

CHANGE MANAGEMENT AMID PANDEMIC – A CASE OF TERTIARY EDUCATORS IN GHANA

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ABSTRACT

In the wake of the Covid-19 pandemic, almost all educational institutions had to engage students online. The change from offline to online teaching though not pre-conceived, had to be effectively managed. This qualitative study sought to explore educators' concerns and perspectives related to how the rapid unplanned transition from in-person teaching to online teaching was managed. It focused on educators in urban areas of Ghana. Results indicated that educators made use of institutionally supported as well as open-access technologies to engage students despite the fact that prior to the pandemic; most educators were reluctant to use such technologies for teaching. Challenges such as expensive cost of data, unstable internet connectivity and limited interaction between students and educators were proven not to be just perceived challenges but real and can be addressed through strategic partnerships between educational institutions and telecommunication companies as well as intensive training for both educators and students.

1.0 Introduction

Most developing countries over the years have become very comfortable with the use of traditional methods of teaching which make use of mainly lectures. With this mode, students sit together in various lecture halls to listen to their lecturers teach after which students are assessed. Assessments mainly focus on a student's ability to memorise and reproduce the concepts that have been taught. In a study by Hurlbut (2018), findings indicated that students enrolled in a traditional class generally receive higher grades and assignment scores than those who participated online in a virtual environment. It is observed here that students who attend class in-person are perceived as more serious than their counterparts who study online.

In recent times, modern education methods ensure that students actively participate in the learning process through various activities hence constructing their own skills and knowledge. Modern methods of education make use of quite a variety of technology in order to achieve learning outcomes (Frazer, Sullivan, Weatherspoon and Hussey, 2017). Despite these developments, there are some educators who find these modern methods quite ineffective and would rather prefer to make use of the traditional methods of teaching and learning. Nonetheless, educational institutions have long term strategic plans that will gradually phase into the modern education methods. This change however has been accelerated by the Covid-19 pandemic despite the fact that most institutions are not infrastructure-ready.

In the wake of the Covid-19 pandemic, almost all educational institutions have had to engage students online. With no room for any form of face-to-face teaching amidst the pandemic, it became very necessary to adapt to the modern trends of teaching and learning. Educators have had to familiarize themselves with the use of technology as well as identify which technology will work best for their students among other concerns. The situation presented itself in such a way that there was no time to effectively go through the change management processes which would have ensured a smooth transition from a 100% face-to-face lecturer-student engagement to a 100% online engagement.

The nature of change is such that every human institution has at some point in time gone through a kind of change. Change is best managed when planned. Managing change requires a lot of time, energy, training hence the numerous change management models. Belyh (2019) outlines seven approaches to change management. These are Lewin's Change Management Model, McKinsey

7S Model, Kotter's Change Management Theory, Nudge Theory, ADKAR Model, Bridges' Transition Model and Kubler-Ross Five Stage Model. A close look at these models expose that most people around the world in various fields like business organisations, educational institutions or social groups, resist change at the initial stages. An organisation may decide to make use of any one of these models depending on reasons for which the change is needed and how the change will be of benefit to stakeholders. Covid-19 pandemic however gave very little or no time for organisation stakeholders to decide on which model will be most beneficial.

2.0 Problem Statement

Educational institutions in Ghana, a developing country in Africa, were not exempted from this swift unplanned change that the Covid-19 pandemic presented to all students around the world. In Ghana students closed from school Friday March 15, 2020 and could not return on Monday. The next thing on the news was an announcement that schools remain closed until further notice. This announcement came along with other restrictions on public gatherings (Danquah and Schotte, 2020). Immediately, all schools had to arrange to engage students online. This included basic, secondary, tertiary, vocational, technical and some other learning institutions.

It is worth noting that distance education in Ghana is not an entirely new phenomenon (Marfo and Okine, 2010). Students enrolled in institutions through distance education are mostly tertiary students; other levels of students prior to the pandemic, engaged students using the offline mode. For the tertiary institutions who offered programmes via distance education, such students had to indicate these options at the time of admission. This means that a student cannot opt to complete a semester's activities online when they began the semester receiving tuition in person through the offline mode.

