ETHINKING TEACHING IN BUSINESS EDUCATION WITH CURRENT TRENDS IN TECHNOLOGY

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Abstract
It is an obvious fact that technologies have shaped teaching and learning of Business Education in schools. Technology-supported innovation provides fruitful possibilities leading to improved outcome for Business Education students. It is germane to note therefore, that the rethinking of the course can improve students’ learning more than the addition of technology alone. The e-learning approach offered by amclint.net platform. In this paper trust goes a long way in boosting learning resulting from students-centred conception of teaching and learning in the school system. It highlights the circumstances of how the new technologies will shape the future of teaching and learning of Business Education courses and its implications for the academia and Business Educators in particular. Thus this paper provides as approach evaluating possible choices for enhancing students learning in the modern technology boosting tertiary institutions education. More so, it intends to help Business Educators to provide a new thinking towards developing enhanced business programmes: particularly in this era of persistent changes in technology. Recommendations postulated will be of interest to Business Educators as well as other academia interested in promoting effective educational innovation.

Key words: E-learning, ICTs, integration, interactive, students-centred learning.

Introduction
Business Education plays a vital role in the nation’s industrial and economic development, as it provides the needed human resources that possesses the knowledge and skills to sustain economic growth of a nation. The current technology trends in the 21st century include research on instructional system which demands the old method of teaching Business Education involving varieties of teacher talk and chalk activities and at times use of manual equipments in the class instruction has to be replaced, complemented or supplemented with computer based training (CBT). One of the objectives of the National Policy on Education (FRN, 2004) is to build a self-reliant nation through the right use of technology devices. This poses an automatic challenge to everyone. There is therefore, need for the effective integration of information communication technologies (ICTs) in Business Education towards knowledge management in the changing world of work. The use of computer for teaching and learning is known as CBT. This system poses positive long-term benefits on future learning potentials, educational attainment
and productivity, which is a major goal of every school curriculum’s form of character, for gaining understanding and skill acquisition. These new trends in technologies stimulate learners to produce a better result. Business Education is in a new era that needs new skills and innovation in office technology and management, in accounting skills management and in consumer and cooperative education which are integral parts of Business Education. According to the Bureau of Labour Statistics, U.S. Department of Labour (2006), teachers act as facilitators or coaches, using interactive discussions and “hands-on” approaches to help students learn and apply concepts in subjects such as Science, Mathematics, English and Technology. Ajayi and Ekundayo (2009) affirmed that teaching and learning has gone beyond the teacher standing in front of a group of pupils and disseminating information to them without their participation. Lally, Mangione, and Tsao (2005) emphasize that they utilize “stage” or “manipulative” to help children or students understand abstract concepts, solve problems, carry out practical work, and develop critical thought processes. Obviously, these various methods employed in teaching and learning entails manual practical work through frequent laborious practices.

For this paper, the focus will be based on teaching and learning of Business Education through computer based training with manipulative and practical skills which have to do with interactive e-learning. Understanding these new learning tools involves a range of considerations associated with the various disciplines involved in the production of these resources. These involves the taxonomy of teaching and learning in the area of cognitive, affective and psycho-motive activities which include researchers in fields of cognitive science, psychology, education and educational psychology, instructional design and the evolving field of human-computer interaction. Various terms are used to describe the use of technology for the purpose of instruction and learning. They are: Technology Based Training (TBT), Computer Aided Learning (CAL)Computer Assisted Instruction (CAI), Computer Based Learning (CBL), Computer Base Training (CBT) and Computer Based Test (CBT).

Technology Based Training (TBT)

Technology Based Training (TBT) is a computer based training methodology that includes web-based, intranet based, DVD and CD based training on any topic. Studies have shown that the more senses involved in learning, the higher the retention rate.

High quality TBT has the following capabilities

- Reduced learning time and improved retention rates through rich multimedia including graphics, animated case studies and examples, animation, sound, video etc.
- No risk “hands on training” through realistic simulations and role playing.
Learn only what you do not know through initial skills gap evaluations that assess training path requirements and bypass topics you already know.

