

Teachers' Perception of the Use of Microsoft Teams for Remote Learning in Southwestern Nigerian Schools

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ABSTRACT

The outbreak of COVID-19 pandemic has required schools in Nigeria to embrace remote learning using technology solutions, in this case, Microsoft Teams, to effectively engage students. This study, therefore, aimed to reveal teachers' perception of the use of Microsoft Teams for remote learning. The descriptive survey research design was adopted. The participants in the study were 51 teachers who were randomly selected using convenient sampling technique. E-questionnaire was used in the collection of data. Descriptive statistics of frequency counts, simple percentages, mean and standard deviations were used to analyze the data. Results revealed that teachers' perception of effectiveness of Microsoft Teams for assignment and grading, for teacher and student interaction, and for classroom organisation was very good. The result obtained revealed that Microsoft Teams was effective in addressing some of the major challenges encountered by teachers during remote learning which includes students being often on other websites and poor student engagement. It was concluded that Microsoft Teams was effective for smooth interaction between teacher and students. Its use enhanced classroom organization and consequently facilitated teaching and learning process. The study encourages wider adoption of the application by schools.

Keywords: Teachers' perception, Microsoft Teams, Remote learning, Learning Management system

INTRODUCTION

The Corona Virus pandemic has brought a halt on every sector and sphere of life worldwide. The Corona Virus popularly known as COVID-19 was first discovered in China and soon later spread its tentacle to virtually almost every part of the world. The educational sector which is an important sector of the society has been partially shut down as a result of the COVID-19 pandemic; this has

led to numerous problems at the various levels of the educational sectors for both teachers and students. Innovative e-learning and learning management systems (LMS) tools for teaching, learning and evaluation have made strides in providing educators with usable solutions and increasing the ability to use information technology during lockdown. According to the World Bank data as of April 3, 2020, over 1.5 billion children are out of school with over 85% countries mandating the closure of schools due to COVID-19 pandemic. Various countries have adopted different strategies for teaching and learning in the bid to assist students who are out-of-school within the period the schools would remain closed. This calls for remote learning in order not to put teaching and learning in a halt. The integration of educational technology (EdTech) to deliver and support remote learning, in almost all cases are being adopted by most schools. The systems of learning online such as (Learning Management Systems, Video Conferencing) are mostly deployed by middle-and high-income environments while some are adopting other broadcast media like television for delivery as a means of supplementary. Within countries, it is however revealed that the demand for distant learning has also made clearly unambiguous digital divides (World Bank, 2020).

The effects of modern information technology are increasing rapidly, and the ICTs are part of daily education activity in universities, especially in the education process. New innovative technologies such as Microsoft Teams and Zoom, among others, become useful and effective (Seyal, Mohd, Awg, Yussof & Rahman, 2017). This means that students can attend classes, anytime it is fixed, anywhere because they do not have to attend a physical class. Students can also learn face-to-face via a variety of channels (TV, internet), tutors, classrooms (Bielaczyc, 2006 as cited in Nassoura, 2012). Over time, ICT systems, Microsoft Teams, Moodle Platforms and other Learning Management Systems (LMS), have been adopted by academics, institutes of higher education, and secondary schools, especially during this Covid19 pandemic period. This has resulted in diversified education system incorporating remote learning and online courses and tests, as well as a combination of the usual one-on-one lectures and tutoring. Universities and secondary schools in Nigeria have invested in the provision of resources and technology to prevent disruption to teaching and learning while restrictions due to the pandemic last.

During this COVID-19 pandemic, most concerns in the educational sector about remote learning have focused on how the instructors/teachers incorporate new technology in their teaching in order to engage students at their various homes. Microsoft teams, Moodle, and Zoom are some

of the ICT platforms through which students are taught during the pandemic. Microsoft Teams is a collaborative platform complete with document sharing, online meetings, and many more features which could be useful for remote learning. Remote learning occurs when the learner and instructor are separated by distance, therefore cannot meet in a traditional classroom setting. It is an effective way to reach students with resources that would otherwise be unreachable during the school shut down, through a flexible, customizable accessible learning space. A few of the goals of remote learning are to streamline the process for continued learning and to keep school communities connected. Although remote learning has the same social dynamics as online delivery its implications are different in that learners rely on the facilitator to bridge the physical distance that separates the participants and ensure that the contents don't feel static and distance to students. Therefore, some of the considerations when working with students remotely would be to use web applications that provide synchronous and asynchronous engagements. Some other factors to consider would include bandwidth access, computer access, and students' emotional conditions.

