ANALYSIS OF COMPUTER TRAINING SKILLS IN BUSINESS EDUCATION PROGRAMMES IN COLLEGES OF EDUCATION WITHIN NORTH-EASTERN STATES OF NIGERIA

By

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ABSTRACT
This study investigated the extent to which business education programs in colleges of education of the north-eastern states of Nigeria exposed their students to computer skills during their training. Specifically, the study was designed to survey the institutions’ computer curriculum in line with NCCE requirement in order to ascertain if the sampled schools adhere to standard practice stipulated by the regulatory bodies. Four research questions guided the study. The area of the study covered the north-eastern Nigeria and the population consists of 600 NCE III students and six head of departments. A checklist and a forty-two items questionnaire were used as the instrument for data collection for the study. The data collected were analyzed using mean. The study revealed that the various types of training were to a large extent needed by the students. In addition, the analysis revealed that the courses were to a moderate extent relevant in terms of employability skills by the employers of labour and inadequacy of facilities has resulted to overcrowdedness. It was recommended that, computers should be used for training students in business education and also, more computer courses should be introduced to the school curriculum according to the required minimum standard for business education by NCCE.

INTRODUCTION

Computer literacy means knowing some basics of information and communication technologies such as save and open file, word processing, send and receive emails etc. Moreover, Idowu, Adagunodo & Idowu (2004) indicate that knowledge, skills and confidence with computer technology are now an asset for those entering the competitive employment market. The mission of business education is to develop literate citizens; students need to be knowledgeable, not only in alphabetic and numeric literacy, but also to be skillful in the 21st century business world. Daly (2008) pointed out that, colleges of education in most developing countries especially those in Africa lack prerequisite skills to manipulate new technology, and reluctant to switch from traditional methods of teaching to technology oriented approaches.

Information and Communication Technologies (ICTs) are major factors in shaping the new global economy and producing rapid changes in society. Within the past decade, the new ICT tools have fundamentally changed the way people communicate and do business. They have produced significant transformation in education, industry, business, engineering, agriculture and other fields. They also have the potential to transform the nature of education-where and how learning takes place and the role of students and
teachers in the learning process. According to Burton and Wynn (2004), the challenge confronting our educational system is how to transform the curriculum and teaching-learning process to provide students with the skills to function effectively in this dynamic, information-rich, and continuously changing environment.

According to Hall (2009), computer literacy is becoming increasingly prominent in the business world. He further stresses that colleges of education must bring computer training into the mainstream of their educational programmes as it is often an integral part of a classroom-based course in producing computer literate graduates. In school environment, it has been observed that computers are placed in isolated rooms with locked doors to be opened only by the computer teacher. (Daly, 2008). It is therefore not wise to deprive students from the computer rooms by keeping such rooms under lock.

Higher education is also looking closely at the business world where strategic advantages are now more and more based on computer literacy to be able to fit into the changing world. Vail (2006) suggested that students in higher institutions should be computer literate to take advantage of the evolving technology and to fit into the labor market. He further stressed that new possibilities are emerging which already show a powerful impact on meeting basic learning needs, and it is clear that the educational potential of these new possibilities has barely been tapped. As technology has created change in all aspects of society, it is also changing our expectations of what students must learn in order to function in the new world economy. Daly (2008). Students will have to learn to navigate through large amount of information, to analyze and make decisions, to master new knowledge in an increasingly technological society. An increasing number of students today enter into colleges of education with an inadequate level of computer knowledge and skills, Idowu, et al (2004).

Large number of students especially from economically disadvantaged communities, lack of computer skills necessary affects them in becoming successful in life (Wolfe 2002). He further opined that it is particularly important for colleges of education and other tertiary institutions to offer computer literacy courses to be able to accommodate the needs of such students and to ensure their effectiveness on educational programs in computer. Despite the incredible growth of the internet since the early 1990s, many business education students do not have access to basic information technology tools, including hardware, software, internet itself etc. These affect them when they get into the labor market. Hall (2009). As Wolfe (2002) would say, computer skills includes, knowing the parts of computer, word processing, spreadsheet, using e-mail, internet, generating charts and graphics, creating slide, and many more, are what the students need to know for an effective training to fit into the labor market.

