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THE PERCEPTIONS OF SELECTED GHANAIAN LANGUAGE TEACHERS ABOUT VIRTUAL TEACHING AND LEARNING DURING CRISES

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In March 2020, when the World Health Organisation (WHO) declared COVID-19 as a pandemic, Ghana placed restrictions on face-to-face teaching and learning activities at all levels. Subsequently, almost all tertiary educational institutions in the country approved the complete use of Virtual Teaching and Learning (VTL) for students and teaching staff. While most of the institutions accepted VTL as a substitute for face-to-face teaching and learning, others used it as a stopgap in anticipation of the lift of the government's ban on face-to-face teaching and learning. This paper, therefore, assesses the perceptions of language teachers about Virtual Teaching and Learning (VTL) during the ban on face-to-face teaching and learning activities in Ghana. The purposive sampling method was used to select 10 participants (language teachers) from a single case (i.e., the Communication Studies Department of Sunyani Technical University). The paper employed a mixed method research design approach. What this means is that both qualitative and quantitative data were collected from selected human subjects. Content analysis was used in analysing the qualitative data collected, and figures generated with Excel were used in analysing the quantitative data. The results of the study showed that 80 % of the participants had positive perceptions about VTL. The remaining 20%, who had negative perceptions about VTL, indicated that for VTL to be wholly embraced in any jurisdiction, challenges of policy guidelines, staff and students' motivation, internet connectivity, data allocation, and other technical issues should be well-addressed.

Keywords: Virtual teaching and learning, Online learning, Language teaching, Teachers' perceptions

Introduction and Background

Disasters usually bring about all kinds of consequences. In education, crises may lead to abrupt incoherence in academic calendars, curricula, and forms of activities including teaching and learning. Therefore, crises, sometimes, lead to all kinds of interferences in education which may

be positive or negative. A positive educational interference may emerge out of a transformation in educational systems, policies, procedures, programmes, syllabi, and modes of teaching and learning whenever there is a change in government or a change in educational policy from regulators of education or other stakeholders. At other times, a positive interference may lead to innovation in educational systems. However, sometimes, this positive interference is met with a series of protests from some stakeholders of education.

The negative educational disruptions, in contrast, may start from disastrous situations such as persistent industrial actions, epidemics, pandemics, and endemics. This may also happen any time there is any form of natural or unnatural disaster. Natural disasters are catastrophic events with atmospheric, geologic, and hydrologic origins which usually lead to earthquakes, volcanic eruptions, landslides, tsunamis, floods, and drought (Watson et al. 2007). Other forms of natural disasters are fire and intense heat. On the other hand, forms of unnatural crises include wars, civil unrest, military takeovers, or coup d'états. According to Watson et al. (2007), natural disasters can have fast or slow onset, with severe health, social, and economic consequences. Thus, any of these calamitous occurrences could result in crises that have serious negative consequences on educational activities.

In January 2020, the World Health Organisation (WHO) established that a new coronavirus was the reason for a breathing illness found in a group of people in Wuhan City, Hubei Province, China. This sickness was named COVID-19, and the pathogen (an RNA virus) recognised as SARS-Coronavirus-2 (SARS-CoV-2) (Kenu et al. 2020). By March 2020, COVID-19 had practically spread across the globe. Therefore, the World Health Organisation (WHO) declared it as a pandemic. Directly or indirectly, this situation affected the frequent provision of goods and services in most of the countries in the world. Subsequently, most countries placed forms of restriction on activities that involved human contact. By April 2020, there were total or partial lockdowns in several countries in the world, including Ghana. This situation affected face-to-face teaching and learning.

Ghana recorded its first two cases of COVID-19 disease on March 12, 2020. So, on March 28, 2020, the President of Ghana, Nana Addo Dankwa Akuffo-Addo announced a partial lockdown from 01:00 (local time) commencing from March 30, 2020, for 14 days in Greater Accra and Greater Kumasi Metropolitan areas. On the day of the announcement, about 3 regions (i.e., the Greater Accra, Ashanti, and Upper West Regions) of Ghana had all reported cases of the virus, a total of 141 COVID-19 cases had been confirmed nationwide, and 5 of the cases were fatal (Ghana News Agency, 2020).

