findings revealed that administrative staff of entrepreneurship development centres agreed on funding-related administrative impediments to the effective implementation of the entrepreneurship education programme in universities in South East Nigeria.

**Keywords.** Funding, administration, impediments, entrepreneurship education.

### **Introduction**

Education is the bedrock of every society and a tool for nation building. The worth of any education system as an investment lies in its capability to continuously serve its recipients (students, parents, employers of labour, and society at large) better and functionally. In Nigeria today, university education is a focal point for knowledge, skills acquisition and manpower development for socio-economic transformation and development. According to the Federal Republic of Nigeria (2014), university education shall make optimum contribution to national development by; (i) intensifying and diversifying its programme for the development of the higher level manpower within the context of the needs of the nation; (ii) making professional courses to reflect our national requirements; (iii) making all students, as part of a general programme of all – round improvement in university education, to offer general study courses such as history of ideas, philosophy of knowledge and nationalism. One of the programmes approved for universities in Nigeria by the NUC is entrepreneurship education.

Entrepreneurship education is a programme that equips individuals with skills, knowledge, attitudes and competences needed to discover business opportunities in a dynamic environment, venture into the risk of business, create an enabling business relationship and

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become successful entrepreneur. According to Abdulkadir (2011), entrepreneurship education equips children and young people with the knowledge, skills and understanding to help them make good use of the economic, business and financial environments in which they live. If institutions that offer entrepreneurship education programme must achieve their aims, they must put in place appropriate and qualitative administrative policies that will help them to overcome the likely administrative impediments which may hinder the achievements of the programme objectives. For any administrative style to suit effectively in keeping the overall educational programme flowing smoothly, such administrative style should ensure that there is adequate funding, effective monitoring and evaluation, review of programme, recruitment of qualified staff (Duze, 2016). In addition, no considerable achievements can be recorded in any system and programme without finance (money in its different forms), hence funding-related constraints become an impediment to the effective implementation of entrepreneurship education.

Educational funding for the purpose of this work is used synonymously with finance, money, funds; and financial resources. According to Onojete (2013), funding deals with the act of financing a project. It is related to budgeting in which provision is made for all activities based on input and output that can be measured or mentioned. Financial resources in the view of Alumode (2012) refers to a sum of money saved or made available for a particular purpose, which could include; setting up infrastructures, payment of staff salaries, payments of allowances, provision of school equipments, purchase of appropriate instructional materials and establishing projects. Supporting the above, Nwosu and Ibe (2015) stressed that funding can be regarded as the act of providing money or financial resources for the execution of pre-determined projects and programmes.

To achieve the objectives of entrepreneurship education, fund is highly needed. It is used in various ways like purchase of instructional materials, payment of workers, purchase of other administrative equipment needed for running school programmes and solving other educational problems. If any programme of an institution is poorly financed, it can lead to ineffective implementation of the programme in such institution. Entrepreneurship education as a programme is capital intensive and as such, requires money to finance the procurement of relevant materials, maintain existing ones, recruit staff, develop and build capacity, construct state-of-the-art offices, build and maintain classrooms, build workshops and laboratories for practicals and install technological devices (ICT) of global standards without which efficient administration may not be attained (Okeke and Eze, 2015).

The funding of entrepreneurship education before the takeover of schools by the government in 2009 was the responsibility of missionaries, voluntary organizations and payment of school fees by students. Immediately the government took over the schools, responsibility of running the schools turned back on governments (Nwosu and Ibe 2015). This responsibility however seems to be difficult for the government to meet. Onuoha (2013) noted that the federal government through the National Universities Commission (NUC), has continuously directed universities to explore ways of generating revenue internally such that the managements would not look up to government for solving all their financial problems. However, Umezurike and Ile (2015) listed some other sources through which entrepreneurship education can finance their programme to include; local, state and federal Government grants especially the Tertiary Education Fund (Tet-Fund) and Education Development Levies as an intervention to financial strategies to boost funding of Nigerian tertiary institutions for research, publications, infrastructural development as well as staff development and other eminent projects/programmes (Opara, 2014), donations from non-governmental organizations (NGOs) and philanthropic organizations/foundations, clubs and religious bodies, support or donations in cash or kind from

students' unions and Alumni Associations, consultancy services, shift systems, work and study programme, social activities, workshops, conferences and school enterprise activities and rentals, occasional launching for specific projects, gifts from wealthy private individuals and establishments and grants from international bodies and countries especially for scholarship research and development (P. 56).

Supporting the above views, Utoware and Kren- Ikidi (2015) among other points added that money can be sourced for quality entrepreneurship education programme through the establishment of endowment funds/donations. Akangboa (2012) added that prominent citizens can donate to institutions for recognition and perpetual honors through the immortalization of the donor's names by the recipient institution(s).

Inadequate funding in the views of Nwaiwu, Dikeocha, and Nwagu (2015) can lead to: inadequate provision of laboratories, workshops, classrooms and lecture halls which undermines one of the imperatives of entrepreneurship education. This imperative states that; learning environment should reflect or be a replica of what is obtainable in the workplace (Azuka, Nwosu, Kanu and Agomuo, 2012). Due to insufficient financing, only few entrepreneurship lecturers have access to research grants (Jimoh- Kadiri, 2010). It can also result in lack of staff training as well as retraining and low-capacity building. On their part, Utoware and Kren-ikidi (2015) added that inadequate funding of entrepreneurship education programme can result in poor remuneration of staff, brain drain of high level entrepreneurship lecturers, ill-equipped offices, poor learning environment and experiences, inadequate maintenance culture of existing facilities, obsolete technological appreciation by staff thereby operating behind global standards, unskilled entrepreneurship education graduates due to inadequate exposures and training as well as dearth of modern technological devices. In furtherance of the views above, Ogunwole (2015) opined that the effect of poor educational funding includes; loss of varieties in teaching and research works, dilapidated infrastructures, reduced attendance to workshops, conferences, and students field trips/excursions, obsolete reference materials, inadequate number of: trained entrepreneurship education employees (no frequent fresh employment).

Entrepreneurship education programme is aimed at empowering the recipients with the needed educational and business competencies in terms of knowledge and skills that are relevant for employment. Entrepreneurship education programme administrators and implementers are the pathway to the realization of these goals/objectives. Unfortunately, a close observation of entrepreneurship education graduates indicates that the objectives seem not to be realized. This may be as a result of the poor state of instructional materials used in teaching them as provided by the school management in addition to the irregular school activities caused by poor management policies. Many entrepreneurship education graduates still find it difficult to live and maintain their life in terms of employability. This question the efficiency of graduates when confronted with the challenges of the labour market for which they assume to have been prepared to handle considering the skills they should have acquired from entrepreneurship education. It is therefore normal to assume that some identifiable fund-related impediments are militating against the effective implementation of entrepreneurship education programme. It is on this backdrop that the researcher examined the fund-related impediments to the effective implementation of entrepreneurship education programme in universities in South East Nigeria.

### **Research Questions**

The following research questions guided the study:

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1. What are the planning-related administrative impediments to the effective implementation of the entrepreneurship education programme in universities in South - East Nigeria?

### **Hypotheses**

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

1. Male and female respondents will not differ significantly in their mean ratings on funding-related administrative impediments to the effective implementation of entrepreneurship education programme in universities in South-East Nigeria.
2. There will be no significant difference in the mean ratings of respondents on the funding-related administrative impediments to the effective implementation of entrepreneurship education programme in universities in South-East Nigeria base on ownership of institution (federal and state universities).

