

CREATIVITY AND INVENTION IN BUSINESS EDUCATION: A NECESSITY FOR THE DEVELOPMENT OF ENTREPRENEURSHIP

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Abstract

This paper focuses on Creativity and invention in Business Education; and sees it as a necessity for the development of Entrepreneurship. By its very nature as skills development programme, Business education requires creativity and invention as a bed rock. The paper describes Creativity as a function of knowledge, curiosity, imagination and evaluation. The greater the knowledge base and level of curiosity, the more ideas, patterns and combinations that can be achieved which culminates into creating new and innovative goods and services. Possession of the knowledge alone cannot lead to invention; the bits and pieces must be shaken up and integrated into new ways. The embryonic idea and knowledge must be evaluated and developed into useable ideas. This paper looks at some inventions and innovations of facilities for the effective teaching and learning of Business Education. Some of the inventions and innovations include: Keyboarding, computer, the internet, CD ROM, audio cassette tapes, projectors, video conferencing, power point. In conclusion, the paper recommended that these facilities should be used effectively in the business education department as this will enable the grandaunts to be self-employed and become job creators instead of job seekers.

There is a saying that necessity is the mother of invention. While this may not be the case for every invention out there, most of these inventions come as a brain child of invention. The cool thing about these inventions is that they combine all sorts of simple products we know and use every day into new convenient combinations.

An invention is a unique or novel device, method, composition or process. It may be an improvement upon a machine or product, or a new process for creating an object or a result.

Creativity is the ability to think and act in ways that are novel. In my view, there are two kinds of creativity, innovation and invention. Innovation is thinking creatively about something that already exists. In essence creativity has to do with the power of positive thinking. Organizations today need more inventions than innovations. This means that people in organization need to release their creativity in ways that are quite different from the tried-and-true methods of the past. It also means organizations need to be open to experimentation to find what doesn't.

Creativity is a function of knowledge, curiosity, imagination and evaluation. The greater the knowledge base and level of curiosity, the more ideas, patterns and combinations that can be achieved which correlates to creating new and innovative goods and services. But merely having the knowledge cannot guarantee the formation of new patterns. The bits and pieces must be shaken up and integrated

into new ways. The embryonic idea must be evaluated and developed into useable ideas. In other words, there really is a process and to master that process, three important levels of creativity must be understood and these are: discovery, invention and creation.

Discovery: The first level of creativity is discovery. As the name implies, it is when you become aware of or stumble upon something that you are said to have discovered it. Many inventions start with a discovery.

Invention: A higher level of creativity is invention. Alexander Graham Bell for instance, invented the telephone.

Creation: creation is the highest level of creativity.

Business Education is an aspect of educational programme which have been carefully designed to meet the basic skills, knowledge and capabilities to function either as business teacher or business executive. It is education directed at teaching people business, to handle personal affairs and about business in order to be good citizen of the society. Osuala (2004) opined that business education is a programme of instruction which consist of two major parts: whereas one part consist of office education for office career through refresher and upgrading education, the other part consists of a programme to provide students with information and competencies which are needed by all in

managing personal business affairs or using the services of business world.

The main target of Business Education is to create as many entrepreneurs as possible. Entrepreneurship is the ability of an individual to seek out investment opportunities, establish and run an enterprise successfully as quite distinct from obtaining a paid job. Entrepreneurship according to Daboer (2011) quoting US Colorado education is a programme or part of the programme that prepares individuals to undertake the formation and or operation of small scale business which include franchise to operations for the purpose of performing all business functions relating to a product or service, with emphasis given to the social responsibilities, legal requirements and risks for the sake of profit involved in the conduct of private business.

Entrepreneurship as a concept can be perceived from different angles: as an ability to start a business; as leadership qualities of carrying on business, as an ability to organize a business or as simply being innovative. Hornby in Ugwuoke (2011) defined entrepreneurship as the ability to start or organise a commercial enterprise, especially one involving a financial risk. Some of the entrepreneurship skills are self motivation, self confidence, ethics and morals, time management, sales, finance, ability to take risks, positive leadership qualities, originality and hard work. These qualities are necessary in starting and sustaining a business

enterprise, the absence of which jeopardizes the chances of succeeding in a business undertaking despite the huge amount invested in it.

Entrepreneurship education is important for the entrepreneur for according to Osuala (1993), the valuable skills needed by the entrepreneur can be learnt through trial and error but most of the errors can be eliminated by education.