Ghanaian citizens in the areas mentioned were only permitted to leave their homes for vital items such as food, medicine, water, payment of utility bills, as well as visiting hospitals, pharmacies, or financial institutions. The government gave five key objectives to address the potential effects of the COVID-19 pandemic in Ghana. These were (1) limit and halt the

importation of the virus, (2) contain its spread, (3) deliver suitable care for the sick, (4) reduce the impact of the virus on social and economic life and (5) increase local production ability to reinforce self-reliance (Ghana News Agency 2020). On April 13, 2020, the partial lockdown in some major cities in Ghana was further extended for an additional 7 days. As of April 2020, there were about 641 COVID-19 cases confirmed in Ghana out of the 50,719 tested samples (World Health Organisation 2020). On April 20, 2020, the 3-week partial lockdown in some major cities in Ghana was lifted. However, restrictions on religious and social meetings were to continue, and the closure of schools (at all levels) was still in force. Ghana's borders were also to remain closed.

The government's closure of schools hindered face-to-face teaching and learning activities at all levels. Because of this, almost all tertiary educational institutions in the country approved of the complete utilisation of Virtual Teaching and Learning (VTL) for students and teaching staff. While some institutions accepted VTL as a substitute for face-to-face teaching and learning, others used it as a stopgap, in anticipation of the lift of the government's ban on face-to-face teaching and learning. This brought about a lot of adjustments in the academic calendars and programmes of almost all universities in Ghana. Also, authorities in various universities had to make decisions on issues of timetable, data allocation for staff and students, duration, and the modus operandi of the selected VTL platforms. Therefore, the objectives of this paper are to:

1. examine the perceptions of language teachers about Virtual Teaching and Learning (VTL).
2. evaluate the prospects and challenges of VTL at the technical university level.
3. establish the platforms used for VTL at Sunyani Technical University
4. recommend best practices for effective virtual teaching during crises.

Definition, Merits, and Demerits of Virtual Teaching and Learning

In this 21st century, most associations, businesses, and nations have given digitisation, (which is the use of the computer or technological know-how) a lot of attention (Owusu et al. 2023). This attention has been extended to virtual teaching and learning (VTL). Virtual learning is the kind of learning that can functionally and effectively occur in the absence of traditional classroom environments (Simonson and Schlosser 2006). Thus, this kind of teaching and learning, unlike the traditional face-to-face teaching and learning mode, is usually aided by ICT gadgets and social media platforms. ICT gadgets such as projectors, smart boards, PC/laptops, and laser pointers are usually essential in VTL modes. Some of the social media platforms that are also imperative when it comes to VTL are Voov, Zoom, Skype, Google Mate, Microsoft Teams, Google Classroom, Free Conference Call, and other relevant platforms. To Popovic et al. (2005), e-learning is the use of the Internet and other related technologies to deliver, support, and enhance teaching, learning, and assessment.

Some distinctions have been drawn among e-learning, m-learning, and d-learning. According to Hoppe et al. (2003:255), e-learning is the kind of learning reinforced by digital electronic devices and media, and m-learning is the kind of e-learning that uses movable devices and wireless broadcast. D-learning, on the other hand, is any kind of learning that is assisted by technology or by instructional practice that makes effective use of technology in all learning areas and domains (Victoria State Government 2017).

Van Beek (2011) believes that virtual learning comes in different forms including:

- *Computer-Based:* where instructions are not given by a facilitator; rather, teaching is done via software installed on an indigenous computer or server.
- *Internet-Based:* where the software that delivers the instruction is done via the Web and stored on a remote server.
- *Remote Teacher Online:* where a teacher delivers virtual lessons to students through online video, forums, e-mail, and instant messaging.
- *Blended Learning:* which combines both face-to-face and computer-based instructions.
- *Facilitated Virtual Learning:* where computer-based instruction is supported by a human facilitator who assists students' learning process in the form of providing tutorials. This facilitator may be present with the student or may engage them from a remote place through virtual means.

According to Wang et al. (2021), e-learning strategies have a direct positive impact on e-learning effectiveness. So about two decades ago, Floyd (2003) reported that most universities are planning to invest in internet-based classes and in recruiting and training faculty to teach online because of its merits (Floyd 2003). E-teaching enables individualised instruction and gives opportunities for individual students to learn at their pace and according to their learning styles. For this reason, even traditional classroom teaching is commonly supplemented by e-teaching and learning. Some universities have also used the blended method where both face-to-face and e-teaching and learning modes are utilised.