### **Methods**

Descriptive survey research design was utilized for the study. According to Nworgu (2015), a survey design is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. The design was considered appropriate for the study because the study aims at finding out the opinions of administrative staff of entrepreneurship development centres on funding- related impediments to the effective implementation of entrepreneurship education programme in universities in South East, Nigeria. The population of this study comprised 79 administrative staff of entrepreneurship development centres in universities in South East, Nigeria. This population figure was made available by Directors of Entrepreneurship Development Centres in the various universities offering entrepreneurship education. There was no sampling due to the relatively small size of the population of the study. Researchers' developed questionnaire was used for data collection. The questionnaire is divided into two sections of A and B. Section A sought to elicit respondents' personal data such as gender and institution ownership, while section B consisted of 7 items on funding-related impediments, with response options of Strongly Agree (SA); Agree (A); Disagree (D), and Strongly Disagree (SD) weighed 4, 3, 2 and 1 respectively.

Face and content validity of the instrument was determined by three experts. The Cronbach's alpha approach was used to check the internal consistency of the instrument and reliability coefficient value of 0.79 was obtained. The researchers with the help of four research assistants collected the data for the study. The four research assistants were briefed on the modalities for the administration of the questionnaire. Copies of the questionnaire distributed were 79 and all were properly filled and retrieved indicating 100 percent return rate. Thus, 79 copies of the questionnaire successfully retrieved were used for data analysis. Mean and standard deviation were used for answering the research question and decision was based on the real limits of numbers on a four-point rating scale. The null hypotheses were tested using t-test. Where the t-calculated is equal to or greater than the t-critical at 0.05 level of significance at a given degree of freedom, the null hypothesis was rejected, but where otherwise, is was not rejected.

**Results**

**Research Question 1.** What are the funding-related administrative impediments to the effective implementation of the entrepreneurship education programme in universities in South East Nigeria?

**Table 1. Respondents' Ratings on Funding-related Administrative Impediments to the Effective Implementation of the Entrepreneurship Education Programme**

S/N	Funding-related administrative impediments	X	SD	Remarks
1	Over dependency on statutory allocation	2.79	0.46	Agree
2	Inexperienced administrators managing available funds	2.47	0.77	Disagree
3	Misappropriation of funds meant for entrepreneurship education programme	2.87	0.61	Agree
4	Low internally generated revenue for funding entrepreneurship education programme	2.79	1.03	Agree
5	Poor financial accountability	2.58	1.06	Agree
6	Brain drain of highly qualified entrepreneurship lecturers due to poor conditions of service	2.53	0.97	Agree
7	Inadequate maintenance of equipment due to lack of funds	2.57	0.86	Agree
	<b>Cluster Mean</b>	<b>2.57</b>		<b>Agree</b>

Data presented in Table 1 revealed the item by item mean of funding-related administrative impediments to the effective implementation of the entrepreneurship education programme in universities in South East Nigeria. The result revealed that items 1, 3, 4, 5, 6 and 7 with mean scores 2.79, 2.87, 2.79, 2.58, 2.53 and 2.57 were rated agreed by the respondents while item 2 with a mean score of 2.49 was rated disagreed. The cluster mean of 2.57 summarized that administrative staff of entrepreneurship development centres agreed on funding-related administrative impediments to the effective implementation of the entrepreneurship education programme in universities in South East Nigeria. The standard deviation scores ranging from 0.46 – 1.06 shows that respondents do not vary too much in their ratings on funding-related administrative impediments.

**Hypothesis 1.** Male and female respondents do not differ significantly in their mean ratings on funding-related administrative impediments to the effective implementation of entrepreneurship education programme in universities in South-East Nigeria.

**Table 2: The t-Test Analysis of Male and Female differences on funding-related administrative impediments to the effective implementation of entrepreneurship education programme in universities**

Variables	N	X	SD	Df	t-cal	p-value	Remark
Male	25	20.16	2.41	77	3.73	0.000	Significant
Female	54	17.83	2.65				

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Data presented in Table 2 show that at 0.05 alpha level with p-value of 0.000, t-cal of 3.73 and 77df, the null hypothesis is rejected ( $t(77) = 3.73, p < 0.05$ ). Since the p-value of 0.00 is less than the alpha value of 0.05, this therefore means that male and female respondents differ significantly in their mean ratings on funding-related administrative impediments to the effective implementation of entrepreneurship education programme in universities in South-East Nigeria.

**Hypothesis 2.** There is no significant difference in the mean ratings of respondents on the funding-related administrative impediments to the effective implementation of entrepreneurship education programme in universities in South-East Nigeria base on ownership of institution (federal and state universities).

**Table 3: The t-Test Analysis on funding-related administrative impediments to the effective implementation of entrepreneurship education based on ownership of institution (federal and state universities)**

Variables	N	$\bar{X}$	SD	Df	t-cal	p-value	Remark
Federal	48	18.98	2.87	77	1.646	0.104	Not significant
State	31	17.94	2.56				

Data presented in Table 3 show that at 0.05 alpha level with p-value of 0.000, t-cal of 1.646 and 77df, the null hypothesis is not rejected ( $t(77) = 1.646, p > 0.05$ ). Since the p-value of 0.104 is greater than the alpha level of 0.05, this therefore means that there is no significant difference in the mean ratings of respondents on the funding-related administrative impediments to the effective implementation of entrepreneurship education programme in universities in South-East Nigeria base on ownership of institution (federal and state universities).

### Discussion of Findings

The finding revealed that administrative staff of entrepreneurship development centres agreed on funding-related administrative impediments to the effective implementation of the entrepreneurship education programme in universities in South East Nigeria. This means that entrepreneurship education programme still faces challenges such as over-dependency on statutory allocation, low internally generated funds, and brain drain and inadequate maintenance of equipment. This finding was in line with the finding of Ololube (2014) that funds and inadequate ICT are hindrances to administration, planning and the standard of teacher education in Nigeria. This finding was in line with the finding of Agbo (2012) that the present method of sourcing fund for the entrepreneurship education programme was not adequate and effectively followed. Utoware and Kren-Ikidi (2015) also agreed that under-funding of entrepreneurship education programme by the government brought a lot of problems which included poor remuneration of staff, brain drain, insufficient infrastructures, inadequate facilities, poor maintenance culture, poor programme implementation, and that there was need for alternative strategies to finance qualitative entrepreneurship education programme.

The finding revealed that male and female respondents differ significantly in their mean ratings on funding-related administrative impediments to the effective implementation of entrepreneurship education programme in universities in South-East Nigeria. This finding was in line with the finding of Agbo (2012) that gender differ significantly on strategies for funding entrepreneurship education programme in tertiary institutions in Enugu State.

The finding revealed that there is no significant difference in the mean ratings of respondents on the funding-related administrative impediments to the effective implementation

of entrepreneurship education programme in universities in South-East Nigeria base on ownership of institution (federal and state universities). This means that administrative staff responses on funding-related administrative impediments to the effective implementation of entrepreneurship education programme are similar irrespective of institution ownership.

### Conclusion

Base on the findings of the study, it is clear that funding-related administrative impediments hinders the effective implementation of the entrepreneurship education programme in universities in South East Nigeria. Entrepreneurship education programme still faces challenges such as over-dependency on statutory allocation, low internally generated funds, and brain drain and inadequate maintenance of equipment. These poses a serious challenge to entrepreneurship education programme if not tackled appropriately.

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*NAU Journal of Technology & Vocational Education, Vol. 7, No. 1, December 2022*

## **CONSTRUCTION WORKERS RATING OF EXTENT OF COMPLIANCE TO TRAINING AND MOTIVATION PRACTICES IN BUILDING INDUSTRIES IN ANAMBRA STATE**

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### **Abstract**

Building provides comfort, security, privacy and accommodation to occupant but adverse to this is incessant building collapse that claimed lives and properties of peoples in Anambra State. This study investigated the extent of compliance to training and motivation practices in building industry in Anambra State. Two research questions guided the study and two hypotheses were tested at 0.05 level of significance. A survey research design was adopted for the study. A total of 304 out of 1,240 construction workers in building industries that were registered with Ministry of Housing Anambra State were randomly sampled. A structured questionnaire was used to ascertain ratings of construction workers on extent of compliance to training and motivation practices in building industry. Three experts carried out face and content validations of the instrument. Cronbach's alpha reliability test was used to determine the reliability of the instrument and the results were 0.76 and 0.76 for training and motivation practices. The result of the reliability test yielded a value of 0.76 for the entire items which shows that the instrument has a high internal consistency and therefore considered suitable for the study. Mean and standard deviation were used to answer research questions, while Analysis of Variance (ANOVA) was used to test the hypotheses. It was found out that training and motivation practices were mostly rated to moderate extent by the construction workers. It was recommended that human resource managers should strictly comply to training and motivation practices in building industries.

