INNOVATIONS IN OFFICE TECHNOLOGY AND MANAGEMENT PROGRAMME: 21ST CENTURY SKILLS

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ABSTRACT

Innovation has been highlighted as one of the most important skills for the twenty-first century; particularly when we take into account how these abilities can help people realize their full potential by encouraging positive attributes in them. These skills have been highly valued in a variety of circumstances. The interest in the study of creativity can be explained by the urge to comprehend human potential and characteristics linked to positive qualities of the individual. People have lauded this quality for its role in enhancing personal happiness, in achieving both personal and professional goals, and for the tremendous contributions it may bring to humanity. This essay emphasizes innovation in the Office Technology and Management curriculum and argues that it is crucial in the twenty-first century. The foundation of the Office Technology and Management curriculum is creativity and innovation. Accordingly, creativity is a result of knowledge, curiosity, imagination, and evaluation. The more concepts, patterns, and combinations that may be achieved, which ultimately lead to the creation of new and creative goods and services, the bigger the knowledge base and level of interest. It examines some current inventions and innovations of teaching and learning tools for the discipline of office technology and management. Laptops, computers, the internet, CD ROMs, audio cassette tapes, multi-media projectors, video conferencing, and power point are just a few of these technologies and innovations. The article concluded by recommending that Office Technology and Management department utilize these resources efficiently, as doing so would allow the grandaunts to work for themselves and create jobs rather than looking for them.

Keywords: Innovation; Creativity, Office Technology Management

INTRODUCTION

It has been stressed that innovation in Office Technology and Management are essential abilities for the twenty-first century, especially when we take into account the fact that these talents can help people fulfill their full potential by invoking positive features in them. These characteristics have been highly regarded in many contexts. The analysis and emphasis on the significance of the constructs to the Office Technology and Management program as a discipline, as well as the connections between them in the scientific literature, are the goals of this article. The interest in the study of creativity can be explained by the urge to better understand human potential and characteristics associated to positive qualities of the individual (Kaufman & Beghetto, 2019). This quality has received recognition for its important contributions to humanity, its role in enhancing personal well-being, and its success in both personal and professional endeavors. For these reasons, innovation and creativity are increasingly being acknowledged as valuable tools for both individual and societal development.

Innovation

Innovation is seen as an important personal quality in today's global society. This phenomenon has been studied in many different disciplines, including administration, education, economics, psychology, and sociology, to mention a few. Innovation as a concept has been characterized as the creation of a product or a practice of new and beneficial ideas to benefit individuals, teams, businesses, or a wider range of society (Bledow, Frese, Anderson, Erez, & Farr 2019). The introduction, implementation or development of a novel idea, item, or service for the benefit of society is always referred to as innovation. According to its amplitude, the Organization for Economic Cooperation and Development (2016) categorized various types of innovation as follows:

a) The utilization of an idea or service that has undergone significant development is referred to as a "product innovation," and its viability may be determined by its functionality or other methods that allow

for new applications for that concept or service;
b) Process innovation, which refers to the development of new methods to achieve a given production; and
c) Organization innovation, which refers to the development of new types of organization.
The social impact of each of these terms is used to distinguish between product and process innovation. While product innovation has a direct impact on the economy and job creation, process innovation must be evaluated in terms of its capacity to reduce costs, reduce the time necessary to accomplish a specific activity, or significantly improve the effectiveness of providing a service (Mello, 2019). Innovation is the transformation or implementation of an idea into something of commercial value or that many people can utilize. As a result, innovation is frequently seen as having an economic or societal impact that may or may not be connected to a technological breakthrough (Cabral, 2017). There is a growing trend among nations concerned with innovation to approach this issue using a systematic strategy to tackle intricate issues rather than aiming to solve a single problem or situation because this transformation involves many elements.

Creativity

The concept of creativity has several facets, including cognitive variables, personality traits, family, educational, social, and cultural elements. Depending on one's thinking and creative tendencies, these dimensions interact with one another and are thus expressed and discovered in a number of ways. The creative phenomenon has thus been studied from a variety of angles, with some emphasizing the individual, others emphasizing the process or products, the environment, or even the interaction between two or more of these variables. This suggests that creativity can be identified in a variety of ways (Oliver, 2012).
Both cognitive and personality characteristics are examined in the study of the creative person. Divergent thinking abilities are mostly related to the cognitive components of creative thinking. Some of the positive personality traits linked to creativity include curiosity, tolerance for other viewpoints, autonomy, imagination, self-confidence, persistence, motivation, and others (Almeida & Wechsler, 2015). However, experts believe that there are several, varied methods for people to display their creative potential, contrary to the belief that creative people possess all of these attributes (Isaksen, Dorval, & Treffinger, 2017).
Conversely, creative goods can be both material and immaterial, like learning or gaining a new skill. Appraising creative works is constantly a topic of dispute because to the large number of factors that needs to be taken into consideration. The novelty dimension takes into account the product's original contribution to a field; the resolution aspect takes into account how well the product resolves the issue that inspired its development; and finally, the style dimension takes into account the development or outcome of making the product more appealing.

