



LEVERAGING ON NEW TECHNOLOGIES FOR SKILL ACQUISITION OF BUSINESS EDUCATION IN TERTIARY INSTITUTIONS IN NIGERIA FOR THE E-WORLD

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Abstract

The study was based on leveraging new technologies for skill acquisition in business education in tertiary institutions in Nigeria for the electronic world (e-world). Specifically, the study examined how business education in tertiary institutions could leverage on new technologies to facilitate personalized learning, foster technology-enabled collaborative learning, reduce time and space barriers and apply evolving technologies in the teaching of business education. The study brought to light a personalised learning technology known as the flipped classroom that could be used by business educators for skills acquisition in tertiary instructions in the e-world. It also explained how technology-enabled collaboration could foster a wide array of skills needed for the e-world through business education. Furthermore, the study revealed that new technologies can contribute to reduced time and space barriers of some structuring characteristics of business education in tertiary institutions through students' proximity with one another and their teachers as well as the materials used. Also the study showed some evolving technologies in the teaching profession that could enable business educators to share access to learning materials, learn about good practices in teaching and learning, have the videos of their classes observed and commented by colleagues as well as exchange ideas on online forums. The study concluded that business education in tertiary institutions has the potentials of producing the skills and knowledge that are needed in the e-world through the use of new technologies. It was recommended among others that new technologies should be used to improve the access and the quality of business education in the e-world through online courses and new learning tools such as the flipped classroom.

Key words: *New technologies, skills acquisition, business education, e-world.*

Introduction

To fully participate in today and tomorrow's economic, social and cultural life, training individuals with relevant skills for the Electronic World (E-World) is fundamental. The evolving nature of the e-world requires individuals to adjust to new skills that are demanded globally. Therefore, emphasis should be placed at ensuring that individuals are equipped with skills to participate perfectly in the e-world. The acquisition of relevant skills for the e-world means leveraging on new technologies to improve the access and the quality of education and training of business education. This study therefore, is focused on leveraging on new technologies for skill acquisition of business education in tertiary institutions for the e-world.



The emerging e-world has seen rapidly changing jobs and the integration of new technologies into most spheres of life. The e-world requires citizens who can use the Internet to access e-government services, as well as communicate through email, Voice-Over Internet Protocol (VOIP) and Instant Messaging (IM) and other modern communication tools using networked computers or smart mobile devices. In the e-world, people use the Internet to look for jobs, make friends, stay in touch with relatives, shop, book flights, run for elective office, share photos, maintain blogs, look for information, and carry out bank transactions, among others (Partners in Education Transformation, 2010). The 21st century requires individuals according to Kotelnikov, (2009) who keep re-inventing themselves as the world keeps changing due to new global challenges such as evolving technology, flatter organizational structures, changes in customer needs due to increased ease of access to information, globalized market place competition and customers who have become global and more sophisticated. Workforce requirements have also changed due to advancements in new technologies. Computers and related technologies are now taking more routine tasks from human beings as they can be automated. With advances in new technologies, cognition (thought, action) is now distributed across human minds, tools and media, groups of people, and space and time. The process of individual and collective thought is increasingly dispersed symbolically, socially, and physically, with the result that business strategies can be used as a means of individual and collective expression, experience, and interpretation through new technologies (Dede, 2007).

Skills acquisition is the process of developing capacities through all levels of education and training, occurring in formal, non-formal, and on-the-job settings, which enables individuals in all areas of the economy to become fully and productively engaged in livelihoods and to have the capacity to adapt their skills to meet the changing demands and opportunities of the economy and labour market especially in the e-world. The global economy has gone through a shift from an industrial economy to a service economy that is driven by information, knowledge, and innovation. Economic success depends on effective use of intangible assets such as knowledge, skills, and innovative potential as a resource for achieving competitive advantage (Lisbon Council, 2007). Competitive advantage for a region, state, or nation is now built on the skills of its general workforce, and not its geography, trade laws, research laboratories, and patents. Education and skills training are critical to this competitive advantage. The level of skills that are needed in the e-world and the periodic need to update those skills are both steadily rising in new economies that are driven by knowledge. Business education in tertiary institutions has the potentials of producing the skills and knowledge that are needed in the e-world.