**Keywords.** Construction Workers, Training, Motivation and Building Industry, compliance.

### **Introduction**

Human beings live in buildings which provide shelter from sun, rain and snow. A building begins as an idea in someone's mind (Allen & Iano, 2015), a desire for an accommodation for a family, organization, or an enterprise. A building is divided into two major components; sub-structure (foundation) and super-structure (All parts above foundation level). There are three stages involved in the construction of a building; the design stage, working drawing stage and construction stage. For construction of standard and quality building, construction workers have to be properly trained and well-motivated.

Training of construction workers help to familiarize them with techniques and processes of work in the industry especially now that new techniques and ideas of construction are springing up in the building industry on daily bases. Newly recruited workers can only be in their best performance if they were trained to acquire the requisite skills and knowledge needed for smooth running of the industry. Training is a highly useful tool that can bring an employee into a position where they can do their job correctly. Castaneda, Tucker and Haas (2015) found that lack of training was a contributing factor to the shortage of skilled workforce in the

construction sector and this has exerted a negative impact on project performance. Raja, Forgan and Muhammad (2011) discovered that training has become the most important factor in the building world today. Training constitutes a basic concept in human resource development. Since techniques and work processes advances in building industry, workers skills and knowledge must always be refreshed. Extensive training helps workers to develop and gain knowledge, skills and abilities. According to Abdelnaser (2016), training is described as a structured intervention that is aimed at achieving and improving key elements vital in individual performance. Training and motivation have a very strong relationship. This is because motivation increases readiness of workers to transfer what they learnt from training to the building industry (Niveen, Rateb, Razan, & Mohammed 2019). Training yield more result if workers are well motivated.

Motivation has continually posed a big challenge in building industries. Getting employee to do their best even in strenuous circumstances can be made possible through motivating them (Chukwuma & Okafor, 2014). To encourage workers to do more is to motivate them. Afuye (2013) found that productivity decrease being experienced in Nigeria construction industry may continue if motivation strategy is not re-designed to meet workers need. Workers who were offered bonuses for every accomplishment they achieved were found to have strived harder to meet deadlines and move to the next set of tasks so they can receive more bonuses (Pro crew Software, 2019). This is why attention needs to be giving to workers' welfare so that they can grow love for their craft and produce quality and standard building. The essence of training and motivation of workers is to construct standard and quality structures that will provide comfort, security and accommodation to the occupants. Unfortunately, this is not always the case.

There are reports about building collapses throughout Nigeria of which Anambra State is inclusive. Ujumadu and Nwaiwu (2019) reported the collapse of three-storey building under construction in Onitsha Anambra State, claiming five lives, including the site engineer. Two storeys building under construction collapse at Amikwo Village in Awka no life was lost but properties was wasted Ujumadu (2021). Similarly, another two storey building collapse in Ibolu Oraifite Anambra State two lives was lost Obianeri (2022). Some scholars like Hamma-Adama and Kouider (2017), pointed out some likely causes of building collapse like workers' mistakes, corruption, non-adherence to building regulation, use of sub-standard materials, weak foundation, natural disaster, non-compliance to training and motivation practices among others. For effective and efficient operation of building industry construction workers has to be properly trained and motivated.

Construction workers are the employee working in building industry for achievement of the goals of the building project and at the same time earning benefits for themselves (Prajapati, Pitrada & Chetna, 2014). The workers bring in their ideas and perspectives for smooth running of building industry. Construction workers activities have a direct impact in the building project (Odesola, Okolie & Okoye, 2020). Machines/equipment is operated by workers, meaning that building industry cannot do without construction workers. Anyim, Ikemefuna and Mbah (2011) said that despite the application of technology in modern organization management, human resource are still relevant and the most adaptive resources of an organization especially in labour intensive industry such as building industry. Construction workers are made up of project managers, project engineers, quantity surveyors, structural engineers, architects, health, safety and environmental officers, site foremen and artisans with different levels of educational qualifications.

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Building industry is unique due to the fact that one can enter into the field via any qualification from school (from primary to university) or work through apprenticeship trades Luis (2019). There are divisions with the workforce that reflects these education pathways. According to Marchington and Wilkinson (2012) educational qualification of building construction workers can make a difference between successful and unsuccessful building project. However, the study was used to determine whether educational qualifications of construction workers have a significance different in their ratings of training and motivation practices in building industry. Construction workers are the backbone of building industry because most of the works done are labour intensive. Most of the workers are familiar with training and motivation practices in the industry hence the need for construction workers ratings of extent of compliance to training and motivation practices in building industry in Anambra State.

### **Statement of the Problem**

Building is one aspect of construction industry that provides shelter/accommodation to human beings. Well-constructed buildings create a healthy environment for economic development like commerce, school, hospital and offices. To achieve sustained quality building, workers have to be properly trained and motivated. When workers are properly trained and well-motivated, it results in achievement of higher performance in building industry. When poorly trained and motivated, workers perform poorly hence the collapse of many building in Anambra State and Nigeria in general. The problem of the study therefore is the frequency of building collapses and the attendant consequences of loss of lives and properties in Anambra State.

### **Research Questions**

The following two research questions guided the study

3. What are construction workers ratings of extent of compliance to training practices in building industry in Anambra State?
4. What are construction workers ratings of extent of compliance to motivation practices in building industry in Anambra State.

### **Hypotheses**

2. There is no significant difference in the mean ratings of extent of compliance to training practices in building industry in Anambra State based on construction workers educational qualifications.
3. There is no significant difference in the mean ratings of extent of compliance to motivation practices in building industry in Anambra State based on construction workers educational qualifications.

### **Methods**

The study adopted survey research design. Population of the study comprised of 1,240 construction workers with different levels of educational qualifications. A total of 304 out of 1,240 construction workers in building industry that were registered with Ministry of Housing Anambra State were randomly sampled. A questionnaire that was developed by the researchers was used to collect data. The questionnaire has two sections: A and B(1-2). Section A contain respondents' educational qualifications. Section B(1-2) was structured on a five rating scale of Very High Extent (VHE), High Extent (HE), Moderate Extent (ME), low Extent (LE) and No Extent (NE). B1 was on training practices with 9 item statements and B2 was on motivation

practices with 8 item statements. Three experts validated the content of the instrument. Face validity and suitability of the language were also checked. Reliability of the instrument was checked by administering copies of the questionnaire to 20 construction workers working with Jerac Construction Company Emene, Enugu State. Reliability of the instrument was determined using Cronbach's alpha. The result of the reliability test yielded a value of 0.76 for the entire items which shows that the instrument has a high internal consistency and therefore considered suitable for the study. Three hundred and four copies of questionnaire that was titled "Questionnaire on Rating of Extent of Compliance to Training and Motivation Practices in Building Industry" (QRECTMPBI) were used to collect data with the help of two research assistance.

Data collected were analyzed using mean to answer research questions and standard deviation to determine the closeness of the respondents' mean ratings. Analysis of Variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance. For research questions, decision rule was based on real limit of mean values as follows: Very High Extent: 4.50 – 5.00, High Extent: 3.50 – 4.49, Moderate Extent: 2.50 – 3.49, Low Extent: 1.50 – 2.49. No Extent: 1.00 – 1.49.

## Results

### Research Question 1

What are construction workers ratings of extent of compliance to training practices in building industry in Anambra State?