Again most tertiary institutions in Ghana have invested heavily in physical infrastructure such as fully equipped lecture halls, libraries, furniture and other facilities to ensure that daily on-campus engagements with students are effective. Owing to the fact that the online environment was only seen as a supplement, such virtual environments are not as sophisticated as required to be able to successfully host all academic activities (Marfo and Okine, 2010). However, when the pandemic pushed all educational institutions' activities online, the supplementary environment had to in a matter of days become a primary environment for teaching and learning. According to Wilson (2014), change can be managed effectively if organizational leaders are able to design, implement and communicate with the change strategy in the same way the change was conceived. In this case, the change was not conceived but had to be effectively managed.

3.0 Purpose Of The Study

This research therefore sought to explore educators' concerns and perspectives related to how the rapid unplanned transition from in-person offline teaching to online teaching was managed. The research focused on educators in selected universities in the urban areas of Ghana. Specifically the study was aimed at:

1. Identifying ways the change from offline teaching to online teaching affected how educators in Ghanaian urban universities interact with students.
2. Examining how educators in Ghanaian urban universities assess the effectiveness of online learning.
3. Identifying challenges educators in Ghanaian urban universities experience with online teaching.
4. Exploring ways educators in Ghanaian urban universities think challenges associated with online learning can be remedied.

4.0 Research Questions

1. In what ways has the change from offline teaching to online teaching affected how educators in Ghanaian urban universities interact with students?
2. How do educators in Ghanaian urban universities assess the effectiveness of online learning?
3. What challenges do educators in Ghanaian urban universities experience with online teaching?
4. How do educators in Ghanaian urban universities think challenges associated with online learning can be remedied?

5.0 Literature Review

Scholars have observed that unlike days of old where educational institutions experienced relative stability, higher education institutions are currently surrounded with factors which present scenarios of perpetual change (Storberg-Walker and Torracco, 2004). These changes which result from competition, technology and workplace factors impact directly on the objectives, management decisions and educational procedures (Kezar and Eckel, 2003; Welsh and Metcalf, 2003; Kemelgor, Johnson and Srinivasan, 2000). Though all other sectors are faced with similar or same factors of change, there are doubts that higher education institutions would be able to manage this change effectively (Levine, 2003). This indicates that if organisations were able to manage change effectively, educational institutions are likely to encounter challenges.

Various authors have analysed the significance of technology in higher education. Issues related to application, opportunities and challenges have been extensively discussed by Duderstadt, Atkins and Van Houweling (2002); Katz and Associates (1999); and Pitinsky (2003). This explains the presence of technological tools in higher education institutions to support traditional teaching and learning. Such technologies are either institutionally supported technologies or open-access or open-source technologies. Educators are expected by the various institutions to use these technologies to help students. Educators however believe that these technologies are expensive and complex (West and Bleiberg, 2013) with most of them feeling reluctant to make use of such technologies.

Several change management models impact how effectively change is managed. Lewin's model of change management takes a look at how change can be managed effectively through unfreezing, changing and refreezing (Lewin, 1947). During the unfreezing

stage, most people normally resist the change whether planned or unplanned. Management's constant communication, guidance and provision of required resources for the needed change help employees to successfully move on to the next stage which is the changing stage. At the changing stage, implementation actually happens and challenges begin to emerge. As management provides support and opens up to recommendations from employees, the final stage, refreezing is attained. During refreezing, changes made to procedures, goals and structures are solidified and entrenched in the organisational culture.

6.0 Research Method

The study used a qualitative research approach and case study design. According to Di Pofi (2002), qualitative research approaches explore, investigate and find meaning or understanding into human interactions and behaviour regarding human problems that have been observed. In a study by Mohajan (2018), he outlines that qualitative research can take the form of a Case Study, Ethnography or Grounded Theory among others. This case study focused on educators in selected Ghanaian urban universities. Technical Universities were not included in this study. Educators from eight tertiary institutions in Ghana were purposively selected to participate in the study. The educational institutions were all located in urban areas of five regions of Ghana.

According to Fontana & Frey (2000), unlike surveys which are more quantitative requiring larger numbers of people, interviews are suitable for studies which use open-ended questions to extract large volumes of information from a fewer people. According to Farrell (2016), open ended questions allow people to give a free form of answer which helps you to find out more rather than anticipate participants' responses. The use of open ended questions for this study ensured that respondents were not limited in their responses with predetermined answers but allowed to express themselves in their own way. This study made use of semi-structured in-depth interviews and observation.

