



HARNESSING THE FLIPPED CLASSROOM TEACHING MODEL TO ENHANCE ACTIVE LEARNING FOR GENERATION Z IN BUSINESS EDUCATION

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Abstract

This Paper focused on harnessing the flipped classroom model to enhance active learning in business education for generation Z. The flipped classroom model, a teaching approach that delivers lecture content to students at home through recorded videos and uses class time for practical application activities may be useful for business education. Hence, the paper discussed the nature and objectives of business education, the generation Z's lack of interest in learning, the characteristics of generation Z's or digital natives, active learning, the flipped classroom model, illustrated with examples in several fields of study that have applied the flipped classroom model including vocational and technical education. Pedagogical benefits of the model in active learning along with potential challenges were presented in tables. Since students' response to the flipped classroom model was largely positive, the authors concluded that harnessing this model to teaching business education students will be the most consequential idea to changing pedagogy that has appeared in recent times. It was recommended amongst others that business educators should experiment this model in teaching courses that depend on students understanding the underlying principles and theoretical concepts before making practical application.

Keywords: *Harnessing, Flipped classroom, active learning, generation Z.*

Introduction

Business Education is an engine for the development of a society characterized by individuals who are curious, innovative, resilient and willing to adapt to changes. It is a systematic course of study consisting of activities that imparts technical knowhow,



skills, ideas, attitude and competencies preparatory to an occupation, employment or to educate others. This implies that business education equips its recipients with functional and salable skills that make them self-reliant and self-sufficient. Therefore, such education should be imparted in a way that a positive transformation can take place in the students. They should acquire skills and competencies that will make them fit into the world of work in which best practices are focused on technology.

The Nigerian educational system operates much in the same way as it always has. Educators deliver instruction or lectures in a production line format while students sit silently in rigid rows and try to capture what the lecturer is saying the moment it is said. They cannot stop to reflect upon what is being said, and they may miss important points because they are trying to transcribe the instructor's words (Gayeta, 2017). Trying to record notes in real time does not allow for reflection and students do not often get to internalize and make sense of what is happening in the classroom (Merill, 2015). The students are expected to digest instruction, gain knowledge and regurgitate information during exams. In this teacher centered environment, the lecturer controls the delivery of content and the methods used to evaluate the students. If the goal of teaching is to engender understanding, the educators must change from the traditional approach which is teacher centered to a modern approach that is student centered that will engage students of this generation.

A sense of urgency to adapt to the present generation's learning preferences is heightened as business and other educators increasingly strive to capture the attention of today's learners. Several universities and colleges of education have noticed the failure of students in learning and practicing the complicated and critical thinking skills needed in today's world. This results in low quality of education, hence most educators are changing from the traditional method of teaching to approaches or models that encourage active learning among students. Such teaching approaches in which the students can have a part in controlling the content, organize effective experience, think creatively, reinforce cognitive development and improve their academic performance (Aljaser 2017). Different innovative approaches and models have emerged in a search for ways to motivate students to learn. These are effective ways to teach as well as to develop the so called 21st century skills, such as critical thinking, communication, collaboration, creativity, media, information and technology skills.



Acquisition of these relevant skills can be facilitated when educators and students are active in developing knowledge. They work together in the teaching learning process to make their educational experiences relevant and meaningful. Students are not expected to repeat what the teacher says, instead they are expected to explore, elaborate and demonstrate their understanding of the words content or message (Gayata, 2017). This is noteworthy since learning is not about plugging information into a predetermined algorithm to produce an answer. Learning is about ideas and making connections. Learners need opportunities to interact and make meaning of their work (Merril, 2015) as they prepare for real multifaceted problems that exist in the world of work.

