



# **University Students' Perception of the Effectiveness of Flipped Instructional Model in Improving Business Education Programme towards Sustainable Academic Achievement in Post COVID-19 Context**

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## **ABSTRACT**

This paper analyses university students' perception of the effectiveness of the flipped instructional model in improving Business Education Programme towards sustainable academic achievement in the post-covid-19 context. The survey research design was used. The population of the study consisted of 2777 students of the Business Education Department, in the South East, Nigeria. The sample size comprised 210 respondents which were made up of 50 male and 160 female students selected using random sampling techniques. The questionnaire was used to collect data. Cronbach Alpha reliability procedure was used. The instrument yielded co-efficient of 0.86. Two hundred and ten (210) instruments were administered and collected. Data collected was analyzed using mean and standard deviation for research questions while hypotheses were tested at 0.05 level of significance using t-test. The findings of the study showed positive evaluation highlighting its effectiveness on pedagogical and communicative dimensions. The test of the hypotheses proved that the mean responses of the respondents differ significantly on the perception of students regarding the effectiveness of flipped classroom model on pedagogical dimension based on gender while there is no significant difference on the perception of students on communicative dimension based on status. In conclusion, flipped instructional model stands as a methodological alternative to promote learning in Business Education Programme toward sustainable academic achievement in post covid-19 context.

**Keywords:** Business Education Programme, Flipped Instructional Model, Effectiveness, Perception, Post Covid-19

## **INTRODUCTION**

COVID-19 has triggered a significant change, imposing many challenges in the primary school, secondary schools, and higher education community, globally. These crises can be looked upon as an opportunity to reconstruct our longstanding educational system and establish a better and updated practice in academics, suitable for the present generation of learners in Business Education programme. Business education programme is concerned with the acquisition of pedagogical and professional competencies in industry and education necessary for personal use; for entry into the business world as an employer, employee, or self-employed, and for effective participation in the educational industry as professional business education teachers (Ubulum and Dambo in Anyigor-Ogah and Okoli, 2022). Therefore, Business education programme is a discipline in Universities. Business education is a veritable programme in the intellectual, physical and emotional development of the recipient. Business education according to Azuka in Azuka and Nwosu (2018) is a programme of studies, which comprises four parts-creating awareness in occupations; preparing youths for work in business occupation; preparing people to become better citizens and consumers of goods and services; and preparing business teachers. Business education is that aspect of general education that

prepares students for employment and advancement on a broad range of office occupations, accounting professions, marketing occupation, teaching profession and entrepreneurship venture (Onokpaunu, 2016). In the view of the above, Nwosu (2016) added that business education enables the learner to acquire vocational, personal-use, consumer-business and social-economic competencies, which allow them live well and also contribute to national development. Therefore, business education simply refers to the intellectual as well as vocational instructions offered to learners for personal survival and contribution to the overall development to the nation. To attain the view above, in the post-covid-19 context, fashionable conventional formats, such as the master class, representing flaccid training methods and strategies, are incomplete in the light of the post-covid-19 environment. Education is in a continuous process of transformation and adaptation especially now where we live with technologies and enjoy their potential. Based on the above, it is necessary to adopt an instructional model that must respond to the needs and demands of the students, making the incorporation of innovation linked to active methodology like flipped instructional model (FIM).

Ugwoke, Ede, & Ezeema (2018) stated that Flipped Instructional Model (FIM) involves lecturers posting lecture courseware (text-based, audio, audio-visual among others) using any kind of platform and giving students the opportunity to download, watch supplemental videos, and attempt assignment outside class setting. The flipped instructional model encompasses any use of technology to leverage learning in the classroom so that a lecturer can spend more time interacting with students instead of lecturing. Hence, FIM is the methodology that promotes different skills, such as learning to learn before class or learning to do before classroom session with a transversal presence to cognitive skills, such as higher reasoning processes (inductive and deductive logic) or critical thinking which are present throughout the processes (Colomo-Magana, A., Colomo-Magana, E., Gullen-Gamiz & Aziza, 2022).

