

**EXTENT OF USE OF FLIPPED CLASSROOM IN TEACHING BUSINESS
SUBJECTS IN PUBLIC SECONDARY SCHOOLS IN ONITSHA EDUCATION
ZONE OF ANAMBRA STATE**

AZUBIKE, IFEANYI CHRISTIAN

Department of Vocational Education, Faculty of Education

Chukwuemeka Odumegwu Ojukwu University,

Igbariam Campus

E-mail:ifeanyiazubike2@gmail.com

Phone Number: +2347068988115

Abstract

This study examined the extent of use of flipped classroom in teaching business subjects in public secondary schools in Onitsha Education zone, Anambra State. One research question was developed and answered while one null hypothesis was formulated and tested at .05 level significance. Descriptive Survey design was used for the study and 183 business subjects' teachers from 26 public secondary schools in Onitsha Education Zone were studied. A-10 item self-developed questionnaire was used for data collection Face and content validity of the instrument was established using three experts in the field of education. To determine the internal consistency of the instrument, Cronbach alpha method was used and a reliability Coefficient value of 0.98 was obtained. One hundred and eighty three (183) questionnaire administered were duly completed and retrieved with the help of five research assistants. Mean, standard deviation and t-test were used for data analysis. Findings revealed that Business subjects' teachers in secondary schools in Onitsha Education Zone used flipped classroom in teaching business subjects to a low extent. Gender did not significantly affect respondents' mean ratings on the extent flipped classroom is used in teaching business subjects in public secondary schools. Based on the findings of the study, the researcher concluded that flipped classroom is used in teaching business subjects in secondary schools to a low extent. It was recommended among others, State Ministry of Education should organize training and re-training to familiarize and sensitize business subject teachers on how to use flipped classroom approach in teaching. This could trigger their creativity and innovation in the use of the approach in instructional process.

Introduction

Currently, technologies have fundamentally changed the practices and procedures of nearly all forms of life endeavour, especially in the field of education, health sector, and business. Education is recognized as a social-oriented activity, and quality education has traditionally been associated with teachers having high degrees of personal contact with learners. The use of new technologies in education enhance student-centered learning, and as the world is moving rapidly into digital media and information, the role of new technologies in education is becoming more and more important and this importance will continue to grow and develop in the 21st century. According to Yusuf (2015), new

technologies have significantly enhanced aspect of teaching, learning and research in schools. New technologies connote innovations and applications of concepts, principles and processes for the improvement of human life. Today, the use of new technologies in teaching is fast becoming a common phenomenon in all fields of study especially in business subjects because of its numerous benefits.

Business subjects are pre-technical and vocational education subjects that aim in equipping students with knowledge and skills to enable them to be self-reliant (Amaehule, 2014). It is an aspect of human activity that serves productive purposes and meets the needs of mankind in the technology-driven world, be it educationally, socially or economically. Oliver (2017) defined Business Subjects as the sum total of the knowledge, skills and attitude that are required to successfully promote and administer business enterprises. In Nigeria, business subjects has been purported to serve as a platform for producing skilled business teachers, office administrators and businessmen and women that can effectively compete in the world of work and in enterprises as employees, entrepreneurs and as employers. Business subjects include; Financial Accounting, Economics, Commerce, Computer Studies/Keyboarding, Shorthand, Office Practice and Marketing (Federal Republic of Nigeria (FRN), 2013). Business subjects also include Data processing, Store Keeping, Book Keeping and Salesmanship which are among the thirty four (34) trade or entrepreneurship subjects newly introduced into senior secondary education curriculum (Nigeria Educational Research and Development Council (NERDC), 2014). The main objectives of business subjects, according to NERDC are to enable students, acquire the basic knowledge of business studies, develop the basic skills in office occupation; and prepare for further training in business studies among others.

These objectives can be achieved when new technologies are used in the teaching of business subjects in schools. Therefore, introduction of new technology tools to the teaching of business subjects in secondary schools will likely reduce the vastness in business subjects' content to mere interaction and discussion classes from all sides of the globe. Types of new technologies used for teaching of business subjects according to Ezenwafor (2016) include, Smart board, flipped classroom, virtual reality, power point, internet browsing using search engine, multi-media projector, and broadcast materials or CD ROM for information collection and storage. Others are Micro-computers with software applications, skillful keyboard, windows, messenger, yahoo, chat room and computer software applications such as word processors, desktop publishers, graphics, power- point and spreadsheet.