Statement of the Problem
Sequel to the National Economic Empowerment and Development Strategy (NEEDS) document (2005), which indicated that the delivery of business education in Nigeria had suffered some years of neglect which was compounded by inadequate attention to policy framework within the education sector. The document further revealed that this neglect was partly caused by wrong emphasis of delivery as theorehtical knowledge of the computer training skills was emphasized at the expense of technical, vocational and business education and partly irrelevant school curricula that need urgent review to make them relevant and practice oriented. The neglect in school curricula according to Wolfe (2002) makes the students of business education not to be able to manipulate the
computer effectively when they are employed by employers of labor because they are not practically trained in computer skills. This is because the theoretical aspect is been emphasized more than the practical.

The above revelation in the National Policy on Education (2004), section 74 states that “teacher education shall continue to take cognizance of changes in methodology and in the curriculum”. Aduda (2010) stated that colleges of education were producing graduates who are ill equipped for the world of work and consequently employers often re-trained them, which is time consuming and costly. Therefore, he stresses that students should be exposed to some computer training skills. Hall (2005) also stated that it is in the best interest of students of business education to be computer literate both for the world of work and in enriching themselves as the world is changing. To this end, this study is aimed at investigating the extent to which the business education students are exposed to computer training skills during their training.

**Research Questions**

The following research questions guided the study.

1. What are the types of computer courses being offered by the business education students?
2. What are the types of training needed in computer by the Business Education Students at the NCE level?
3. To what extent are the facilities available adequate for the teaching/learning of computer in the sampled schools?
4. To what extent are the computer courses relevant in terms of employability skills by employers of labor?

**METHODOLOGY**

The research was a descriptive survey research. The area of the study was the north eastern states of Nigeria. The population for this study included all the final year students in the Business Education programme in the NCE granting institution in the North-Eastern Nigeria. Six (6) Colleges of Education were sampled for this study out of ten (10) colleges of education, using simple random sampling which gives every element an equal chance of being selected. Two research instruments were developed for this study which is checklist and questionnaire. The checklist was given to the head of departments in the sampled schools to ascertain the availability of the equipments and facilities while the questionnaires were for the student’s response in accordance to the research questions. Sambo (2005) defined checklist as a method used in direct observation which contain a list of items, characteristics, behaviors, or learning outcomes to be observed, and a rank ordered questionnaire used to seek people’s opinions developed by the researcher. Face and content validity of the instrument was determined by two experts in the faculty of Technology Education, Abubakar Tafawa Balewa University, Bauchi. The reliability of the instrument was determined through split - half, the result was 0.95, which means there is a high correlation and the researcher can use the questionnaire because it is reliable. The researcher administered the instrument personally and collected them on that same day. The data collected was analyzed using Simple Percentage and mean.

**Data Analysis and Discussion of Finding**

**Research Question 1:** What are the types of computer training courses being offered to the business education students?
Table 1: Computer courses offered by business education students

<table>
<thead>
<tr>
<th>S/N</th>
<th>COE Azare</th>
<th>COE Jalingo</th>
<th>FCE(T) Potiskum</th>
<th>COE Maiduguri</th>
<th>FCE(T) Gombe</th>
<th>FCE Yola</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Word processing</td>
<td>Word processing</td>
<td>Word processing</td>
<td>Word processing</td>
<td>File processing</td>
<td>File processing</td>
</tr>
<tr>
<td>2</td>
<td>Information Tech/Computer Application</td>
<td>Information Tech/Computer Application</td>
<td>Information Tech/Computer Application</td>
<td>Information Tech/Computer Application</td>
<td>Information Tech/Computer Application</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Computer Appreciation</td>
<td>Computer appreciation</td>
<td>Computer appreciation</td>
<td>Computer appreciation</td>
<td>Computer appreciation</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Key boarding</td>
<td>Key boarding</td>
<td>Key boarding</td>
<td>Key boarding</td>
<td>Key boarding</td>
<td>Graphics</td>
</tr>
</tbody>
</table>