**Table 1: Mean and Standard Deviation of Extent of Compliance to Training Practices**

S/N	Item Statements on Training Practices	Mean	SD	Remark
1	On the job training	3.33	1.259	ME
2	Conference training	2.94	1.166	ME
3	Mentoring training practices	3.35	1.273	ME
4	Workshop training	3.12	1.155	ME
5	Apprenticeship training	3.52	1.386	HE
6	Off-the job training practices	3.20	1.349	ME
7	Job rotation training	3.02	1.264	ME
8	Distance education programme	2.96	1.354	ME
9	In-service training	3.09	1.371	ME
	<b>Cluster Mean</b>	<b>3.17</b>	<b>0.569</b>	ME

Note: HE = High Extent, ME = Moderate Extent

Table 1 shows that 8 out of 9 item statements of training practices had mean scores that ranged from 2.94-3.35. This implies that 8 items were complied to moderate extent. Only item 5 were complied to high extent with a mean rating of 3.52. The spread in the standard deviation was relatively close, implying that respondents were relatively homogenous in their ratings of compliance to training practices

### Research Question 2

What are construction workers ratings of extent of compliance to motivation practices in building industry in Anambra State?

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**Table 2: Mean and Standard Deviation of Ratings of Extent of Compliance to Motivation Practices**

S/N	Item Statements on Motivation Practices	Mean	SD	Remark
10	Giving of incentives/bonuses	3.09	1.247	ME
11	Giving of award to hard working employee	3.09	1.278	ME
12	Provision of career development programme	3.34	1.315	ME
13	Giving of immediate feedback	3.69	1.170	HE
14	Timely payment of wages/salaries	3.31	1.139	ME
15	Creation of friendly work environment	3.27	1.246	ME
16	Reward on job well accomplished	3.51	1.273	HE
17	Giving of welfare packages	2.84	1.283	ME
	<b>Cluster Mean</b>	<b>3.27</b>	<b>0.607</b>	<b>ME</b>

Note: HE = High Extent, ME = Moderate Extent

Table 2 shows that 6 out of 8 item statements of motivation practices had mean scores that ranged from 2.84-3.34. This implies that 6 items were complied to moderate extent. The remaining 2 item statements 13 and 16 had mean scores of 3.69 and 3.51 respectively showing that they were complied to high extent. The spread in the standard deviation was relatively close, implying that respondents were relatively homogenous in their ratings of compliance to motivation practices

**Hypothesis 1**

There is no significant difference in the mean ratings of extent of compliance to training practices in building industry in Anambra State based on construction workers educational qualifications.

**Table 3: Summary of one-way ANOVA Result on Extent of Compliance to training Practices based on Educational Qualifications**

Sources of Variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.298	2	.649	2.015	.135
Within Groups	91.1440	284	.322		
Total	10	286			

Data presented in Table 3 shows that  $F(2, 284) = 2.015$  was not significant ( $P = .135$ ) at 0.05 level of significant. Hence the null hypothesis was accepted. This means that there was no significant difference between the mean ratings of extent of compliance to training practices based on construction workers educational qualification.

**Hypothesis 2**

There is no significant difference in the mean ratings of extent of compliance to motivation practices in building industry in Anambra State based on construction workers educational qualifications.

**Table 4: Summary of ANOVA on Compliance to Motivation Practices based on Educational Qualifications**

Sources of Variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.484	2	1.242	2.763	.065
Within Groups	127.624	284	449		
Total	130.108	286			

Table 4 shows that  $F(2, 284) = 2.763$  was not significant ( $P = .065$ ) at 0.05 level of significance. Hence the null hypothesis was accepted. Thus, there was no significant difference between the mean ratings of extent of compliance to motivation practices based on construction workers educational qualifications.

### Discussion

The study revealed that training practices mapped out to enhance workers skills and knowledge were complied to moderate extent and therefore it is not encouraging to say that building workers are well trained. The result of this finding supports the findings of Castaneda, Tucker and Haas (2015) who found that lack of training was a contributing factor to the shortage of skilled workforce in the construction sector, and this has exerted a negative impact on project performance. Raja, Forgan and Muhammad (2011) discovered that training has become the most important factor in the building world today, because it increases the efficiency and effectiveness of both the employee and building industry.

The study also revealed that motivation practices designed to boost workers interest were complied to moderate extent and therefore it is not encouraging to make workers to put in their best in the building industry. The result of this finding supports the findings of Afuye (2013) that found that productivity decrease being experienced in Nigeria construction industry may continue if motivation strategy is not re-designed to meet workers need.

### Conclusion

Training and motivation have a very strong relationship because motivation increases readiness of workers to transfer what they learnt from training to the building industry. It is imperative that human resource managers should provide training opportunities for building workers to enhance their knowledge, skills and attitude toward delivering a successful building project. More so, motivation strategies need to be re-designed to meet worker's needs.

### Recommendations

The following recommendations have been proffered based on the findings of the study:

1. Teachers/lecturers should be up-to-date in the current training and motivation practices. They should do this by attending seminars, workshop, conference and other programmes pertaining training and motivation of workers in industry.
2. Human resource managers should make sure that they strictly comply to training and motivation practices knowing fully well that the activities of construction workers have a lot of impact on the standard of buildings erected.

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*NAU Journal of Technology & Vocational Education, Vol. 7, No. 1, December 2022*

## **SUPERVISORS' PERCEPTION OF RECORD MANAGEMENT PRACTICES BY SECRETARIES IN COLLEGES OF EDUCATION IN SOUTH EAST NIGERIA**

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### **Abstract**

This study examined supervisors' perception of record management practices by secretaries in colleges of education in South East Nigeria. Two research questions guided the study while three null hypotheses were tested. This study adopted a descriptive survey research design. The population of this study consisted of 107 supervisors from seven colleges of education in South East Nigeria. The entire population of 107 supervisors from colleges of education in South East Nigeria was used as sample for this study. Therefore, there is no sampling for the study since the population is of a manageable number. The instrument was titled "Records Management Practices Questionnaire (RMPQ)". The instrument was subjected to face validation done by three experts. Cronbach Alpha was used to determine the internal consistency of the instrument. An overall co-efficient of 0.83 was obtained. The researcher personally administered the questionnaire to the respondents in their offices with the help of four research assistants who were briefed by the researcher on what to do. Mean and standard deviation were statistical tools used to answer the research questions while t-Test of independence was used to test the null hypotheses at 0.05 alpha level. The findings revealed that supervisors agreed on record creation practices while they disagreed on record storage practices and record maintenance practices of secretaries in colleges of education in South East Nigeria. The findings also revealed that there is no significant difference in the mean ratings of supervisors on record creation practices and record storage practices, record maintenance practices of secretaries in colleges of education in South East Nigeria based on their years of experience and gender. Based on these findings, it was recommended amongst others that secretaries in colleges of Education in South East Nigeria should enrol in workshop training programmes to acquire relevant records management practices.

**Keywords.** Supervisors, secretaries, record, record management.

### **Introduction**

College of education is one aspect of tertiary institutions in Nigeria that is designed specifically to train and prepare students for the teaching profession. One of their core values is learning, teaching, research and community development. Colleges of education in articulating its mission is committed to academic excellence, innovation in research and critical engagement with society (Akor and Julie, 2013). Carrying out these activities produce records, which provide evidence that colleges of education are carrying out its statutory functions. Records contain information needed for planning, decision making, and control in any organization such as institutions of learning (Abdullahi, Abiola and Abdulwahab, 2016). Keeping of records is therefore efficient and effective because it documents the planning and implementation of appropriate course of services thus allowing proper monitoring of work. Igwoku (2018)

reiterated that record keeping must be guided by some level of confidentiality, proper maintenance, security, preservation of the content and context.

