



**AVAILABILITY OF HUMAN RESOURCES FOR TEACHING COMPUTER
APPRECIATION IN BUSINESS EDUCATION DEPARTMENT IN COLLEGES OF
EDUCATION IN SOUTH-SOUTH GEOPOLITICAL ZONE OF NIGERIA**

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Abstract: *This study was designed to assess the human resources available for teaching computer appreciation in business education departments in colleges of education in South - South geo political zone of Nigeria. Three research questions and two hypotheses guided the study. The study used a survey research design. The population of the study comprised of seventy-five respondents and the entire population was studied. Questionnaire was the instrument used for data collection. Data obtained from the study was analyzed using percentages, mean and standard deviation to answer the research questions while t-test statistics was used to test the hypotheses at 0.05 level of significance. The results showed that bachelors degree in business education plus diploma in computer science and bachelors degree in computer science plus N.C.E was considered as the minimum academic qualification for teaching computer appreciation in colleges of education in the South-south geo-political zone and the provision of human resources was adequate. The test of hypotheses showed no significant difference in the responses of the respondents on the competencies posses by the lecturers based on gender and location. The researcher concluded that adequate quantity and quality of computer appreciation lecturers must be maintained for effective teaching and learning of the course.*

Keywords: *Computer, human resources, business education*

BACKGROUND OF THE STUDY

Computer appreciation is a computer literacy course taught in tertiary institutions. In the programme for business education departments, it is one of the courses offered at the colleges of education, universities and other degree awarding institutions offering business education. This course called computer appreciation is taught using the computer. Horn and



Poivot (2005) stated that electronic computer is a manufactured device that receives and stores information, acts upon it and furnishes the results in a form readable by either a person or a machine. A computer appreciation programme is aimed at equipping students with basic knowledge of the use of computer. It introduces them to the meaning and uses and functions of various components of the computer.

Biliter (2004) observed that the objectives of computer literacy in teacher education is to make teachers familiar with computer terms, able to enter and retrieve data, program a computer hence this is one of the courses offered by business education students in the Colleges of Education. Computer technology is an indispensable tool in this digital era. It is a veritable tool for information dissemination in modern offices as well as a good tool for home use in preparation of vital documents and production of student's assignments and projects. The course introduces the recipients to the basic knowledge of computer so that the students can effectively produce mailable documents with free or highly reduced errors hence one of the courses offered by business education students. Supporting the need for business educators to be knowledgeable in computer appreciation Foel (2001) observed that business educators have a major role in preparing the future teachers to become competent users of the micro computer.

Azuka, Agomuo, Kanu and Nwosu (2007) defined business education as a programme of studies which aims at creating awareness in business occupation, preparing youths for work in business occupation, prepare people to become better citizens and consumers of goods and services and preparing business teachers. Business education is offered in the colleges of education and the universities. Graduates of business education in the colleges of education are called business education teachers. The effective production of graduates possessing requisite computing skills depends highly on the availability of human resources managing the programme.

Human resources according to Mkpa (2000) are individuals who as a result of their experience and expertise in their field of endeavour or professions are considered knowledgeable enough to be useful to the school. They are the available manpower for the implementation of the programme and are mainly directly involved in ensuring that the objectives of the programme are achieved. Igwe (2000) observed that the teacher is the hub of the school system. The success of any system of education depends on the quality,



devotion and effectiveness of its teaching personnel. Olaitan (2006) supporting this view stated that the future of any nation rests in the hands of its teachers for the qualities they possess today will inevitably be reflected in the citizens of tomorrow.

Basically a computer appreciation teacher in a college of education must have a minimum qualification of B. Sc in computer science or a Bachelor of Education (Computer Science option)

STATEMENT OF THE PROBLEM

Adequate programme implementation results to training of graduates with skills knowledge and aptitude to operate effectively in his place of work or to be a potential successful entrepreneur. Computer literacy as a course offered by business education students in colleges of education expose them to fundamental knowledge and skills basically required for effective functioning as a good business teacher educator. This motive can only be achieved when requisite human resources are provided for teaching and learning of the course. Despite the relevance of computer appreciation, the number and quality of teachers for teaching business education courses in Nigerian schools remain substandard as highlighted by Akintode (2000); Aina (2001) and Olaitan (2006).