FIM is built on four key pillars, which include: A flexible learning environment, a culture of learning, intentional content, and teaching roles (Karagöl & Esen, 2019). In these senses, different research works on the benefits or the effectiveness of FIM have been reviewed, gathering below the most aspect of its implementation: Development of skills and competencies, personalization of the processes, improvement of learning capacity, active students' participation, and engagement level, time optimization, and strong feedback cycle (Trach 2019; Guillén, et al, 2020; Zainuddin, & Perera 2019). Although the usefulness or the effectiveness of FIM is numerous as regard to this study, the author grouped the effectiveness in three dimensions which include; the pedagogical dimension and the communicative dimension

The pedagogical dimension involves the aspect that affects the teaching and learning processes. The pedagogical possibilities of the flipped instructional mode have been considered in different works (Karagöl, & Esen. 2019; Zainuddin, & Perera, 2019), hence the relevance of its inclusion as a dimension. The communicative dimension focused on the construction, reconstruction, and presentation of information as well as the social interactions that take place during the implementation of the methodology, strategy, or resource. Thus, it evaluates the interaction possibilities through linguistic means to transfer information, allowing both the constructive use of language (oral or written) to produce messages and the understanding of them linked to the educational field. Within the way of structuring the teaching-learning processes, as an educational methodology, the FIM must favor communicative competence. This component contains different skills, abilities, and actions linked to their development. Jin (2019) stated that this methodology has a positive impact on communicative competence.

Despite all these buoyant dimensions, this instructive method also presents a series of shortcomings or drawbacks with effectiveness to its implementation, placing the focus on the two main agents: students and teachers. Concerning students, the difficulty arises around the level of engagement in the teaching-learning process requiring a greater effort and willingness on their part (Tse, Choi, & Tang, 2020). This is due to their leading role, as they are responsible for working on the contents that are located in the time before class. As far as teachers are concerned, we are hampered by the digital competence of teachers. This is a methodology that requires dominion of different resources and materials to design and implement its model correctly, so the shortcomings and lack of training in this area are one of the factors that need to be worked on from initial and continuing training.

As we can see, the flipped instructional model has wide repercussions, in addition to its germane role as a methodology in the field of educational research. In this sense, previous studies have

implemented the flipped instructional model from this perspective. Thus we find research on primary and secondary education (Osterlie & Mehus, 2020; Pozo, Lopez, Moreno & Lopez, 2020; and in different university programs such as medicine (Tang, Chen, Zhu, Zuo, Zhong, Wang, & Zhou, 2017) chemistry (Hinijo-Lucena, Mingorance-Estrada, Trujillo-Torres, Aznar-Diaz, & Caceres 2018), physical education (Gross & Musselman 2018), engineering (Burkhart & Craven 2020), nutrition (Roach, 2014), economics (Mohamed & Lamina, 2018), mathematics (Zainuddin, Habiburrahim, Muluk & Keumala, 2019), and language (Segura-Robles, Parra-Gonzalez, Gallardo-Vigil, 2020). If we place the focus on the impact of its implementation, they are works that confirm that the application of flipping increases both students' motivation (Young, Jeong, 2020), and their academic performance (Anyigor-Ogah & Okoli 2022) which are two essential variables assess the quality of the teaching-learning process. Regardless of this, it should be highlighted that they are studies that do not achieve better results in academic performance when implementing FIM (Cronhjort, Filipson, & Weurlander, 2018; Hsieh, Wu, & Marek, 2017).