Records in colleges of education are official documents, books and files containing essential routinely updated information about students, staff, the quality of teaching and learning, as well as activities taking place in the school (Nwadei, 2018). Colleges of education today need to pay more attention to the management of records in their custody for efficiency and effectiveness. That is Unuigbe (2015) defined record management as a control over the quality and cost of records and the procedure, systems, operations, space, equipment and staff requirement to administer records.

The researchers defined record management as the systematic process of generating, storing, managing and retrieval of information. Effective record management ensures that information is well-organized, properly stored, easily retrieved and routinely disposed when no longer needed. When these records are well-created, properly stored, retrieved and utilized appropriately, execution of administrative tasks is likely to be easy. Record management forms basis for formulating policies, making plans for future and taking decision to enhance smooth administration of colleges of education in South East Nigeria. The benefit of school record is derived when information is properly managed through record management practices. This study therefore adopted these two record management practices, record creation and record storage by secretaries in colleges of education.

It is not just enough to create record but also ensure properly record storage till they are needed for use. It is important to note that secretaries are key users of these record management practices in this study. This is why Akpomi (2013) posited that a secretary is an office-staff who combines the mastery of secretarial skills of typewriting and shorthand with office routine functions. Today's secretaries are exposed to office technology including the internet that makes work much easier and knowledge more accessible. It is important to note that supervisors who are executives in colleges of education have the responsibility of assessing record management practices of secretaries. It is so because most of these supervisors have secretaries working under them.

Some of these supervisors are Heads of Units (HOU) or Directors who work closely with secretaries in planning and overseeing all the activities of the faculties or college as a whole. As these supervisors work closely with their secretaries in their functions, they are adequately qualified to assess the records management practices possessed by the secretaries. Some factors come into consideration as what could influence supervisors' influence on their ratings on secretaries' record management strategy. These factors are years of job experience and gender.

Supervisors in colleges of education have varying years of experience and this may influence their ratings on secretaries' record management strategy. Ofeimu, Ahmed and Kolawole (2018) stressed that some supervisors are more-experienced than others based on the number of years they have spent in service. Supervisors' job experience over years could help them acquire skills, expertise and knowledge in managing the school records. In this study, supervisors with less than seven years of job experience are considered as less-experienced, while those with above seven years of job experience are considered as more experienced supervisors.

Gender is also another factor that necessitated this study. Gender refers to as a social construct regarding culture bound conventions, roles and behaviours as well as relations between and among women and men, boys and girls (Nwaubani, 2014). Males exhibit more positive attitude towards records management practices than female Mampe and Kalusopa (2012).

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Amanchukwu and Ololube (2015) affirmed that gender differences are not noticed in records management practices. These variables are likely to affect the assessment. Therefore, the study determined supervisors' perception of record management practices by secretaries in colleges of education in South East Nigeria.

For colleges of education in South East Nigeria to become effective in their administrations, there is the need for adequate and well-organized records management practices to be put in place. Secretaries in colleges of education are expected to brace up with the challenges occasioned by the introduction of new records management practices and other related technologies in today's offices.

Advancements in technology have continued unabated and has enriched and widened the scope and practices of the secretarial profession in terms of work quality, speed, accuracy and variety. Today's secretaries have an array of record management tools and facilities based on modern technologies that are expected to make them perform their duties effectively and efficiently.

Preliminary investigations gathered by the researcher revealed that some of innovative record storage devices such as computer, internet network for clouding document and other facilities seem to be insufficient in most colleges of education in South East Nigeria. This in turn seem to increase the rate of misplacement of vital records and the slow speed at which needed information are retrieved from their storage. Consequently, there is insufficient information which contributes to inaccurate projection or planning. It was based on these problems that the researchers investigated record management practices by secretaries in colleges of education in South East Nigeria.

### **Research Questions**

1. What is the perception of supervisors on record creation practices of secretaries in colleges of education in South East Nigeria?
2. What is the perception of supervisors on record storage practices of secretaries in colleges of education in South East Nigeria?

### **Hypotheses**

1. There is no significant difference in the mean ratings of supervisors on record creation practices of secretaries in colleges of education in South East Nigeria based on their years of experience.
2. Male and female supervisors do not differ significantly in their mean ratings on record creation practices of secretaries in colleges of education in South East Nigeria.
3. There is no significant difference in the mean ratings of supervisors on record storage practices of secretaries in colleges of education in South East Nigeria based on their years of experience.

### **Theoretical Framework**

This study is hinged on the Records Continuum Theory, as developed by Frank Upward in the 1990s as a response to evolving discussions about the challenges of managing digital records and archives in the discipline of Archival Science. The theory provides a graphic tool for framing issues about the relationship between records managers and archivists, past, present and future, and for thinking strategically about working collaboratively and building partnerships with other stakeholders.

In a diagrammatic form, the theory is represented by four concentric circles (see Figure 1). The records continuum theory provides an integrated approach to managing records, rather than one made up of separate stages. Its four levels of perspective include: Dimension 1, the regime applies itself to identifying records management actions and ensures that reliable evidence of them is created by capturing records of the related/supporting transactions; Dimension 2, recordkeeping systems manage "families" of transactions and records series documenting processes, hence intellectual control of records relating to the arrangement and description of both records and archives; Dimension 3 presenting RM actions which relate to the maintenance and use of records, while archives management actions relate to the description of archives; and Dimension 4 which relates to physical control where disposal of records is by destruction, or their transfer to the archives, while archives management actions relate to the preservation and use of archives.

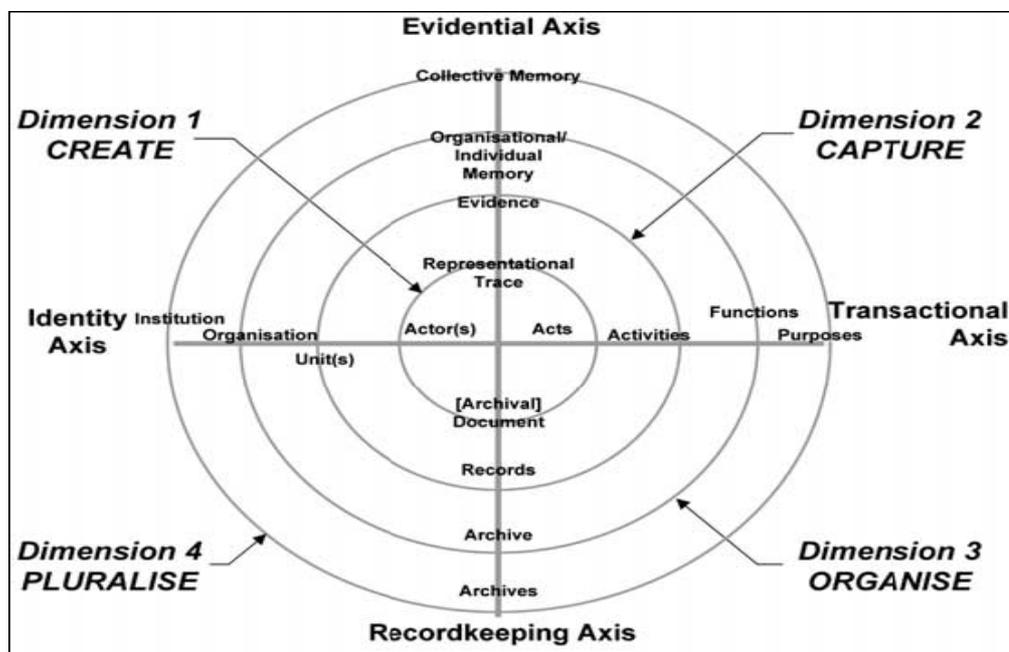


Figure 1. The Four Concentric Circles of the Records Continuum Theory

The figure shows that with a digital system, records do not pass through distinct stages, but the stages act as a point of reference rather than as functions of records management. These stages are interrelated by the records

### Methods

Descriptive survey research design was used for the study. According to Nwogu (2015), survey method is appropriate, especially for seeking individuals' opinions, attitudes and perceptions in their natural setting. It comprises the following states Enugu, Abia, Imo, Ebonyi and Anambra State. The population of this study consisted of 107 supervisors from seven colleges of education in South East Nigeria. The entire population of 107 supervisors from colleges of education in South East Nigeria was used as sample for this study. Therefore, there is

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no sampling for the study since the population is of a manageable number. The instrument that was used for data collection was a structured questionnaire developed by the researcher based on insight gained from literature reviewed and the research questions. The instrument was titled “Records Management Practices Questionnaire (RMPQ).

