Google Classroom: A Remedy for Ensuring Physical-Distancing as Major agent against the Effect of Covid 19 Pandemic on the Nigerian Educational System

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ABSTRACT
Even before the global pandemic of 2019, Online Learning Management Systems (OLMS) remain vital and have contributed immensely to the development of education by establishing virtual connection between teachers-students and their learning environment that warrants collaboration. This paper, discusses the workings of google classroom in Schools and how it curtail the effect of COVID 19 in ensuring physical-distancing by partially or fully actualizing the virtual collaborative platforms among educational stakeholders. Important modified features in google classroom were discussed and importantly, the virtual workings of the classroom specifically live streaming were deployed. G Suite for education as prerequisite for schools to optimally benefit from google classroom was equally discussed. It was recommended that; stakeholders in the education sector should change their mind-set from the conventional teaching approach to ICT driven methodology. Educational institutions should sign up with G Suite for Education account so as to enjoy the free treasures the google application for education (GAFE) has to offer; as one use google classroom platform. Finally, the network connectivity backbone be strengthened with respect to coverage and quality of service respectively; teachers should be provided with data bundles, which will ultimately serve as an encouragement to using ICT in teaching and learning in Nigeria.
Keywords: Online Learning Management Systems (OLMS), COVID 19, Physical-distancing, G Suite for education

INTRODUCTION
In today's contemporary world vis-à-vis the educational system, there is an emerging trend by developing countries to using online learning platforms for their educational institutions (Sife, Lwoga, & Sanga, 2007). Nations venturing into online learning is a clear manifestation of steps to coping developed nations that have been practicing this trend since its emergence in late 1980s (Miller et al., 2013). This is because, the developed nations have widely accepted the concept and practice of online learning in their countries (Pathan, Khan, & Hassan, 2005) . Where developed countries were competing on tracking and fixing the multitudes of factors in ICT for smooth human interaction in a right proportional volume and values, only few of the developing countries are struggling with production of basic ICT indicators (Chiemeke & Longe, 2007).
Nigeria going by the (National Population Commission (NPC), 2007), was recorded to having the highest population in Sub-Saharan Africa with approximately 140 million people and 923,768 square kilometers landmass forming a federation that constituted over 274 ethnic groups. The growth in the population rendered the demand for education at all levels difficult for the populace thereby compelling the need to provide education for all (EFA). Despite these, the country must cater for the huge deficiency and demand for education (Ajadi, Salawu, & Adeoye, 2008). Even though, Nigeria is recorded to have assimilated

ICTs lately with its 2001 adoption of Nigerian National Policy for Information Technology, the policy marked a great step in its application of ICTs to every aspect of life of its citizens; this means the designed policy provides recognition to ICT in the national development (Yusuf, 2005). Immediately after the establishment of National Information Technology Policy, the Federal Executive Council (FEC) approved its implementation but yet, Nigeria is not among the 12 Countries in Africa that completed their national information and communication infrastructure (NICI) plans development in 1999 which till date, there is no evidence of its completion (Ajayi, 2002). Today in Nigeria, the institutions that are recorded to have been successfully conducting most of their academic activities using any form of ICT are insignificant in comparison with the number of the institutions we have in the Country education (Ajadi et al., 2008) . This was as a result of some militating factors just as noted by Ajayi (2002) citing (Yusuf, 2005) that, it is due to the fact that access to basic equipment, internet connectivity, participation in ICT development and involvement in software were recorded to be low in Africa. For instance, internet connectivity in New York City alone is higher than the whole of Africa. More so, like other developing countries, conservative nature of most educational stakeholders, poor governance and inefficient deployment of the requisite technologies necessary for distance education in Nigeria compelled it to remain in its embryonic phase till date (Ojokheta, 2010).