Effective teaching and learning of computer appreciation highly depends on the availability of human resources that will teach the course. In agreement to this view, Law (2003) explained that to educate students effectively in computer studies computer hardware, suitably designed software and well prepared teachers are needed. This study therefore tries to X-ray the adequacy of human resources for teaching computer appreciation in colleges of education.

PURPOSE OF STUDY

The major purpose of the study was to ascertain the adequacy of human resources for teaching computer appreciation in colleges of Education in South- South zone in Nigeria. Specifically, the study sought to:

- Ascertain the qualification status of teachers in computer appreciation in colleges of education in South- South geo political zone in Nigeria.
- Identify the human resources available for teaching computer appreciation in colleges of education in South- South geo political zone in Nigeria.



- Ascertain the competencies in computer appreciation possessed by the teachers in colleges of education in South- South geo-political zone in Nigeria.

RESEARCH QUESTIONS

The following research questions guided the study:

- What are the academic qualifications possessed by computer appreciation teachers in colleges of education in South -South geo political zone of Nigeria?
- What are the human resources available for teaching computer appreciation in colleges of education in South- South geo political zone in Nigeria.
- What are the competencies in computer appreciation possessed by the teachers in colleges of education in South- South geo-political zone in Nigeria.

HYPOTHESES

- There is no significant difference in the responses from urban and rural locations on the competencies in computer appreciation possessed by the teachers in the colleges of education in South- South geo political zone.
- There is no significant difference in the responses from urban and rural locations on the competencies in computer appreciation possessed by the teachers in the colleges of Education in the South- South geo political zone.

METHODS

This study used a descriptive design to examine the adequacy of human resources for teaching computer appreciation in Colleges of Education in South- South Geo political zone of Nigeria. The population of the study comprised of 75 computer appreciation lecturers in South- South Colleges of Education in Nigeria. The institutions used are 10 in number. There was no sampling because of the manageable size of the population hence the entire population was used. A structured questionnaire divided into three parts was used for data collection. The first part dealt on academic qualification of lecturers while the second dealt on human resources available for teaching computer appreciation and third part on competencies in computer appreciation possessed by the teachers in Colleges of Education. The mean and standard deviation was used for answering the research questions while the t-test was used to test the hypotheses at 0.05 level of significance.

RESULTS



Research Question 1: What are the academic qualifications possessed by computer appreciation teachers in colleges of education in South- South geo political zone of Nigeria?

The responses to the above stated research question is presented in table 1:

Table 1: Academic Qualifications of Computer Appreciation Teachers in Colleges of Education in South-South Geopolitical Zone of Nigeria

S/N	Academic qualifications	Frequency	Percentage
1	B.sc computer science	11	16.92
2	B.sc Business Education	8	12.31
3	B.sc Business Educ. plus Diploma in Computer Science	10	15.38
4	B.sc Computer Science plus NCE OR PGDE	7	10.77
5	HND Secretarial Administration	6	9.23
6	HND Secretarial Admin plus Diploma/Certificate in computer	9	13.85
7	HND Office Communication Technology	7	10.77
8	M. Ed. Business Education	6	9.23
9	Ph.D Business Educ. Plus Certificate in computer science	1	1.54
	N	65	100

The data presented in table 1 revealed that eleven representing 16.92% of computer appreciation teachers out of 65 computer appreciation teachers that responded to the questionnaire had Bachelors degree in computer science while eight which is 12.31% of the 65 computer appreciation teachers, had B.sc. in Business Education.

Ten respondents representing 15.38 percent of the teachers had Bachelors Degree in Business Education plus Diploma in computer science while seven or 10.77 percent of the computer appreciation teachers had Bachelors degree in computer science plus postgraduate Diploma in Education. In addition to obtaining a certificate in computer science, 6 of them representing 9.23% had Higher National Diploma in office communication technology while 9 representing 13.85% had M. ed in Business Education, 6 representing 10.77% had HND Office communication Technology, 6 representing 9.23 had M. ed Business Education while 1 representing 1.54% had Ph.D Business Education plus certificate in computer science.