Another popularly used method of data collection in qualitative research is observation. Depending on the type of study, observation can take place in the home, workplace or natural environment of the one who is being observed. This is to ensure that the observation is external of a controlled environment so that participants in the observation act naturally. Sauro (2012) outlines four types of observation a researcher can use depending on the objectives of the study. The researcher can play the role of a complete observer, observing participant, participating observer or complete participant. For this study the researcher assumed the role of a complete participant. Hence, the researcher, during the study fully interacted with some participants while getting involved in their activities to ensure participants do not notice that any research observation was ongoing.

For this study all participants were provided with sufficient information in writing, about the study so they can give a fully informed consent as to whether to participate in the interview or not. This was however not done during observation. Those who did not consent were not interviewed. Participants were not induced or forced in any way to participate in the interviews. Confidentiality and anonymity of all participants were ensured. Participants were constantly reminded of the fact that they did not need to disclose information they were not comfortable discussing and that at any time they felt like leaving the interview, they were free to do so. Collected data was analysed thematically.

7.0 Presentation Of Results

7.1 Pre-Pandemic State

The research exposed that prior to the pandemic; all educators, indicating 100% of respondents interacted with their students through face-to face sessions in a lecture hall, staff room or conference halls (auditoriums) for learning purposes. Students performed various activities in class and were assessed in-person. Some educators also used emails as means of sending resources to students as well as some social media platforms like WhatsApp to share important notices to students and interact among themselves as educators. In addition to this some respondents disclosed the use of a virtual platform or learning management system. This served as a supplementary platform for student-teacher engagement.

The learning management system served as a virtual platform where educators share teaching content with students. It also facilitated the submission of assignments and well as giving of feedback to students in an exercise. Though these virtual platforms had been made available in majority of the institutions, not all educators in those institutions made use of them. Reasons for not using the virtual management system were varied but have been broadly grouped into five: Low technological inclination, Duplication of activities, insufficient infrastructure, Difficulty in sustaining student interest on virtual platform and cost of data.

7.1.1 Low Technological Inclination

Some educators who were not using the virtual platforms were observed to have a low inclination to the use of technology for teaching and learning. They prefer to rather engage students in-person for direction and instruction. They explain that this mode is the most efficient and authentic. Such educators ensure that students are always physically present for all examinations and provide hard printed copies of projects or assignments. These groups of educators were found not using the virtual platforms though management of the various institutions had made them available. It is worth noting that despite the fact that educators were not making use of the learning management systems, they were efficiently providing tuition, facilitating discussions, assessing students and providing feedback for submitted assignments. The argument here was that if they were performing all the tasks required by the institution on one hand and the use of the virtual platform was not compulsory on the other hand, then there was no need to use the virtual platform. They therefore saw it as an optional supplement to academic work.

7.1.2 Duplication of Activities

Educators in this category were not using the virtual platform due to the perceived duplication of activities. The argument was

that if all the activities done offline are enough to get students fully equipped and prepared for examinations, adding an online platform with the same content is duplication. Rather than helping students, educators in this category felt students will be overwhelmed with the large volumes of content students will have to work with offline and online. In order to prevent students being overwhelmed, they resolved to stick to the offline engagements which are perceived as more effective.

7.1.3 Insufficient Infrastructure

Even though there was internet connectivity in all educational facilities that were studied, internet speed was not its best. Educators explained that there were times that users could not have access to the virtual platform as a result of internet connectivity issues. Some students also did not have devices to facilitate their usage of the virtual platform like laptops, personal computers or smartphones. Educators therefore felt that in order to overcome these difficulties students faced, they would resort to the use of offline means to engage students and not the online mode which is even not mandatory for regular students. It is worth noting that students who were enrolled in online and blended programmes mostly enrolled for those programmes already having access to the required infrastructure even if they did not own such devices.

7.1.4 Difficulty in sustaining student interest on virtual platform

The study indicated that students rarely visited the virtual platform. They would rather attend lectures than voluntarily log on to the virtual platform to download resources, participate in forum discussions or submit assignments. Educators disclosed that most assignments on the virtual platform were long overdue. They had to coerce or give regular reminders to students before they finally submit these overdue assignments. Some students do not submit at all despite the effort from educators. It appears as though motivation for offline student engagement is higher than that of offline student engagement.