Nature of Business Education

Business education is a programme or course of study consisting of various activities that impart technical knowhow, skills, ideas, attitude and competencies preparatory to an occupation, employment, owning a business or to educate others. Agomou (2006) noted that business education plays a significant role of providing knowledge and skills to the learner thereby enabling them to adequately impart knowledge and skills into others and handle sophisticated office technologies and information systems. Business education is a component of vocational education that prepares its beneficiary for the acquisition of appropriate skills, abilities and competencies both mental and physical as equipment for the individual to live in and contribute to the development of the society. Ogunmayi (2008) defined business education as a type of education that assists an individual to acquire skills to solve problems in business and office education. This definition sees business education as education that provides skills to its recipients in business and office occupation for employment or self-reliance. Business education is that aspect of education that grooms its trainee for employment in office occupations, distribution, and marketing occupations for the rapid growth of the Nation's economy. It is a unit of vocational and technical education which plays a significant role in positively influencing the socio-economic situation of the people and the nation. Aliyu (2007) in his conceptual framework for business education described education for business as the training provided for some students to be productive workers and the education about business as training for students to be informed citizens. It implies that the business education programme is aimed at providing individuals with economic understanding which will further improve the individual's standard of living and in furtherance, the business system. This definition suggests that the business world of production and consumption of goods and services require people of business education background



to propel the economy and leave the much-desired growth and development as a legacy. The contemporary and industrial business environment of today requires the ability to set up, create and manage a small scale business which has been described as the engine of growth of many world economies and as a poverty reduction strategy. Accordingly, Val-Ossai and Akpomi (2017) asserted that business education is a programme in education that prepares students for entry into and advancement of jobs within the business environment. Val-Ossai and Akpomi stressed further that it is an educational programme which involves acquisition of skills, knowledge and competencies which makes the recipient/beneficiary proficient in his business activities.

The Objectives of Business Education

Business education is one of the vocational courses offered in Nigerian tertiary institutions. Globally business education courses are aimed at equipping individuals with knowledge, skills vocations and attitudes needed to manage personal business as well as function effectively in the economic system (American Vocational Association, as cited in Azih and Nwagwu, 2015). In an attempt to elucidate further what business education is all about Njoku (as cited in Njoku, 2019) have itemized some of the objectives of business education as:

- To empower the individual with desirable skills, knowledge and value to perform specific functions as to become self-reliant.
- To help him appreciate the world around him and contribute maximally to the social, cultural and economic development of his nation.
- To empower the individual in such a way that the individual will develop his intellectual capability that would help him to make informed decisions in all spheres of life.
- To help the individual become a judicious spender and develop proper values for the achievement of healthy living and growth of the nation.
- To understand the political framework of a nation so as to contribute to national economic development.
- To develop personal and business attributes that will enable her live meaningfully and decently in the society.
- To help provide an individual with factual information that would enable her take an informed decision concerning life.
- To promote educational opportunities for individuals preparing for students to acquire knowledge and skills in areas other than chosen course of study.



Business education at the tertiary level has the dual focus of producing well-qualified business teachers who can help in the implementation of the business studies curriculum both in the junior and senior secondary school levels. On the other hand, it equally focuses on producing skilled and competent graduates who can secure office occupations in modern organizations. In this direction Ekwue and Eluro (2002) noted that business education helps to equip the graduates with the right skills to engage in a life of work in the office as well as for self employment. This presupposes that the beneficiaries of the business education programme can be gainfully employed in any industry or be self-employed. These objectives of business education are very laudable. However, these objectives cannot be achieved if the generation Z's who are the students currently in our tertiary institutions continue to lose interest in learning.

The Generation Z's Lack of Interest in Learning

The generation Z students are different from those of previous generations in specific ways that impact higher education. They are global, social, visual and technological. This most connected generation ever have used the internet since young age and are comfortable with technology and social media. Turner (2015) characterized generation Z as having a digital bond to internet, smart phones, tablets, interactive videos, interactive in-class activities and video conferencing system which paves way for widespread use of ICTs in instruction.