Office Technology and Management

According to Aliyu (2017), Office Technology and Management (OTM), a part of Business Education, is intended to produce hybrid administrative professionals who can meet the demands of a dynamic and heavily computerized work environment, particularly in the current age of globalization where new technology and machines are constantly being developed. Office Technology and Management is a new nomenclature that replaced the former Secretarial Studies Programme. According to Aromolaran (2017) it was introduced by the National Board of Technical Education (NBTE) in 2004 to make the programme and its recipients more Information and Communication Technology compliant and to adequately fit into the world of work, particularly in the 21st century global workplace.
Office Technology and Management, as a skill-acquiring discipline, continues to be a vital medium for the dissemination of the necessary ICT knowledge and skills, enabling its graduates to embrace globalization and fulfill the needs of the modern workplace. According to Udo (2019), the Office Technology and Management curriculum's ICT-related courses have the most contact hours, with the goal of ensuring that graduates are competent in using ICT resources in the workplace.
According to Okoji (2018), the majority of Office Technology and Management graduates lack ICT knowledge and the skills they have acquired are insufficient to meet the demands of the labour market

and the growth of technology. Therefore, it is not surprising to find numerous OTM graduates around the country without productive employment. Office Technology and Management students can only learn ICT skills for productive work or job creation if the programme is given a level playing field by the various education stakeholders. Additionally, it was stated that graduates in Office Technology and Management have access to a wide range of business options that would allow them to support themselves while making the most possible contribution to national advancements. They are able to work with computers and other ICT tools, and they can even provide consulting services to governmental and non-governmental groups.

Innovations in Office Technology and Management Programme

Due to creativity and innovations, the Office Technology and Management programme, like its parent field of study (conventional Education), has seen significant modifications and evolution. As close as the voice and the environment will allow, the lecturers and the pupils must be in close proximity to one another. The use of chalk and blackboards is gradually being replaced by the use of computers and electronic projectors as a result of the introduction of contemporary educational innovations and equipment. The distance between teachers and pupils has been widened through video and audio electronic conferencing, transforming the area into a global classroom. Therefore, if specific devices and facilities weren't created, one can only picture the level of insufficiency that would have affected the teaching and learning environment in the Office Technology and Management programme.

The relative ease with which current teachers impart knowledge to their students demonstrates the enormous role that invention and innovations have played in the teaching and learning of the Office Technology and Management programme. In addition to making it easier to illustrate concepts and organize information in a classroom using electronic power-points, more inventions have started to serve as the foundation for various self-employment. Recently, educational machine have been invented which greatly uplifted and enhanced the effective teaching and learning in Office Technology and Management programme and these include the following: Electricity, Television and Audio/visual cassette tapes, Radio, CDROM, DVD, Internet, Audio conferencing, Video-conferencing, Web-Based Training programmes, E-learning, Public address system, Computer, Power point etc. These ICT resources are excellent resources for academic staff, including teachers, researchers, and students. According to research, the development and use of ICT facilities has changed the way that schools operate by improving the efficacy and efficiency of teaching and learning while also boosting student participation. The advantages of using ICT in classrooms are emphasized in numerous researches. Mello (2019) also pointed out that access to ICT facilities can boost instructors' productivity and zeal, promote teamwork and preparation, aid in the adaption of student-centered teaching methodologies, lessen their workload, and build relationships with students. It will be required to make an effort to explain each device and its purpose in order to have a better understanding of these inventions and their contribution to the improvement of the Office Technology and Management programme.

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, 2020). 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, 2018).

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. Nunes and Gaibe (2018) 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 secured than print materials.

Power Point is 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, 2018, Ndukwe, 2019). 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 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: Ndukwu (2019) 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. In education, computers are used in teaching a large number of students thereby solving the problem associated with overcrowded classroom.

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 Sates, computers have been described as “the new basic” of education and the internet as “the blackboard of the future” (Nwosu, 2019). 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) 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.

Audio-Conferencing: Audio-conferencing allows for a two-way real time communication between the instructor and the learner (Ojeaga & Igbinedion, 2017). 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 (Aina, 2012). 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.

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. 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.

The Internet: Nwosu (2018) 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. Aliyu (2017), 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. Ikelegbe (2020) 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. 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).
Keyboarding: 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. Ikelegbe (2020) 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 Office Technology and Management programme.

Conclusion

Office Technology and Management programme has been altered by innovations, which has also made teaching and learning a painless process. It can be added that creativity, invention, and innovations have become the foundation and pillars of the Office Technology and Management programme, and we are encouraged to join the race by being creative in order to make office technology education a commendable programme in schools. The more office manager graduates we produce, the more

entrepreneurs we foster, and the less dependent on government the young people will be. The end result is that, if correctly incorporated with contemporary technologies, the Office Technology and Management programme can and will eventually remove the army of unemployed teenagers from the streets of our cities and restore the dignity of labour.

Recommendations

Based on the conclusion, the following recommendations were made

1. Government should focus on and encourage the culture of innovations and creativity.
2. Polytechnics should pursue research oriented programmes. Some great inventions today can be traced to the ideas and works of students and dons.
3. Government should strictly monitor the implementation of Technology oriented programmes and ensure that funds are judiciously applied to the target areas.

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