The research title, purpose, research questions and hypotheses alongside the instruments were given to experts who were requested to scrutinize the items, instructions and response options and freely modify them to ensure the instrument was suitable for the study. The reliability of the instrument was determined through a trial testing. Copies of the instrument were administered to 10 selected supervisors from college of education in Rivers State who were not part of the study population. The data collected were analyzed using Cronbach Coefficient Alpha to measure the internal consistency of the instrument and reliability coefficient values of 0.86, 0.90, 0.80 and 0.78 were obtained for sections B1 – B4 respectively using SPSS version 23. The overall Correlation Coefficient of 0.83 was obtained. These high coefficient values are taken to indicate that the instrument is reliable. The researcher personally administered the questionnaire to the respondents in their offices with the help of four research assistants who were briefed by the researcher on what to do. On the spot response and retrieval method was used but some supervisors could not respond on the spot.

**Results**

**Research Question 1.** What is the perception of supervisors on record creation practices of secretaries in colleges of education in South East Nigeria?

**Table 1. Mean and Standard Deviation Ratings on Record Creation Practices of Secretaries**

S/N	Secretaries under me:	X	SD	Remarks
1	receive documents from within and outside the establishment	3.74	0.55	Agree
2	systematically reference all records	2.49	0.75	Disagree
3	properly title all records	3.48	0.81	Agree
4	date the documents accurately	3.54	0.71	Agree
5	properly register the outgoing and incoming mails/documents	3.29	0.68	Agree
6	provide the right information to the right people	3.21	0.88	Agree
7	properly distribute the records	2.29	1.13	Disagree
8	sort files in the file cabinet	2.95	0.91	Agree
<b>Cluster Mean</b>		<b>3.12</b>		<b>Agree</b>

Data presented in Table 1 showed the item-by-item analysis of perception of supervisors on record creation practices of secretaries in colleges of education in South East Nigeria. The result revealed that items 1, 3, 4, 5, 6 and 8 with mean scores 3.74, 3.48, 3.54, 3.29, 3.21 and 2.95 respectively were rated agreed because they were above the criterion mean score of 2.50.

**Research Question 2.** What is the perception of supervisors on record storage practices of secretaries in colleges of education in South East Nigeria?

**Table 2. Mean and Standard Deviation Ratings on Record Storage Practices of Secretaries**

S/ N	Secretaries under me:	X	SD	Remarks
9	ensure that records are maintained based on retention practices	2.1	0.5	Disagree
		6	3	
10	know retention period of records are continually checked	2.2	0.7	Disagree
		9	3	
11	periodically check to ensure their safety	2.3	0.5	Disagree
		1	4	
12	make sure that the movement of records are systematically tracked	2.4	0.6	Disagree
		3	3	
13	properly maintain the file register	3.3	0.6	Agree
		3	3	
14	repair the cabinets when spoilt	2.2	0.6	Disagree
		9	2	
15	continual updating of knowledge on records maintenance	2.3	0.5	Disagree
		1	9	
16	periodically audit the records maintenance practices centrally	2.2	0.6	Disagree
		7	1	
17	identify inactive, semiactive and inactive records	2.4	0.6	Disagree
		5	2	
<b>Cluster Mean</b>		<b>2.4</b>		<b>Disagree</b>
		<b>3</b>		

Data presented in Table 2 showed the item-by-item analysis of perception of supervisors on record storage practices of secretaries in colleges of education in South East Nigeria. The result revealed that items 9, 10, 11, 12, 14, 15, 16 and 17 with mean scores 2.16, 2.29, 2.31, 2.43, 2.29, 2.31, 2.27 and 2.45 respectively were rated disagreed because they were below the criterion mean score of 2.50.

**Hypothesis 1.** There is no significant difference in the mean ratings of supervisors on record creation practices of secretaries in colleges of education in South East Nigeria based on their years of experience.

**Table 3. The t-Test of difference in supervisors' ratings based on years of experience**

Variables	N	X	SD	Df	p-value	Remark
Less-experienced	49	27.04	3.43	101	0.421	Not Significant
Experienced	54	26.50	3.35			

The result of Table 3 shows a p-value of 0.421 with 101 degree of freedom and  $\alpha$ -level of 0.05 ( $0.421 > 0.05$ ), the null hypothesis is not rejected. This means that there is no significant

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difference in the mean ratings of supervisors on record creation practices of secretaries in colleges of education in South East Nigeria based on their years of experience.

**Hypothesis 2.** Male and female supervisors do not differ significantly in their mean ratings on record creation practices of secretaries in colleges of education in South East Nigeria.

**Table 4. The t-Test of difference in supervisors’ ratings based on Gender**

Variables	N	$\bar{X}$	SD	Df	p-value	Remark
Male	50	27.12	3.44	101	0.294	Not Significant
Female	53	26.41	3.32			

The result of Table 4 shows a p-value of 0.294 with 101 degree of freedom and  $\alpha$ —level of 0.05 ( $0.294 > 0.05$ ), the null hypothesis is not rejected. This means that male and female supervisors do not differ significantly in their mean ratings on record creation practices of secretaries in colleges of education in South East Nigeria.

**Discussion of Findings**

Supervisors agreed on record creation practices of secretaries in colleges of education in South East Nigeria. Supervisors disagreed on record storage practices of secretaries in colleges of education in South East Nigeria.

The findings of the study have implications for education practices and workplace environment in South East Nigeria. The study population indicated that secretaries in colleges of Education do not adequately possess record storage practices. This also implies that institutions of higher learning in Nigeria, especially those offering office technology and management (OTM) programme, need to device suitable strategies to adequately equip their graduates with relevant records maintenance practices in the current technology driven workplace through regular practice and hands-on exercise. If these are not done, the public service will be ill-equipped with unqualified personnel who will be unable to contribute to good performance in the government.

**Conclusion**

Based on the findings, it was concluded that supervisors agreed on record creation practices while they disagreed on record storage practices. It was also concluded based on the findings that there is no significant difference in the mean ratings of supervisors on record creation practices, record storage practices, based on their years of experience and gender.

**Recommendations**

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

1. South East government should organize annual capacity building programme in form of in-service training and refresher courses for secretaries to professionally up-date their skills and knowledge of record creation practices.
2. Secretaries in colleges of Education in South East Nigeria should enroll in workshop training programmes to acquire relevant records management practices.

3. Secretarial training institutions and relevant professional associations should develop short term courses, seminars and records management trainings for practicing secretaries on record storage practices.

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NAU Journal of Technology & Vocational Education, Vol. 7, No. 1, December 2022

## INTERACTIVE LEARNING STRATEGIES CONSIDERED EFFECTIVE BY BUSINESS STUDIES TEACHERS FOR DEVELOPING SECONDARY SCHOOLS STUDENTS' ENTREPRENEURIAL SKILLS IN ANAMBRA STATE

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### Abstract

The study determined the interactive learning strategies considered effective by business studies teachers for developing entrepreneurial skills among students in secondary schools in Anambra State. One research question was raised and two null hypotheses were tested at 0.05 level of significance. The study adopted the descriptive survey design. The entire population of 192 business studies teachers in the existing 143 secondary schools in Awka, Nnewi and Onitsha Education zones of Anambra State were used for the study without sampling. A structured questionnaire that was validated by three experts was used for data collection. Cronbach's alpha method was used to establish the reliability of the instrument which yielded a coefficient of 0.86. Mean and standard deviation were used to answer the research question and determine the homogeneity of responses, while t-test was used to test the hypotheses at 0.05 level of significance. The findings revealed that business studies teachers consider interactive learning strategies highly effective for developing entrepreneurial skills among students in secondary schools in Anambra State. The findings also revealed that business studies teachers do not differ significantly in their mean ratings on interactive learning strategies considered effective for developing entrepreneurial skills among students in secondary schools in Anambra State as a result of their year of teaching experience and educational qualification. It was recommended among that interactive learning strategies should be frequently used by business studies teachers in the classroom.