Business education is defined as education that equips the students with skills necessary to perform particular functions in an office and will also provide him or her with the understandings and knowledge needed for conducting personal affairs in the e-world using the services of the business world. Business education can also be categorized into two major components called “education for business” (vocational education) and “education about business” (consumer education). The Federal Government of Nigeria in its 2007 National Policy on Education document stated that business education is a conglomeration of courses that is concerned with the acquisition, development and inculcation of the proper values for the survival of the individual and society (Federal Republic of Nigeria, 2007).

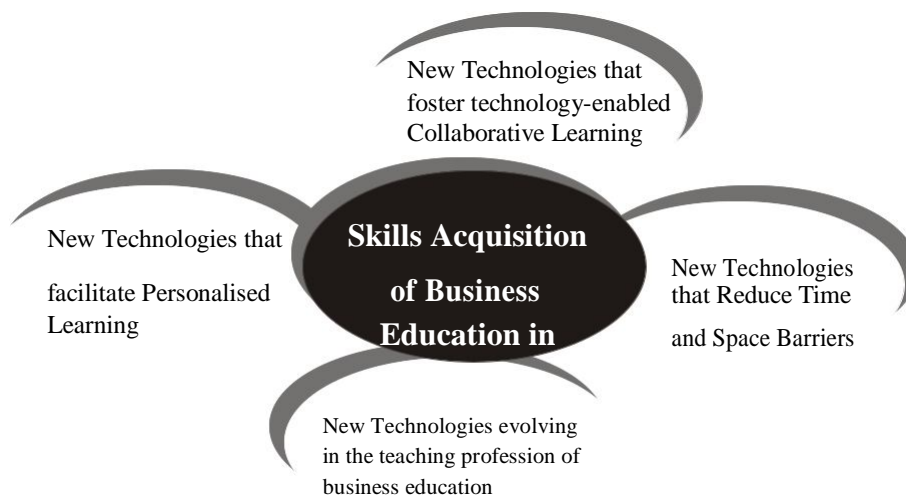
Skills and knowledge are the engines of economic growth and social development of any nation. Business education holds the key to training the skilled workforce needed for the changing technological workforce in the e-world. It is concerned with the acquisition of knowledge and skills for the world of work to increase opportunities for productive empowerment and socio-economic

development in a knowledge economy and rapidly changing work environment. It also equips people with a broad range of knowledge, skills and attitudes that are now recognized as indispensable for meaningful participation in work and life for the e-world.

Business education in tertiary institutions of learning is a key factor in the nation's effort to develop a highly skilled workforce for competing in the global economy through the universities, polytechnics/Monotechnics, colleges of education and innovative enterprise institutions. Teaching and learning of business education in tertiary institutions cannot be viewed in isolation especially in the e-world of the 21st century. Therefore, there is need to leverage on new technologies for skill acquisition of business education in tertiary institutions for the e-World.

The pervasiveness of new technologies in today's e-world has fed growing expectations on their benefits for education and training. This sections will examine how business education in tertiary institutions can leverage on new technologies to facilitates personalized learning, foster technology-enabled collaborative learning, reduce time and space barriers and apply evolving technologies in the teaching profession of business education. A framework for the study is presented below:

Fig. 1: Framework of new technologies for skills acquisition in business education in the e-world



Source: The Researchers

New Technologies that Facilitate Personalized Learning in Business Education

The flipped classroom is a new form of learning brought by new technologies in recent years. The flipped classroom approach provides a clear illustration of how technology can build on learners' previous knowledge. In the flipped classroom direct instruction is partially replaced by video lectures that can be played anytime and anywhere. The learner can thus decide when to stop or rewind the lecture and focus on what he ignores or finds harder to understand.

