

**EXTENT OF INTEGRATION OF NEW TECHNOLOGIES  
IN TEACHING AND LEARNING OF BUSINESS  
EDUCATION IN COLLEGES OF EDUCATION IN ENUGU  
STATE**

---

---

***Nneka Charity Emeasoba***  
*Department of Educational Management,  
College of Education,  
Michael Okpara University of Agriculture, Umudike,  
Abia State – Nigeria.*

**And**

***Judith Ogechi Enwere***  
*School of Business Education,  
Federal College of Education (Technical), Umunze,  
Anambra State,  
Nigeria.*

**Abstract**

*The study seeks to determine the extent of integration of new technologies in the teaching and learning of Business Education in Colleges of Education in Enugu State. Descriptive survey research was adopted for the study. It was guided by two research questions and two hypotheses which were tested at 0.05 level of significance. The population and sample of the study consisted of 54 males and females lecturers teaching Business Education. A validated questionnaire with reliability coefficient of 0.86 was used for data collection. The research questions were analyzed using the mean and standard deviation while the t-test was used to test the hypotheses. Results revealed that the new technologies for the teaching and learning of Business Education courses are available at low extent and the available ones are also utilized at a low extent. Gender has no significant effect on the opinions of the respondents. The researchers conclude that new technologies for teaching and learning of business education courses in colleges of education in Enugu State are available at low extent and also utilized at low extent*

*and recommend, among others that government should provide these new technologies and there should be frequent training and retraining programmes for business education lecturers, in order to ensure effective utilization of these facilities.*

**Keywords:** Integration, New Technologies, Teaching and Learning, Business Education.

Education is the bedrock for survival, growth and development of any society. Its relevance to individual and societal growth shows its significance to the economic, political and cultural development of human society world-wide. The innovations that have taken place world-wide in the area of new technologies have broken all national and international barriers and turned the world into a global village, since it has made information available to organizations and individuals everywhere and at anytime. Teaching and learning are not left out in the globalization. Education being the greatest hope of a nation especially for a developing country like Nigeria cannot be overlooked. In recent times, education is undergoing change at an unprecedented rate. Students need new skills, to be taught in new ways. Teachers need mastery of new technologies and parents are expected to be involved for our outputs to get employed and fit into the world of work. The transmission of knowledge and information from one generation to another requires the services of people adequately trained and skilled in the field (Wokocha, 2011). There is no doubt that the life and status of business education as a discipline in this present technological age depends on how the business teachers of today are prepared to impart the knowledge and skills of new technologies to the students.

### **Concept and Relevance of New Technologies**

Technology plays a critical role in this innovation. When new technologies are implemented and integrated appropriately into teaching and learning, students have an opportunity to learn about the technologies by using it as a part of their learning. Umoru and Nnaji (2015) explained that new technologies are the modern facilities introduced into business industry to enable the educators educate the learners to be proficient and profitable in the contemporary business world. They are made up of Information and Communication Technology (I.C.T) and E-learning facilities presented by several tools like computers, internet and general system of communication. Nwosu (2012), explained that new technologies in business education enables teachers to create totally new educational environment which both encourage and require new behavior in the business educators and the students.

New technologies in teaching and learning of business education according to Ezenwafor (2012) include broadcast material or CD-Rom for information collection

and storage, micro – computers with software application to write or produce documents, key boards, e-mailing messaging, internet browsing using search engines, windows messengers, yahoo chat room, among others, opaque projectors, slide projector and multi-media protectors e-bombing, computer software applications as word processors, spreadsheets, power points, desktops publisher, graphic and so on. Amiaya (2014) noted that new technologies are made up of ICT and E-learning facilities presented by several tools like computer, internet and general system of communication. Osuala (2000), noted that technological devices available for teaching Business Education include media typewriter on automated typewriter, close circuit TV, word processor, video tape recorder, sound on paper system, e-commerce, advanced calculators, dial access system, digital library modern, individual audio, application and audio-visual retrieval system.