Microsoft Teams refers to a digital cloud app hub that puts together discussions, meetings, files, and applications in a single LMS (Learning Management System) (Microsoft, 2018). Tsai (2018) expects Microsoft Teams to experience the fastest growth in the next two years. 41 percent of organisations plan to use Microsoft Teams globally by the end of 2020, while Microsoft Team has 75 million users by April 2020. Microsoft Teams has been adopted by various schools to streamline the remote learning process. The use of Microsoft Teams has been said to greatly enhance teaching and learning, teachers' ability to grade and monitor students' assignment, classroom organization, and teacher-student interaction (Alameri, Masadeh, Hamadallah, Ismail & Fakhouri, 2020). Effective learning with the use of Microsoft Teams requires that teachers and students be trained in it. Lu (2010) also noted that teachers and student's behaviour using Microsoft Teams platforms could be influenced by self-efficiency, age, training, and internet availability. Also, physical and psychological factors in the Microsoft Teams environment could either encourage or inhibit the students' attitude to and performance in learning (Zandvliet, 2003 as cited in Adewole-Odeshi, 2014). These factors and other social factors in remote learning impact on the values which students and teachers share in education, and they should therefore also be considered alongside the technological tools.

The functional domains required in using Microsoft Teams could be grouped into affective, cognitive, and psychomotor. The affective domain encompasses the students and teachers' feelings, emotions, and attitudes concerning Microsoft Teams. This depicts how they feel about certain Microsoft Teams capabilities. Assignments, screen sharing, white boarding, immersive reading, together mode, LMS integration, insight, and so on are just a few of these tools and capabilities available on Microsoft Teams. The cognitive aspect refers to the academic discourse engagement between the students and teachers when using the Microsoft Teams platform for acquisition of knowledge and, the final domain, psychomotor, covers teachers and students' motor skills as well as their ability to coordinate them for efficient Microsoft Teams engagement. The nature of appraisal and engagement with these functional aspects of the Microsoft Teams platform could significantly inhibit or enhance remote learning (Alabdullaziz, Muhammad, Alyahya & James, 2011). Even though studies have been done on teacher's perceptions of remote learning, there are not many on the use of Microsoft Teams for remote learning by teachers in Nigeria. This is the gap to be filled by this study.

Literature Review

The National Center for Education Statistics (2019) reported that in 2018, about 35 percent (5.7 million) of all undergraduate students in the U.S. enrolled in at least one online course, a substantial increase from 20 percent in 2008. This steady enrollment growth indicates that online learning is no longer a trend, but an integral part of the educational landscape (Betts, 2017). Online learning benefits both institutions of education and students. Online learning, for instance, offers an opportunity for higher education to extend its reach to students who may not be able to regularly come to campus. Online learning also provides convenience for students and better options for their courses and degrees to be completed. While several advantages of online learning have been recognized and accepted, concerns have been raised about the efficacy of remote learning.

With the current design, online courses are difficult, particularly for students who are not ICT inclined, according to a Bettinger and Loeb (2017) study on online education. The study found that the learning output of such students when taking online courses is worse (e.g. higher dropout rates and lower grades) than it would have been if these same students had taken face-to-face courses. The study also claims that student-instructor contact is the main difference between online and face-to-face courses. Students may interpret the lack of interactions in the online classes as corresponding to teachers not being physically present. Therefore, the experience of student learning in online learning is very different from that of face-to-face learning, particularly for

interactions with student teachers, which can adversely affect the performance of students in online learning. In their research, Chen, Lambert, and Guidry (2010) found that the use of Microsoft teams has a positive effect on the participation of students and their learning outcomes. Bettinger and Loeb (2017) propose that emerging innovations such as Microsoft Teams will help engage students and fulfill their online learning needs.