Table 1 indicated the various computer courses that were being offered by the sampled institution according to the NCCE Minimum standard (2009). The result was extracted from the checklist completed by the head of department of each sampled school. The various schools indicated that graphics, word processing, keyboarding, Information Technology/Computer application, file processing and computer appreciation are being offered as recommended by the NCCE minimum standard requirement. It should be noted that though all courses investigated are in accordance with the NCCE curriculum for all Colleges of Education, yet findings from this study revealed that only FCE Yola offers graphics for business education programme, and none of the schools offers all the courses.

Research Question 2: What are the types of computer training needed by business education students at the NCE level?

Table 2: Types of Computer training needed by business education students

<table>
<thead>
<tr>
<th>S/N</th>
<th>School</th>
<th>COB</th>
<th>WP</th>
<th>PS</th>
<th>SE</th>
<th>DM</th>
<th>IT</th>
<th>GM</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>3.90</td>
<td>3.80</td>
<td>2.54</td>
<td>3.26</td>
<td>3.62</td>
<td>3.68</td>
<td>3.57</td>
<td>Large extent</td>
</tr>
<tr>
<td>2</td>
<td>FCE Yola</td>
<td>3.50</td>
<td>3.48</td>
<td>3.14</td>
<td>4.00</td>
<td>4.34</td>
<td>4.24</td>
<td>3.78</td>
<td>Large extent</td>
</tr>
<tr>
<td>3</td>
<td>COE Azare</td>
<td>3.50</td>
<td>3.50</td>
<td>3.46</td>
<td>2.72</td>
<td>3.48</td>
<td>3.00</td>
<td>3.28</td>
<td>Moderate extent</td>
</tr>
<tr>
<td>4</td>
<td>FCE(T) Potiskum</td>
<td>2.26</td>
<td>3.76</td>
<td>3.38</td>
<td>3.40</td>
<td>4.22</td>
<td>4.04</td>
<td>3.51</td>
<td>Large extent</td>
</tr>
<tr>
<td>5</td>
<td>COE Maiduguri</td>
<td>3.58</td>
<td>4.00</td>
<td>3.82</td>
<td>3.24</td>
<td>3.24</td>
<td>3.96</td>
<td>3.64</td>
<td>Large extent</td>
</tr>
<tr>
<td>6</td>
<td>COE Jalingo</td>
<td>3.30</td>
<td>3.52</td>
<td>3.08</td>
<td>2.70</td>
<td>3.40</td>
<td>4.18</td>
<td>3.36</td>
<td>Moderate extent</td>
</tr>
</tbody>
</table>

Key:
- COB = Computer Operation and Basics
- WP = Word Processing
- PS = Presentation Software
- SE = Spreadsheet/Excel
- DM = Database Management
- GM = Graphics

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IT = Information Technology
GM = Grand Mean

**Interpretation of Scores**

<table>
<thead>
<tr>
<th></th>
<th>VLE</th>
<th>LE</th>
<th>ME</th>
<th>SE</th>
<th>VSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.45 - 5.00</td>
<td></td>
<td>3.45 - 4.44</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Table 2 below indicates the type of computer training needed by business education students as stipulated in the approved National Commission for Colleges of Education (N.C.C.E) benchmark. The grand mean 3.50 and above indicated their need for the training to a large extent, yet the analysis revealed that four (4) of the sampled schools, namely; FCE (T) Gombe, FCE Yola, FCE (T) Potiskum and COE Maiduguri, needed all the indicated training to a large extent; while COE Azare and COE Jalingo with less than 3.50 indicated that their need for these trainings was to a moderate extent. Furthermore, item analysis, based on the grand mean of each type of training needed; revealed that the schools accepted to a large extent that Word processing (3.68), Database Management (3.72) and Information Technology (3.85) were highly needed; while Computer operations (3.34), Presentation software (3.19) and spreadsheet & Excel were moderately needed in the affected schools. This is in line with Daly (2008) who suggested some training needed by the business students like graphic design, information technology, and spreadsheet and excel etc.