Lefebvre, Deaudellin and Loïselle (2006) noted that new technologies have the great potential to support education across business education curriculum inclusive and thus provide opportunities for an effective communication between teachers and students in ways that have not been possible before. Shamatha, Peressini and Maymaris (2004), pointed that researchers and theorist have asserted that the use of new technology tools as computer can help students to become more knowledgeable; reduce the amount of direct instruction given to the students and also give teachers the opportunity to provide personalized help's to students with special needs. In order words new technologies are provided so that the contemporary teacher would make use of those facilities to equip the students for the world of works. However, new technologies help to improve equity among students from across the globe that interacts with resources and information, outside experts, and one another, regardless of physical location.

Business Education as a form of Education is crucial especially in this era of globalization and Information and Communication Technology (ICT) in which word processing and organizations are getting increasing flexible and multi-tasking. Nwazor (2014), opined that business education is an educational programme that prepares students for careers in business through inculcating in them skills, knowledge about or useful in the business world. It empowers graduates with designed skill, knowledge and values to become self-reliant. Ugwoke (2011), noted that business education is works – focused, skill – based, result – oriented and technology – based. Business Education is an integral part of vocational and technical education directed towards developing the learner to become productive in teaching, paid employment and self-employment (Idialu, 2007). For business education programme to sustain its relevance in providing the needs of individuals and that of the society it must embrace current trends of new technology in the academic and economic demands of the society. The world is a global village through the World Wide Web (www) and business education as the study that prepares an individual for

career in business and also to be an intelligent consumer of economic goods and services has to be properly positioned in this global village through the new technologies. Emeasoba (2014), also noted that teachers are important stakeholders involved in ensuring effective integration of new technologies in educational system. Lecturers have important role to play too. They are the key to whether technology is used appropriately and effectively or not.

Colleges of education are institutions prepared to train up qualified teachers who can transmit needed knowledge, skills and values in students through teaching and learning in order to prepare them to fit into the society. Michigem (2016) noted that it prepares students for careers in teaching, research service and policy making. They are the trained the trainers' established to achieve the designed goal to produce highly matured, conscientious, efficient and innovative teachers who can perform leadership/supervisory roles and meet with the challenges of the dynamic society. Business education is one of the courses offered in Nigerian Colleges of Education and new technologies are provided so that the contemporary business educators who teach skill courses for business would make use of these facilities to equip the students for the world of work. Therefore, colleges of education should be equipped with new technologies facilities so that its graduates will be well prepared to fit into the globalised world of work and contribute maximally to national development.

However, this research is aimed at determining the extent of availability and utilization of new technologies in teaching and learning of Business Education in Colleges of Education in Enugu State.

### **Problem of the Study**

The introduction of new technologies application in curriculum of Nigerian Colleges of Education was intended to prepare competent NCE business education graduates who would function effectively in information technology-based organizations and institutions. However, indications emerging from the world of works seem to indicate that the graduates of NCE business education do not seem to show adequate competency in new technologies application in their place of work. Nwosu (2012), also discovered that more theoretical concept of new technologies were being taught to students than practical work. This raises the question as to the level of availability and utilization of new technologies applications for instruction in Colleges of Education, with particular reference to Enugu State. Essentially, the researcher is interested in establishing the level of availability and utilization of new technologies application for instructional purpose in Colleges of Education in Enugu State.

### **Purpose of the Study**

The main purpose of this study is to determine the extent of integration of new technologies in teaching and learning of Business Education in Colleges of Education in Enugu state. Specifically, the study is determined;

1. To ascertain the availability of new technology facilities for teaching and learning of business education in colleges of education.
2. To ascertain the extent to which lecturers in colleges of education utilize new technologies in teaching and learning Business Education courses.

### **Significance of the Study**

The researcher is optimistic that the result of the study would be of significant benefit to the Government, lecturers, researchers and students.

The government or its development partners as well as investors will give financial support towards making available the new technologies for teaching and learning of business education. The business education lecturers will realize the instructional possibilities afforded by new technology which are not necessarily teaching machines but multi-faceted tools that can empower both lecturers and students. This will also benefit researchers and students in the areas of new technologies in teaching and learning.

### **Scope of the Study**

This study is limited to the level of availability and utilization of new technologies facilities in teaching and learning business education courses. It also covers the Colleges of Education in Enugu State.

### **Research Questions**

The following research questions were raised to guide the study

1. What is the extent of availability of new technologies facilities for teaching and learning of business education courses?
2. What is the extent of utilization of new technology in teaching and learning of business education courses?