Flipped classroom is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the teacher guides students as they apply concepts and engage creatively in the subject matter (Bergmann & Sams, 2012). The benefits of using flipped classroom approach in teaching as stated by Bergmann and Sams are that it involves all forms of learning (oral, visual, listening, hands on, problem solving), it is extremely convenient, especially for students that face difficulties in traveling to the physical classroom. Similarly, in the flipped classroom approach, students take responsibility for their learning as their personal work and contribution are reflected in the grade received at the end of the term. Bergmann and Sams (2012) further opined that teachers should consider flipped classroom because flipping speaks the language of today's students, helps busy students, helps struggling

students, helps students of all abilities to excel, allows students to pause and rewind their teachers, increases student-teacher interaction, allows teachers to know their students better, increases student-student interaction, allows for real differentiation, and changes classroom management.

For business subjects to serve the purpose of providing the needs of students and the society at large, continuous improvement in the implementation of flipped classroom approach by schools offering business subjects in order to ensure that the quality of education is in tandem with societal demands is required. As stated by Osuala (2015), although flipped classroom approach is not new in many advanced countries; it is relatively new in Nigeria. While flipped classroom is already being utilized in some school however, the approach is yet to be used in many of Nigeria's secondary schools.

The use of flipped classroom in business subjects pose many challenges according to business subjects teachers in Nigerian secondary schools (Achugbu, 2017). Business subjects in secondary school level would achieve the goals of teaching if such flipped classroom and other new technologies are adequately provided and utilized in teaching the subjects. Many secondary schools do not give adequate priority and attention to the acquisition and utilization of new instructional technologies needed for teaching of business subjects. The dearth of these facilities makes it difficult to teach and prepare business subjects students for the use of new technologies now and in future world of work. For business subjects to remain relevant in providing the needs of individuals and that of the society, it must embrace current trends in flipped classroom approach needed for the academic pursuits and economic demands of the society at large. The current developments in Nigeria have made it even more pertinent for the use of flipped classroom in teaching business subjects in secondary school level. However, gender can be an influencing factor to the extent of the use of flipped classroom approach in the teaching of business subjects in public secondary schools.

Gender is the socially constructed characteristics of men and women such as norms, roles, and relationships of and between groups of men and women. Akawu (2010) reported that gender effects could be factors in determining the extent of use of new technologies in the teaching of business that male teacher possess more technological skills and uses them in instructional delivery than their female counterparts. In agreement, Jimoyiannis and Komis (2007) observed that male possesses more technological cum ICT skills and uses them in instructional delivery than female teachers. This implies that teacher's gender can influence the extent of use of flipped classroom in the teaching of business subjects. An empirical study by Ekwere (2014) revealed that new technologies in business subjects for instructional delivery are not adequately provided for, and as such discouraging business subject teachers from effective utilization of them in teaching business subjects. Okolocha (2015) found that the few available ICT resources are rarely utilized in the teaching of business education. It is against this back drop that this study was carried out to examine the extent of use of flipped classroom in teaching of business subjects in public secondary schools in Onitsha Education Zone of Anambra State.

Statement of the Problem

The call for the use of flipped classroom in teaching is to infuse and inject efficiency and effectiveness. This is due to the many advantages associated with it, which include easy work presentations, easy information access, easy monitoring and evaluation among others yet teachers in public secondary schools seem not to be given adequate priority and attention to the use of flipped classroom in teaching despite its enormous benefits to the teaching process. Poor usage of flipped classroom in teaching of business subjects means producing students with only theoretical knowledge and lacking relevant practical skills required of business subjects' school leavers for gainful employment or self-reliance in the modern day business world. Effective use of flipped classroom by business subject teachers is dependent on teachers' level of training and re-training on the use of new technologies in teaching and acceptability of new technologies as a tool for enhancing instructional delivery among others. Achinike (2018) lamented that business subjects studios and laboratories need to be enhanced to equip students with relevant new technological skills expected of them in the field of work. It's worrisome that despite many technological advancements and introduction of new pedagogical concepts, majority of today's business subjects' teachers are over-reliance on traditional teaching methods and instructional materials such as chalkboard, papers and typewriters among others. The problem of this study, therefore, is that the secondary school business subjects' leavers are not employed due to lack of necessary skills required in the present innovated offices. Therefore, the study specifically determined the extent flipped classroom is used in the teaching of business subjects in secondary schools in Onitsha Education Zone of Anambra State.

Research Question

The following research question guided the study;

- i. To what extent is flipped classroom used in the teaching of business subjects in secondary schools in Onitsha Education Zone of Anambra State?

Null Hypothesis

The following null hypothesis was tested at .05 level of significance:

H₀₁: There is no significant difference in the mean responses of male and female business subjects' teachers on the extent flipped classroom is used in the teaching of business subjects in secondary schools.