**Keywords.** Interactive learning strategies, business studies teachers, entrepreneurial skills.

### Introduction

Secondary school education refers to post-primary formal education offered to children who have successfully completed their primary school education. The importance of secondary school education cannot be overemphasized because it consumes the products of primary schools and produce candidates for tertiary education in the nation (Abdulrahman, 2014). The Nigerian secondary school education is divided into the junior and senior secondary school level. At the senior secondary school level, the core subjects are Mathematics, English language, one Nigeria language among: Yoruba, Igbo and Hausa and others like Physics, Chemistry, Biology, Agricultural Science and Economics. These core subjects are designed to give secondary school students the opportunities to offer arts, business or science courses upon graduation into tertiary education. The need to prepare Nigerian secondary school students for the world of work necessitated the introduction of business studies in secondary schools.

Business studies are commercial based subjects designed to develop financial literacy and economic understanding of the business environment among Nigerian secondary school

students. At the junior secondary school level, business studies teachers expose students to pre-vocational subjects to enable them have general awareness about business. Here, students are taught office practice, commerce, book keeping, shorthand and typewriting. While, at the senior secondary school level, business studies teachers expose students to vocational subjects to enable them use the general understanding about business at the junior secondary level to acquire business skills and experiences that will prepare them for work in business organisations. Here, students are taught business related subjects such as Economics, Financial Accounting, Commerce as well as 34 trade or entrepreneurship subjects which include Insurance, Stenography, Data Processing, Marketing, and Salesmanship among others, of which senior secondary school students must learn at least one of them before graduation (Federal Republic of Nigeria, 2013). The teaching of business studies in secondary schools is the professional obligation of business subject teachers.

Business studies teachers play important role in the teaching and learning of business studies in secondary schools and business education courses in tertiary institutions. According to Ibelegbu (2013), a business studies teachers is someone who is trained in pedagogical areas of business education and is charged with the responsibilities of imparting the knowledge, skills and attitudes of the workplace in schools. In their view, Ezenwafor and Onokpaunu (2017) asserted that business studies teachers are professionally trained teachers of business subjects who are competent in teaching the content of business education curriculum in the faculty of education in universities and colleges of education. Furthermore, Ekoh and Okwuanaso (2013) maintained that a quality business studies teacher must be well prepared and well informed, possessing the requisite skills, knowledge and attributes required in the field of business education. The teaching of business studies must take centre focus across all levels of educational institutions in Nigeria in order to produce graduates with entrepreneurial skills to start up innovative business entities.

Entrepreneurial skills are fresh business ideas that graduates and non-graduates of educational institutions use to create successful professional lives as entrepreneurs in the business world. In educational literature, entrepreneurial skills are academic knowledge and practical competencies which are fundamental to the establishment and sustainable operation of small and medium scale enterprises (Ezenwafor & Onokpaunu, 2017). In entrepreneurship context, the United Nations (2016) identified entrepreneurial skills as key elements for advancing social cohesion, lessening economics disparities and extending open doors for all individuals in the advancement of business creation. Entrepreneurial skills are vital business acumen that individuals use to facilitate business creation and innovation.

One can infer that entrepreneurial skills are opportunity recognition initiatives taken by persons to provide goods and services at a marketable value in any business environment. Correspondingly, Gundry, Ofstein and Kickul (2014) defined entrepreneurial skills as risk-taking initiatives nurtured to start a business or to create a new value in the business environment. The Global e-Schools and Communities Initiative (2013) noted that entrepreneurial skills are non-cognitive skills which include communication, creativity and innovation, teamwork and collaboration, critical thinking and problem solving, desirability and feasibility, ICT literacy, social and cross-cultural, learning and self-direction, management and leadership, and flexibility and adaptability skills.

The teaching of business studies in Nigerian secondary schools can serve as a catalyst for promoting entrepreneurial skills among students during and after schooling. Identifying effective strategies for developing entrepreneurial skills among students in the classroom is one of the characteristics of a competent business studies teacher. One of such strategies is

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interactive learning strategies. According to Atanasescu and Dumitr (2013), interactive learning strategies are instructional settings which allow confrontation of intelligent ideas and creative arguments between educators and learners in academic subjects. In practical terms, interactive learning strategies are instructional arrangements where the student to a greater extent becomes the subject of an educational activity. The students' enters into dialogue with the teacher and other participants of the pedagogical process, and actively participates in the cognitive activities of the classroom in line with the entrepreneurial world to help them recognize business opportunities that could lead to feasible business venture creation in the society.

According to Khanin (2013), interactive learning strategies are collaborative environment of students and teachers, which exists in close cooperation with all participants in the discussion, exchange of views and ideas on issues raised in the classroom. Interactive learning strategies include guest speaker presentation, buzz session, business game and group discussion among others (Esmi, Marzoughi&Torkzadeh, 2015). Where interactive learning strategies are applied, students actively participate in any educational activity, simulate professional situations, perform creative and research tasks, engage in discussions with fellow students, and learn to substantiate their point of view using arguments (Senthamarai, 2018).

A number of variables such as years of teaching experience and educational qualifications among others could influence interactive learning strategies considered effective by business studies teachers for developing entrepreneurial skills among students. Years of teaching experience refers to the classification of inexperienced and experienced business studies teachers in educational institutions. Given their years of professional service, one can assume that experienced business studies teachers may be competent in selecting effective interactive learning strategies for developing entrepreneurial skills among students than inexperienced business studies teachers. However, this assumption needs to be supported by empirical evidence. Closely related to teachers' years of teaching experience is their educational qualifications. Educational qualification refers to the scholastic attainment of business studies teachers. In this study, educational qualification relates to the categories of teaching qualifications, that is, Bachelor degree (B.Sc Ed) or Postgraduate degrees (M.Sc Ed and PhD) of business studies teachers. It is assumed that business studies teachers with higher teaching qualifications are more entrepreneurial inclined to identify effective interactive learning strategies for developing entrepreneurial skills among students than their counterparts with basic teaching qualification. Incidentally, this assertion needs to be supported by empirical investigation. Upon this fulcrum, the study sought to ascertain interactive learning strategies considered effective by business studies teachers for developing entrepreneurial skills among students in secondary schools in Anambra State.

### **Statement of the Problem**

The quality of instruction in business studies in secondary schools largely depend on the instructional strategies adopted by business studies teachers. In today's Nigerian secondary school classrooms, the teaching of business studies is too theoretical as students are engrossed with reading about business with little or no exposure to hands-on experiences that would help them acquire basic entrepreneurial skills to start, grow and maintain a business venture. The problem of this study is that, the current chalkboard and talk instructional strategy used for teaching business studies are not comprehensive enough to prepare secondary school students for life as entrepreneurs in the business world. Hence, the study sought to assess the interactive learning, strategies considered effective by business studies teachers for developing entrepreneurial skills among students in secondary schools in Anambra State, Nigeria.

### **Research Questions**

The following research questions guided the study:

1. What interactive learning strategies do business studies teachers considered effective for developing entrepreneurial skills among students in secondary schools in Anambra State?

### **Hypotheses**

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

1. Experienced and less experienced business studies teachers do not differ significantly in their mean ratings on interactive learning strategies considered effective for developing entrepreneurial skills among students in secondary schools in Anambra State.
2. Business studies teachers with first degree and postgraduate degree do not differ significantly in their mean ratings on interactive learning strategies considered effective for developing entrepreneurial skills among students in secondary schools in Anambra State.