7.1.5 Cost of Data

The study revealed that high cost of data is part of the reasons both educators and students felt reluctant to use the virtual platform which happens to be a supplement to the physical encounters. Due to large volumes of files as well as diverse file formats; when the virtual platform loads, large volumes of data are consumed. This is an extra cost considering the fact that data charges are relatively high in developing countries like Ghana.

7.2 How change from offline teaching to online teaching has affected how educators in Ghanaian urban universities interact with students

Immediately after the announcement regarding restrictions on public gatherings in Ghana and subsequent partial lockdown in the two major cities- Greater Accra and Greater Kumasi, all educators had no option than to look for alternative means to engage students. This was because students had been asked to stay away from school to prevent spread of the deadly corona virus. Various means educators used to engage students as found by the study are presented and discussed as follows.

7.2.1 Use of Virtual Learning Platform/ Learning Management System

The study revealed that majority of educators whose institutions had invested in a virtual platform or learning management system quickly migrated to online studies on the platform. It must be noted here that prior to the restrictions, Learning Management Systems were in use though not mandatory in most institutions. It was more of a supplement to the face-to-face student-teacher interaction. However after lockdown, the virtual platforms became the first point of call for educators and students.

Educational resources in the form of lecture notes, slides, links and videos were uploaded onto the virtual platform for students to access. These resources were downloaded by the students for use. If some students had any questions, they got in touch with lecturers for assistance and further clarifications or discussed among themselves. Same medium was used to assess students. Assessments took the form of group submissions, individual assignments and quizzes. A respondent mentioned that ".....the Virtual Learning Environment supports quizzes very well" These quizzes and assignments however were always within approved time limits.

Some educators resorted to preparing lecture videos for their students when they realized that students had difficulties joining live online lectures. These videos once they were done were uploaded onto the virtual platform for students to download. The volume of files uploaded on the platform slowed down the speed with which the virtual platform responds to commands. This development affected students and other users negatively as it increased further the cost of data. Complaints from students propelled some educators to upload recorded videos first to YouTube. The YouTube link was then put on the virtual platform for students to access. In this case, even if the platform is down, students still had access to the learning resource.

Some educators provided feedback to students through the virtual platform when assignment scripts are marked. Some participants explained that marking was also done online directly on the virtual platform. Others downloaded assignment files in word documents or portable display formats, marked by making comments on the work and then uploading the edited (marked) document to students as feedback.

With regards to student interactions, the virtual platform was used to facilitate forum discussions and chat sessions on the various topics that were treated. Educators could also send direct messages to selected students or give announcements to the entire class as the educator felt appropriate. It is worth noting here that unlike offline interactions with students which was timed; online student interaction was not really time-bound. A class which would have lasted for a maximum of three hours if it was offline could linger for the whole day.

7.2.2 Use of Social Networks

Another means educators used to engage students aside the learning management system was to implore the use of social media. It must be noted here that most traditional universities in Ghana did not allow the use of social networks for academic work prior to

the pandemic. The covid-19 pandemic however saw quite a number of educators making use of some of these to efficiently engage and interact with students to ensure a successful completion of the semester. Educators made use of WhatsApp, Telegram and YouTube for academic purposes.

WhatsApp

Some groups of students for various reasons were not registered on the institutions' virtual platforms. Others had difficulty logging onto the site. For such students, some educators made use of WhatsApp in order to reach them. WhatsApp was also used to directly contact students when educators needed to urgently pass on information. Voice notes were recorded at 15 minutes intervals and sent to student WhatsApp group chats until all lecture slides were exhausted. Students after listening to the voice notes were allowed to ask questions or seek for more clarification when necessary. Inputs from students in the form of suggestions were also transferred through the same medium. These voice notes seemed to work very well for most students considering what an educator said that "the voice notes were much appreciated by students because they could play it whenever they visited their notes and needed clarification."

While the WhatsApp worked well for some educators due to the nature of courses they teach, other educators did not use it because it was ineffective. Educators who were teaching courses related to programming, engineering and mathematics did not find WhatsApp very helpful for learning purposes. It also did not work well for project-based courses.

