Facilitating Efficient Teaching and Learning through a Technology-Based Google Classroom as a Social Tool in Nigerian Tertiary Institutions

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Abstract:- **Advancement in technology has revolutionized teaching and learning which enhanced the student's academic achievements in various levels of Nigerian tertiary institutions educational sectors. Therefore, this paper is aimed at facilitating google classroom for efficient teaching and learning. Teaching and learning requires the learners to participate actively well through an in-depth understanding of issues rather than memorizing isolated information in the 21st century. Technology-based google classroom is a new tool introduced in google application for education and this google classroom facilitates the teachers to create and organize assignments quickly and provide feedback efficiently. It is timely that google classroom tool should be integrated into the teaching and learning process so as to promotes higher order thinking skills and to promote the development of problem solving skills. The paper also discusses the limitations and key challenges of technology-based google classroom in Nigerian tertiary institutions as well as issues on the importance of technology-based google classroom and the solutions and recommendations on the quality of education on google documents facilities for teachers and students in the universities. This paper therefore recommends that the universities management should organize workshops, seminars and conferences on teaching using technology-based google classroom for effective teaching and learning in the university environments.**

Keywords:- Teaching and learning, Technology, Technology-based, Google classroom, Tertiary institutions, Management.

I. INTRODUCTION

Technology serves as an available tool for students to explore their learning experience with their fingertips touching on the computer screen, or moving a mouse to click. It helps students build a bridge to connect their reading text to the simulated real world situation presented visually by the computer programs. There is little doubt that mobile and web-based technology is becoming increasingly ubiquitous in the lives of students of higher education. As a result, these technologies may be incorporated into classrooms with little understanding about the impact on teaching and learning process. There is growing interest in the way that online or technology-based tools, and pedagogy implemented to support such tools, might generate greater participation and interaction between students, and their teachers in tertiary education (Hughes, 2012).

According to Everson, Gundlach & Miller (2013) supported the idea that the integration of digital materials in blended learning contexts can increase student engagement. This has made students increasingly reliant on being connected to the internet at all times (Granitz & Koernig, 2011). As teachers attempt to integrate technology and its uses in their classrooms, they also carry with them their preconceived notions and prior experiences with technology such as google classroom. Therefore, Google classroom is a free paperless application including Google programs such as G-mail, Google Documents, Google Forms, and Google Presentations. Google Classroom can produce, collect and grade assignments for the teacher, and provide immediate feedback to students. Teachers and students can get into the Google Classroom from anywhere and utilize the application at home to complete assignments. Mersand (2014) asserted that various computer programs are available in school such as Google Classroom, a program for teachers and students to create, distribute and grade assignments paper-lessly.

Phan (2015) defined Google Classroom as a program for teachers to create a digital classroom for students to communicate with their teachers and peers. The google classroom helps to evaluate students' satisfaction with the use of the Google Classroom program in order to develop learning environment with increased students' engagement and educators when the needs arise. This program can be accessed using any device at any place, which is convenient for both teacher and students. Google platform allows learners to chat and discuss topics learned in class, and teachers to view student discussion, and post comments, assignments can also be posted such as video segments, PowerPoint presentations, documents and web quests. Prasertsith et al., (2016) stated that Google Drive has been one of a key feature of Google for teachers and students in higher educational institutions. The teachers' course materials can be accessed by students through the use of Google Drive at any time, any place with multiple devices like smartphones, computers, or tablets. Teachers can get a drive that stores their course materials and choose to share with specific student email addresses generating from the student email list, creating by the university or directly with the students that he had been added on his Google

classroom. Teachers can choose specific students email addresses to access the course materials or all the students.

In addition, educational institutions should aim to maximize the potential of individuals in terms of their personal development and their contribution to a sustainable and democratic technology-based society. In order to acquire the competences and skills needed and it must become "learning organizations." Gil-Garcia & Cinton, (2002) opined that these tools engages learners in various activities and helps their learning beyond the basic information of a free application that integrates e-mails and documents to save into storages. Teachers can upload files, videos, links, announcements and assignments for students to retrieve and view student's assignment which can be submitted by posting on the teacher's board or on the classroom board. Document files can be edited in class and shared with peers to learn collaborative skills together.