Going by the aforementioned statements, one can agree that the status of Nigeria with respect to online education remain clear evident that, while online learning has been ongoing as the agenda of the day, the growth rate varies from one country to another   and these variations were attributed to some key factors such as financial, economic, geographical advantages and above all infrastructures, which affect the learners, instructors and the academic institutions at large (Konetes, 2011). Among these factors, acquisition for appropriate technologies and infrastructures, such as learning management system (LMS), internet connectivity platform etc. feasible for smooth provision and practicing of online learning remains paramount. Therefore, out of the several number of organizations that have been onboard providing collaborative platforms to enable instructors create online learning environment (Toren, 2015) including: Moodle, Edmodo and Canvas etc., the paper chooses Google Classroom as a collaborative platform for e-learning just as reported that even internet users that are novice find Google services simple and attractive (Buzhardt & Heitzman-Powell, 2005) let aside the multitude free services it renders to education (Brown & Hocutt, 2015). These may equally be attributed to its popularity and user friendliness that made many teachers and students search for contents and send and receive mails using the Google search engine and email services respectively. This paper therefore, meant to expose the treasures of Google Classroom to educational stakeholders with particular focus on its ability to establish virtual learning platforms that will in no small measure prevent the partial or total collapse of the educational system as a result of the COVID 19 pandemic, the use of various e-learning platforms will help in curbing the spread of the virus due the physical-distancing characterized by virtual collaboration. Unlike the conventional method, which necessitated the closure/shutdown of all Nigerian institutions, the online system fosters a healthy and steady growth in the educational system as noted in one regional survey on eLearning revealing that; eLearning will solve all educational problems as long as the practices by the countries got matured in the region (Weber & Hamlaoui, 2018).

 Google Classroom as an educational tool that passed usability test with high affordances, it remains worthy of being a right path way for starting online learning with all students learning from their remote locations easily. While using Google Classroom, users are required to only customize the interface to suit their learning environment. Also, some teachers view Google Classroom as mainly a promotional tool and one added that, its features enable for teachers – learners' interaction and vice vasa. Even though, initially his students prefer getting feedback via channels like Facebook but when they were introduced and became used to Google Classroom in getting all their learning contents, syllabus and/or links to other appropriate resource materials, they became used to it and can even be instructed accordingly (Iftakhar, 2016). In another finding, despite the technology challenges we face today, many users perceived ease of use of the google classroom just as established, no association between the challenges of google classroom technology and the perceived ease of use of the technology, likewise the awareness of google classroom was found influencing the actual usage of google classroom (Saidu, 2018). Therefore, we need

to be aware and begin the practice of this technology, for many courses today are offered online, faculties are going for live virtual classroom learning; enabling them interact with their students live (Martin & Parker, 2014).

Concept of Google Classroom

Google classroom is reported to have been introduced in 2014 as a tool for teachers, which functions as an interface layered on top of the Google Application for Education (GAFE) that establishes collaborative environment for students –teachers' interaction (Brown & Hocutt, 2015).

The practice of Google Classroom by teachers of higher institutions of learning in Nigeria is hoped to significantly improve skills and enabling environment for online learning that promotes education. Google Classroom is an online learning tool by Google, it can be equally referred to as eLearning tool which signifies that, a mediating channel is used for collaboration between the facilitators and students, that is normally practiced physically or completely media based (Valentine, 2002). It entails achieving teaching and learning using ICTs (Oye, Salleh, & Iahad, 2011). The technology is used to impact knowledge to the learners in an asynchronous and /or synchronous mode. Learning can be achieved using a course management system (CMS) or web pages to post syllabus, learning contents and assignments (Web Facilitated), or a course that blends online and face-to-face delivery with substantial proportion of the content delivered online. Typically, online discussions are features used, that translates to a reduced number of face-to-face meetings (Blended/Hybrid) and/or a course where most or all of the content is delivered online and typically have no face-to-face meetings (Allen & Seaman, 2008). In this case, the whole learning is tailored to fit the stakeholders' needs anytime, anywhere across the world (Christensen, Johnson, & Horn, 2010). In fact, the powerful tool for qualitative teaching and learning; brings about great changes in school practices and preparation for future capable and up to the task teachers and students using ICT teaching and learning practices (Yusuf, 2005). For educational institutions to take advantage of google classroom optimally, the institution has to register with G Suite for Education account, which is a Google Account created and managed by a school for use by students and educators that was recorded interesting and positive to majority of students (Vignola, Ross, Ouellet, & Lessard, 2017). Likewise, it comes with many opportunities ('Core Services') for the stakeholders including: Gmail, Calendar, Classroom, Contacts, Drive, Docs, Forms, Groups, Sheets, Sites, Slides, Talk/Hangouts and others. When creating this account, the school provides Google with information like, the school domain name, name of students etc that is manipulated based on their consent.

The workings of Google classroom is achieved by setting up the interface of Google classroom application that comes with the following features which are used in combination with other associated Google tools for successful implementation of the required learning environment.