Research question 2: What are the human resources available for teaching computer appreciation in colleges of education in South- South geo political zone in Nigeria?

Data for answering the research question is presented in table 2 below:



Table 2: Human Resources Available for Teaching Computer Appreciation in the Colleges of Education in South –South Geopolitical Zone of Nigeria

S/N	Items	Minimum Standard	Number Available	Percentage Availability	Decision
10	Computer Application Lecturers	8	4	50%	Adequate
11	Computer Technologist	1	1	100%	Adequate
12	Computer operators	2	1	50%	Adequate
13	Computer instructor	1	1	100%	Adequate
14	Computer engineer	1	1	100%	Adequate
15	Computer Programmers	2	1	50%	Adequate

As shown in table 2 Computer appreciation lecturers, computer technologist, computer instructor, computer engineer, computer operators and computer programmers are adequate in number in colleges of education in the South-South geo-political zone based on the N.C.C.E minimum benchmark.

Research Question 3: What are the competencies in computer appreciation possessed by the teachers in colleges of education in South- South geo-political zone in Nigeria?

Table 3: Mean Ratings of the Competencies in Computer Appreciation Possessed by the Teachers in Colleges of Education in South-South Geopolitical zone of Nigeria

S/N	Items	Mean	SD	N	Decision
16	Ability to write simple programs	3.75	0.73	75	Competent
17	Ability to teach	3.71	0.51	75	Competent
18	Ability to stimulate students interest	3.80	0.40	75	Competent
19	Ability to facilitate learning	3.37	0.71	75	Competent
20	Ability to manipulate the computer keyboard to key information	2.88	0.64	75	Competent
21	Ability to retrieve information	2.63	0.73	75	Competent
22	Ability to describe the components of a computer	3.01	0.86	75	Competent
23	Ability to describe the various applications of the computer	3.04	0,81	75	Competent
24	Ability to discuss the impact of computers	2.85	0.95	75	Competent
25	Ability to describe the history of computer	2.85	0.56	75	Competent
26	Ability to discuss the social implications of the computer	3.51	0.61	75	Competent
27	Ability to interpret software packages	3.43	0.50	75	Competent
28	Ability to evaluate students learning	3.11	0.73	75	Competent
29	Ability to demonstrate computer keyboard to students	2.89	0.78	75	Competent



Hypotheses

There is no significant difference in the mean responses from male and female lecturers on the competencies in computer appreciation possessed by the teachers in the colleges of education in South- South geo political zone.

The responses of the respondents on the competencies in computer appreciation were separated for male and females and subjected to t-test of difference between independent samples. Summary of the result is presented in table 4:

Table 4: T test of difference in mean responses of male and female respondents on the competencies in computer appreciation possessed by the teachers in the colleges of education in South- South geo political zone

SN	Gender	N	Mean	SD	DF	t-cal	t-crit	Decision
1	Male	61	3.68	0.76	73	0.72	1.98	Accept
	Female	14	3.85	0.53				
2	Male	61	3.72	0.52	73	0.94	1.98	Accept
	Female	14	3.64	0.49				
3	Male	61	3.81	0.38	73	1.06	1.98	Accept
	Female	14	3.71	0.48				
4	Male	61	3.37	0.73	73	0.32	1.98	Accept
	Female	14	3.36	0.63				
5	Male	61	2.85	0.60	73	0.04	1.98	Accept
	Female	14	3.00	0.78				
6	Male	61	2.54	0.69	73	0.66	1.98	Accept
	Female	14	3.00	0.78				
7	Male	61	2.98	0.88	73	0.05	1.98	Accept
	Female	14	3.14	0.77				
8	Male	61	3.10	0.82	73	1.16	1.98	Accept
	Female	14	2.85	0.77				
9	Male	61	2.82	0.99	73	0.25	1.98	Accept
	Female	14	3.00	0.78				
10	Male	61	2.80	0.54	73	0.43	1.98	Accept
	Female	14	3.07	0.62				
11	Male	61	3.56	0.59	73	1.45	1.98	Accept
	Female	14	3.29	0.61				
12	Male	61	3.46	0.50	73	0.11	1.98	Accept
	Female	14	3.28	0.47				
13	Male	61	3.10	0.73	73	0.47	1.98	Accept
	Female	14	3.29	0.73				
14	Male	61	2.84	0.79	73	0.47	1.98	Accept
	Female	14	3.14	0.66				