In another recent study conducted by Park and Kim (2020) on the perception of instructor presence and its effects on learning experience in online classes, the result shows that interactive communication method with the use of teaching aids that are used in online learning facilitates strong relationships between student and instructor and supports the expectations of teacher involvement of students, which ultimately increases student participation and pleasure in online classes. Martin and Tapp (2019) affirmed that being proactive and taking advantage of resources at their own institution is essential for an online teacher. These authors discussed the teaching of award-winning tutors who used a range of tools, including Microsoft Teams, WebCT, Canvas, Desire2Learn, Blackboard and Moodle, to use both asynchronous and synchronous learning spaces. According to those interviewed, the most significant role of the online teacher was that of the involvement of the facilitator and instructor. Participating tutors said that "being there" was important for students and "having a presence on the course site". Akgün and Akkoyunlu (2013) surmised that technological advancement has been introduced into education in networking and communication and that rich learning environments are becoming qualitatively and functionally more relevant. Students play an active and productive role in and during all interactions in fully immersive CSCL environments during the discussion process.

Buelow, Barry and Rich (2018) surveyed 417 students on how to support online students' learning engagement. Their study revealed that certain components of online discussions and assignments are engaging, such as discussions and interactive assignments which are not only "fun" for students but also integrate previous learning and connect to current societal issues. This includes prompting students with thought-provoking questions about "real-world" events and inviting them to share their different viewpoints and create their own perspectives. This allowed students to express a variety of ideas and develop personal perspectives, resulting in more effective learning. Sareen and Nangia (2020) conducted a study in India on the attitude and challenges faced by schoolteachers in online teaching during COVID-19, the study adopted the descriptive survey and the sample size comprised 3550 teachers. The result showed that teachers possess a favourable and positive attitude towards remote teaching. But they lack perceived efficacy in remote teaching,

and it was also revealed that that they can perform better in the traditional classroom. The finding also revealed that technical problems, lack of in-service training, lack of Internet facilities to the students, paucity of appropriate materials, lack of confidence, lack of cooperation from the parents, and striving to follow up students' learning were some of the challenges encountered by teachers when using Microsoft Teams for remote learning. Todd (2020) conducted a study on US teachers' perceptions of the shift from classroom to online teaching, and the study adopted the survey research design. Result revealed that challenges encountered by teachers using Microsoft Teams included issues with Internet bandwidth, device issues, arranging online examination, preparing stimulating activities, student absence, clarity issues and problems with evaluation.

Lin and Jou (2013) conducted a similar study in Turkey on the effects of integrating popular web applications in the classroom learning environment on teaching, student learning motivation, and performance. Their study shows teachers complaints during remote learning with web applications to include problems of insufficient time, it not being user friendly, connectivity difficulties, and poor student participation. The authors affirmed that the use of the application could enhance teaching and learning if those inhibiting factors could be curbed. Alameri, Masadeh, Hamadallah, Ismail and Fakhouri (2020) conducted a study on the perception of e-learning platforms (Moodle, Microsoft teams and Zoom platforms) on academic achievement during COVID-19 pandemic and revealed that the use of Microsoft Teams and Moodle were every effective in teaching and learning as both platforms enhance academic achievement of the students. Teachers with prior computer experience and exposure to new technologies had a very positive attitude toward e-learning, believing that it improves teaching effectiveness.

The Problem Statement

Owing to the COVID-19 pandemic, schools have had to embrace remote learning, therefore the need for a technology solution to effectively engage students remotely. Among many technology solutions being used by teachers for remote teaching and learning is the Microsoft teams platform, the scarcity of research on its use for remote learning, especially in the context of developing countries like Nigeria has prompted the need to investigate its effectiveness as a technology solution adopted by schools for remote learning during the pandemic. Therefore, this study is focused on assessing the effectiveness of Microsoft Teams as used by teachers for remote teaching.