The setup for Google Classroom

Just similar to other Learning Management Systems (LMS), to create or join class in Google Classroom, the following procedures will invoke the setting up of the interface.

Click on the top right + sign and click on create class or join class if already created.
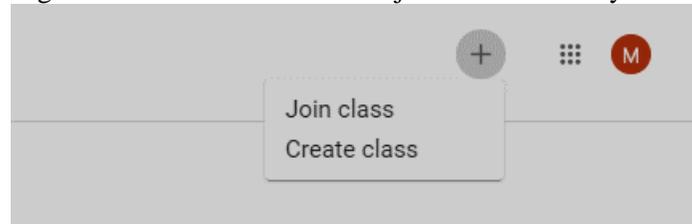
Having created your google classroom(s) as below:

The menu bar, which is positioned horizontally at the top most part of the main window, has some important modified tools/menus (***Stream, Classwork, People and Grades***) for teachers to manage their classroom environment.

STREAM being the first tool, can be used by a teacher to assign learning materials like lecture notes, reference books or links to other materials for the learners to visit or respond to the leaners posts. Let aside preparing audio /audio-visual lectures for the students to follow. The ***"Stream"*** icon allows for teachers and/or students to relate with the classroom by passing announcements and other posts based on their access limit. Besides all these, one can go for live class with students as we can see in our later discussions.

The ***"Classwork"*** allows for sharing items with students such as posting assignment questions and sequential deployment of items for the students to view.

Using this very important tool ***"People"*** teachers and/or students will be added to the class in which students could be added by invitation using their emails or the use of classs code.

Finally, all feedbacks from students could be graded in the google classsroom using the ***"Grades"*** tool.
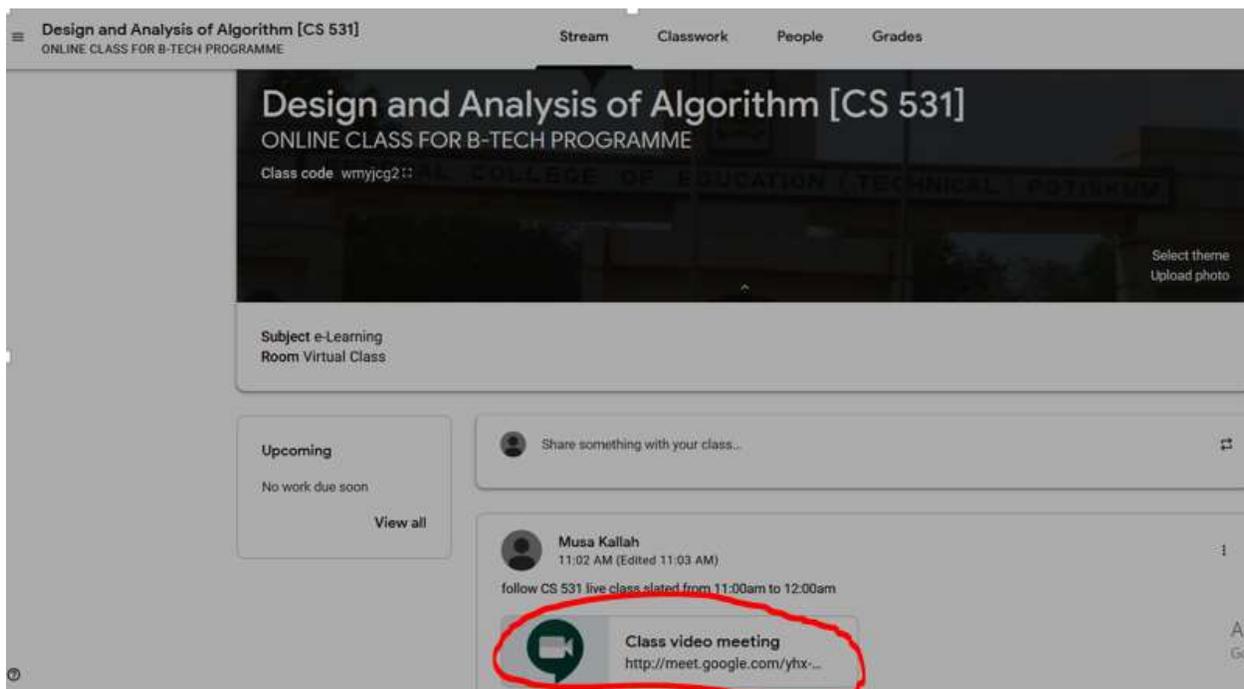
Live Stream

Out of the studies carried out on google classroom that relates to its features, how to admit students and manage postings from and to the teachers was clearly explained as recorded in a contribution by (Saidu & Ibrahim, 2019). This paper therefore emphasizes on the virtual workings of the classroom in relation to live streaming.