Summary of result in table 4 reveals that in the entire item the t-calculated value is less than the critical value at an alpha level of 0.05. As such the researcher upholds the null hypothesis in all the items implying that there is no significant difference in the responses of male and female respondents on the competencies in computer appreciation possessed by the teachers in the colleges of education in the South-South geopolitical zone.

H02: There is no significant difference in the responses of lecturers from urban and rural areas on the competencies in computer appreciation possessed by the teachers in the colleges of Education in the South- South geo political zone.

The responses of the respondents in the urban and rural location of colleges of education in South- South zone of Nigeria were separated and used to test this hypothesis, Summary of result is presented in table 5 below.

Table 5: t-test of difference in the mean responses of respondents from urban and rural schools on the competences in computer appreciation possessed by the teachers in the colleges of education in South-South geopolitical zone

S/N	Location	N	Mean	SD	DF	t-cal	t-crit	Decision
1	Rural	9	3.55	1.01	73	0.39	1.98	Accept
	Urban	66	3.74	0.68				
2	Rural	9	3.55	0.73	73	0.57	1.98	Accept
	Urban	66	3.73	0.48				
3	Rural	9	3.67	0.50	73	2.04	1.98	Accept
	Urban	66	3.81	0.38				
4	Rural	9	3.44	0.88	73	0.88	1.98	Accept
	Urban	66	3.36	0.69				
5	Rural	9	2.88	0.60	73	0.80	1.98	Accept
	Urban	66	2.87	0.64				
6	Rural	9	2.63	0.73	73	0.51	1.98	Accept
	Urban	66	2.78	0.83				
7	Rural	9	3.00	1.00	73	1.16	1.98	Accept
	Urban	66	3.02	0.85				
8	Rural	9	3.33	0.70	73	0.05	1.98	Accept
	Urban	66	3.00	0.82				
9	Rural	9	2.78	0.97	73	1.21	1.98	Accept
	Urban	66	2.86	0.96				
10	Rural	9	2.78	0.66	73	0.26	1.98	Accept
	Urban	66	2.86	0.55				
11	Rural	9	3.78	0.44	73	0.85	1.98	Accept
	Urban	66	3.47	0.61				
12	Rural	9	3.44	0.53	73	0.86	1.98	Accept
	Urban	66	3.42	0.49				



13	Rural Urban	9 66	3.00 3.12	0.71 0.73	73	1.24	1.98	Accept
14	Rural Urban	9 66	2.78 2.90	0.83 0.78	73	0.14	1.98	Accept

Result of the data analysis revealed that in all the items the t-calculated value is less than the critical value at an alpha level of 0.05. As such the researcher upholds the null hypothesis and concludes that there is no significant difference in the responses of respondents in urban and rural schools on the competencies in computer appreciation possessed by the teachers in the South-South geopolitical zone.

DISCUSSION OF FINDINGS

The Academic Qualifications Possessed by the Computer Appreciation Teachers in the College of Education in South-South Geopolitical Zone.

The findings from the result of the analyses of research question one in Table 1 revealed that the most dominant qualifications of computer appreciation teachers were a bachelor's degree in computer science education followed by bachelor degree in Business Education with Diploma in computer science. The above findings corroborate with National Commission for Colleges of Education (NCCE) minimum standards in science (2012) which states that a degree in computer science Education is needed for the teaching of computer appreciation in colleges of Education. The findings also agree with Osuala's (1996) view that secretarial education component of business education which comprises computer appreciation among others, should be taught by a business educator.

