PERCEIVED IMPACT OF ONLINE TEACHING AND LEARNING STRATEGIES CAN BE A DETERMINANT FACTOR FOR ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS IN AWKA NORTH LGA OF ANAMBRA STATE.

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Abstract

This paper investigated the Perceived Impact of Online Teaching and Learning Strategies used as Determinant Factor for Academic Performance of Secondary School Students in Awka North LGA of Anambra State. One research question in line with one research purpose guided the study. Survey research method was adopted for the study. The population of the study is 635 teachers. The teachers are six hundred and thirty five (635) in number handling the students in the Twenty-nine (29) secondary schools in Awka South, Anambra State. The sample size was 254, Out of the total number of six hundred and thirty five (635) secondary school teachers, 40% was chosen through stratified random sampling by ballot, the instrument that was used for data collection was a structured questionnaire. The instrument was first validated by three experts. Test and retest was used to measure of the reliability of the instrument was determined. The coefficient of 0.75 was obtained and it determined that the instrument was reliable. Mean was used to analyze the research questions posed for the study. Findings from the study, shows that all the items on strategies for interaction in online teaching and learning process enhances effective education. The study recommends that teachers should be given proper orientation and training in other to get them abreast with the online platform for teaching and learning.

Keywords: Online, Determinant, Factor, Teaching and Learning

Introduction

Education is the basis of human life. The development and progress of man depends mostly on education. Education also constructs personality and beautifies it. Wikipedia - Education is a conscious and deliberate effort to create an atmosphere of learning and the learning process so that learners are actively developing the potential for him to have the spiritual strength of religious, self-control, personality, intelligence, noble character, and the skills needed themselves and society. Educational efforts deliberately chosen to influence and assist children with the aim of improving knowledge, physical and morals that can gradually deliver the child to the highest goal. In order for the child to live a happy life and

be beneficial to himself and society. Education at all levels and in all its forms, constitutes a vital tool for addressing virtually all global problems. Education is not only an end in itself.

Obiakor, Oguejiofor and Ezenwagu (2021) opined that one will find that education is defined as "the aggregate of all the processes by which a person develops abilities, attitudes and other forms of behaviour of practical values in the society in which s/he lives; the social process by which people are subjected to the influence of selected and controlled environment (especially that of the school), so that they may obtain social competence and optimum individual development". This further stretches that is the molder of the societal values that helps upcoming generations not to drift into what isn't acceptable in the society.

Though investment in Educational Technology has been increasing, learning outcomes have not changed considerably in many countries. The Organization for Economic Co-operation and Development (OECD) report (202 1) found that, when it comes to impact of computer usage in schools as measured through Program for International Student Assessment (PISA), "impact on student performance is mixed, at best." This is evident in the light of COVID-19 pandemic, the debate on Educational Technology has changed from a question of "if" to a question of "how". Experience to date highlights that teaching and learning remotely is not the same as face-to-face pedagogy. Many teachers with access to e-content, for instance, use it like any other textbook to read for the class. Some adjustments include shorter and more modular content, more engaging content such as edutainment, continuous feedback, smaller group online discussions on more open-ended questions and others. Technology played and continues to play an essential role during the pandemic in 2020 to deliver education to the students outside of the four walls of the school. Commendably, almost all countries were able to deploy remote learning technologies using a combination of Television, Radio, Online and Mobile Platforms (World Bank Report,2021) amongst others.

In the discourse of education, the branch of education that emphasized on online teaching and learning as a modus of transferring knowledge must be appreciated. As the Internet is developing into a main educational tool, online education offers the educator and the learner access to numerous materials. Gannaway (2019) asserted that "during the last decade online education of various kinds, often called distance education or web-based education, has become a normal part of many

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university programs". Online teaching and learning is designed to reach and engage the modern learner on one-on-one basis anywhere, anytime.

Obiakor and Nwakpa (2021) posited that "a popular online teaching and learning program involves Massive Open Online Courses (MOoC), which have grown involving many researchers and research institutions. In addition, by removing the need for physical presence in the classroom, online learning has the potential to make education accessible to a much larger population, while accommodating the demands of a fast-paced and global society.

However, connective Massive Open Online Courses (cMOOCs) is a type of Massive Open Online Course that are based on connectivity learning models that privilege collaboration as a form of active learning. Students in a cMOOC will work together to locate, evaluate, and contribute course content, uploading materials (tweets, blog posts, blogs, wikis, etc.) for a course using the learning platform. A cMOOC instructor or instructional team facilitates learning by finalizing, aggregating, and assessing the students' contributions to the course (Kennedy, 2018).

The eXtended Massive Open Online Course (xMOOCs) is equally a type of Massive Open Online course that are based on traditional course structures and make use of established teaching approaches and materials. Students will watch pre-recorded lectures, complete required readings, and participate in discussions as produced and curated by the course instructor or an instructional team from a higher education institution. xMOOCs are typically self-contained and rarely if ever, utilize content external to the main content delivery and learning platform. Punie(201 8).