The important role which entrepreneurship education plays in economic development has been recognised. Aguiobo (1997) pointed out that effective skills acquisition and entrepreneurship education are indispensable towards empowering people and producing a self-reliant nation with dynamic economic. Ojokwu (2000) also reported that the economic importance of entrepreneurship rest on the formation of small scale business units and these units have high potentials for job creation. Osuala (1998) reported this view by stating that businesses have made significant contribution to the economy and wellbeing of Nigeria.

Invention and Innovation of Facilities for the Effective Teaching and Learning of Business Education.

Business education like its parent field of study (the conventional education) has under gone tremendous changes and transformation as a result of creativity and invention. From informal instructions in open fields in the ancient days of Socrates and Aristotle, to the

classroom situation where chalk, black boards and slates were the key educational materials. The teacher and the student must be within the reach of each other and as close as the voice and space permit. With the entrance of modern educational tools or inventions, the chalk and black boards are gradually giving way to the computer and electronic projectors. The video and audio electronic conferencing have broadened the space between the teacher and the student and turned same into a global class room.

One can therefore only but imagine the degree of deficiency which would have beset the field of teaching and learning in Business Education if certain machines and facilities were not invented. The immense contribution of invention and innovation in the teaching and learning of Business Education can be gleaned from the relative ease with which the modern day teacher impacts knowledge to the learner. Apart from the ease of illustration and method of marshaling points in the class room through electronic power points, a greater number of inventions have come to be the basis of several self employment schemes and entrepreneurial efforts.

Recently, educational machines have been invented which greatly uplifted and enhanced the effective teaching and learning in Business Education and these include the following: Electricity, Television and Audio/visual cassette tapes, Radio, CD-ROM, DVD, Internet, Audio-

conferencing, Video-conferencing, Web-Based Training programmes, E-learning, Public address system, Computer, Power point etc. These ICT facilities are very useful tools to the students, researchers, teachers and people in the academic setting.

Research suggests that the invention and implementation of ICT facilities has transformed the existing school system by raising the efficiency and effectiveness of teaching and learning and thus increasing students' participation. Many studies emphasize the benefit of implementing ICT in schools. Additionally, Laaria, (2013) noted that ICT facilities can enhance teacher's efficiency and enthusiasm, encourage their planning and co-operation, help their adaptation of student-centered teaching strategies, reduce their workload, and improve relationship between teachers and students.

For a better appreciation of these inventions and their role in the enhancement of Business Education, it will be necessary to attempt a definition or an explanation of each machine and its function.

Audio-Cassette Tapes: Audio tapes can be played by any standard cassette player. Though audio, the tapes can convey information that may be easier to illustrate with sound than simply through text or diagram. Audio tapes can accompany other means of instructions (print-based materials, classroom teaching etc) and provide

detailed information in a step-by-step manner (Perraton, 2002). Audio tapes are recordable and thus can be reproduced easily and cheaply. They can be stopped to allow for classroom interaction and discussion. They can be replayed at instances where it might be beneficial to repeat parts of the lesson. They are portable and radio programmes can be replayed at a later date (Nunes and Gaibe, 2002).

CD-ROM: Compact Disk Read only memory (CD-ROM) is an information technology with great potential for Business Studies by teachers/students. The services provide current awareness information to library users. Crane and Lott (2004) reported that CD_ROM can be used in libraries to store a variety of things such as lesson notes, tests to be given to students etc. it is of high value and very resistant to hostile climate, hence it is often more secure than print materials.

According to Compton (1994), CD-ROM is required in the secondary schools for the following reasons: (i) CD-ROM has high storage capacity.(ii) It can store up to 660 megabytes of data and store a huge amount of text that call up to fill 330,000 pages of papers.(iii) It is highly durable and not susceptible to computer virus.(iv) The mailing cost is very low, it does not require extra charge. CD-ROM disc can be accessed directly by the computer, it doesn't need telecommunications. No matter the length of usage the subscription is still the same and it is

done annually. (ii) CD-ROM is user friendly. Exciting features of CD-ROM are its ability to play a wide repertoire of materials such as books, journals directories, movies, games video and educational materials. Database on CD-ROM are durable, have huge storage capacity and retrieval is easy, brows able and fast. CD-ROM will continue to be relevant in our schools because of its relatively cheap production and maintenance.

Power Point: It is a computer software that is used to enlarge project reading materials, pictures, motionless and motion films. The materials to be projected are prepared in slides in a computer and projected through a computer. Power Point presentation can accommodate numerous teaching strategies from practical lesson, to experimentations, demonstration, illustrations etc. With Power Point, teaching becomes refreshingly new, interesting, real, persuasive and lasting in the memories of learners. This is because presentations created with power point can add audio and visual effects, making them look professional or flashy to meet high standard of presentation (Igwe, 2002, Ndukwe, 2005).