In addition to these factors, the student's perception becomes the key aspect, since it will influence both the overall assessment of this reality and the willingness to use it or reject it because of their self-confidence about its success or failure. In this sense, different studies have analyzed the students' perceptions regarding the implementation of the FIM. Jeong, Canada, & Gonzalez, (2018) on performance and perception regarding the use of a flipped instructional model with 153 students from the University of Extremadura (Spain) during two academic years (2014/2015 and 2015/2016) found a higher performance when implementing this methodology linked to its positive perception. In turn in another study, students' perception of the flipped model with 30 undergraduate students in a General English class at Can Tho University. The result highlighted that the students have considerably positive perceptions of the flipped model (Thi & Cakmak, 2018). Analyzing the perception in a sample of 1800 undergraduate students at Universities in East-West Nigeria regarding the utilization of flipped classrooms for learning, the results perceived flipped classrooms to be useful and easy to use for learning (Onajah, Olumorin, Adegbija & Babalola, 2019). Nevertheless, it should also be noted that the study of the relationship between perception and academic performance does not always produce positive results. The work of Baker, Goodboy, Bowman, & Wright (2018) reflects how students' results do not improve with the use of PowerPoint despite a positive perception of its implementation.

With this, I want to highlight that perception includes the vision and opinion of the participants about the potential of the flipped instructional model, so despite finding studies that confirm that a positive perception has a favorable impact on the results, it is not enough to have only a favorable opinion about a methodology, strategy, or resources to ensure that the academic performance will be positive. For the analysis of perception, different variables have been studied that can influence these perceptions, such as the sex and status of the participants. In this regard, the researchers found studies that emphasize a better perception by women (Jeong, et al, 2018; Thi & Cakmak, 2018; Onajah, et al, 2019; Baker, et al, 2018; Gomez-Carrasco, Monteaguto-Femandez, Moreno-Vera, & Sainz-Gomez, 2019; Namaziandost & Cakmak 2020; Chiquito, Castedo, Santos, Lepez, & Alarco, 2020), and others in which no significant differences were found, although men show better perceptions Osterlie & Kjelaas, 2019; Ugwoke, et al 2018; Haghighi, Jafarigohar, Khoshsima, & Vahdany, 2019; Asad, Ali, Churi, & Moreno-Gurro, 2022).

#### **Purpose of the study**

The main purpose of the study is to determine the perception of university students on the effectiveness of the flipped instructional model in improving Business Education Programme towards sustainable academic achievement in a post-covid-19 context. Specifically, the study sought to determine the:

1. Perception of university students on the effectiveness of the flipped instructional model in improving pedagogical dimension of Business Education Programme towards sustainable academic achievement in post-covid-19 context.
2. Perception of university students on the effectiveness of the flipped instructional model in improving the communicative dimension of Business Education Programme towards sustainable academic achievement in a post-covid-19 context.

#### **Research Questions**

The following research questions guided the study.

1. What is the perception of university students on the effectiveness of flipped instructional model in improving the pedagogical dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context?
2. What is the perception of university students on the effectiveness of the flipped instructional model in improving the communicative dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context?

**Hypotheses**

The following hypotheses were tested at a 0.05 level of significance:

HO1: There is no significant difference in the mean responses of the respondents on the effectiveness of the flipped instructional model in improving the pedagogical dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context based on gender.

HO2: There is no significant difference in the mean responses of the respondents on the effectiveness of the flipped instructional model in improving the communicative dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context based on status.

**METHODOLOGY**

The survey research design was adopted for the study. The area of the study was South East of Nigeria. The population for the study was 2777 undergraduate students in the department of Business Education from the seven public universities in Business Education Department. A structured questionnaire with 20 item statements was administered to 210 respondents, 50 male and 160 females that were randomly selected from Business Education Department by selecting 30 respondents each from the seven universities. The instrument was validated by three experts: two from Business Education Department and one from Measurement and Evaluation, all from Ebonyi State University, Abakaliki. The Cronbach’s Alpha reliability coefficient of 0.86 was achieved from the research instrument. The variables, namely, gender, and status as disclosed in Table 1 were used to conduct the study. Table 1 shows the percentage distribution of the respondents. The statistical mean, standard deviation, and t-test were applied for the data analysis using SPSS 20.0 version. The decision rule for the mean statistic was 2.5. A mean of 2.5 and above was accepted while a mean below 2.5 was rejected.