Telegram

Unlike WhatsApp, which had many educators using it for teaching and learning, very few educators made use of Telegram. Telegram was used for similar purposes as WhatsApp. Forums were created on Telegram where students interacted by asking each other questions, discussing and solving problems. Educators here, acted as facilitators during group discussions. The problem educators faced here was ensuring that students stayed on the topics being discussed with deviating into other discussions.

YouTube

Owing to the fact that face-to-face encounters had been eliminated, most educators made use of YouTube in two ways. First, for those who wanted to create their own content on a particular topic, videos were recorded and uploaded on YouTube. The video link was then sent to students via the learning management system or other platform through which students are contacted. The second group did not necessarily create any new content but relied on the content already uploaded by other educators on YouTube but addressed topics they were tackling. Such educators searched for the appropriate videos and shared those links with students.

7.2.3 Use of Video Conferencing Apps

Some group of educators made use of video conferencing apps like Zoom and Google hangout to hold live classes just like they would have done in the traditional classroom. This proved to be helpful for those educators whose needs were not met by the likes of WhatsApp and Telegram. These apps were much more appropriate for teaching engineering, mathematics and programming courses. Some educators explained that some of these conferencing apps like Zoom were embedded in the learning management system. This made integration much easier.

7.2.4 Use of E-mails

Official communication between students and educators were mostly through the e-mail. Some students who had challenges accessing virtual platforms made use of e-mails to send assignments to lecturers for assessment. Educators who supervised post graduate students during the season also used e-mails to facilitate supervision together with Zoom and Google meet and Google classroom.

7.2.5 Use of Textbooks

It is worth mentioning that the use of textbooks was also very relevant during the traditional offline mode of engaging students prior to the pandemic. This practice remained relevant even during the pandemic. Some educators write text books for their students so that right from the beginning of the semester, students had in-depth knowledge of what to expect from the course. Whether students are in class or not, they possess the text book and this facilitates self-learning no matter the location of the student. Educators who were found in this category also used other online modes already discussed to engage students and deepen understanding of concepts treated in the text books.

7.3 How educators in Ghanaian urban universities assess the effectiveness of online learning

A section of educators accepted that engaging students online was equally effective as offline engagements. All educators found ways to assess students online for regular courses. No educator postponed any examinations until it was right to hold the examinations offline except courses which were project-based. It was however observed that for project-based courses which required students to produce a tangible result or output, examinations had to be postponed. The nature of examination questions were also observed to be more of application-based questions rather than questions that test the students' ability to remember the various concepts and theories taught. The reason for this was because educators felt it will be quite difficult for students to cheat when they had to answer application-based questions.

Educators however could not also ascertain whether students did the assessments themselves or had other people do it for them and submit on their behalf. The issue of impersonation received very little attention during the online engagements though educators felt some students who were below average during face to face classes were producing excellent work as assignment submission online. Despite this uncertainty, educators confirmed that online studies helped students whose performance was below average to

improve on their performance.

Some educators felt online teaching presented students with what they needed to stimulate them to study considering the excitement with which some students participated in online discussion and live video engagements. This is implied from an educator in this quote that "Online teaching is quite interesting because the students kind of dominate the teaching so they tend to enjoy it more. Research has it that the generation of students we have now, which is Generation Z, enjoy the use of social media. This era has kind of validated that assertion".

Another perspective this study exposed was the fact that face to face encounters between students and educators helped educators to engage with the students at the deeper level. This engagement helped educators to better appreciate questions and contributions from students. Educators saw this as direct feedback that helped them to proceed with course content as planned or amend resources and activities as the course progressed. It helped educators change their teaching styles once they observed students are having difficulties. This feedback was sometimes delayed in the case of online teaching. Despite the fact that some educators felt offline teaching was more effective than online teaching, they accepted that moving forward; after the pandemic, educational institutions have to fully embrace it.