**Research Question 3:** To what extent are the Facilities available adequate for teaching/learning Computer Courses to business education students using minimum approved standard?

### Table 3: Analysis of available facilities

<table>
<thead>
<tr>
<th>S/N</th>
<th>Schools</th>
<th>MS:</th>
<th>CT</th>
<th>C</th>
<th>T</th>
<th>PAS</th>
<th>PJ</th>
<th>SC</th>
<th>CH</th>
<th>PR</th>
<th>PH</th>
<th>WC</th>
<th>AC</th>
<th>IN</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FCE(T) Gombe</td>
<td>147</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>1</td>
<td>1</td>
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<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>Inadequate</td>
</tr>
<tr>
<td>2</td>
<td>FCE Yola</td>
<td>115</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>Inadequate</td>
</tr>
<tr>
<td>3</td>
<td>COE Azare</td>
<td>52</td>
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<td>0</td>
<td>1</td>
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<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
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</tr>
<tr>
<td>4</td>
<td>FCE(T) Potiskum</td>
<td>120</td>
<td>42</td>
<td>40</td>
<td>42</td>
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<td>1</td>
<td>0</td>
<td>0</td>
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<td>1</td>
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</tr>
<tr>
<td>5</td>
<td>COE Maiduguri</td>
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<td>50</td>
<td>45</td>
<td>50</td>
<td>1</td>
<td>1</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>Inadequate</td>
</tr>
<tr>
<td>6</td>
<td>COE Jalingo</td>
<td>60</td>
<td>40</td>
<td>60</td>
<td>60</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>Inadequate</td>
</tr>
</tbody>
</table>

**Key:**

- **IT** = Information Technology
- **GM** = Grand Mean
- **VLE** = 4.45 - 5.00
- **LE** = 3.45 - 4.44
- **ME** = 2.45 - 3.44
- **SE** = 1.45 - 2.44
- **VSE** = 0.5 - 1.44

- **Table 2** indicates the type of computer training needed by business education students as stipulated in the approved National Commission for Colleges of Education (N.C.C.E) benchmark. The grand mean 3.50 and above indicated their need for the training to a large extent, yet the analysis revealed that four (4) of the sampled schools, namely; FCE (T) Gombe, FCE Yola, FCE (T) Potiskum and COE Maiduguri, needed all the indicated training to a large extent; while COE Azare and COE Jalingo with less than 3.50 indicated that their need for these trainings was to a moderate extent. Furthermore, item analysis, based on the grand mean of each type of training needed; revealed that the schools accepted to a large extent that Word processing (3.68), Database Management (3.72) and Information Technology (3.85) were highly needed; while Computer operations (3.34), Presentation software (3.19) and spreadsheet & Excel were moderately needed in the affected schools. This is in line with Daly (2008) who suggested some training needed by the business students like graphic design, information technology, and spreadsheet and excel etc.

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<tr>
<th>S/N</th>
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<th>WC</th>
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<th>IN</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FCE(T) Gombe</td>
<td>147</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>1</td>
<td>1</td>
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<td>2</td>
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<td>2</td>
<td>1</td>
<td>Inadequate</td>
</tr>
<tr>
<td>2</td>
<td>FCE Yola</td>
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</tr>
<tr>
<td>3</td>
<td>COE Azare</td>
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<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>Inadequate</td>
</tr>
<tr>
<td>4</td>
<td>FCE(T) Potiskum</td>
<td>120</td>
<td>42</td>
<td>40</td>
<td>42</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>COE Maiduguri</td>
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<td>4</td>
<td>2</td>
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</tr>
</tbody>
</table>

**Key:**

- **MS** = Minimum Standard
- **NE** = Number Enrolled
- **CT** = Computers
- **C** = Chairs
- **T** = Tables
- **PAS** = Public Address System
- **PJ** = Projector
- **SC** = Screens
- **CH** = Chalkboard
Results of the analysis on table 4 revealed that all schools available facilities were grossly inadequate for the enrolled students per course as against the required minimum standard by the NCCE. This has resulted in over-utilization which emanates from over crowdedness. In addition, the analysis revealed that school enrolments were very high compared to the available and functional facilities. This result is in line with Idowu et al (2004) who identifies that lack of facilities and over crowdedness affects the understanding of students.