Although educators bemoan the generation Z's inability to focus as they remain passive in class and lose interest in learning, Prensky, (2010) pointed out that it is not the students' attention capabilities that changed but their tolerance and needs. The result is that at the end of the semester, they turn out with low grades while some fail examinations. Part of the reasons students are losing interest in learning can be attributed to reliance on traditional approaches that are not suited to the generation Z. It is worrisome that if the trend continues, business educators are not likely to realize their dream. If the dream of business educators, to solve real world problems by producing a generation that is curious, innovative, self-reliant and with resilience to adapt to new changes is to be realized, then incorporation of active learning strategies into the class is critical. We argue that changing to an appropriate digital pedagogy is a requirement to address the problem of students' lack of interest in learning because of changing needs and tolerance. Therefore, we will examine the flipped classroom model, active learning and other concepts associated with the recent model that are making waves in educational settings.



Characteristics of Generation Z, Generation Zers or Digital Natives

The generation Z (believed to be those born between 1995- 2010) Mohr & Mohr, (2017) is the most diverse generation yet. Often labeled Digital Natives, current 18-20 year olds are also known as Ebay babies and "information curators" resorting to their Google Reflex to interpret the world. Interestingly rather than the "me-centric" spirit attributed to the previous generation (millennials), the Z Generation is considered more "we-centric" (Seemiller & Grace, 2016) which makes them desire solution- oriented relationships with their peers and mentors.

The web revolution that started in the 1990's and continued till date, has exposed Generation Z students to an unprecedented amount of technology in their upbringing. Most of these Digital Natives have used the internet since young age and are comfortable with its technologies such as, Smartphone, tablets, interactive videos, interactive in-class activities and video conferencing, as they access the plethora of news bits and sound bites. Generation Z comprise the dominant generation of students currently entering colleges of education and universities. Meeting these students where they are may not be easy or comfortable for educators as many are still grappling with understanding these technologies. Teaching these Digital Natives with what they use 24/7 is critical. In a recent presentation, "Engaging Generation Z students" Cook, (2015) confirms that Gen-Z post secondary students tend to desire frequent educational opportunities that use technology and visual media. Rather than negatively stereotype these students and their learning behaviors, educators should consider generational differences that might hinder or help the teaching-learning dynamics and respond more positively to their educational preferences.

Flipped or Inverted Classroom (FC/IC)

A current trend in education community has educators flipping the classroom activities with the usual homework tasks or assignments and vice-versa. A flipped or inverted classroom as its name suggests, is a class where the lecture and homework have been reversed. In other words, the problems normally completed at home are worked on in the classroom and the direct instruction normally given during class-time is given as homework through video lectures, reading assignments, or some other direct delivery method (Szparagowski, 2014). The flip evokes images of students glowed to their computers, frantically taking notes at home, coming to class, banging out worksheets, taking tests online until they pass an objective. Bergmann Sams, (2012) did that the first year he rolled out the flip mastery model (2008-2009). But a lot of time has passed during which he learned from his mistakes, and



flipped- mastery has undergone much iteration since then. Although flipping the classroom may mean different things to different people the general idea is to require students to interact with course material on their own time but prior to the class, usually using computer controlled material and lectures made available to them. This displacement of content transmission that usually dominates class time frees up time for the instructor to conduct alternative interaction with the students with the promise of an enriched education (Forgaty, 2017).