7.4 Challenges educators in Ghanaian urban universities experience with online teaching

The study exposed a variety of difficulties educators faced while engaging students online. These challenges were unstable internet connectivity; expensive cost of data; difficulty in accessing the online virtual platform; limited interactions between students and educators; lack of motivation on the part of students; requisite infrastructure; and increased stress on the part of educators when teaching online

7.4.1 Unstable Internet Connectivity

All educators interviewed mentioned the issue of internet connectivity as a major challenge while teaching students online. This happened to be an issue that affected both parties negatively. Students mostly had challenges joining live class sessions. When they finally did, they were unable to stay in the class for long. Low internet speed caused a delay in transmission hence making some students miss important information in class if the lecture is not recorded. Some educators also had to reschedule classes when they faced internet connectivity challenges. Most classes are scheduled for peak hours of the day. Owing to the fact that most people were working from home at that time, educators had to find ways of rescheduling classes to very early in the morning (before peak hours) or in the evening (after peak hours).

Some educators tried to find a way around this problem by recording videos, uploading onto YouTube and then sharing the video link to students through the available medium – Learning Management System (LMS) or social media (WhatsApp). As good as this sounded knowing that it would solve the problem caused by unstable internet connectivity, it presented yet another challenge. It was difficult to find a conducive place and time to record lecture videos without noise from immediate surroundings. Female educators indicated that due to the pandemic, their children were also home most of the time. In order to be able to record noise-free videos, they had to wait until the children were asleep at night or wake up at dawn when they were still sleeping to record lecture videos. Some male educators also agreed to this as well as noise from moving vehicles, domestic animals and hawkers.

7.4.2 Expensive Cost of Data

In addition to the fact that internet connectivity was not the best, the cost of data was also extremely expensive for both students and educators. Students however felt the effect of this more since most of them had already paid their fees and had to treat this as an extra cost. If the internet connectivity and speed was good, it would have made up for the cost of data but bad internet connectivity coupled with expensive cost of data made the situation worse and irritable.

7.4.3 Difficulty in Accessing Online Platform (LMS)

For educators whose institutions had a learning management system (LMS) in use, the platform was not always accessible to users. There were times the server would be down during which no learning activity could take place. During such times, educators had to resort to the use of social media. Social media however does not support quizzes and assignments. Hence when the LMS server was down, activities were mostly rescheduled. These impacted negatively on teaching and learning as educators were unable to enforce deadlines for submission of assignments. Lazy students mostly took advantage of the situation in order to default in assignment submissions.

7.4.4 Limited Interaction between Educators and Students

Educators explained that online interaction with students was very limited unlike the face-to-face. Postgraduate students who required guidance for their thesis had to resort to the use of e-mails which was not enough. Some also explained that it was difficult for educators to appreciate questions students asked while engaging them online.

7.4.5 Lack of Motivation of Students

The study exposed that the attitudes of some students during online classes was not the best. Students came up with numerous excuses for which assignments could not be submitted on time, quizzes should be postponed or classes were missed. They were however not ready to explore available options considering the fact that everyone had been hit with the pandemic the same way. Again, some mature students who were not so technologically inclined had difficulties with the online teaching at the initial stages. This is implied by this quote from an educator "You receive comments like, "we're unable to type fast so give us 24 hours for essay exams".....".

There were also instances of low turnout to online class as a result of lack of motivation. No educator agreed to having a full class

while online. Some had to be called severally by their mates before they would join an ongoing class. It was also observed that most of the mature students were also workers and had side businesses. Rescheduled classes therefore did not favour such students. Such students were mostly absent from class.

7.4.6 Lack of Requisite Infrastructure

Some students though schooling in the urban areas, originated from rural areas where there is no access to internet services or communication centres. Since staying in school during the pandemic was not the best and seemed cost intensive, such students had no option than to go back home. It must be noted that while at home, such students could not participate in any class activity online. Another group of students did not own computers or smartphones. They had to visit a café to access the internet and participate in class activities. Online teaching for such students was difficult and seemed very inconvenient. Educators disclosed reaching such students was every difficult even on social media.

7.4.7 Increased Stress and Difficulty Teaching Online

Teaching online has proven to be much more stressful than face to face teaching as this study has exposed. Owing to the fact that most educators were not used to engaging students online, the change was very sudden and therefore difficult for some educators to cope. Indeed such educators had to go through some form of internal training to be able to overcome the difficulty. Educators also confirmed extended periods of student engagement due to connectivity issues and network challenges. Extension of these online contact hours, preparation of lecture videos, reading all assignments online, organising examinations online and marking scripts online increased the stress of educators.