### **Null Hypotheses**

1. There is no significant difference in the means rating of male and female lecturers on the availability of new technologies in the teaching and learning of business education courses.
2. There is no significant difference in the mean rating of male and female teachers on the utilization of new technologies in the teaching and learning of business education courses.

## Method

The descriptive survey research design was adopted for this study. This study was carried out in Enugu States of Nigeria. The state is among the five states in south east zone. There are six Education Zones in the State which cuts across the 17 Local Government Areas. They have passion for education and trading. The state is bounded by Anambra State in the west, Abia and Imo State in the South, Ebonyi State in the East and Benue State in the North. The population of the study is 54 Business Educators from the six (6) Colleges of Education in Enugu State of Nigeria comprising both the federal, state and privately owned institutions. The population was used in its entirety without sampling because the number was not large.

The instrument for data collection was a validated questionnaire with a reliability coefficient value of 0.86. Copies of the instrument were administered personally on the respondents in their offices by the researchers and their trained research assistants. Some responded on the spot while majority were re-visited to retrieve their responses. This facilitated a high response rate as 50 copies representing 93 percent were used for the study. The arithmetic mean was used to analyze data to answer the research questions while standard deviation was used to ascertain how homogeneous the respondent's opinions are. T-test will be used to test hypotheses at 0.05 level of significance. Any item of new technologies that has a mean rating that is equal to or greater than 2.5 would be regarded as high extent while any item with a mean rating that is less than 2.5 would be regarded as low extent. A hypothesis will be upheld if the calculated value is less than the significant level of 0.05 and rejected if the calculated value is equal or greater than the significant level of 0.05.

## Results

### Research Question One

#### 1. What is the extent of availability of new technologies for teaching and learning of business education courses?

**Table 1:** Respondents' mean rating on the availability of new technologies.

N = 50				
S/N	New Technologies	$\bar{X}$ (Mean)	SD	Remark
1	Computer	2.76	1.14	High Extent
2	Web Camera	2.20	1.06	Low Extent
3	Modem	2.20	1.10	Low Extent
4	Networked PCs	1.90	0.75	Low Extent
5	Bulletin Boards	3.20	0.82	High Extent
6	White Boards	3.26	0.80	High Extent
7	Word Processing, Excel, Power Point applications	3.16	0.73	High Extent
8	Television	1.82	0.98	Low Extent

*Extent of Integration of New Technologies in Teaching and Learning of Business Education in Colleges of Education in Enugu State – Nneka Charity Emeasoba and Judith Ogechi Enwere*

9	Radio	1.64	0.98	Low Extent
10	USB Memory cards	1.82	0.74	Low Extent
11	Internet	1.80	0.75	Low Extent
12	Scanner	1.90	1.08	Low Extent
13	Desktop Publishing	1.98	1.14	Low Extent
14	Mobile Phone	2.70	1.10	High Extent
15	Digital Camera	2.20	1.06	Low Extent
16	Electronic Projector	0.84	1.50	Low Extent
17	Adobe software	2.90	0.94	High Extent
18	Video Tapes	1.96	1.00	Low Extent
19	Audio Tapes	1.92	0.63	Low Extent
20	Printers	2.92	0.91	High Extent
21	Tele Conferencing	2.12	1.09	Low Extent
22	Satellite Dish	2.10	0.73	Low Extent
23	Fax machines	1.78	0.64	Low Extent
24	Radio Cassettes	1.56	1.05	Low Extent
25	Audio Visuals	1.84	1.11	Low Extent
26	Wireless Technologies	2.10	1.14	Low Extent
27	Hypertext	2.12	0.99	Low Extent
28	CD Rom	3.06	0.95	High Extent
29	Flash Drives	2.88	0.97	High Extent
30	Voice message	1.60	1.00	Low Extent
<b>Grand Mean</b>		<b>2.23</b>	<b>0.98</b>	<b>Low Extent</b>

Source: Field Survey, 2016

The data in Table 1 show that 9 items of new technologies were available at high extent with mean ratings ranging from 2.8 to 3.2., while 21 items of new technologies were available at very low extent with mean ratings ranging from 1.6-2.2. The grand mean of 2.23 shows that new technologies for teaching business education are available at low extent. Standard deviation of 0.98, indicated that the respondents are homogenous in their opinions.