Research Question 4: To what extent are the computer courses relevant in terms of employability skills by employers of labor?

Table 4: Computer training opportunities for employability skills

<table>
<thead>
<tr>
<th>S/N</th>
<th>Schools</th>
<th>IN</th>
<th>BS</th>
<th>CM</th>
<th>CI</th>
<th>PS</th>
<th>NW</th>
<th>GD</th>
<th>DP</th>
<th>KD</th>
<th>GM</th>
<th>Rem.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FCE(T) Gombe</td>
<td>4.50</td>
<td>3.60</td>
<td>3.38</td>
<td>3.24</td>
<td>2.64</td>
<td>3.42</td>
<td>2.74</td>
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<td>4.40</td>
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<td>ME</td>
</tr>
<tr>
<td>2</td>
<td>FCE Yola</td>
<td>3.40</td>
<td>2.40</td>
<td>4.14</td>
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<td>1.76</td>
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<td>3.72</td>
<td>2.92</td>
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<td>2.86</td>
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<tr>
<td>6</td>
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<td>4.56</td>
<td>3.86</td>
<td>3.44</td>
<td>3.04</td>
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<td>1.94</td>
<td>2.90</td>
<td>3.22</td>
<td>3.80</td>
<td>3.40</td>
<td>ME</td>
</tr>
</tbody>
</table>

**Key:**

- IN = Internet
- BS = Basic Skills
- CM = Classroom Management
- CI = Classroom Instruction

Table 4 indicated that all the schools believed that those computer courses are relevant for their products employability skills to a moderate extent as revealed by the grand mean of 3.23. However, the item analysis for training opportunities disclosed that Internet opportunities (4.13) were to a large extent relevant for business students’ employability. This was followed by classroom management (3.78), followed closely by classroom instruction (3.53) and presentation software (3.52) which is regarded by respondent also to a large extent needed by employers. Furthermore, other relevant employability skills rated to a moderate extent include keyboarding (2.89); Networking (2.81), Graphics design (2.63) and Desktop publishing 2.50.

**Major Findings of the Study**

Based on the data collected and the analysis made, the following findings were made:

- Some major courses that are needed for business education students like spreadsheet/Excel, Database Management are not been offered.
- There are some training opportunities that are also not offered based on the minimum benchmark like Networking.
Graphics. Desktop Publishing, which will prepare them for this 21st century.

- No enough computers for students learning and the laboratories are not always open for students.
- Students accepted that computer create job opportunities, expose them to technological advancement, helps in the area of research, gain additional knowledge but the practical aspect is not given more time rather is the theoretical aspect.

**CONCLUSION**

Computer courses that are needed are not found in the schools amongst the courses offered. Some training opportunities are not offered based on the minimum standard, it was concluded that this will affect the students' knowledge-based on the course. The problem of facilities and equipment's not available and some that are out of shape will definitely make the students not to be able to manipulate the computer effectively which will affect them when they go into labor market. It was further concluded that computer training expose students to so many technological awareness, gain additional knowledge, create job opportunities and helps in the area of research.

**RECOMMENDATIONS**

Based on the analysis made on the data collected and the conclusion drawn, the researcher hereby makes the following recommendations:

a) Computers should be used effectively to teach students of Business Education.

b) Computer laboratories and other facilities should always be available for students to use so as to be knowledgeable and skillful in their field.

c) Staff of Business Education should be trained and sent on workshops and seminars so that they are fully literate.

d) More of computer courses that are needed should be taught in Business Education programme for the students to be able to fit into the labor market.

**References**