In an information technology age, the use of power point (PPT) can be advantageous in many ways in the business education delivery system. It can enable a business education teacher to graphically present his lesson, it can provide lesson notes that can be used in

team teaching and his lessons can be taught in his absence by a member of his team. Using the power point presentation, business education teachers can prepare teaching slides of the scheme of work, the syllabus, and the curriculum. Thus lessons are prepared well in advance electronically and utilized periodically in the classroom.

Projectors: Projectors are basic equipment in classrooms. In these rooms, short throw and ultra short throw projectors let educators create large and impactful images even in small spaces. These projectors offers an excellent solution for classrooms and training facilities that want to enhance learning and get students involved in presented subject matter in new ways. Interactive projectors, which mimic a smart board, can project on any surface in the classroom, making educational applications compelling for students. These projectors work seamlessly with interactive software applications which are run on a computer and projected on a screen.

The Computer: Becta (2007) opined that a computer is an electronic machine which, under the control of stored programmes, can accept data in a prescribed form, process data and supply the results as information in a specified form. The computer can be programmed to accept data (input) process data into useful information (output) and store data in a secondary storage device of

safekeeping for later use. A computer is a machine that follows instruction in order to process data, solve a specific problem or accomplish a particular task. It can also be defined as a programmable machine, which responds to a specific set of instructions in high speed and in a well defined manner. It can also execute a pre-recorded list of instructions called a programme.

In education, computers are used in teaching a large number of students thereby solving the problem associated with overcrowded classroom. Distance learning programme is achieved today through the application of computer technology, (Mabawonku, 2003). In the economic sector and to be specific, the banking sector – computers are now used in conjunction with other technologies to provide efficient and effective banking services. This has solved the problem of long queue of line by customers. This can be seen from the use of ATM by customers to withdraw money even at a bus stop. In the manufacturing industries, Robots are used to process goods, while in the classroom computers are used to provide efficient services with relative ease, (Saka and Garba, 2007). Eleobe (2004) described a computer as a system, which comprises hardware and software that are used for business studies to input, process, and store output data in the form of information for a human user. A computer is an electronic machine that is capable of taking input data, processing the input data and producing the output report on paper or on the Visual Display

Unit (VDU) or store the output for future use.

The American Heritage Science Dictionary (2002) further defines a computer as a machine that can be programmed to manipulate symbols. According to the Dictionary, computers can perform complex and repetitive procedures quickly, precisely, reliably, and can quickly store and retrieve a large amount of data. From the above definitions, one can summarise by adducing that a computer is an electronic device which: (i) accepts data and instruction or (input), (ii) processes data according to instructions given (processing), (iii) stores the processed data (storage); and (iv) display the result of the processed data (output).

Computer-based Education: with the advent of computer-based learning, instructions are shifting from traditional methods of instruction to computerized methods of instruction in developed nations. Through the use of computer, the roles of many teachers are changing from the traditional lock-step giver of information to that of presenter, manager and facilitator of learning. For instance, in the United States, computers have been described as “the new basic” of education and the internet as “the blackboard of the future” (Becta, 2005). Today, teachers are expected to make use of modern instructional methods which are appropriate for the students and which contribute to the development and employment conditions, and can

assist them to carry out swiftly, efficiently and effectively what has to be done in the teaching-learning environment.

Computer-Assisted Instruction (CAI):

Computer-assisted instruction (CAI) is an interactive instructional method that uses a computer to present material, track learning and direct the user to additional material which meets the students’ needs. It can also be used to describe internet based instruction through the use of web pages, web bulletin boards, list-serve and news pages, video and real audio, graphics, and hands-on applications. Additionally, self-teaching programmes on CD-ROM or the emerging DVD are available forms of Computer Assisted Instruction (CAI) (Bucgiktz, 1998). CAI learning may use a combination of text, graphics, sound and video in the learning process. It is especially useful in distance learning situations. The explosion of the internet as well as the demand for distance learning has generated great interest and expansion of Computer-Assisted Instructions.

Onasanya and Adegbija (2007) identify some of the ways the computer can be effectively used as an instructional tool, as a tool for providing payrolls for teaching and non-teaching staff, as a managing administrative and library records tools, and as a tool for automation of some simple level of instruction (drill and practice, tutorial, animation, simulations, demonstration etc). Actually, the use of computer in

education is an extension and a rather sophisticated level of Programmed Instructions.