### Research Question Two

#### 1. What is the extent of utilization of new technologies for teaching and learning of business education courses?

**Table 2:** Respondents' mean rating on the utilization of new technologies.

N = 50				
S/N	New Technologies	$\bar{X}$ (Mean)	SD	Remark
1	Computer	2.90	1.14	High Extent
2	Web Camera	2.08	1.11	Low Extent
3	Modem	1.48	0.64	Low Extent

4	Networked PCs	1.46	1.32	Low Extent
5	Bulletin Boards	2.72	1.17	High Extent
6	White Boards	3.08	1.05	High Extent
7	Word Processing, Excel, Power point applications	3.14	0.79	High Extent
8	Television	1.86	1.12	Low Extent
9	Radio	1.64	1.13	Low Extent
10	USB Memory cards	1.26	1.36	Low Extent
11	Internet	1.56	1.07	Low Extent
12	Scanner	2.76	1.03	High Extent
13	Desktop Publishing	1.76	1.16	Low Extent
14	Mobile Phone	3.16	0.83	High Extent
15	Digital Camera	2.14	1.06	Low Extent
16	Electronic Projector	3.06	1.06	Low Extent
17	Adobe software	3.20	0.98	High Extent
18	Video Tapes	2.10	1.06	Low Extent
19	Audio Tapes	1.66	1.03	Low Extent
20	Printers	3.34	0.99	High Extent
21	Tele Conferencing	1.94	0.93	Low Extent
22	Satellite Dish	1.80	0.69	Low Extent
23	Fax machines	1.50	0.92	Low Extent
24	Radio Cassettes	1.48	1.40	Low Extent
25	Audio Visuals	1.58	1.12	Low Extent
26	Wireless Technologies	2.12	1.07	Low Extent
27	Hypertext	2.12	0.99	Low Extent
28	CD Rom	3.26	0.96	High Extent
29	Flash Drives	3.38	0.87	High Extent
30	Voice message	1.76	0.85	Low Extent
<b>Grand Mean</b>		<b>2.24</b>	<b>0.99</b>	<b>Low Extent</b>

Source: Field Survey, 2016

The data in Table 2 show that 10 items of new technologies were utilized at high extent with mean ratings ranging from 2.5 to 3.4., while 20 items of new technologies were utilized at very low extent with mean ratings ranging from 1.3-2.4. The grand mean of 2.24 shows that new technologies for teaching business education are utilized at low extent. Standard deviation of 0.99, indicated that the respondents are homogenous in their opinions.

**Hypothesis 1:**

**Gender has no significant effect in the mean ratings of respondents on the availability of new technologies in the teaching and learning of business education.**

**Table 3:** Analysis of Male and Female Lecturers on the extent of availability of new technologies.

Respondents	No of Respondents	Mean	STD	DF	A	t-Cal.	t-Crit.	Decision
Male	12	2.23	0.36	48	0.05	1.29	2.04	Accept
Female	38	2.36	0.28					

**Source: Field Survey, 2016**

The data in table 3 show that the calculated t- value of 1.29 is lesser than the critical value 2.04, which shows that gender has no significant effect on respondents’ mean rating on new technologies available for teaching and learning of business education. The hypothesis is, therefore upheld.

**Hypothesis Two**

**Gender has no significant effect in the mean ratings of respondents on the utilization of new technologies in the teaching and learning of business education.**

**Table 4:** Analysis of male and female teachers on the extent of utilization of new technologies.

Respondents	No of Respondents	Mean	STD	DF	A	t-Cal.	t-Crit.	Decision
Male	12	2.47	1.6	48	0.05	0.89	2.04	Accept
Female	38	2.56	1.8					

**Source: Field Survey, 2016**

The data in table 4 show that the calculated t- value of 0.89 is lesser than the critical value 2.04, which shows that gender has no significant effect on respondents’ mean rating on new technologies utilized for teaching and learning of business education. The hypothesis is, therefore upheld.

### **Discussion of Results**

The result of analysis on availability of new technologies as shown in table 1 indicates that they are available at low extent. The finding agrees with the report of Amiaya (2015) that new technologies for teaching office technology and management in Delta States Polytechnic are available at low extent. The test of hypothesis 1 on table 3 indicated that there is no significant difference in the males and females lecturer on the availability of these new technologies in the teaching and learning of business education in colleges of education in Enugu State.