Method

Descriptive survey design was adopted for this study. The study was carried out in 26 public secondary schools that offer business subjects in Onitsha Education Zone of Anambra State. The population of 183 (57 male and 126 female) business subjects teachers in the 26 public secondary schools in Onitsha education Zone of Anambra State were studied without sampling. A-10 item self-structured questionnaire titled "Extent of Use of Flipped Classroom in the Teaching of Business Subjects Questionnaire (EUFFT-BSQ) was used for data collection. The face and content validity of the instrument was done by two experts in the field of Vocational Education and one expert in Measurement and Evaluation Unit. The reliability of the instrument was established using pilot-test and data was analyzed using Cronbach Alpha method which yielded correlation coefficient of 0.98. The researcher administered 183 copies of questionnaire to the respondents with the help of five research assistants. All questionnaire administered were returned and used for the study. Data collected were analyzed using mean and standard deviation to answer the research question and determine the homogeneity of the respondents' opinions. Each item was interpreted based on the real limit of the number corresponding to each item categories

as follows: Very High Extent: 4.50 – 5.00, High Extent: 3.50 – 4.49, Moderate Extent: 2.50 – 3.49, Low Extent: 1.50 – 2.49 and Very Low Extent: 1.00 – 1.49. t-test was used to test the null hypothesis at .05 level of significance. A hypothesis was rejected where the p-value is less than the alpha value but accepted where the p-value is greater or equal to the alpha value. The analyses were done using SPSS version 23.

Result

Research Question 1

- i. To what extent is flipped classroom used in the teaching of business subjects in secondary schools in Onitsha Education Zone of Anambra State?

Table 1: Respondents' Mean Ratings on the Extent Flipped Classroom is Used in the Teaching of Business Subjects (N=183)

S/N	Flipped Classroom	Mean	SD	Remark
1	Makes the classroom an active learning environment	2.51	.71	Moderate Extent
2	Enables students to learn at their own pace.	2.65	.65	Moderate Extent
3	Gives the instructor more time to teach each student individually, rather than the class as a whole	2.43	.51	Low Extent
4	Makes content richer through creation and continuous improvement	1.96	.74	Low Extent
5	Flipped lecture videos help students review for exams and master the content.	1.26	.82	Very Low Extent
6	Students in flipped classrooms show better learning outcomes.	1.49	.58	Very Low Extent
7	Provides reliable and consistent learning materials for substitutes to use.	2.53	.86	Moderate Extent
8	Provides more time for one to one between the teacher and students.	2.56	.66	Moderate Extent
9	Gives more freedom to teachers to decide upon how much time to spend with each student.	1.29	.91	Very Low Extent
10	Makes for effective learning	1.41	.76	Very Low Extent
Cluster Mean		2.00		Low Extent

Data in Table 1 shows that out of 10 items listed on flipped classroom, business subjects' teachers rated items 1, 2, 7 and 8 moderate extent with mean scores ranging between 2.51 to 2.65. Items 3 and 4 were rated very low extent with mean scores ranging between 1.96 to 2.43. While the remaining four items were rated very low extent by the respondents. The cluster mean of 2.00 shows that business subjects teachers used flipped classroom in teaching of business subjects at a low extent. The standard deviation for all the items are within the same range meaning that the respondents are not wide apart in their mean ratings.

Hypothesis 1

H₀₁: There is no significant difference in the mean responses of male and female business subjects' teachers on the extent flipped classroom is used in the teaching of business subjects in secondary schools.

Table 2: t-test analysis of mean scores of male and female business subjects' teachers on the extent flipped classroom is used in the teaching of business subjects

School Location	N	Mean SD	df	t-cal	P-value	Decision
Male	114	2.95 .31	181		.78	Not-Sig
Female	69	2.93 .27		.32		

Table 2 shows that the mean score for male business subjects teachers ($M=2.95$, $SD=.31$) was not significantly greater than that of female business teachers ($M=2.93$, $SD=.27$); $t=.32$, $p=.78$. . This means that there is no significant difference between the two groups on the extent to which flipped classroom is used in the teaching of business subjects in secondary schools. Therefore the null hypothesis is accepted

Discussion of Findings

Findings of the study indicated that business subjects teachers in secondary schools in Onitsha Education Zone used flipped classroom in teaching business subjects to a low extent. The findings of the study corroborate the findings of Asogwa (2011) that majority of business teachers are still showing negative attitude in using modern technology in teaching. Ilechukwu (2011) opined that the wide gap between the experiences of the ICT experts who developed the ICT system and the slow and sometimes unwilling designers of education instructional system planners is also a challenge to teachers using them in teaching. In agreement, Alu (2011) noted that the issue of ICT literacy among teachers (business subjects' teachers inclusive) and availability of personal computers among teachers is lacking. Alu lamented that these situations hinder the use of flipped class room in teaching in secondary schools. The author averred that there is no rigorous ICT training in the process of teacher preparation to help teachers' usage and as a result, many teachers are ICT illiterate.