While face-to-face teaching is highly dependent on only synchronous mode, VTL offers synchronous and asynchronous teaching and learning approaches to both teachers and learners. According to Hrastinski (2008:54), synchronous online teaching has a lot of benefits, including personal participation, increased arousal, motivation, and convergence on meaning. Again, this kind of online teaching and learning helps the facilitator monitor the reaction of the learners to the message. Asynchronous online teaching, on the other hand, has the benefits of cognitive participation, increased reflection, and the ability to process information (Hrastinski 2008:54). However, in the case of asynchronous online teaching, the facilitator cannot easily monitor the reaction of the learners to the message.

Various research findings have shown the imperativeness of both synchronous and asynchronous online teaching and learning approaches. Moorhouse and Beaumont (2020) reported

how an elementary language teacher planned and taught real-time live lessons in a metropolitan school. The findings of the study indicated that with adequate preparation, synchronous teaching of classes can always be successful. Also, Yi and Jang (2020) explored the video-based asynchronous teaching of two elementary teachers in a small rural school. Their findings suggested that distant teaching activities produce opportunities for translingual practices and pedagogy, as well as for cooperative teaching.

Again, Ji, Park, and Shin (2022) investigated the satisfaction of L2 learners in a synchronous online learning setting, which was seen to be associated with diverse factors at the onset and end of the semester. Based on two waves of data collection, the study revealed that the initial higher readiness of learners led to their greater satisfaction with synchronous online teaching and learning. However, the L2 learners were seen using different learning strategies, including note-taking, recording of lessons, and looking for extra learning materials. All these activities led to their full engagement and satisfaction.

However, VTL, like any other technology has its challenges. Online language teaching is challenging for all teachers, including pre-service teachers and experienced teachers, and one challenge that was prevalent in most contexts, during the COVID-19 era was technical issues. (Tao and Gao 2022; Mahyoob 2020). For example, in Beaven et al. (2010), it was realised that it was complex for language teachers to use ICT in their classes; as they needed to acquire and continually modernise their ICT skills, while also ensuring that the online teaching activities they use are entirely integrated into their pedagogical outline, and are helpful for both their students and for themselves. Thus, language teachers need to develop interest and motivation in ICT, and this can facilitate their pedagogical framework. Regarding language teachers' interest and motivation in using ICTs in their classes, three major factors (i.e. the type of institution(s) where they work, their social status, and their self-perception as a teacher) need to be considered (Beaven et al. 2010:7-8). Other challenges confronting VTL in the African context are internet access, data allocation; and staff and students' computer literacy or illiteracy rate.

Empirical Studies on VTL and Perception

Generally, perception is how something is viewed, assumed, or interpreted. The way we perceive entities, processes, events, or products determines the way we act toward these entities. The post-COVID-19 period has produced several studies on teachers' perceptions and online classes. Some of them have been reviewed in this section of the current paper:

Auma and Achieng (2020:22-25) studied the perception of teachers on the effectiveness of online learning in the wake of the COVID-19 pandemic in Kenya. The study used a descriptive survey design. That is, quantitative and qualitative methods were employed to assess the diverse

perspectives on online learning. The participants for the study were drawn from Private Primary Schools in Athi River Sub-County, Kenya. Out of the over 300 schools, the investigator deliberately selected 15 schools that used online teaching and learning. Specifically, 150 teachers were randomly sampled to answer some questionnaire items on the perception of teachers on the effectiveness of online learning. The study revealed that the majority (80%) of the respondents agreed that ICT-based teaching makes learning more operational. However, 80.7% indicated that insufficient training and empowerment of teachers impeded online learning. The study recommended that teachers should be given technical support so that they could effectively utilise online teaching and learning tools.

Kulal and Nayak (2020) investigated the perception of teachers and students toward online classes in Dakshina Kannada and Udupi districts of Karnataka, India. The study adopted a descriptive quantitative design to solicit data from the participants who were drawn from all the postgraduate and graduate students and teachers from diverse colleges in the two districts. A simple random sampling technique was used to select the sample size of 68 teachers and 203 students from the population. A five-point Likert scale was used in collecting data from respondents in online classes. Questionnaires were distributed to participants through Google Forms. The data collected were analysed using Statistical Package for Social Science (SPSS) version 20. The results of the study indicated that the participants had mixed opinions on online classes. Though teachers' general perception of online classes was encouraging, others disliked online classes for various reasons. Some teachers indicated that they do not conduct online classes due to technical reasons. Some teachers and students believed that the face-to-face traditional method of teaching was effective since they did not feel secure in private online tools like the Zoom application. Also, they cited the absence of emotional attachment with students and teachers as one key challenge of online classes.