7.5 Ways educators in Ghanaian urban universities think challenges associated with online learning can be remedied.

In order to address the challenges, experienced, educators recommended the need for strategic partnerships between educational institutions and telecommunication companies; extensive training for users; providing required infrastructure for needy students and some educators; reviewing the curriculum; and embracing the use of LMS.

7.5.1 Partnerships between Educational Institutions and Telecommunication Companies

It is imperative on educational institutions to engage telecommunication companies regarding the reduction of data charges to make it affordable to students while at the same time providing stable network connections. Indeed some institutions were able to negotiate with some telecommunication companies to zero-rate charges for data used on the learning platforms. Such institutions still experienced challenges since videos which had been uploaded on social media sites and had to be downloaded by students were charged. These partnerships will therefore have to go beyond just the learning platforms to include subsidy on other media platforms for educational purposes.

7.5.2 Online Teaching and Learning Training for Users

Intensive training for both educators and students in the area of online teaching and learning would help in reducing the challenges experienced. Such training will equip users with what to expect, how to behave in the online space as well as what to do to get the best from the online experience. Educators should also be trained on all the available technological tools available to them in the online space for teaching effectively. This will expose all users to available options that can serve the same purpose.

7.5.3 Assist Needy Students with Required Infrastructure

Government and educational institutions should identify needy students who lack the requisite infrastructure to facilitate online learning and help them with computers or smartphones. It must be noted here that some educators who engaged students mainly using the traditional mode fall in this category. Such educators also require help so that they would be able to effectively perform their teaching duty both offline and online.

7.5.4 Review of Curriculum

The current curriculum for tertiary education is such that a slight disturbance in the educational calendar puts pressure on both students and educators. A review of the curriculum to accommodate some flexibility will go a long way to reduce the impact of such external disturbances on the curriculum. Educators recommend that authorities consider running the block system for tertiary students.

7.5.5 Embracing the use of LMS

Educators should be encouraged to continue with the use of virtual platforms and learning management systems even after the ease of restrictions when face to face encounters have begun fully. Educational institutions should focus on continuously improving the established learning management systems whilst encouraging government to embrace online and blended learning at the tertiary level in Ghana.

8.0 Discussion Of Results

This study has confirmed that indeed some higher education institutions already had acquired some technological infrastructure that would make migrating to a completely virtual learning environment successful though inadequate. Educators were however unwilling to make use of these technological infrastructure. Just as Lewin's change model indicates at the unfreezing, educators were unwilling to use the virtual platform that had been provided by the various institutions. They attributed this unwillingness to several confirmed challenges.

However, during the pandemic, though the challenges still existed, educators were able to work their way through ensuring that all they had planned for the semester was implemented. They were able, with support from management and respective IT depart-

ments, to migrate their offline face-to-face classes to online classes. This was done with the use of institutionally supported technologies as well as open access technologies. This can be likened to the changing stage of Lewin's change model.

From the recommendations made by educators, it is clear that online student engagements may continue even after the pandemic when normal offline classes are restored. This however is dependent on how management sets out address challenges experienced. Hence, if management is able to offer the required support as well as the resources needed to sustain this new norm, online teaching will become a part of higher education whether students opt to study completely offline, online or in a blended mode. This will then constitute the freezing stage. This stage however, is heavily dependent on how challenges that were faced will be addressed by management. Otherwise, educators are likely to go back to the pre-pandemic stage where despite the fact that technological tools have been made available to educators, due to challenges experienced, these tools will be ignored.

Conclusion

This study explored educators' concerns and perspectives related to how the rapid unplanned transition from in-person teaching to online teaching was managed. The study exposed that prior to the pandemic; educators were reluctant to use available technology though various institutions' management had made these resources available. However, due to the pandemic, educators had no option than to make use of online resources made available by the institution or use open-access technology to facilitate teaching and learning online. Perceived challenges however proved to be real as educators engaged students completely online due to the pandemic. In order for this change to be entrenched, management needs to consider recommendations proposed by educators and act on them otherwise educators are likely to return to how things were done in the past before the pandemic.

This study offers potential for future research considering various limitations of this study. Future research may consider the comparative study of developed and developing countries. Again, considering the fact that this study focused on mainly educators, it will be significant to study perspectives of students. It will also be relevant to consider technical universities and institutions which offer project based courses.

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