Purpose of Study

The purpose of the study is to gain insights into teacher's perceptions of the effectiveness of Microsoft Teams for Remote learning. The specific objectives are to:

- i. explore teachers' perception of the effectiveness of Microsoft Teams for assignment and grading
- ii. investigate teachers' perception of the effectiveness of Microsoft Teams for teacher-student interaction
- iii. examine teachers' perception of the effectiveness of Microsoft Teams for classroom organisation; and
- iv. examine the perceptions of the effectiveness Microsoft Teams for addressing the challenges encountered by teachers during remote learning.

Research Questions

1. What are teachers' perception of the effectiveness Microsoft Teams for assignment and grading?
2. What are teachers' perception of the effectiveness Microsoft Teams for teacher-student interaction?
3. What are teachers' perception of the effectiveness Microsoft Teams for classroom organization?
4. What are teachers' perceptions of the effectiveness Microsoft Teams for addressing the challenges encountered by teachers during remote learning?

Methodology

Research Design

Descriptive survey research design was adopted in the study. Popoola (2016) affirmed that this type of design describes a condition or phenomenon as it exists naturally without any manipulation. It entails the systematic and scientific gathering of data or information from population by means of a scale opinion questionnaire or personal interview. This method is desirable because it is found useful in the collection of data on phenomena that cannot be directly observed.

Population

The population of the study comprised 51 teachers who were selected randomly in two states in Southwestern Nigeria. The two states were Oyo and Ogun. Teachers in some schools in urban areas in Oyo and Ogun states were selected for the study because they had continued to engage their students remotely during the lockdown and school closure using Microsoft teams.

Sample Size and Sampling Technique

The sample size consisted of 51 teachers who were used in the study by adopting the convenience sampling technique for Oyo and Ogun States. Two private and two public schools were selected in the two states using stratified sampling technique. The convenience sampling technique was used as it was not possible for the researchers to have direct access to the entire population due to COVID-19 pandemic. Total enumeration technique was used to ensure robust participation of all the teachers in the study. This technique was adopted because the population is not too large and can easily be managed by the researcher. The use of total enumeration technique is in line with the position of rule of thumb of Bryman (2003) who posits that the use of this technique arises when the respondents for the study is not too numerous. Hence, the entire population of the teachers was used as sample size.

Data Collection

The study made use of an online questionnaire to collect data. This instrument was created using Microsoft Forms. The E- questionnaire was tagged “Teachers Perception on the Effectiveness of Microsoft Teams”. The questionnaire consisted of two parts; section A was used to obtain demographic characteristics of the respondents and section B was comprised of 22 items that generated answers to the four research questions. The response format ranged from 1 = not applicable, 2 = not effective, 3 =somewhat effective, 4 = effective and 5= very effective.

The instrument’s reliability was carried out using the test re-test method. And Cronbach alpha calculation was used for testing the questionnaire’s accuracy and the gotten value was 0.82.

Method of Data Analysis

Data were analysed using the following statistical tools:

- i. descriptive statistics of frequency counts
- ii. simple percentages

iii. mean and standard deviation.

Results

Variables		Frequency	Percentage
Gender	Female	14	27.5
	Male	37	72.5
Where do you teach?	Higher Education	9	17.6
	Secondary	31	60.8
	Primary	8	15.7
	Pre-primary	3	5.9
Level of competence with instructional technology	Expert	18	35.3
	Advanced	23	45.1
	Intermediate	8	15.7
	Beginner	2	3.9
Years of teaching	<5 years	5	9.8
	5-10 years	10	19.6
	10-15 years	14	27.5
	>15 years	22	43.1

Table 1: Demographic Characteristics of the Respondents

Table 1 showed that male (72.5%) respondents were more than the female (27.5%). More males participated in the study than their female counterparts. Secondary school teachers had a larger population of respondents (60.8%) when compared with teachers teaching in higher institutions (17.6%), primary level (15.7%) and pre-primary level (5.9%). In addition, their level of competence with instructional technology varied from experts (35.3%), advanced (45.1%), intermediate (15.7%) and beginners (3.9%). Experts had the highest population of respondents (35.3%) and the beginners had the least number of participants (3.9%). The respondents had different years of teaching experience. Respondents with >15 years of teaching had a larger population of participants (43.1%) whereas, respondents with < 5 years of teaching had the least number of participants (9.8%).