**Results**

**Research Question 1**

*What is the perception of university students on the effectiveness of flipped instructional model in improving the pedagogical dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context?*

Data answering the above research question are contained in Table 2

**Table 2: Mean Rating and Standard Deviation on Perception of University Students on the Effectiveness of Flipped Instructional Model in Improving Pedagogical Dimension of Business Education Programme towards Sustainable Academic Achievement in Post Covid-19 Context.**

S/N	Pedagogical Dimensions	X	SD	Remark
1	Promote group work	3.54	0.49	Very Effective
2	Encourages feedback	3.62	0.49	Very Effective
3	Foster self-evaluation	3.49	0.50	Effective
4	Support for development of skills	3.81	0.39	Very Effective
5	Encourages autonomous learning	3.97	0.17	Very Effective
6	Contributes to the development of critical thinking	3.92	0.27	Very Effective
7	Encourage meaningful learning	3.75	0.43	Very Effective
8	Improvement of learning capacity	3.51	0.50	Very Effective
9	Promotes time optimization	3.97	0.18	Very effective
10	Encourages active participation and engagement level	3.44	0.49	Effective
<b>Grand Total</b>		<b>3.31</b>	<b>0.39</b>	<b>Very Effective</b>

**Source: Developed by the Author**

The data in Table 2 reveal that items 1, 2, 4, 5, 6, 7, 8, and 9 had a mean rating from 3.97 to 3.51, and items 3 and 10 had a mean rating from 3.49 to 3.44 with a grand mean of 3.31. This indicates the effectiveness of the flipped instructional model in improving the pedagogical dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context was perceived as very effective by the respondents.

### Research Question 2

*What is the perception of university students on the effectiveness of the flipped instructional model in improving the communicative dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context?*

Data answering the above research question are contained in Table 3

The data in Table 3 reveal that items 11, 12, 13, 14, 16, 17, and 19 had a mean rating from 3.96 to 3.57, and

**Table 3: Mean Rating and Standard Deviation on Perception of University Students on the Effectiveness of Flipped Instructional Model in Improving Communicative Dimension of Business Education Programme towards Sustainable Academic Achievement in Post Covid-19 Context.**

S/N	Communicative Dimensions	X	SD	Remark
11	Encourages written expression	3.80	0.40	Very Effective
12	Encourages oral expression	3.92	0.27	Very Effective
13	Contributes to dissemination and sharing of content	3.84	0.37	Very Effective
14	Improves the ability to communicate in public	3.96	0.20	Very Effective
15	Boosts argumentative skills	3.20	0.40	Effective
16	Contributes to the understanding of information	3.78	0.41	Very Effective
17	Contributes to the adequacy of information	3.82	0.39	Very Effective
18	Contributes to the clarity of information	3.40	0.49	Effective
19	Promotes social interaction	3.57	0.49	Very Effective
20	Encourages reading expression	3.49	0.50	Effective
<b>Grand Total</b>		<b>3.33</b>	<b>0.39</b>	<b>Effective</b>

**Source: Developed by the Author**

items 15, 18, and 20 had a mean rating from 3.49 to 3.20 with a grand mean of 3.33. This indicates the effectiveness of Flipped Instructional Model in improving the communicative dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context was perceived as effective by the respondents.

### Hypothesis 1

**HO<sub>1</sub>:** There is no significant difference in the mean responses of the respondents on the effectiveness of the flipped instructional model in improving the pedagogical dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context based on gender.