Definition

Live streaming can be defined as an online flooding of media that simultaneously recorded and broadcast in real time. The streaming platform allows for the broadcasters and viewers to collaborate just as it is done in traditional television broadcast.

To invoke the live stream function, one needs to follow the link attached to the *"Class video meeting"* feature.

**Steps for Setting up the Live Stream in google classroom**

To set up live stream with hang out meet, one should lunch Google Calendar from the google apps, the

square dots on the top right window ⠿ or use the URL: calendar.google.com and follow the steps as
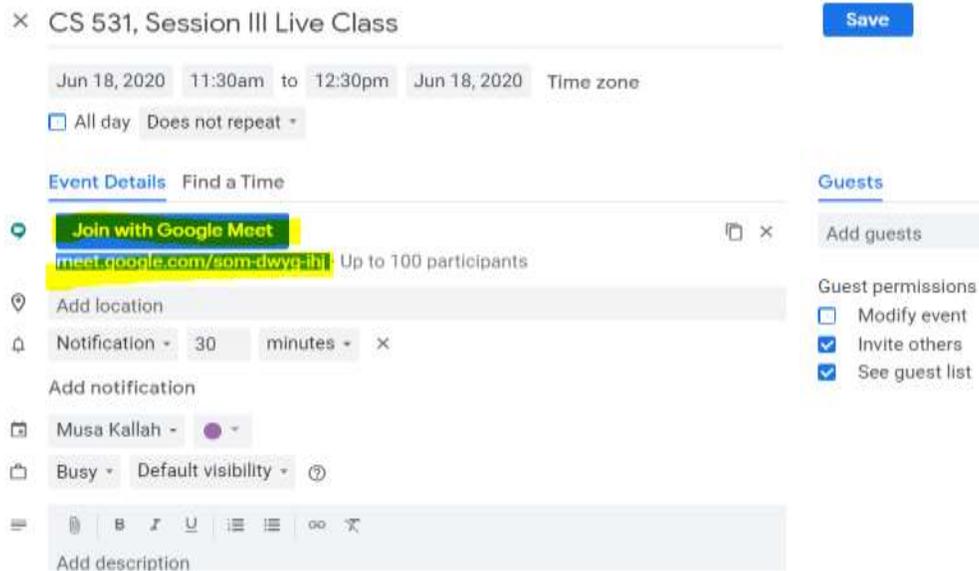
thus:

Step I

✓ Click on create button on the top-left of the calendar

✓ On the title live stream menu, customize the befitting title for your class and set the required Date and Time.
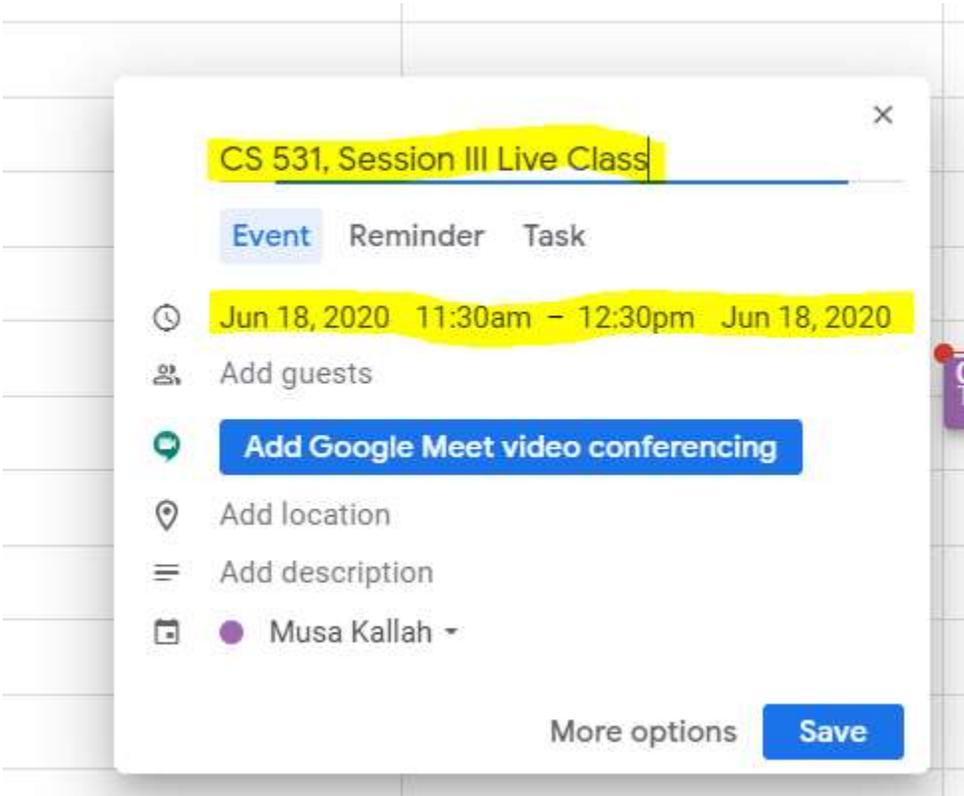
✓ Click on the *more option* button on the bottom right corner of the dialogue box above.