- Evaluate acquired knowledge throughout course with multiple testing.
- Enables “just in time learning” for quick solutions to required needs as opposed to “just in case” learning which often does not improve your performance.
- 24/7 global access - ability to train according to your own preferences, your own learning pace, eliminates time constraints, and removes geographic constraints.
- Unlike books TBT has the ability to keep today’s fast-changing content current, dynamic, and refreshed.
- Capable of adaptation to market and technological changes.
- Consistency – courses can be delivered consistently each time and for each participant unlike instructor-led training.

**Computer Aided Learning (CAL)**

Computer Aided Learning (CAL) or Computer Assisted learning can be defined as a computer program or file developed specifically for educational purposes. The technique used throughout the world in a variety of contexts, from primary school to university. It is used for learning or teaching subjects like Mathematics, Science, Geography, among other, through computers with subject wise learning packages/materials. It may include all types of Technology-Enhanced Learning (TEL), where technology is used to support the learning process. It is said to be “pedagogy empowered by digital technology”. In general, it may be considered as a part of e-learning. History of computer-based learning or computer assisted learning (CAL), is not a new phenomenon. Computer aided learning will help us to make the present teaching learning process joyful, interesting and easy to understand through audio-visual aids. Teachers will be resourced with multimedia contents to explain topics better. Generally, the use of computer in the classroom will help us to improve quality of education and also severs as a motivational factor for learners. [http://ssamanipur.nic.in/cal.htm](http://ssamanipur.nic.in/cal.htm)

The Computer Aided Learning program was initiated in the year 2002 to harness the potential of computer technology for education. The objectives of the program were to make learning a play, assessment a fun and equal knowledge for all students. During implementation, the objective of ‘equal knowledge for all’ got converted to ‘equal opportunity for all’.

**Computer Assisted Instruction (CAI)**

A self-learning technique, usually offline/online, involving interaction of the student with programmed instructional materials. Marvin Beacon’s tutorial on keyboarding is a good example for Business Education. Computer-assisted instruction (CAI) is an interactive instructional technique whereby a computer is used to present the
instructional material and monitor the learning that takes place. CAI uses a combination of text, graphics, sound and video in enhancing the learning process. The computer has many purposes in the classroom, and it can be utilized to help a student in all areas of the curriculum. CAI refers to the use of the computer as a tool to facilitate and improve instruction. CAI programs use tutorials, drill and practice, simulation, and problem solving approaches to present topics, and they test the student's understanding.

According to advocates of computer assisted instruction (Chika 1999, Chang 2002, Cotton 2001, Garcia and Aries 2000) all claim that using CAI enhances learning. CAI through overall positive motivational factors associated with technology into the curriculum. Computer assisted instruction provides the teacher with partner to share in the responsibility of the student learning process. It implicitly imitates the educator and integrates the theories and condition of learning.

Typical CAI provides: text or multimedia content, multiple-choice questions, problems, immediate feedback, notes on incorrect responses, summarizes students' performance, exercises for practice, and worksheets and tests.

Types of Computer Assisted Instruction

1. Drill-and-practice: Drill and practice provide opportunities for students to repeatedly practice the skills that have previously been presented and that further practice is necessary for mastery.
2. Tutorial: Tutorial activity includes both the presentation of information and its extension into different forms of work, including drill and practice, games and simulation.
3. Games: Game software often creates a contest to achieve the highest score and either beat others or beat the computer.
4. Simulation: Simulation software can provide an approximation of reality that does not require the expense of real life or its risks.
5. Discovery: Discovery approach provides a large database of information specific to a course or content area and challenges the learner to analyze, compare, infer and evaluate based on their explorations of the data.
6. Problem Solving: This approach helps children develop specific problem solving skills and strategies.