This strategy also has its roots in both constructivist and social constructivist perspective on learning, emphasizing the active role of the learner in constructing knowledge (Bishop & Verleger, 2013). The flipped classroom is an approach to teaching and learning where students watch a video lesson outside the class sometimes through distance learning, and have hands on activities in the class. It is an element of blended learning integrating both face-to-face learning in the class through group discussion and distance learning outside the class by watching asynchronous video lessons and online collaboration (Halili & Zainuddin, 2015). The blended learning which is a standard of teaching-learning practice that fosters students active learning in higher education is the activity of teaching and learning which combines face-to-face physical activities with online learning (Lean, Moizer Newbery, 2014., Poon,2014 Heilesen, 2010). The FC model is a new model where the instructor shares predetermined digital resources with students through a platform asynchronously. It is a student centered approach to learning where the students are more active than the instructor in the classroom activity. In this case, the instructor acts as a facilitator to motivate, guide and give feedback on students' performance (Bergmann & Sams, 2012). Thus by applying the flipped classroom approach to teaching and learning activities, the facilitator can move the traditional lecturers' talk to video and the students can listen to the lectures anywhere outside the class. It allows the students to watch the video according to their preferred time and need, and they can study at their own pace; this type of activity increases students collaborative learning (Zainuddin & Halili, 2016). In support of this, Enfield (2013) explained that with FC students are encouraged to move out of the class to learn anytime and anywhere at their own pace.

There is confusion in literature over the terms flipped classroom and flipped learning. Flipped classroom and flipped learning are not synonymous and it is a common mistake usually perpetuated in the opening paragraph of articles written on



the topic. Flipped learning is said to be a pedagogical approach in which direct instruction moves from the group learning space to individual learning space and the resulting group space is transformed into a dynamic interactive learning environment where the educator guides the students as they apply concepts and engage creatively in the subject matter (FLN, 2014). The flipped classroom on the other hand is a pedagogical model in which the typical lecture and homework elements are reversed. Flipped classroom though implies version one of the screen casting model. That which used to be done in class is now done at home and that which is done at home is now done in class. The flipped classroom does not end there. There are many models being used and it would seem that the term flipped classroom does not do justice to these other models such as, podcasting and vodcasting. Whatever iterations the flipped classroom model may have undergone, the fact remains that it can promote active learning.

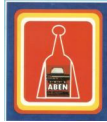
Active Learning

Active learning is a term used to describe teaching and learning strategies that involve students in the learning process. Students need to orchestrate their own learning experiment, make mistakes and generate outcomes as they take responsibility for their learning. Active learning stands on the premise that students learn better when they are participating in learning activities than when they are passive recipients. Merrill, (2015) pointed out that active learning is in contrast to traditional modes of instruction in which passive learning is the norm.

Activities should be designed to emphasize important learning outcomes requiring thoughtful participation on the part of the students (Prince, 2004). Four broad categories of instructional approaches for use in active learning classroom have been identified;

- Informal small groups,
- Individual activities,
- Paired activities and

Cooperative student project (Zayapragassarazan & Kumar, 2012 in Roehl, Reddy & Shannon, 2013). These approaches involve many activities that foster collaborative learning. Active learning which is promoted with the flipped classroom model requires students to utilize higher order thinking skills that will make them innovative and resilient. This more holistic approach to instruction engages students with varied learning styles and appeals to the generation Z learner who thrives in an



environment of variety and change (Prensky, 2010), hence, several educators are already applying this model.

Fields of Study that have Applied the Flipped Classroom Model

There are many fields of study where the flipped classroom has been implemented. Many instructors from different fields of study in the United States of America (USA) tried to conduct experiment studies in using the flipped classroom model (Morgan, 2014). Bergmann (2012) also showed that the flipped classroom instruction is not only applied in chemistry and mathematics classes but also in all areas of study. Table 1 shows these fields of study where the flipped classroom model has been implemented, the authors and year of publication.