II. PROBLEM STATEMENT

The main challenge of education development in its modernization aimed to achieve high level of preparation for the younger generation to real life situation and the issue arising is from the insufficiently designed of the high school and university curricula whereby the students deals with the low level of background knowledge of the subject curriculum laterally with the lofty requirements of the university. However, several high school graduates who surface the university stage, have issues in their learning program me which is a problem to acclimatize to different ways of learning through teaching with requirements for achievement in their learning process.

It's seemed a difficulty in the university education is far from using new pedagogy to mediate the teaching-learning process with the old form of blackboard teaching and the books which have changed the interest and participation of the students towards learning in the classroom. Rossing et al., (2012) opined that the best method to conform pedagogy in the learning process with the involvement of the student is to consider the value of the tools to be used anywhere in learning context. There is an increasingly problem of inadequate provision of internet accessibility for students to use in the classroom when the social media tools are being introduced to them for learning such as the google classroom, google forms, google drive, WebEx, zoom tools especially in the developing countries like Nigeria.

Moreover, even if there is provision for internet to carry out the learning activities, there is no enough power supply which is the electricity to power each students' mobile phones, laptops, tablets, computers for learning to take place in the classroom with the use of google classroom. Therefore, Wang et al., (2012) described that students are annoyed and discouraged by the scale of mobile devices and the limitations of wireless Internet (Wi-Fi) access which has a lots of issues on their learning activities that formulate the basic for review into student commitment with the use of mobile phones, laptops in the

classroom. Thus, through the use google classroom students can be motivated and engaged students with the contents of their subject interest.

In addition, researchers also have discovered that emerging technology in the classroom such as wikis, interactive media, blogs, PDAs, video game consoles and handheld devices would help the intellectual development of student learning and evaluation of their work in a valuable standard for self-reflection (de Winter et al., 2010). Furthermore, there is the problem of lack of reflection and critical thinking on how the student can use the social media tools in the learning environment to construct new ideas and employ it to enhance their personal interest on their work. According to Wang et al., (2012) insinuated that students thinking on learning platform like mobile learning often entails tools that challenge the uses of technology as instruments for different reasons in promoting and questioning each students' identities in focusing on the applications of new devices they needed to be introduced to the system over a somewhat longer period of time, so that they could appreciate the weaknesses of using such applications as thoroughly as possible.

Therefore, the researcher is interested whether the use of social media tools such as google classroom which includes the (google forms for students' feedback and attendance), WebEx, zoom and other tools would promote the students' ideas to express themselves on the explored work through these tools and to aid the students in developing their reflective way of thinking towards the use of these tools in the learning context.

➤ *Purpose of the Study*

The purpose of this study is to determine the efficiency of teaching and learning with the use of technology-based google classroom as a social tool in the classroom environment in Nigerian tertiary institutions.

➤ *Significance of the Study*

Many researchers and scholars have been interested in the advancement of technology to investigate how educators can promote students ' learning with the use of technology skills in the learning environment. Moreover, there are few research that have investigated the Social tool 's efficiency where Google Classroom 's development is growing nearly every day in the society. The research findings will offer proof of Google Classroom 's efficiency for the management, teaching assistants, Students, practitioners and educators in the institutions.

III. LITERATURE REVIEW

In the modern technologies nowadays, Technology tools has been enhancing the methods in which instructors stimulate different perceptions of teaching in the academic context. Therefore, the review associated to the efficiency of Google classroom are inadequate. In accordance to Prasertsith et al., (2016) ascertained that google drive has become one of the main functions of Google Classroom for teachers and students in institutions of higher learning. This

indicates that it serves as a means for the submission of assignments by the students and also for sharing documents on the platform where the teacher can also comment on the students' work.