Advantages of CAI

- One-to-one interaction.
- Great motivator.
- Freedom to experiment with different options.
- Instantaneous response/immediate feedback to the answers elicited.
- Self pacing - allow students to proceed at their own pace.
• Helps teacher to devote more time to individual students.
• Privacy helps the shy and slow learner to learn.
• Individual attention.
• Learn more and more rapidly.
• Multimedia helps to understand difficult concepts through multi sensory approach.
• Self directed learning – students can decide when, where, and what to learn.

http://www.thefreedictionary.com/computer-assisted+instruction

Computer-Based Learning (CBL)

Computer-based learning is a term that can be used to describe virtually any kind of learning program using computers as a central staple. This approach to learning takes advantage of the interactive elements of computer software, along with the computer’s ability to present many different kinds of media.

Computer-based learning has emerged in response to computer-based training (CBT) and as its name it is more focused on learning. Its favorite technologies include Micro worlds, Hypertext and Simulations. CBL has in common with CBT in that it focuses on the individualized self-study. The 1980’s and 1990’s produced a variety of schools that can be put under the umbrella of the label "Computer Based Learning" (CBL). Frequently based on constructivist and cognitive learning theories, these environments focused on teaching both abstract and domain-specific problem solving. Preferred technologies were micro-worlds (computer environments were learners could explore and build), simulations (computer environments where learner can play with parameters of dynamic systems) and hypertext.

There are several potential advantages of computer-based learning programs, including the ability for people to learn from their homes and study without the assistance of an instructor. Some people are opposed to computer-based learning because they feel it depersonalizes the classroom experience, and that it may lack the necessary flexibility to handle problems that students face during the learning process. This type of learning has been used as a tool in the midst of a more traditional classroom experience. It has also been used as a primary education method, especially in many online education programs.

http://www.wisegeek.com/what-is-computer-software.htm

Computer-based testing (CBT)

Computer-based testing is a simple and better way to offer the General Equivalency Diploma (GED) test. It allows testing centers to offer a more consistent test delivery, faster scoring and reporting, and enhanced test security. CBT have been test run by JAMB for tertiary entry qualification examinations and it has proved successful and has been adopted by JAMB.
The Facts

- Testing is done in person, on a computer, at an approved testing center
- Testing is not online
- Similar to paper testing centers, computer-based testing centers are reviewed and approved to ensure test-takers receive the best, fairest experience possible for their test
- Training for jurisdiction and test center administrators is included in set up of a new testing center

Testing centers can use desktop computers or laptop computers; as long as minimum requirements are met. [http://edutechwiki.unige.ch/en/computer-based_training](http://edutechwiki.unige.ch/en/computer-based_training) Computer-based testing is the standard for many other test delivery programs. All these use of technology for the purpose of instruction and learning are accessible on amclint.net platform.

Learning with Technology through Teaching Concept

Collins and Halverson, (2009) explain how learning technologies have taken different evolution courses in and out of schools. Some technologies thrive in schools: other technologies that seem to run counter to the aims of schooling now flourish outside of schools and animate new learning environment, such as many home schooling, learning centres, video gaming and social networking. The technologies for learning versus technologies can be seen in the contrast of technologies for learning versus technologies for learner. A quantitative superior learning outcome occurs when understanding is transformed that is when students change the way they understand and interact with the world around them.

Akpotohwo, (2014) opines that if teachers’ conceptions are fundamental to improve student learning by nurturing environment that encourage deep approaches by students, then there should be no surprise when technology proves of itself not to be crucial. Akpotohwo, (2012) citing Russell, (1999), Clark (2008) and Al Haderi (2014) showed that quality learning may just as likely occur when technology has been used to support learning as when it has not. After all, it is the activities students engage in which affect their learning, irrespective of whether they are delivered by an academic, a printed study guide, a text or computerized program poorly planned or superficial teaching strategies utilizing technology like “dumping lecture on the web” In eradicating these perception postulated by these scholars what ticks is the interactive nature of amclint.net platform as a supportive technology in teaching and learning.
Educational Implication of Learning with New Technological Innovations

Technology Boost Learning Condition: Presently, as the focus of teaching and learning shifts to the student, the student must become more actively involved in the learning process and responsible for learning that takes place. Technology-supported learning activities can most times boost students learning when they provide a more conducive environment for the learning activity.