Research question 1: What are teachers' perception of the effectiveness of Microsoft Teams for assignment and grading?

s/n	Items	1	2	3	4	5	\bar{x}	SD
1	Record keeping of assignment	2 (3.9%)	1 (2%)	10 (9.6%)	13 (25.5%)	25 (49%)	4.14	1.06
2	Tracking process of assignments	2 (3.9%)	1 (2%)	11 (21.6%)	15 (29.4%)	22 (43.1%)	4.06	1.05
3	Checking assignments	2 (3.9%)	1 (2%)	10 (19.6%)	17 (33.3%)	21 (41.2%)	4.06	1.03
4	Giving feedback on assignment	2 (3.9%)	1 (2%)	11 (21.6%)	20 (39.2%)	17 (33.3%)	3.96	0.99
Average mean: 4.06								

Key: 1 = Not applicable, 2 = Not effective, 3 = Somewhat effective, 4 = Effective and 5= Very effective

Table 2: Summary of teachers' perception of the effectiveness of Microsoft Teams for assignment and grading

Table 2 revealed teachers' perception of the effectiveness of Microsoft Teams for assignment and grading. The result showed that record keeping of assignment ($\bar{x} = 4.14$) was ranked highest with the mean score and was followed in sequence respectively by tracking process of assignments and checking assignments ($\bar{x} = 3.14$) and lastly, giving feedback on assignment ($\bar{x} = 3.96$). It could be inferred that teachers' perception of effectiveness of Microsoft Teams for assignment and grading is very good with an average mean of 4.06.

Research question 2: What are teachers' perception of the effectiveness of Microsoft Teams for teacher-student interaction?

s/n	Items	1	2	3	4	5	\bar{x}	SD
1	Replacing WhatsApp groups	2 (3.9%)	4 (7.8%)	12 (23.5%)	19 (37.3%)	14 (27.5%)	3.76	1.07
2	Using the Announcement features	1 (2%)	1 (2%)	12 (23.5%)	13 (25.5%)	24 (47.1%)	4.14	0.98
3	Facilitating communication	-	3 (5.9%)	8 (15.7%)	14 (27.5%)	26 (51%)	4.23	0.93

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4	Sending anytime messages	1 (2%)	1 (2%)	10 (19.6%)	24 (47.1%)	15 (29.4%)	4.00	0.87
5	Having live class session	-	1 (2%)	9 (17.6%)	13 (25.5%)	28 (54.9%)	4.31	0.91
Average mean: 4.08								

Key: 1 = Not applicable, 2 = Not effective, 3 = Somewhat effective, 4 = Effective and 5= Very effective

Table 3: Summary of teachers' perception of the effectiveness of Microsoft Teams for teacher and student interaction

Table 3 revealed teachers' perception of the effectiveness of Microsoft Teams for teacher-student interaction. The result showed that having live class session ($\bar{x} = 4.31$) was ranked highest with the mean score and was followed successively by facilitating communication ($\bar{x} = 4.23$), using the announcement features ($\bar{x} = 4.14$), sending anytime messages ($\bar{x} = 4.00$) and lastly, replacing WhatsApp groups ($\bar{x} = 3.76$). It could be inferred that teachers' perception of effectiveness of Microsoft Teams for teacher-student interaction is very good with an average mean of 4.08.