Table 1: *Fields of study where Flipped Classroom Model has been implemented*

Authors	Year	Area of Study
Roehl, A. Reddy, S.L and Shannon, G.J.	2013	Sciences (Physics and Chemistry) Textile, apparel and interior design
Herreild, C. and Schiller, N.A.	2013	Social Sciences
Arnold – Gaza, S	2014	Library Services
Kim, M. K, Kim, S. M, Khera, O. and Getman, J.	2014	Integrated Humanities
Avdic, A. and Akerblom, L.	2015	Information system/mobility
Hung, H.T.	2015	English Language
Nwosisi, C. Ferreira, A., Roseberg, W. and Walsh, K.	2016	Network Engineering
Smallhorn, M.	2017	Sciences
Gayeta, N.E.	2017	Sciences
Alyaser, A.M.	2017	English
Jensen,J., Kummer, T. and Godoy, R.	2015	Biology
Villalba, M.T, Colstila, G., Redondo, Duarte Szparagowsky, R.	2018 2014	Technical and Vocational Education Mathematics
Pavanelli, R.	2018	English for Academic Purpose (EAP)
Su, C.Y and Chen, H.C	2018	Mathematics
Hajji, M., E.I Bouzandi, R.S, Douzi, H. and El Hassane., K.	2016	Vocational and Technical Education
Elian, S.A. and Hamaidi, D.A	2018	Science
Backlund, J. and Hugo, M	2018	Pure/social science
Ozdamli, F. and Asiksoy, G.	2016	Computer and information technology
Cabi, E.	2018	Computer Science

Source: Published literature on flipped classroom model between 2013 to 2018



Fields of study in which the flipped classroom model has been implemented reveals many areas, but majority are in the sciences with authors like: Roehl, et al., (2013), Szparagowsky, (2014); Jensen et al., (2015); Nwosisi et al., (2016); Ozdamli and Asiksoy (2016); Smallhorn, (2017); Gayeta, (2017); Su, et al., (2018); Elian and Hamaidi, (2018); Backlund and Hugo, (2018); and Cabi, (2018). Others who have researched in humanities and the social sciences are: Herreid and Schiller, (2013), Arnold Goza, (2014); Avdic and Akerblom, (2015); Kim, et al., (2014); Hung, (2015); Aljaser, (2017); Villalba et al, (2018); Pavanelli, (2018) and Hajji, et al., (2018).

Benefits of the Flipped Classroom Model

Several studies reported that flipped classroom has positive impacts on teaching and learning. These benefits will be highlighted in Table 2

Table 2: *Benefits of the Flipped Classroom Model*

Authors	Benefits
Herreid & Schiller, (2013)	Having more time to experiment and make inventiveness
Roehl et al; (2013)	More one-on-one engagement between teacher and student
Szparagowski, (2014)	More practice and confidence. Chance to see the whole problem worked out, learn from the homework and the practice at school
Kim, et al., (2014)	Students undertake substantial out of class work and are motivated to do so independently.
Avdic & Akerblom, (2015)	Flexibility and accessibility of lectures
Nwosisi, et al., (2016)	Students can help each other. Teacher can target silent failures, those who are silent even when they don't understand. Better learning and achievement results
Hajji, et al., (2016)	Enhanced students learning and achievement
Ozdamli & Asiksoy, (2016)	Increases interactive period within the class. Leads to team work in class
Gayeta, (2017)	Students construct their own understanding
Smallhorn, (2017)	Help students apply what they have learnt. Opportunity to apply content learnt in individual space. Students are better prepared for exams
Elian & Hamaidi, (2018)	Teacher makes good use of class period. Enhances critical thinking, self learning. Provides techniques to evaluate students understanding Lecturers become guide and supervisors. Students enjoy researching and participating in teaching learning process. Students are excited about the educational environment as they learn by doing.
Pavanelli, (2018)	Students can replay any part of the video they have problem with to make it clearer and reflect on what the lecturer is saying. Students can also internalize and make sense of what is being said. Students are able to prepare in advance for class activities

Source: Published literature on flipped classroom model between 2013 to 2018



The main goal of the emergence of the flipped classroom in education is to enhance students learning and achievement by focusing class time activities on students understanding and hands-on activities rather than on lectures (Zainuddin and Halili, 2016). Researchers who implemented the flipped classroom model have reported better learning and achievement results. These are, students undertaking substantial out of class work and being motivated to do so independently and students are being better prepared for examinations (Kim et al., 2014, Nwosisi, et al., 2016; Hajji et al., 2016 and Smallhorn, 2017).