Ventayen et al., (2018) organized a research to assess Google classroom proficiencies as a Learning Management System (LMS) for the introduction of collaborative learning to improve the students' participation in project activities. Thus, teachers' role in implementing new technique of learning should not be underestimated, as they are the major force in the transformation of learning environments as modern technologies adapt the quality of communication among the instructors and the students, so as the teaching efficacy has a vital role in the view of educational institution settings. With regard to the integration of Google Classroom into the teaching and learning concepts, the teacher must have impression that Google Classroom is useful in teaching and learning process to the easiness of how the teacher wish to implement it to the students (Mohd Shaharanee et al., 2016) and it also encourages the deeper level analytical abilities that facilitates the formation of solving real issues in the modern era for the students' satisfaction.

The literature reviewed that Google classroom are required for teaching and studying, particularly learning activities to be carried out by students through asking questions, analyzing of data and collection by utilizing the type of tools to be use such as software applications, and making of assertions in presenting responses as active participants on the online classroom.

IV. CHALLENGES OF TECHNOLOGY-BASED GOOGLE CLASSROOM

The challenges and issues faced with Google classroom are practically identified by the teachers' practices and the students' principles towards the usage of learning platform. The accessibility to use google classroom is the utmost issue the students are facing in the educational environment that allow the Students unwillingly to use a learning platform which they alleged very challenging to use. Heggart, (2018) asserted that Students should be able to have access to the learning platform from their computers, Mac system, tablets or even cell phones in which both the instructors and the students may found Google Classroom quick to learn and easy to use for satisfaction. He further explained that the learning platform should be a collaborative platform where the students can engage working together to solve some problematic tasks to be discussed for the completion of the given work by the instructors

Teachers also reacted to the problems faced by the students based on the misuse of technology in the classroom to monitor them on what they use their mobile phone to study using google classroom or using it for social media purposes. It was concluded that students who uses the mobile phones classroom often get distracted from their studies and some of the teachers cannot successfully use the

technology for improving classroom system due to lack of technical-know how on the usage of the platform (Azer & Iqbal ,2018)

V. CONCLUSION

The findings of the study are reinforced by previous literature and the research indicates further inquiry that will integrate Google classroom into the learning system by aiding the challenges facing online education in our society which will allow the teachers to value the use of pedagogies in engaging the students collaboratively with the use of google classroom tools to aid instructional strategies to teaching. Hence, teachers should be taught and to be skilled on how technologies must be use to improve their teaching effectively in order to motivate the students to learn with new innovative approaches to learning because studies has shown that teachers are not friendly users of the google classroom.

Future research should ruminate on how to engage students with developing technological tools that will help the students to be more versatile and productive as they learn these technologies. In addition, the provision and access of the internet browsing must be readily being available for the students to make use of in their studies so far the implementation of technology in an online class such as the google classroom may help them to be more efficient and effective in the classroom learning environment. The study is limited to the features of the google applications which the students use for their assignments and to download their files such as google drive, form, plus etc. It is also limited to the students learning the application and the teachers in the teaching environments.

Stating clearly, future studies can also integrate quantitative techniques methodology to promote and support the cogency of the findings and a comparative study can be shown by equating the efficacy of technology-based Google Classroom with other informative platforms such as WebEx, Zoom used in the classroom. The study was based on analysis of interviews from teachers, it will be interesting to take into account the perceptions of students and compare those with teachers' perceptions.

RECOMMENDATIONS

Based on the findings of this study, it is recommended that:
➢ The school management should organize workshops, seminars and conferences on teaching using technology-based google classroom for effective teaching and learning in the school environments.
➢ The administrator of education programme should introduce the use of google classroom in the programme.
➢ Attention to train the teachers (pre-service & during service) to use technology-based google classroom applications in various teaching and administrative work.

- Creation of laboratories in universities and different educational establishments to use technology-based google classroom in the teaching of different subjects and to train students on how to use it.
- The teacher due to advancement in technology should introduce the use of google classroom as a means of impacting knowledge and to create and innovate in the field of education, using various educational technologies in general.

A. Limitation to the study

This study was carried out in the tertiary institutions in Nigeria to encourage the instructors on how learning platform such as google classroom that will be useful to the learning experience of the students. Therefore, a related research in high schools can be undertaken to determine whether the results are compatible with the analysis and it is also possible to compare the differences by relating Google Classroom 's efficiency between other social networking of educational platform.

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