Research question 3: What are teachers' perception of the effectiveness of Microsoft Teams for classroom organisation?

s/n	Items	1	2	3	4	5	\bar{x}	SD
1	Upload of class materials	-	1 (2%)	6 (11.8%)	14 (27.5%)	30 (58.8%)	4.43	0.78
2	Video uploads	-	3 (5.9%)	10 (19.6%)	14 (27.5%)	24 (47.1%)	4.16	0.95
3	Taking quick quizzes	-	2 (3.9%)	9 (17.6%)	20 (39.2%)	20 (39.2%)	4.14	0.85
4	Tracking attendance	-	1 (2%)	8 (17.6%)	22 (43.1%)	19 (37.3%)	4.16	0.78
5	Use of LMS	3 (5.9%)	4 (7.8%)	11 (21.6%)	20 (39.2%)	13 (25.5%)	3.71	1.11
6	Enabling group work/projects	2 (3.9%)	2 (3.9%)	8 (15.7%)	20 (39.2%)	19 (37.3%)	4.02	1.03
Average mean: 4.10								

Key: 1 = Not applicable, 2 = Not effective, 3 = Somewhat effective, 4 = Effective and 5= Very effective.

Table 4: Summary of teachers’ perception of the effectiveness of Microsoft Teams

for classroom organization

Table 4 revealed teachers’ perception of the effectiveness of Microsoft Teams for classroom organisation. The result showed that upload of class materials ($\bar{x} = 4.43$) was ranked highest by the mean score and was followed successively and respectively by video uploads and tracking attendance ($\bar{x} = 4.16$), taking quick quizzes ($\bar{x} = 4.14$), enabling group work/projects ($\bar{x} = 4.02$) and lastly, use of LMS ($\bar{x} = 3.71$). It could be inferred that teachers’ perception of effectiveness of Microsoft Teams for classroom organisation is very good with an average mean of 4.10.

Research question 4: What are teachers’ perceptions of the effectiveness Microsoft Teams for addressing the challenges encountered by teachers during remote learning??

s/n	Items	1	2	3	4	5	\bar{x}	SD
1	No students involvement	14 (27.5%)	1 (2%)	22 (43.1%)	6 (11.8%)	8 (15.7%)	2.86	1.37
2	Students often on other websites	6 (11.8%)	7 (13.7%)	23 (45.1%)	9 (17.6%)	6 (11.8%)	3.04	1.13
3	No individual student space	12 (23.5%)	4 (7.8%)	20 (39.2%)	9 (17.6%)	6 (11.8%)	2.86	1.30
4	Not user friendly for students who are not ICT inclined	20 (39.2%)	4 (7.8%)	8 (15.7%)	12 (23.5%)	7 (13.7%)	2.65	1.53
5	Not user friendly for teachers	18 (35.3%)	2 (3.9%)	10 (19.6%)	11 (21.6%)	10 (19.6%)	2.86	1.58
6	Unable to make teaching friendly	18 (35.3%)	3 (5.9%)	10 (19.6%)	11 (21.6%)	9 (17.6%)	2.80	1.55
7	Took time to adjust	13 (25.5%)	7 (13.7%)	10 (19.6%)	12 (23.5%)	9 (17.6%)	2.94	1.46

Key: 1 = Not applicable, 2 = Not effective, 3 = Somewhat effective, 4 = Effective and 5= Very effective.

Table 5: Summary of challenges encountered by teachers when using Microsoft Teams

for remote learning

Table 5 revealed the challenges encountered by teachers during remote learning and how using Microsoft Teams addresses these challenges. The results showed that MsTeams use is effective in addressing the challenge of students often on other websites ($\bar{x} = 3.04$) which ranked the highest mean score and was followed successively by the time it took to adjust ($\bar{x} = 2.94$), while no students involvement, no individual student space and not user friendly for teachers had a mean of ($\bar{x} = 2.86$), followed by ($\bar{x} = 2.80$) on the challenge of 'unable to make teaching friendly' and lastly, not user friendly for students ($\bar{x} = 2.65$). It could be inferred that Microsoft Teams was effective in addressing some of the major challenges encountered by teachers during remote learning included; i.e., students often surfing other websites, not non-teacher user friendliness, students non engagement, and lack of individual student space.