The findings that business subjects teachers used flipped class room to a low extent is not surprising to the researcher considering the fact that there are lack of capacity building programmes as well as ICT training and re-training programmes for secondary school teachers in Onitsha Education Zone to up-date their knowledge and enhance their professional practice. This the researcher believed might have contributed to business subjects teachers' low level of using flipped class room in teaching business subjects. The findings of the corresponding hypothesis shows that there is no significant difference in the mean responses of male and female business subjects' teachers on the extent flipped classroom is used in the teaching of business subjects in secondary schools. The findings could be attributed to the fact that both male and female business subjects teachers have

not been adequately trained on computer facilities which may have informed their uniformity in the mean ratings. Nwaukwa (2015) reported that gender did not significantly affect the business subjects' teachers' mean ratings on the extent they integrate computer facilities in instructional delivery. This means that gender is not an important factor on extent of use of flipped class room in instructional delivery.

Conclusion

From the findings of this study, business subject teachers used flipped classroom in the teaching of business subjects to a low extent. The use of flipped classroom will not only revolutionize teaching of business subjects, but will stimulate the development of students' critical thinking abilities and acquisition of new employability skills needed to fit into the modern society upon graduation. Based on the findings of this study, the researcher concluded that business subjects teachers do not adequately use flipped classroom in teaching business subjects in secondary schools in Onitsha Education Zone of Anambra State.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. The Ministry of Education should organize training and retraining programmes for business subjects' teachers as to familiarize and sensitize them on how to use flipped classroom approach in teaching. This could trigger their creativity and innovation in the use of the new approach in instructional process.
2. The State government should provide secondary schools in the State with flipped classroom to enable teachers make use of them for effective teaching.
3. Business subjects should be taught by well equipped teachers, preferably business educators. This could be possible by training more business educators.

REFERENCES

- Akawu, A. B. (2010). *Educational communication technology: Media and utilization*. Calabar: University of Calabar Printing Press.
- Alu, N. C. (2011). *Utilizing e-learning in science and technology education, problems and prospects*. A publication of the Institute of Education, University of Nigeria Nsukka. 2011.
- Amaehule, S. (2014). Skills Acquisition: Imperative for Business Studies Educators among Secondary Schools in Rivers State. *Mediterranean Journal of Sciences*. 2 (7): 37-43.
- Asogwa, C. I. (2011). *The challenges of optimizing e-learning opportunities for effective education service delivery in University of Nigeria Nsukka*. A publication of the Institute of Education, University of Nigeria Nsukka, 2011.
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International Society for Technology in Education. USA
- Ezenwafor, J. I. (2016). Adequacy of exposure to information and communication technology by graduating business education students of tertiary institutions in Anambra State. *Business education journal association of business educators of Nigeria*. VIII (2), 45 – 60.

- Federal Republic of Nigeria (2013). *National policy on education (6th Edition)*, Lagos: NERDC Press.
- Ilechukwu, L. C. (2011). Challenges of implementation of e-learning technology in religious studies in primary schools in Enugu State. In N. Onyegegbu & U. Eze, (Eds.), *optimizing e-learning opportunities for effective education service delivery*. Publication of Institute of Education University of Nigeria, Nsukka.
- Jimoyiannis, A. & Komis, V. (2007). Examining teachers' beliefs about ICT in education: Implementations of a teacher preparation program, teacher development. *An International Journal of Teachers' Professional Development*. 11(2), 149-173. Retrieved from: <http://dx.doi.org/10.1080/13664530701414779>.
- Nwaukwa, F. C. (2015). *Extent of integration of information and communication technology in instructional delivery by secondary school business subjects teachers in Abia State*. (Unpublished Master's Thesis), Nnamdi Azikiwe University, Awka.
- Okolocha, C. C. (2015). The utilization of ICT resources in teaching among business educators in secondary schools in Imo State of Nigeria. *Business Education Journal*, 1(2), 221-232.
- Yusuf, M. O. (2015). Information and communication technology: Analyzing the Nigerian national policy for information technology. *International education journal*, 693, 317-332.