Technology Facilitates Learning Conditions: ICT-enabled education flexibility facilitates borderless education which removes physical limitations imposed by traditional styles of Business Education and replaces them with virtual learning. It facilitates lifelong learning and enhances visualization and simulation in customized business-academy partnership in the classroom with theory-practice nexus.

Technology Boost Learning Outcomes: Brown (1998) in Reynoldson and Vibert (2005) postulate that approaching Business Education from constructivist viewpoint requires that instructors prepare their students not only to ‘do’ but to know under what way the knowledge they have acquired should be applied in professional setting. This depicts a range of understanding linked up with the effective application of knowledge gained from Business Education to the real business world. Braimoh (2014) asserts that mastery of the appropriate field of knowledge and the possession of competencies and attitudes consistent with expected norms and standards of behaviour leads to professionalism. This is the watch word of business educators which Association of Business Educators of Nigeria stands for.

Computer Assisted Instruction (CAI)

Interactive e-learning is computer based education which entails the use of computers for teaching and learning process. Computer aided instruction enhances learning and teaching with the use of computer involving the use of modern technologies like computer modules to impart skills, knowledge and abilities into learners of various backgrounds. Simulation and role playing software is an important tool in computer aided instruction. Describing computer assisted instruction, Abimbade, (1998) refers to computer assisted instruction as an automated instructional technique in which a computer is use to present instructional programme to the learner. The computer assisted instruction means the use of the computer to instruct a student. It does not mean teaching a student how to use computer or teachings a student about computer technology.

Office Technology and Management

Various technological devices are utilized by OTM practitioners in their day to day tasks or duties which have in fact enhance their productivity making their jobs easy, timely, flexible, stress free, more effective and efficient.
**Accounting Skills Management**

The spreadsheet software is referred to as electronic spreadsheet programme. It organizes and manipulates numerical data in teaching and learning. The most evident power of spreadsheet is its ability to handle the calculation very fast. This capability allows both students and teachers to play with numbers and see result at the same time. Chong, (2004) affirms that there are two major goals of integrating technology into accounting education: to prepare students for computer usage in their prospective workplace and to enhance student learning.

**Consumer and Cooperative Education**

**E-commerce**

E-commerce has allowed firms to establish a market presence, or to enhance an existing market position, by providing a cheaper and more efficient distribution chain for their products or services. Examples of firms that have successfully used e-commerce are Konga.com, Jumia.com.ng and Ewaraja.com on-line shopping malls in Nigeria major cities. These mass retailers not only have physical stores, but also have online stores where the customers can buy everything from clothes to office and household appliance. When you purchase a good or service online, you are participating in e-commerce.

Some advantages of e-commerce for consumers are:

- **Convenience.** E-commerce can take place 24 hours a day, seven days a week.
- **Selection.** Many stores offer a wider array of products online than they do in their brick-and-mortar counterparts. And stores that exist only online may offer consumers a selection of goods that they otherwise could not access.

But e-commerce also has its disadvantages for consumers:

- **Limited customer service.** If you want to buy a computer and you are shopping online, there is no employee you can talk to about which computer would best meet your needs.
- **No instant gratification.** When you buy something online, you have to wait for it to be shipped or transported and delivered to your home or office.
- **No ability to touch and see a product.** Online images do not always tell the whole story about an item. E-commerce transactions can be dissatisfying when the product the consumer receives is different than expected.

http://www.investopedia.com/terms/ecommerce.asp#ixzz3nhTM1CZg

**Use of ICT in Teaching Business Education Programme in Nigerian Tertiary Institutions**

Due to global trends in recent time learning resources in education have grown and improved tremendously. It is therefore, imperative that, as the technology and learning resources change, so, also it is expected that, the education system of the
programmes, especially on Business Education programmes should be dynamic. The educational system cannot be dynamic in the desirable way unless the teachers introduce the technology devices into the teaching and learning process of the Business Education educational course.