The classroom according to Lowell Bishop and Verleger, (2013) is "flipped" in the sense that the lecture builds up on a learner's previous knowledge and teachers focus on his/her doubts, concerns and misunderstandings. Time for teaching assumes a different connotation as time is freed up from frontal instruction and mainly dedicated to interactive group learning activities. This additional time



can be used for more innovative pedagogies, including project-based and inquiry-based learning which foster the development of problem-solving and critical thinking in business education skills acquisition. The flip classroom as a new technology can facilitate personalised learning in business education in tertiary institutions. Murphy, Gallagher, Krumm, Mislevy, and Hafter (2014) stated that it provides an intervention for students who had fallen behind their peers; an enrichment activity for advanced students, allowing them to explore topics above their peers; an accountability tool allowing close monitoring of student progress on problem sets; a highly integrated supplemental practice activity, reinforcing skills recently introduced in the classroom. In the present e-world, the flipped classroom can facilitate personalised learning of business education in tertiary institutions.

New technologies can help improve the quality and responsiveness of the teacher-student interactions in business education. Video lectures and similar technologies are particularly well suited for the use of real time formative assessments, a system of interactive assessment of student progress and understanding. The new technologies can enable instantaneous interaction and feedback between students and teachers. The immediate feedback it provides according to Kärkkäinen and Vincent-Lancrin (2013) can also allow business education teachers to personalise their instruction to the needs of individual students or to specific groups of students.

New Technologies that Foster Technology-Enabled Collaborative Learning in Business Education

Learning is a social process, whereby knowledge construction by an individual occurs throughout the processes of interaction, negotiation and co-operation (DeCorte, 2010). The human brain according to Organization for Economic Cooperation and Development (OECD), (2010) is primed for such interactions, while self-study and personal discovery remain valuable; learning increasingly depends on interacting with others. Ananiadou and Claro, (2009) declared that new technologies media facilitate learning through interaction and participation more than passive consumption of information or knowledge. In technology-enabled learning environments, students work together (in groups) and/or interact with each other to enhance their learning with the help of various technologies, often with facilitation from the teacher. When combined with other learning approaches, technology-enabled collaboration can contribute to project, problem-based learning or supplement face-to-face learning in business education. Business education in tertiary institution can therefore benefit from technology-enabled collaboration models which may include in-built assessment features used for team performance and/or collaborative activity (Kärkkäinen and Vincent-Lancrin, 2013).

Collaboration through technologies can thus foster a wide array of skills needed for the e-world through business education. These include flexibility, cultural diversity, group work and interaction as well as higher order thinking skills by posing more complex and challenging questions than the ones that are asked during face-to-face interactions.

Online gaming has also proved to be a useful tool to fostering collaborative learning according to Statista, (2015) which can be applied in business education in tertiary institutions. In educational gaming, students play with video games, interact with simulations or engage with virtual worlds. In some cases, Kärkkäinen and Vincent-Lancrin, (2013) explained that educational gaming may include collaborative project-based learning experiences where students themselves become game designers and content producers.

New Technologies that Reduce Time and Space Barriers in business education

New technologies can be used to facilitate teaching and learning in business education and increase access to educational resources (OECD, 2014). All over the world, the use of virtual science laboratories are increasing to provide virtual access to real research facilities or to create virtual environments for research. The use of online laboratories only requires access to the Internet and



allows learners to access more experimental equipment than what a single school can generally afford. In addition, virtual laboratories allow students to modify the condition of the experiment and verify the results in line with the learning goals established by the teachers. Kärkkäinen and Vincent-Lancrin (2013) pointed out that the use of online laboratories can be as effective in terms of teaching and learning of business education in tertiary institutions as the use of on-site physical equipment, and many resources are freely available on the web.

Furthermore, with open licensing regimes, such as those granted to Open Educational Resources and Open Software, available materials can be re-used, remixed and even redesigned for different purposes in business education. In this way, the benefit of using virtual laboratories can spread to a very large community of users in business education in tertiary institutions. These solutions can raise high interest in countries like Nigeria where fast demographic growth is putting pressure on physical educational resources.

New technologies contribute to redefining some structuring characteristics of education, that is, students' proximity with one another and their teachers as well as the materials used. By removing the constraint of place and time new technologies can help address the needs of those students at risk of exclusion from formal education in business education. Similarly, new technologies can extend the reach of tertiary institutions to groups who will be otherwise unserved from business education in tertiary institutions.

New Technologies that are evolving on the Teaching Profession of Business Education

Business education teachers are pedagogical leaders that play a pivotal role in facilitating the integration of new technologies into the classroom. Skillful business education teachers are a prerequisite for the implementation of a challenging curriculum that stimulates higher order learning and the development of 21st century skills that are needed in the e-world. New instructional technologies can help facilitate teaching profession in the e-world.