Discussion of Findings

The result obtained from research question 1 revealed that teachers' perception of the effectiveness of Microsoft Teams for assignment and grading is very good. This means that the use of Microsoft Teams was effective for assessing students' assignments and grading. In addition, if teachers have good perception towards the use of Microsoft teams, it could make their classes more interesting by having a logical and good presentation of their lessons. The finding supports that of Buelow et al (2018) who reported that certain aspects of online discussions and interactive assignments engaging, especially those that prompted students with thought-provoking questions that relate to real-world situations and invited students to share diverse opinions and develop personal perspectives. The result obtained from research question two revealed that teachers' perception of effectiveness of Microsoft Teams for teacher-students interaction is very good. The finding lends credence to Park and Kim (2020) who reported in their study that the interactive communication method that is used in online learning facilitates strong engagement between student and instructor and supports the expectations of teacher involvement of students, which ultimately increases student participation and pleasure in online classes.

The result obtained from research question three revealed that teachers' perception of the effectiveness of Microsoft Teams for classroom organisation is very good. This means that Microsoft Teams helps to improve classroom organization which in turn enhances teaching and learning. The finding validates Akgün and Akkoyunlu's study (2013) that technological advancement has been introduced into education in networking and communication, and that rich learning environments are becoming qualitatively and functionally more relevant. The finding also

corroborates research findings of Alameri, Masadeh, Hamadallah, Ismail and Fakhouri (2020) who reported that the use of Microsoft teams and Moodle were every effective in teaching and learning as it enhances academic achievement of the students. Teachers with prior computer experience and exposure to new technologies had a very positive attitude toward e-learning, believing that it improves teaching effectiveness. Students self-studying and academic performance was significantly positively affected by the use of e-platforms during COVID-19 pandemic.

The result obtained from research question 4 revealed that Microsoft Teams was effective in addressing some of the major challenges encountered by teachers during remote learning which included; students being often on other websites, no students involvement, and unable to make teaching friendly. This could be due to the fact that Microsoft Teams as a digital hub has the capacity to place all applications used by students with the Teams platforms limiting the need to have students leave the application to other website, putting together discussions, not getting feedback from students on the use of Microsoft teams, files and applications in a single LMS (Learning Management System). The finding supports Todd (2020) who reported that other challenges encountered by teachers using Microsoft Teams included issues with Internet bandwidth, device issues, arranging online examination, preparing stimulating activities, student absence, clarity of methods and evaluation among others. The finding also lend credence to Lin and Jou (2013) who conducted a study on integrating popular web applications in classroom learning environment and its effects on teaching, student learning motivation, and performance in Turkey and reported that some of the challenges encountered by teachers during remote learning with the application of web included; time, not being user friendly, poor network, and low student involvement. The authors stressed that the use of the web application could enhance teaching and learning if those inhibiting factors could be curbed.

Conclusion and Recommendations

The emergence of COVID-19 has caused a massive change in education with the creation of new educational norms such as the full adoption of remote teaching and learning with the use of Microsoft Teams and other online applications. It is worth stating that teachers see the worth of integrating Microsoft Teams into teaching and learning for increased performance. It is clear that the adoption of Microsoft Teams leads to smooth interaction between teacher and students enhances effective classroom organization which consequently heightens the effectiveness of the teaching and learning process. However, some of the challenges encountered by teachers and students in the process of remote teaching and learning include students often surfing other

websites, the application not being user friendly for teachers, and lack of students' involvement among others. From this study, the perception is that Microsoft Teams was effective in addressing some of these challenges due to the fact that Microsoft Teams as a digital hub puts together discussions, meetings, files and applications in a single LMS (Learning Management System).

It is hereby recommended that there should be more awareness given to the effectiveness of the use of Microsoft Teams for remote learning for greater adoption of this application by schools. Adequate and continuous training for teachers should be conducted on the use of Microsoft Teams to make remote learning effective. Also, school management and government should intensify their effort in providing quality Internet access/connection to teachers and students at an affordable rate as this would enable remote teaching to continue with ease during pandemic periods when physical classes are not feasible. On a regular basis, schools should ensure that access is given to high-quality remote education resources and they should embark on some form of monitoring of the quality of remote learning provided by teachers. Schools should set clear expectations on how regularly teachers will go through works and assignments by ensuring that they provide feedback to students. In addition, government support for remote learning programs should be focused more on student-teacher interactive platforms.

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