The responses to the minimum qualifications for teaching computer appreciation also showed that a B.Sc. (Ed) in computer science was rated first with 16.92 percent, B.Sc. in Business Education with Diploma in computer science with 15.38 percent, HND secretarial with Diploma/ Certificate in computer science with 13.85 percent, B.Sc. Business Education with 12.31 percent, followed by a B.Sc. computer science with Nigeria Certificate in Education (NCE), or post graduate diploma in education (PGDE) and HND office communication technology with 10.77 percents. The closeness in the ratings of the above is indicative that holders of such qualifications can conveniently teach the course.

The Human Resources Available for Teaching Computer Appreciation in the Colleges of Education in South-South Geopolitical zone of Nigeria.



The analysis of research question two as shown in Table 2 indicated that responses from the respondents revealed that computer appreciation lecturers, computer operators and computer programmers are inadequate in number in colleges of education in the South-South geopolitical zone based on the NCCE minimum Bench Mark (2012). The findings also revealed that computer technologist, computer instructor and computer engineer were the predominant human resource available in the colleges of Education in South-South geopolitical zone. The above finding also agrees with NCCE minimum standard for Business Education (2012) that at least one computer instructor and one computer engineer should be provided in Business Education.

The findings corroborate with Ukeje (1995) who said that the teacher is the pivot of the educative process, and to teach effectively the teacher has to develop personal and professional competence, methodological competence and subject matter competence. The findings is also in line with Okechukwu (2002) who contended that the prerequisite for a successful programme (such as computer literacy) is a qualified teacher who is occupationally competent and also competent in teaching methods and supporting skills which are integral to the success of the instructional process.

The Competences in Computer Appreciation Possessed by the Teachers in the Colleges of Education in South-South Geopolitical zone.

The summary of the data analysis as presented in Table 3 shows that the items had their mean scores above the cut – off point of 2.50, which means that the respondents agreed that computer appreciation lecturers possessed competences in the teaching of the course. In the test of hypotheses, the researchers found out that there is no significant difference in the responses of male and female respondents on the competencies in computer appreciation possessed by the teachers in the colleges of education in the South-South geopolitical zone. The findings from hypothesis 2 showed that competence in computer appreciation possessed by the Teachers in the colleges of Education does not significantly depend on location of schools.

The result of the finding is in line with kadel (2005) who said that regardless of the quantity and quality of technology available in classrooms, the key to how computer are used is the teachers; therefore, teachers must have the competence and the right attitude towards technology. He explained that competence is the ability to combine and apply relevant



attributes to particular tasks in particular contexts. These attributes include high levels of knowledge, values, skills personal dispositions sensitivities and capabilities, and the ability to put those combinations into practice in an appropriate way.

The finding agreed with Kirschner and Woperies (2003) who highlighted some major computer operational skills teachers require. These include competency in: making personal use of computer, mastery of a range of educational paradigms that make use of computer as minds tools, using computer as tool for teaching, mastering a range of assessment paradigms which involves use of computer; and understanding the policy dimensions of the use of computer for teaching and learning.

CONCLUSIONS

The study evaluates the human and material resources available for the teaching of computer appreciation in Business Education in colleges of education in South-South geopolitical zone of Nigeria. The revelation of this study was that academic qualifications of computer appreciation teachers were predominantly first degrees in Business Education plus Diploma in Computer Science, First degree in computer science plus NCE or PGDE, HND secretarial administration plus diploma in computer science. These are the qualifications considered as the minimum qualifications for teaching computer appreciation in colleges of education.

The human resources identified were adequate for the teaching of computer appreciation in colleges of education. The computer appreciation teachers possessed competences in teaching the course in colleges of education in South-South geopolitical zone.

RECOMMENDATIONS

Based on the findings made and conclusions drawn, the researcher made the following recommendations:

1. The National Commission for Colleges of Education (N.C.C.E) should maintain the criteria that B.Sc. in Business Education plus Diploma in Computer Science should be the minimum qualification for teaching computer appreciation course in colleges of education in Nigeria.
2. The heads of department of Business Education should liaise with their college's management to ensure that adequate human resources are maintained for the teaching of computer appreciation.



3. Colleges of education administrators should provide regular workshops and in service training for the computer appreciation teachers and support staffs such as computer scientists, computer programmers, computer operators, to update their competences.

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