Audio-Conferencing: Audio-conferencing allows for a two-way real time communication between the instructor and the learner (Jurich, 2007). Audio-conferencing technology uses the telephone system infrastructure, where the key component is an electronic device called an audio-conferencing “Bridge”. The bridge acts as the main hub for the conference, where the participants simply dial into the bridge to connect to the conference, calls can also be made from the bridge when the calls are combined so that the connected calls can converse simultaneously (Rao, 1994). The number of participants is dependent on the number of lines terminated at bridge. Audio-conferencing can also be carried out using the Internet telephony where digitalized voice packets are sent between individuals over the Internet (Dixon, 2000).

Audio Media: Audio media are materials that create aural impression thereby causing the receivers to listen with discrimination and rapt attention. Audio materials can be used effectively in teaching, listening as well as speech skills. It could be used for presenting facts, stimulating the imagination and influencing peoples’ attitude (Efi, 1988). Nacino-Brown, Oke & Brown (1982) highlighted the items that fall under this category, to include the following: audio

recorder, audio cards, phonograph records (record player), and the reel-to-reel tapes. These audio media are usually most readily available in homes and in schools and Colleges. They are most versatile in application in that they could be applied in very many situations, such as: for instruction, entertainment and information dissemination.

Video-Conferencing: Video-conferencing is an ICT facility, which enables the teachers and students to discuss online. It combines both audio and video. This can be achieved through Internet chartrooms. This ICT based multimedia facility enables information, discussion, news, conferences and knowledge sharing between various sources of information at the same time and target audience some distances away to communicate face to face electronically. This ICT facility enables people in different locations in the world to hold meetings and also allows participants at the same time to share knowledge. Although the major educational application is in distance education, it can be used to collect research data through the interview technique.

A video conferencing terminal consists of several components such as a camera, a video display, a microphone, speakers, a CODEC (decoder) user interface computer system and a network connection (Haddad & Draxler 2002).

The Internet: Nwosu (2000) averred that the internet is a global collection of many different computer networks linked together. The internet is an information super-highway or cyber space, the largest computer network that turned the globe into a tiny village, allowing people to share information and equipment. As a road allows travelling through different areas of the world, so the internet allows information to flow through many different interconnected computer networks. Awake (1997), described the internet as a room filled with many spiders, each spinning its own web, the webs are so interconnected that the spiders can travel freely within the maze.

Ehikhamenor (2003) described the internet as an information superhighway of information infrastructure to emphasize the expectation that it would transform the way information is created, manipulated, stored, retrieved, transferred and utilized. The internet is the fastest growing computer network with millions of users worldwide and has been found to assist users to easily obtain and share information available worldwide.

The internet provides an environment where teachers and students access and study course materials on-line and also involves the use of e-learning tools such as the Internet, telephone, online whiteboards, break-away rooms, discussion board, chat and messaging programmes that allow for real time interaction between

the teachers and students (Paltridge 2001). It can also be used to transmit text, graphics, images, animation or video and the most required tools for an online learning include a computer and an internet connection, and can be achieved through; Digital Subscriber Line (DSL) Local Area Network (LAN) (Rusten and Hudson, 2002).

Keyboarding: traditionally, keyboarding has been the primary course taught by business education programmes at the secondary school level. Because of the computer, keyboarding is seen by many as a basic skill needed by all students. Infact, Toppe in business education forum (1990) refers to keyboarding as an “enabling skill tool needed by almost every worker in all types of organizations and at every level in the hierarchy of these organization”. In addition because of the wide spread prolific use of computers by younger students, the need for keyboarding has presented more challenges to business education programme.

Conclusion

Creativity and invention as we have seen above have reshaped Business Education and made teaching and learning an exercise without tears. One can only add that invention and creativity have come to be the bed rock and corner stone of Business education and to urge that we join in the race by becoming innovative to make Business education an admirable subject in

schools. For the more students we teach and pass out as Business education graduates, the more entrepreneurs we create and the less dependent on government the youths will be. The end result is that Business education if properly blended with modern inventions, can and will ultimately, remove the army of un-employed youths from the streets of our cities and restore the dignity of labour.

Recommendations.

Based on the conclusion the following recommendations were made

1. The Government should focus on and encourage the culture of inventions. Many talented young men have noble ideas which if harnessed, can become the bed rock of future inventions.
2. University faculties should pursue research oriented programmes. Some great inventions which have enhanced business education today can be traced to the ideas and works of university students and dons.
3. Government should strictly monitor the implementation of business education programmes and ensure that funds are judiciously applied to the target areas.

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