### **Methods**

This study adopted a descriptive survey design. The study was conducted in Anambra State. The population of the study comprised 192 business studies teachers in the existing 143 secondary schools in Awka, Nnewi and Onitsha Education zones of Anambra State. The entire population was studied without sampling since the population was manageable. A structured questionnaire titled “Strategies for Developing Entrepreneurial Skills Questionnaire (SDESQ)” developed by the researcher based on the review of related literature. The SDESQ is divided into two sections, A and B. Section A contained demographic information of the respondents while Section B contained nine items on interactive learning strategies considered effective for developing entrepreneurial skills among students on a five point rating scale of Very Highly Effective (VHE), Highly Effective (HE), Moderately Effective (ME), Lowly Effective (LE) and Not Effective (NE). The instrument for data collection was subjected to face validity by three experts. Cronbach’s alpha formula to determine the internal consistency of the questionnaire items which yielded a reliability co-efficients of 0.86. Descriptive statistics of mean and standard deviation were used to analyse data collected in relations to the research question. While mean was used to answer the research question, standard deviation was used to determine the homogeneity of the respondents’ views. Inferential statistics of t-test was employed for testing the null hypotheses at 0.05 level of significance. An hypothesis was accepted where the p-value is greater than the alpha level of 0.05 ( $p > 0.05$ ), at a degree of freedom; otherwise, the null hypothesis was rejected. The analysis was carried out using SPSS version 23.0.

### **Results**

**Research Question 1:** What interactive learning strategies do business studies teachers consider effective for developing entrepreneurial skills among students in secondary schools in Anambra State?

Data relating to this research question are analyzed and presented in Table 1.

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**Table 1. Mean ratings on the interactive learning strategies consider effective for developing entrepreneurial skills among students**

S/N	Items	$\bar{X}$	SD	Remarks
1	Brainstorming	4.38	.64	Highly Effective
2	Buzz session	3.99	.41	Highly Effective
3	Roundtable instructional strategy	2.45	.33	Lowly Effective
4	Business game	4.40	.51	Highly Effective
5	Think-pair-share	2.39	.72	Lowly Effective
6	Jigsaw learning	2.46	.49	Lowly Effective
7	Group discussion	4.47	.60	Highly Effective
8	Round robin	2.45	.38	Lowly Effective
9	Guest speaker presentations	4.91	.70	Very Highly Effective
	Cluster Mean	3.53		Highly Effective

Data in Table 1 show that respondents consider four out of the nine listed interactive learning strategies with mean ratings ranging from 3.99 to 4.47 as highly effective for developing entrepreneurial skills among students. Four items with mean ratings ranging from 2.39 to 2.46 are considered lowly effective for developing entrepreneurial skills among students and one item with a mean rating of 4.91 is considered very highly effective for developing entrepreneurial skills among students. The cluster mean of 3.53 indicates that business studies teachers consider interactive learning strategies highly effective for developing entrepreneurial skills among students in secondary schools in Anambra State. The standard deviations for the items are within the same range which shows that the respondents are homogeneous in their opinions

**Hypothesis 1.** Experienced and less experienced business studies teachers do not differ significantly in their mean ratings on interactive learning strategies considered effective for developing entrepreneurial skills among students in secondary schools in Anambra State.

**Table 2: The t-test on interactive learning strategies considered effective for developing entrepreneurial skills by experienced and less experienced business studies teachers**

Variable	N	$\bar{X}$	SD	df	P-value	Decision
Experienced	119	47.12	5.06	175	0.81	Not Significant
Less experienced	58	40.03	4.93			

Table 2 shows that there is no significant difference in the mean ratings of experienced and less experienced business studies teachers on interactive learning strategies considered effective for developing entrepreneurial skills among students in secondary schools in Anambra State. This is shown by the p-value of 0.81, which is greater than the significance level of 0.05. The null hypothesis of no significant difference between the two groups is therefore accepted.

**Hypothesis 2.** Business studies teachers with first degree and postgraduate degree do not differ significantly in their mean ratings on interactive learning strategies considered effective for developing entrepreneurial skills among students in secondary schools in Anambra State.

**Table 3: The t-test on interactive learning strategies considered effective for developing entrepreneurial skills based on first degree and postgraduate degree**

Variable	N	$\bar{X}$	SD	df	P-value	Decision
First degree	94	38.09	3.41	175	0.67	Not Significant
Postgraduate degree	83	34.61	3.75			

Table 3 shows that business studies teachers with first degree and postgraduate degree do not differ significantly in their mean ratings on interactive learning strategies considered effective for developing entrepreneurial skills among students in secondary schools in Anambra State. This is shown by the p-value of 0.67, which is greater than the significance level of 0.05. The null hypothesis of no significant difference between the two groups is therefore accepted.

### Discussion of Findings

The outcome of the study disclosed that business studies teachers considered interactive learning strategies highly effective for developing entrepreneurial skills among students in secondary schools in Anambra State. The findings of this study agrees with that of Atanasescu and Dumitru (2013) which discovered that interactive learning strategies are stimulating strategies that make the learning of basic and complex entrepreneurial skills possible among students in the classroom. The findings that brainstorming, buzz session, group discussion strategies are highly effective for developing entrepreneurial skills among students in secondary schools' tallyes with the study of Oyelekan, Igbokwe and Olorundare (2017) which reported that the use of interactive learning strategies collectively exposed students to necessary mental work required for entrepreneurial engagements. The finding that guest speakers' presentations strategy is very highly effective for developing entrepreneurial skills among students in secondary schools is in tandem with the study of Agommuoh and Ndirika (2017) which reported that interactive learning strategies are very effective for promoting entrepreneurial skills among students. The study discovered that think-pair-share, jigsaw learning and round robin strategies are lowly effective for developing entrepreneurial skills among students in secondary schools are not in agreement with Eromasova (2014) who reported that think-pair-share, jigsaw learning and round robin are effective innovative instructional strategies that promote entrepreneurial mindset among students and change the setting of the traditional classroom to an entrepreneurial classroom. Perhaps, business studies teachers' low rating of the effectiveness of think-pair-share, jigsaw learning and round robin strategies could be attributed to the fact that the strategies are time and task demanding to implement in the secondary school system.

The findings of the study revealed that there was no significant difference in the mean ratings of business studies teachers on interactive learning strategies considered effective for developing entrepreneurial skills among students in secondary schools in Anambra State based on their years of teaching experience and educational qualifications. This means that business studies teachers considered interactive learning strategies highly effective for developing entrepreneurial skills among students in secondary schools in Anambra State. This finding supports, Gabriela-Paula (2013) who discovered that interactive learning strategies enable students learn how to solve real problems that involve real people thereby preparing them for productive life beyond the classroom. In agreement to this study, Costin, O'Brien and Slattery (2018) submitted that the implementation of interactive learning strategies in school curricula facilitate entrepreneurial skills development among students.

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### **Conclusion**

The teaching of business studies in secondary schools expose students to the fundamentals of the business world and the implementation of the objectives of business studies is the function of business studies teachers. Business studies teachers are expected to use a variety of instructional strategies to build inspiration and motivation for students to become entrepreneurs. From the findings of the study, the study concludes that effective utilization of interactive learning, strategies serve as a social interaction process for students to accurately harness business opportunities from their environment with which to become major players in the ever-changing business world.

### **Recommendations**

Based on the findings of this study, the following recommendations were made.

1. Interactive learning strategies should be frequently used by business studies teachers in the classroom because they provide social-psychological and communicative benefits.
2. Interactive learning strategies should be reflected in business studies curriculum to build the awareness and facilitate the utilization of these strategies.
3. Professional conferences and in-service workshop programmes should be organized for business studies teachers to update their instructional competency on the utilisation of interactive learning strategies.

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