Furthermore, applying the flipped classroom model to teaching and learning is more effective compared to the traditional method. There is one on one engagement between lecturers and students, a chance to see the whole problem worked out, team work in class, self learning, students participate in the teaching learning process as they learn by doing. They also have opportunity to replay any part of lecture to make it clearer as they reflect on what is being said. (Roehl et al., 2013, Szparagowski, 2014, Elian & Hamaidi, 2018 and Pavanelli, 2018).

Challenges of applying the Flipped Classroom Model

The change from the traditional method of teaching to a new one that is technology based like the flipped classroom cannot be without challenges. Several authors have reported that educators have difficulty preparing the videos with elements that will stimulate interest like animations, cartoons, music etc (Herreid & Schiller, 2013). There is also the issue of difficulties in making changes to online lectures (Roehl et al., 2013). Other challenges range from lack of equipments, internet services, computers, tablets and poor quality of video recordings (Bristol, 2014). The lack of experimental evidence that flipping the class improves students grades (Kim et al., 2014). Students are unable to ask questions and receive immediate answers, while watching the videos (Avdic & Akerblom, 2015). Others have reported that the flipped classroom model is time consuming and repetitive, difficulty in synchronizing the flipped classroom with different types of learning styles, some students being at a loss as to what should be done and not having anything to fall back on, the general apathetic attitude to change (Backlund & Hugo, 2018; Villalba et al., 2018). Table 3 summarizes these challenges as stated by authors who have carried out experiments on this model.

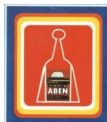


Table 3: Challenges of applying the Flipped Classroom Model

Authors	Challenges
Herreid & Schiller, (2013)	Difficulty in preparing videos and untrained instructors, designing videos with elements that will stimulate interest, like animations, cartoons, music, etc.
Bristol, (2014)	Lack of equipments, internet, tablets computers, poor quality of video recording.
Avdic & Akerblom, (2015)	You cannot ask question and receive immediate answers while watching the videos
Roehl et al., (2013)	Difficult to make changes to online lectures
Kim, et al., (2014)	No experimental evidence that flipping the class improves students grades
Backlund & Hugo, (2018)	Students have nothing to fall back on if they do not know what to do. Time consuming and repetitive. Synchronizing the flipped classroom approach with different learner types and learning styles.
Villalba et al., (2018)	Not enough time. Unreliable internet service. Repetitive in nature. Difficulty in adapting from traditional approach to flipped classroom approach.

Source: Published literature on flipped classroom model between 2013 to 2018

These observations are in line with Milman, (2012), Enfield,(2013), who noted that poor quality of video usually becomes a common problem in the flipped classroom practice. If the content and design of a video lecture is unattractive, the students will find it tedious to watch outside the class. Su and Chen, (2018), also mentioned that lecturers experience difficulty in adapting from traditional method to flipped classroom model.

Conclusion

Conclusively, this paper reveals that students' response to the flipped classroom model was largely positive indicating it to be a model worth pursuing in transforming teaching strategies in vocational and technology education. The flipped classroom is the most consequential idea for transforming the pedagogy of higher education to have appeared in many years. Considering the benefits reported, students' engagement can improve tremendously by flipping the class. If it is enough to engage students better even for the short intervals they are in the presence of lecturers, then the flipped classroom is an enlightened revolution in teaching strategies.

Recommendations

Given the aforementioned benefits of the flipped classroom model, the following recommendations are made:



Lecturers in higher institutions of learning need to start making experiments with flipping the class by recording their lectures if only to care for those who missed classes, like Bergmann and Sams.

If the students benefit from these recorded lectures then efforts should be made to flip some aspect of the content of courses in business education that require practice.

The National commission for colleges of Education (NCCE) should include in its minimum standard the need for lecturers to start experimenting on teaching strategies that will make students active in class.

Government should provide the facilities required for experimenting on new teaching strategies, like constant power, technologies for recording lectures and performing active learning in class.

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