The result of analysis on utilization of new technologies as shown in table 2 indicates that they are utilized at low extent. The finding agrees with the report of Adeagbo and Ajao (2015) that new technologies for instruction and practice in business education for quality assurance are at low extent at Oyo and Kwara States. The test of hypothesis 2 on table 4 indicated that there is no significant difference in the male and female lecturers' business education in colleges of education in Enugu State. This agrees with the reports of Ekwu, Anyaegbunam and Okpanachi (2015) that there is no significant difference between the mean rating of male and female lecturers on the utilization of new technology in teaching and learning Business Education in Colleges of Education in Delta State.

### **Conclusion**

Therefore based on the findings of the study and their discussions, it is concluded that new technologies for teaching and learning of business education are not available in the schools and therefore not utilized.

### **Recommendations**

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

1. Government should provide new technologies in Colleges of Education in Enugu State for teaching and learning to be effective and efficient in this Information and communication technology age.
2. It is imperative for Business Educators to retrain and update themselves and their skills on the new technologies in Business Education.

### **References**

- Achugbue, I.E. (2011). The Relevance of ICT in Nigerian Universities. *Research in Education*.17 (1), 146-152.
- Adeagbo, S. & Ajao, O. (2015). Application of New Technologies in Business Education for Instruction and Practice: Imperatives for Quality Assurance. *ABEN Conference Proceedings*, 2(1), 269-275.

- Amiaya, A.O. (2014). Integrating New Technologies into Office Technology and Management Curriculum: Challenges and Strategies, *Business Education Journal*, 1(2), 101-113.
- Emeasoba, N.C. (2014). An Assessment of Information and Communication Technology Competencies Possessed by OTM Lecturers in Anambra & Enugu States. *International Journal of Education*, 2(6), 461 - 470.
- Ezenwafor, J. I. (2012). Adequacy of Exposure to ICT by Graduating Business Education Students in Anambra State. *Business Education Journal*. 8(2), 45-60.
- Idialu, E.E. (2007). Quality Assurance in the Teaching and Examination of Vocational and Technical Education in Nigeria. *College Students Journal*, 4 (2 & 3), 10-16.
- Lefebvre, S., Deaudelin, D. & Loisselle, J, (2006). ICT Implementation State of Teachers: Practices and Conceptions of Teaching and Learning. Paper Presented at the Australian Association for Research in Education, National Conference held from November 27<sup>th</sup> – 30<sup>th</sup> at Adelaide, Australia.
- Michigan (2016). Michigan State University Board of Trustees, East Lansing M48828. Retrieved on 15<sup>th</sup> February, 2016 from [Commencement.msu.edu/.../spring](http://Commencement.msu.edu/.../spring).
- Nwazor, J. C. (2014). Business Education Curriculum and New Technologies: Guidelines for Review. *Business Education Journal*, 1(3), 19-29.
- Nwosu, E.N. (2012). Strategies in Motivating Secretarial Education Students' Interest in Emerging Technologies. *Business Education Journal*, 8(2), 269-279.
- Okwuanaso, S.I. (2004). Information and Communication Technology and Enhancement of Vocational Education. A Lead Paper Presented at National Conference 2004, Federal College of Education (Technical), Umunze, February 12-17.
- Osuala, E.C. (2009). *Business and Computer Education*. Enugu: Cheston Agency Limited.
- Shamatha, J. H., Peressini, D. & Meymaris, K. (2004). Technology-Supported Mathematics Activities Situated within an Effective Learning Environment Theoretical Framework. *Contemporary Issues in Technology and Teacher Education*, 3 (4), 363-381.

- Ugwoke, E.O. (2011). Effective Utilization of ICT for Repositioning Business Education Programme in Tertiary Institutions in Nigeria for National Development. *International Journal of Educational Research*, 11(1), 20-214.
- Umoru, T. A. & Nnaji, F.O. (2015). Utilizing New Technologies in the Preparation of Business Education Students for Self-Reliance. *ABEN Conference Proceedings*, 2(1), 191-222.
- Wokocha, A.M (2011). Education Leadership and Human Resources Develop for Today's World Lead Paper Presented at the Education International Conferences. On Global Education, Initiatives, Innovations, and Challenges Organized by the Faculty of Education, Nnamdi Azikiwe University Awka, May 22-28.