Data answering the above hypothesis are contained in Table 4

**Table 4: Summary of T-Test Analysis of the Mean Responses of the Respondents on the Effectiveness of Flipped Instructional Model in Improving Pedagogical Dimension of Business Education Programme towards Sustainable Academic Achievement in Post Covid-19 Context Based on Gender**

Variables (Gender)	NO	Mean	SD	DF	t-cal	t-crit	Decision	Sig
Male	50	3.62	0.40	194	2.12	1.96	Reject H <sub>0</sub>	Sd
Female	160	3.71	0.23					

**Sources: Field Work 2021**

**Keys:** X= Mean; SD = Standard Deviation, DF=Degree of Freedom; t-Cal= t-Calculated Value; t-Crit= t-Critical Value; Sig= significance; NSd= No Significant Difference

Table 4 above reveals the t-calculated value of 2.12 and t-critical value of 1.96 at 194 degrees of freedom. From the table, since the t-calculated value is greater than the critical t-value, we reject the null hypothesis and conclude that the respondents differ significantly in their opinion regarding the effectiveness of the flipped instructional model in improving the pedagogical dimension of Business Education Programme toward sustainable academic achievement in post-covid-19 context based on gender.

**Hypothesis 2**

**HO<sub>2</sub>:** There is no significant difference in the mean responses of the respondents on the effectiveness of the flipped instructional model in improving the communicative dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context based on status.

Data answering the above hypothesis are contained in Table 5.

**Table 5: Summary of T-Test Analysis of the Mean Responses of the Respondents on the Effectiveness of Flipped Instructional Model in Improving Communicative Dimension of Business Education Programme towards Sustainable Academic Achievement in Post Covid-19 Context Based on Status**

Variables (Status)	NO	Mean	SD	DF	t-cal	t-crit	Decision	Sig
ICT Inclined	121	3.68	0.41	194	1.88	1.96	Uphold H <sub>0</sub>	NSd
Non-ICT Inclined	89	4.04	0.35					

**Sources: Field Work 2021**

*Keys: X= Mean; SD = Standard Deviation, DF=Degree of Freedom; t-Cal= t-Calculated Value; t-Crit= t-Critical Value; Sig= significance; NSd= No Significant Difference*

Table 5 above reveals t-calculated value of 1.88 and t-critical value of 1.96 at 194 degree of freedom. From the table, since the t-calculated value is less than the critical t-value, we uphold the null hypothesis and conclude that the respondents do not differ significantly in their opinion regarding the effectiveness of the flipped instructional model in improving the communicative dimension of Business Education Programme toward sustainable academic achievement in post-covid-19 context based on status.

**DISCUSSION OF FINDINGS**

Table 2 shows that the effectiveness of the flipped instructional model in improving the pedagogical dimension of Business Education Programme towards sustainable academic achievement in the post-covid-19 context was perceived as very effective by the respondents. This is in line with the multiple works like Burkhart et al (2020); Ugwoke et al (2018); & Thi & Cakmak (2018), since it favors the development of competencies, as well as autonomous learning and group work, making it enriching methodology options for learning. The test of hypothesis (HO1) in table 4 proved that there is significant differences in the mean responses of the respondents on the perception of the effectiveness of the flipped instructional model in improving the pedagogical dimension of Business Education Programme towards sustainable academic achievement in post-covid-19 context based on gender. The findings is in agreement with Namaziandost et, al (2020); Onojah et al, (2019); & Gómez-Carrasco et al (2019), who found that there is a significant difference on the perception of the use of the flipped instructional model.

## CONCLUSIONS

As we have seen, the flipped instructional model is a methodological alternative that has been positively evaluated by the students. Based on the findings, it was concluded that the respondents responded positively on the effectiveness of flipped instructional model as it enhances pedagogical dimensions and communicative dimensions in a context conditioned by post-COVID-19. This means that the respondents responded positively to an initiative to implement the flipped instructional model and appreciated its potential to promote learning. Also, it was concluded that pedagogical dimensions was influenced by gender. In the same manner, status did not influence the communicative dimension.

## RECOMMENDATIONS

Based on the findings of the study, it was recommended:

1. That flipped instructional model should be applied and adopted in the teaching process of students in all dimensions of university education to deal with the post-corona virus era.
2. In-service training programmes should be organized for the non instructors based on competencies required for effective implementation of the model.

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