In Business Education, learning is a conscious effort to acquire skills and experience. During teaching and learning in Business Education, learners play active roles through a successful skill oriented individual programme. Through the use of ICTs, the learners are expected to play active role in making decision and accepting responsibilities. Their use of ICT is expected to enhance their better understanding in learning and applying same in their various endeavour in the world of work. Consequently, there are several reasons for Nigerian tertiary institutions to embrace the ICT in a pedagogical meaningful way.

The utilization of network technologies creates, fosters, delivers and facilitates learning and study anytime, anywhere and anyhow. It brings learning to your door step in an affordable learning environment, learning made easy, flexible and enjoyable! Besides, it is learner centered as it gives possibility of customizing the learning and teaching materials to the characteristic and needs of the learners. It saves teachers time and energy in teaching and demonstrating difficult concepts, theories and principles thus making presentation exciting using ICT. The ICTs gadgets are not in any way affected by noise but aids information verification instead of been confused and lost in thought in trying to assimilate and comprehend what the teacher says in a noisy clouded classroom as obtained in most Nigerian tertiary institutions where there are inadequate classroom space and number of teachers to adhere with the NUC, NBTE and NCCE stipulated students’ staff ratio and classroom space provision. *Amclint.net* interactive e-learning package aid teachers in getting accurate feedback from learners. It makes the teacher active and work ahead of students because they will be occupied preparing next instructions of software’s to be worked on by students so it does not make teachers redundant. Redundancy which inhibits most conservative teachers is totally eliminated. The ICT in Business Education helps students to become independent learners, develop critical thinking and problem solving strategies or policies, thereby discouraging spoon feeding. For instance OTM students can acquire soft touch keyboarding skills through CAI of Marvin Beacon with undivided attention and interest. Besides, through the interactive nature of *amclint.net* platform, students not only learn how to access the various connectivity available on the internet, for social and entertainment as it were, but now for knowledge, information and skill competence.

**Integrating Technology in Teaching for Improved Business Education**

Akpotohwo, (2012) citing Russell, (1999) summarizes over 350 students who suggested that the use of computers itself makes no significant difference to student
learning. It is not the resources, but rather the integration of resources into appropriate activities that result in an improved learning environment. Buttressing this, Akpotohwo, (2014) asserts that student of Business Education improved in technology because the educators incorporated active learning tasks into face-to-face classes that arose from the redesign programme. This redesign Business Education curriculum to these writers links the trends that guided 1990s approaches to technological changes in schools which were marked by two dominant trends. One is the attempt to create universal access to technology in schools, and the other is on how to use the technologies for progressive instructional practices. These requirements were presumed to spate revolutionary changes in Business Education practices.

**Values of Utilization of ICT in Teaching Business Education**

Bransford, Brown, and Cockry, (2000) pointed out that research has shown that the appropriate use of ICTs can catalyze the paradigmatic shift in both content and pedagogy that is at the heart of education reform in the 21st century. More so, if ICT-supported education is designed and appropriately implemented it can promote the acquisition of knowledge and skills that will empower students for lifelong learning. Practice as the old saying goes makes perfect. Oguzor and Onyeukwu (2012) view an effective utilization of ICT in schools can have an immediate positive impact on the schools’ learning environments, by creating more dynamic interaction between teachers and students, increasing collaboration efforts and teamwork in problem-solving activities, stimulating creativity in both students and teachers, and helping students to control and monitor their own learning. Besides, successful utilization of ICT in Business Education can help students to develop skills both specific to ICT and more that will be useful to them in their future academic and professional lives. The best practice of acclimatizing Business Education to develop human capacity for the ever dynamic world of work is to focus its investment in the integration and use of ICTs in the curriculum implementation process of teaching and learning. Amclint.net platform is all about utilizing computer based training in Business Education through the provision of interactive sessions between the teachers and learners.

The following are values derived from usage of ICT in education:

- **Active Learning:** ICT enhanced learning is “just-in-time” learning in which the learner can choose what to learn, whenever, wherever and however, as they deem whenever appropriate. It enables them to work on real-life problems in-depth, making learning less abstract compared to rote learning or memorization-based learning. ICT enhanced learning promotes increased learner engagement which is interactive and learner-centred. ICT enhances mobilized tools for examination through CBT. It can also be used for calculation and analysis of information, thus
providing a platform for students’ inquiry, analysis and construction of new information.