Above all, professional development in a formal setting and establishing communities of practice among business education teachers can help them improve their teaching practice and overcome individual challenges (Vieluf, Kaplan, Klieme, and Bayer, 2012). The rapid expansion of ICTs and social media has allowed teachers to gather into virtual and physical professional learning communities. In these communities, business education teachers can share access to learning materials, learn about good practices in teaching and learning, have the videos of their classes observed and commented by colleagues as well as exchange ideas on online forums according to their field of expertise (Enang, 2015).

Some of these communities that can function as proper social networks for business education teachers include Edmodo. Edmodo is one of those social learning platform where educators are able to manage their classrooms and assessments and share lessons and tips with each other. Similarly, edWeb.net is a professional social and learning network for educators, decision-makers, and influencers that can also be used by business educators. EdWeb can be used to create a personal learning network or professional learning community to make it easier to collaborate and share ideas in business education. In addition, the platform provides free professional learning programmes and personalised training. Other platforms such as Edutopia have an explicit goal to showcase evidence and practitioner-based learning strategies that can empower business education teachers to improve education through teaching 21st century skills such as critical thinking, problem solving, communication and collaborative learning that are needed in the e-world (George Lucas Educational Foundation, 2017)

Furthermore, the world's largest online community of teachers with 7.9 million registered users according to (TES, 2017) is Time Entry System (TES) platform. TES provides a dynamic global marketplace in which educators can discover, share and sell original teaching materials; a lesson-



building product where those resources can be freely integrated and implemented; and Wikispaces, open classroom management platforms that facilitate student-teacher communication and collaboration. Originally born in the United Kingdom TES has kept its focus on professional development opportunities for teachers which can be applied in business education in tertiary institutions.

In addition, new technologies has opened up opportunities for self-directed learning and continuous professional development which is also useful for teachers in business education. In particular, Massive Open Online Courses (MOOCs) appear to be well-suited to respond to the need of updating competencies in a lifelong learning perspective by overcoming time and resources constraints. This is because; online resources can offer a partial solution to the challenges of skills development, activation and effective utilisation for business education teachers. Increasing connectivity and broadband capacity have reshaped the image and appeal of distance education. While its origins date back to more than a century, Enang, (2015) stated that distance education has evolved together with technology, from radio through television up to the Internet. Online education has increased in popularity by mainly targeting continuing education and professional development and as a second best solution to provide access to an increasing demand for higher education especially in business education. In recent times, online education found its peak moment with the emergence of Massive Open Online Courses (MOOCs). MOOCs are fully fledged courses of lectures available online to serve a wide variety of purposes. It has the potential to address many shortcomings of workforce training. Firstly, they avoid the cost of setting up expensive training boot camps whose effects are limited in time. Secondly, semi synchronicity allows learners to go through the materials at their own pace while motivating them to collaborate into reaching a common learning objective. Lastly, certificates allow employees to demonstrate the acquisition of specific skills (Meister, 2013).

Conclusions

The study concludes that business education in tertiary institutions has the potentials of producing the skills and knowledge that are needed in the e-world through the use of new technologies that could facilitate personalized learning, foster technology-enabled collaborative learning, reduce time and space barriers and apply evolving technologies in the teaching profession. The study brought to light a personalised learning technology known as the flipped classroom that could be used by business educators for skills acquisition in tertiary institutions in the e-world. It also explained how technology-enabled collaboration could foster a wide array of skills needed for the e-world and showed some evolving technologies in the teaching profession that could enable business education teachers to share access to learning materials, learn about good practices in teaching and learning, have the videos of their classes observed and commented by colleagues as well as exchange ideas on online forums.

Recommendations

The study recommends that:

A framework should be developed by technology-savvy experts to identify the skills that are needed in the e-world by business educators.

Business educators should examine the identified skills that are needed in the e-world and make those skills integral part of the curriculum, teacher training and professional development for teachers.

New technologies should be used by business educators to improve access and the quality of business education in the e-world through online courses, new learning tools such as the flipped classroom, etc.



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