According to Brooker (2018), the reasons for offering online course include easy and convenient access for students, higher degree completion rates and the appeal of such courses to non-traditional students. In a similar vein, barriers to the adoption of online courses include lack of faculty commitment and high costs of implementation and delivery of the courses. However, the key to a successful implementation of online teaching and learning is taking student characteristics into account. Over the last decade, the deployment of online education has grown exponentially. Online learning in the academia has gone from an experimental novelty to a nearly ubiquitous teaching tool. In the fall of 2020, approximately 75 percent of U.S. undergraduate students were enrolled in at least one distance

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education course, and 44 percent (seven million) of all undergraduate students were taking distance education courses exclusively, according to data from the U.S. National Center for Education Statistics (NCES).

In the fall of 2020, around 8.6 million college students in the United States were enrolled solely in online education courses offered by postsecondary institutions, Statista reported.

Since 2020, 98 percent of American universities have moved their classes online, according to Think Impact (2020), and 75 percent of U.S. schools were planning to operate online in 2021.

However, it's imperative to state here that online teaching and learning in Awka North LGA of Anambra State has not been fully embraced for the teaching of senior secondary school students, and in no small measure it has certainly placed a limitation to how much access the students have to online educational programs that could help improve their domains of learning, this was made obvious in 2020 during the Covid 19 pandemic, secondary schools were put on hold because making physical contacts could make the students vulnerable to the virus, it took months of academic dormancy because the educational system was not prepared for a time like that, Again research has shown that most students in secondary schools still lack the technical know-how in accessing educational contents online and that's because the traditional method of teaching and learning is still held tight as the utmost means of teaching. Therefore the traditional teaching and learning method in Awka North LGA of Anambra State must be reconsidered to accommodate the impact online teaching.

Online teaching offers exciting opportunities to expand the learning environment for diverse student populations. Students need to be technologically savvy to use technology tools that may be required. Generally, students are required to have access to a computer system with high-speed Internet connections. They may also expect electronic academic support services such as registration, financial aid, libraries, tutoring, and advisement. However, secondary schools in Awka North LGA seem not to be prepared for this advancement in education given 21st century realities.

Platforms and software for online teaching and learning

There are virtual teaching tools out there for every different teaching approach imaginable, catered to a range of different ages, needs and abilities. We've grouped together some of the basics-with options for individuals as well as institutions. They cover everything from colleague communication and video classrooms, to managing your schedule and sticking to your work hours.

ZOOM

COVID-19 has made Zoom a household name. But in addition to using Zoom to Video call your family, it's a useful tool for no-frills virtual classrooms and department meetings. Its free version far outstrips Google Hangouts and Skype in terms of participant size–allowing you to host up to 100 participants at once. It also lets you create several breakout rooms, share screens and use group chat for smaller discussions during a lesson. You can easily record calls too useful for self-critique as you iterate your online teaching methods, and for sharing meetings with colleagues who couldn't attend.

Learning management system

Learning management system (LMS) software provides a single space for all your organization's admin, documentation, reporting and training needs, in addition to the tools to plan teaching, host virtual lessons and create assignments. As a tech giant dominating the virtual collaboration space, it's unsurprising that Google can offer a nice free platform for all the above. Google Classroom brings together all its standard G Suite tools like Docs, Sheets and Hangouts-to help seamlessly manage and deliver virtual teaching (Obiakor et al 2021).

Microsoft team

While stopping short of calling itself an LMS. Microsoft Teams offers a similar suite of virtual teaching tools as Google Classroom and is also happily free. It allows conversations, content and collaboration to happen in one unified digital space. Great for creating secure virtual classrooms, sharing assignments and feedback, and streamlining staff communication (Gannaway 2019).

Slack- for peer and organization communication

Transparent asynchronous is the bedrock of all remote collaboration–it democratizes communication, allowing everyone to access department-wide conversations and talk when it actually suits their schedule. Many remote teams

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have already realized that email just isn't the optimal space for that, and are instead using instant messaging platforms like Slack for the bulk of their day-to-day communication. Slack effectively breaks all team communication into thematic groups - called threads - allowing staff to dip in and out of conversations that concern them. It's a great tool for building an online peer community–creating spaces for colleagues to share best practices, exchange ideas, share global updates and just check-in on each other.

Research Questions

The following research questions guided this study:

1. What are the adoptable online teaching and learning platforms that can be adopted for improved academic performance and learning process among senior secondary schools?
2. What are the strategies for interaction between teachers and learners in online teaching and learning process in senior secondary schools in Anambra.

Methodology

The research design of this study is survey Research Design. This study was carried Awka North Local Government Area of Anambra State.