- **Collaborative Learning:** It encourages interactive and cooperative learning among students, teachers and experts regardless of time and place. Besides, modeling real-world interactions, ICT-supported learning provides learners the opportunity to work with people from different cultures, thereby assisting to boost learners teaming and communicative skills as well as their global awareness. ICT models learning exposes the learners’ throughout lifetime by expanding the learning window to include peers, mentors and experts from various fields.

- **Creative Learning:** ICT-supported learning advances the manipulation of existing information and the creation of real-world products rather than repeating of received information and presentation of raw data as it were.

- **Integrative Learning:** ICT enhanced learning boosts integrative and thematic approach to teaching and learning. This approach excludes the artificial partition between the various disciplines and between theory and practice that depicts the traditional classroom approach.

- **Evaluative Learning:** ICT-supported learning is interactive and student-centred thus allows learners to explore and discover rather than a passive learner who merely listen and remember what has been taught. This is in contrast with text or print-based educational technologies. ICT-supported learning recognizes that there are various learning pathways and many different articulations of knowledge.

**Conclusion**

Business Education in the 21st century is the application of knowledge, devices and systems to facilitate and enhance the information processes and data analysis, boost consumer education and delivery of same. It can also be viewed as a concept that is associated with office automation, electronic technology and office and business globalization. It is widely accepted that the integration of modern ICTs into the teaching learning process has great potential. In fact, it could be the most important way by which Business Education can meet their educational aspirations within reasonable time and resources. There is a need therefore, to prepare and make students of Business Education competent, skillful and employable in the world of work, which is being driven by technological content.

Never before has the teaching function been so challenged by technology than now with all the new trends in office technologies at the beck and call of Business Education practitioner which have made their work so easy and flexible. Technology based training is changing the way corporations and individuals obtain skills in almost every single segment of the business process. Initially IT training dominated the TBT
market; however, front office, management, sales, customer service and professional development training are increasing at a rapid rate. This calls for the need for integration of amclint.net platform in the teaching and learning process in Business Education – our business.

**Recommendation**

In order for the nation to be producing graduates that are employable and self-reliant, why not start with integrated interactive teaching in Business Education which is the bedrock of all human resources supply, embracing the ICT in a pedagogical meaningful way. Nweboku, (2005) pointed out that the educational sector especially at the tertiary level should make efforts to catch up. Furthermore, educational institutions generally should beef-up in their responsibility to change Business Education from the traditional training methods to compulsorily evolve the new technologies in areas of teaching and learning which will serve as motivator for both learners and teachers to be more efficient and productive. Business Education teachers in training should be exposed to ICTs so as to be well equipped for the work before them in the teaching and learning world of work. This can be achieved by re-structuring their curriculum which includes courses in computer training and use of computer programmes like word processing, desktop publishing, power point, spread sheets among others to integrate e-learning interactive network access such as provided by amclint.net platform. Besides, this can be used to present and teach topics during micro teaching session in their departments as well.

Information and communication technology should be made available for teaching students, to use and practice on in-service-training. Workshop, seminars and conferences should be organized for teachers on ICTs in order to make them competent, current and alive to their duties in their chosen noble career. Oguzor and Onyeukwu (2012) in citing Asian Development Bank (2009) assert information literacy is predicted as a basic to “human survival”. UNESCO, (2008) affirms that in an increasingly digitalized world as it enables individuals in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. Schacter, (1999) postulates studies indicate that technology can accelerate, enrich and deepen basic skills, motivate and engage student learning; help relate academics to best practices of today’s workforce; strengthen teaching; increase the economic viability of tomorrows’ work; contributes to school change; and connects schools to real world.

According to OECD, (2005) learning management system (LMS) are applications that are used for the delivery of learning contents and facilitation of learning processes as well as enhance the administration and teaching in tertiary education. Such students will have the advantage of being familiar with different media common to the modern
workspace and should be able to use these ICT skills to access, compile, synthesize and exchange information effectively.

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