✓ Click on the copy icon to the right, so as to copy the link
✓ Click on the save button
Step II
➢ Go to the Google Classroom using the google apps located on the top-right corner of google page or type the URL: classroom.google.com on the address bar.
➢ Select the class to which you want to schedule the live stream from existing classes.
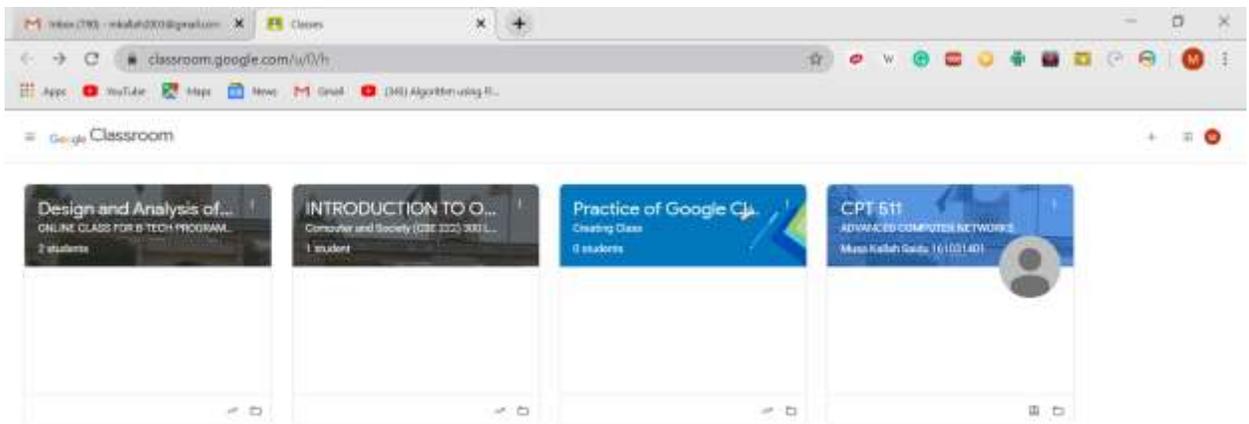
➢ Click on the button *"share something with your class"* and make highlight on the link you want to schedule.
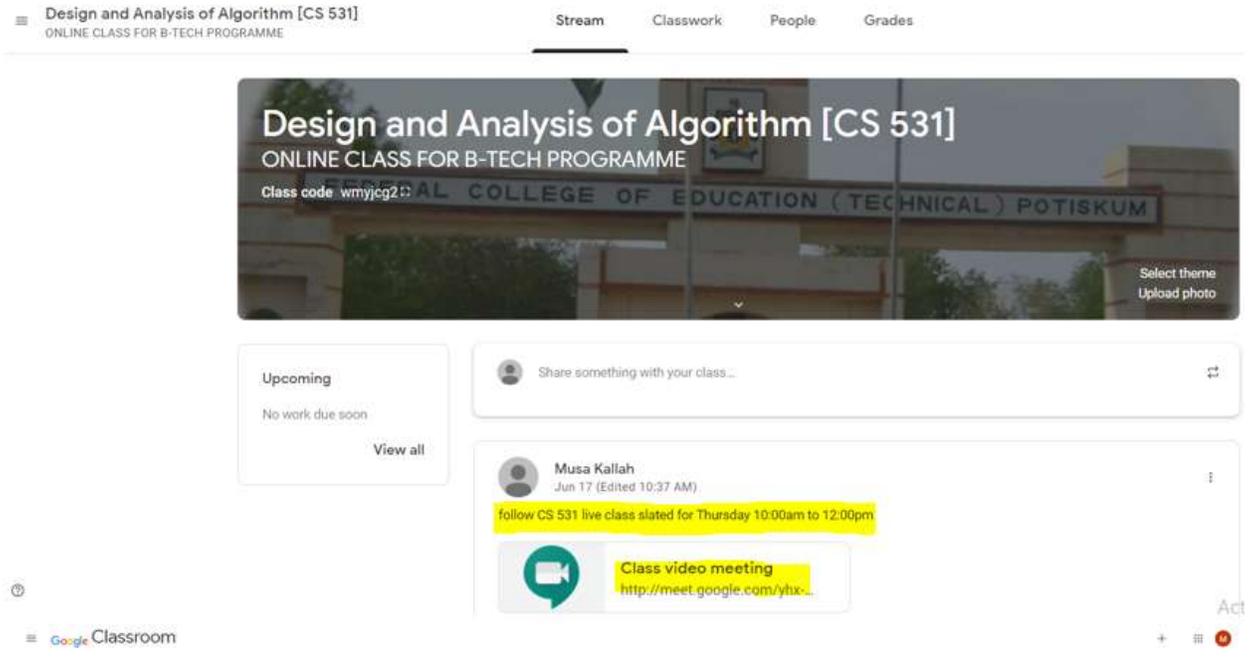
> Click on add link attachment button, then click on link, on the pop-up menu, paste the link and click on add link.
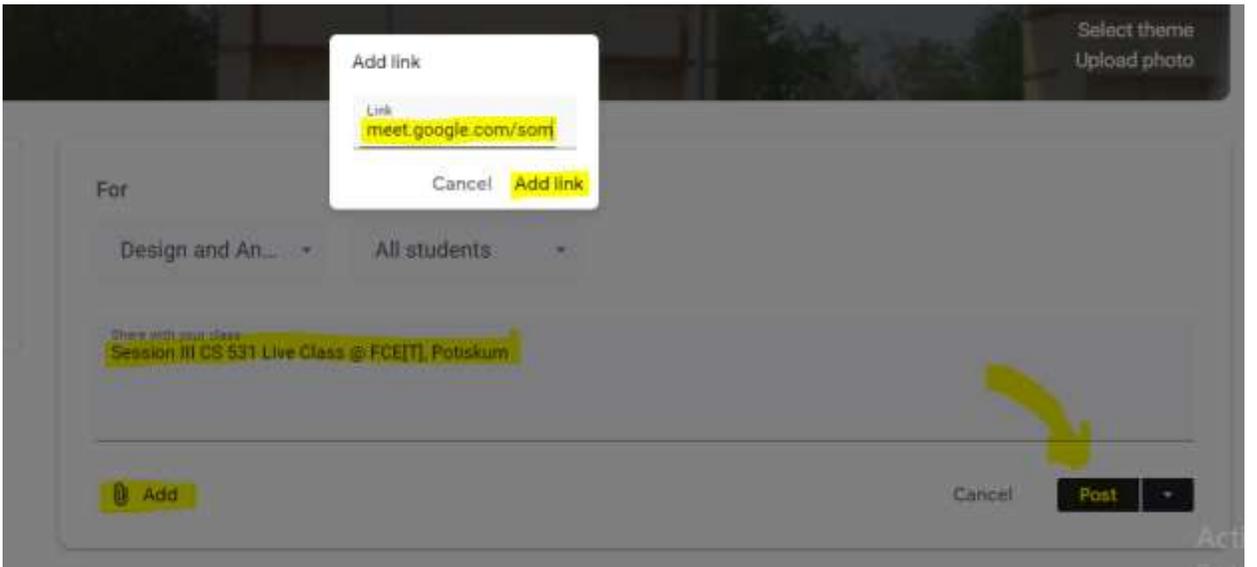
Step III