The population of the study is 635 teachers in (29) secondary schools in Awka north, Anambra State. This consisted of all the teachers in Awka North Local Government Area of Anambra state. This number comprises all teachers are six hundred and thirty five (635) in number handling the students in the Twenty-nine

The teachers in some selected schools are the population. Students are not included, The sample size was 254, Out of the total number of six hundred and thirty five (635) secondary school teachers, 40% was chosen through stratified random sampling by ballot, In other to get a sample size that can be managed by the researcher. The teachers that were used were bona-fide members of staff and employees of the schools. The instrument that was used for data collection was a structured questionnaire. The instrument was first validated. A reliability estimate was computed using Person Product Moment correlation coefficient which gave the value of 0.75 , the value indicated that the instrument was reliable.

The questionnaire was administered to the 254 sampled secondary school teachers in the twenty-nine (29) selected schools in Awka South Local Government Area by

the researcher and two research assistants. Distribution and collection of the questionnaire was made on the spot through the aid of the research assistants to reduce incident of loss of questionnaire. 241 questionnaires representing 95% of the questionnaire distributed was successfully collected. Mean was used to analyze the research questions posed for the study.

Results

Research Question One: What are the adoptable online teaching and learning platforms that can be adopted for effective teaching and learning process among secondary school students in Awka North LGA of Anambra State.

Table 1 : Mean rating on adoptable online teaching and learning platforms that can be adopted for effective teaching and learning process among secondary school students in Awka North LGA of Anambra State.

S/N	Adoptable online teaching and learning platforms.	$\overline{X}$	Remark
1	The adoption of zoom platform will be effective for virtual teaching and learning process.	2.97	Agreed
2	Microsoft team is the best platform for online teaching and learning process as it allows conversations, contents and collaboration to happen in one unified digital space.	3.0	Agreed
3	Slack - for peer and organization communication is effective for digital classroom experience.	2.57	Agreed
4	Learning management system is the best software for online teaching-learning proces.	2.68	Agreed
	Grand Mean	2.80	Agreed

In table 1 above, all the items obtained mean rating above the criterion mean of 2.50 including agreed on the adoptable online teaching and learning platforms that can be adopted for effective teaching and learning process among students in secondary schools in Awka South LGA of Anambra. However, the mean of means as also revealed that adoption of zoom platform will be effective for a virtual teaching and learning process and Microsoft team is the best platform for online teaching and learning process as it allows conversations, contents and collaboration to happen in one unified, it influences the academic performance of students.

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Research Question Two: What are the strategies for interaction between teachers and learners in online teaching and learning process in secondary schools in Anambra.

Table 2: Mean rating on the strategies for interaction between teachers and learners in online teaching and learning process in secondary schools in Anambra.

S/N	Strategies for interaction in online teaching and learning process.	$\overline{X}$	Remark
5	The teachers communicate with learners using online platform during lesson delivery.	2.97	Agreed
6	The teachers communicate through emails as it relates to the course being taught and studied.	3.0	Agreed
7	Teachers send voice note on the online platforms, and they are able to replay the responds of the learners and effectively guide the learners in the study.	3.0	Agreed
8	Through Webcam, which is an application for effective online interaction, teachers comfortably interact with learners in other to facilitate teaching-learning process.	2.57	Agreed
	Grand Mean	2.88	Agreed

In table three above, all the items obtained mean rating above the criterion mean of 2.50 and above, indicating agreed to items on the whole. It implies that the interaction between teachers and learners in online teaching and learning process ensures effective education among secondary school students in Awka South LGÀ of Anambra State. However, the mean of means also revealed teachers communicate with learners using online platform during lesson delivery and teachers communicate through emails as it relates to the course being taught and studied.

Summary of Major Findings

Based on the data analyzed, it was discovered that:

1. Adoption of zoom platform will be effective for a virtual teaching and learning process and Microsoft team is the best platform for online teaching and learning process as it allows conversations, contents and collaboration to happen in one unified digital space. Learning management system is not the best software for online teaching-learning process.
2. Teachers communicate with learners using online platform during lesson delivery and voice notes on the online platforms, and they are able to replay the responds of the learners and effectively guide the learners in the study. Teachers do not communicate through emails as it relates to the course being taught and studied.

Conclusion

Based on the findings of the study, it was concluded that teacher are sensitized and given proper orientation of the usefulness of online teaching and learning in Awka South LGA of Anambra State for full implementation of online teaching and learning process and adoption of zoom platform will be effective for a virtual teaching and learning process and Microsoft team is the best platform for online teaching and learning process as it allows conversations, contents and collaboration to happen in one unified digital space.
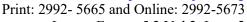
Recommendations

The result of this study shows that online teaching and learning is a determinant factor for effective education in public secondary schools in Anambra and it helps to enhance the development of education in the State. In view of the findings, the researcher made the following recommendations.

1. The government and educational board should keep up with the sensitization of the students in the proper way of exploring the online platform for the purpose of education.
2. Students without interest in L. C. T should be motivated and not punished in other to get them absorbed in the system.

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