❖ To join the live stream, go to the google classroom or and locate the required scheduled session and click. This activates the webcam for live coverage as thus:

CS 531 Virtual Cla...
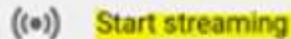
No one else is here

Join now   Present

❖ Click on join to enter the live stream.

Likewise, after opening Google Calendar and joining the video meeting, it reveals the link as seen above. However, clicking streaming does not automatically start. To fully start the live streaming, Select
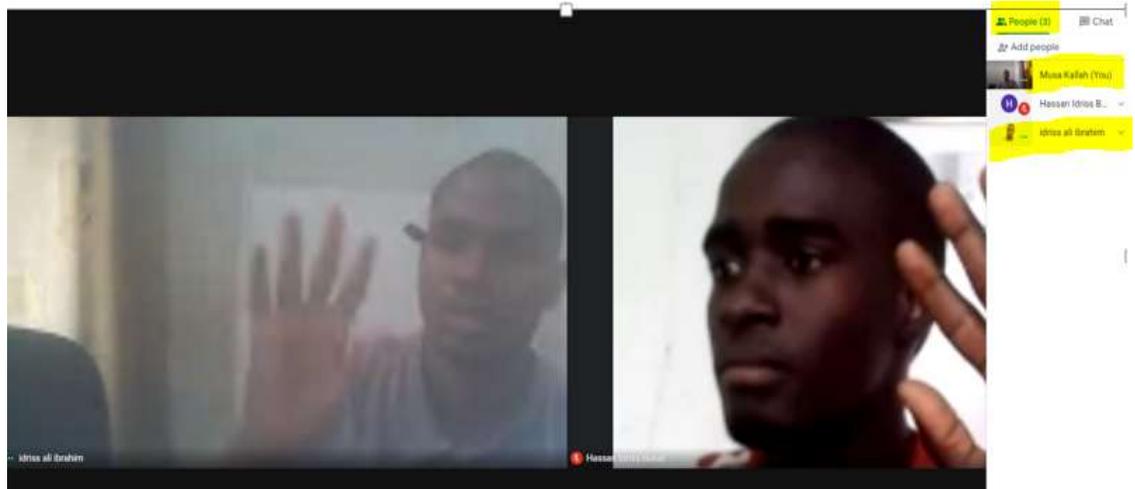
More ⋮ ❯ Start streaming.   ((•))   **Start streaming**   Confirm that you want to start streaming. When streaming is on, at the top left of your screen, "Live" is indicated.

• Click on start streaming, which displays a window like this:

The classroom pane to the right, shows the number and the live snapshots of the participants just as we noticed here, three 3 participants are in attendance of the above class.

Once you are done with the streaming, select More ⋮ ❯ , stop streaming. Then confirm that you want to stop streaming.

At times, you may wish to record your stream if your sign up for G Suite for education, so that other class members that were not opportune to attend the live session can view it later. This is achieved by

clicking on the record meeting, ● **Record meeting** just similar to start streaming. This will make you live and simultaneously records your presentation. Likewise, it is possible for teacher(s) to share the computer screen or the running application with their students.

CONCLUSION

Even though, only few teachers were found to be confident users of ICTs in education, the smart age we are in has mandated every teacher to deploy ICT for efficient teaching and learning just as established above, if this great tool is optimized effectively, in the end, both asynchronous and synchronous instructional delivery method is achieved. Moreover, besides being encompassing, acquiring Google classroom learning platform is relatively inexpensive, which interestingly is only second to the fact that it comes very relevant in curbing the Covid 19 virus via strict compliance to physical-distancing protocols.

RECOMMENDATIONS

1. All stakeholders in the education sector should change their mind-sets from the conventional teaching approach to ICT driven methodology/technology.
2. Among the available learning management systems today, Nigerian higher institutions may wish to go for Google Classroom by signing up with G Suite for Education account.
3. Difficult concepts, practically oriented subjects and manipulative skills be simulated and lecture videos prepared appropriately and presented to create a motivating and interesting program to the learners.
4. Presentation skills need to be reinforced in order to facilitate flawless learning content that can be posted at the platform
5. Increased funding for data bundle and /or access to network be greatly extended to teachers so as to encourage the use of ICT in the teaching and learning process in Nigeria
6. The government and multinationals in the spirit of corporate social responsibility should make available enabled devices for free or at a highly subsidized rate to be utilized by students and teachers alike.
7. Network service providers should be strengthened using necessary and available incentives by the government so that disadvantaged regions of the country can be covered by a strong and uninterrupted service.

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