Bordoloi et al. (2021) investigated the perception of Indian teachers and learners about the use of online/blended learning modes in teaching and learning during the Covid-19 pandemic. The work, also, aimed at finding out the prospects and difficulties of providing online/blended learning in India, during and after the Covid-19 era. The participants were drawn from teachers and learners of both conventional and Open Distance Learning (ODL) institutions across different parts of India. Since explorative and descriptive research methods were used for the study, both primary and secondary data were deployed. Specifically, academic analytics, an approach that guides the researchers to explore academic problems empirically, was used for the study. A link containing Google form questionnaires was randomly sent to 100 teachers and 100 students. However, only 79 teachers and 41 students responded to the questionnaire. Therefore, the sample size for the study was 120 participants.

The findings of Bordoloi et al. (2021) revealed that blended learning is the panacea for providing education in this 21st century. Again, the study revealed that both ODL and conventional teachers and students have positive perceptions about online/blended learning modes; and teachers

used platforms such as Facebook Live, Google Classroom, Skype tutorial, WhatsApp, Zoom, and Google Meet for teaching and learning during the COVID-19 pandemic era. One challenge of the study is the issue of a digital divide between the rich and the poor in India. This challenge hampered the poor from accessing some ICT gadgets that aid online teaching and learning.

Methods

The paper employed the mixed-method research design approach. This design was deployed since the research process suggested that only qualitative or quantitative data would not be adequate in addressing the research objectives. What this means is that both qualitative and quantitative data were collected from selected human subjects. A case study was the specific approach used, so all the sampled respondents were from the Department of Communication Studies, Sunyani Technical University. Out of a population of about 20 teaching staff in the Department (who teach various language and non-language-based courses), 10 English and French language teachers were purposively sampled for the study. The electronic instrument used for the data collection was a Google form questionnaire sent to the respondents via email or WhatsApp chat sessions. The design of the questionnaire items was based on Likert Scales's variables. The qualitative data (i.e., 10 face-to-face or telephonic chat session data) collected were analysed using a content analysis approach, while the quantitative data (i.e., 10 email-based interviews) were analysed using figures and chats developed from MS Excel version 2010. The telephonic chat session enabled me to solicit the data I needed from the respondents who were physically not present for a face-to-face session.

Results and Discussion

The results and discussion of the study are based on the objectives of language teachers' perception of VTL, prospects and challenges of VTL, and platforms used for VTL at Sunyani Technical University. In each of the four issues in this section, the results of the field data are first projected, and this is followed by the interpretation of the data; and the academic discussion of the data.

Perceptions of Language Teachers about VTL

This section analyses the perception of language teachers about virtual teaching and learning.

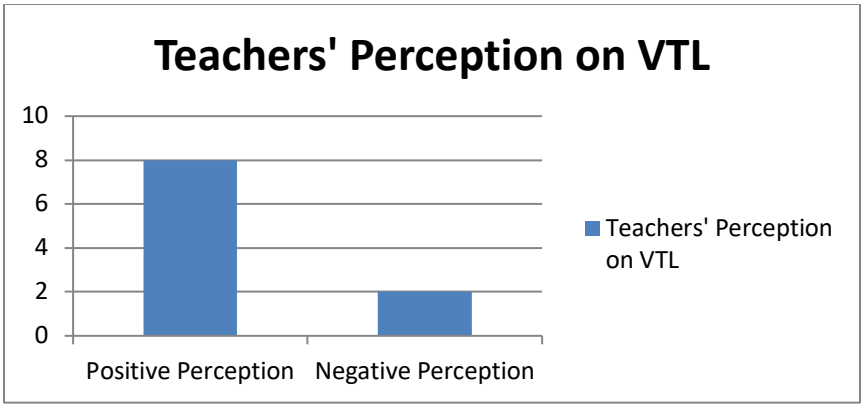

Figure 1: Teachers' perception about VTL

On a six-point Likert scale of *Totally Unacceptable, Unacceptable, Slightly Unacceptable, Neutral, Slightly Acceptable,* and *Perfectly Acceptable,* the respondents were asked to indicate their preference for VTL (i.e. how they accepted VTL). The results from Figure 1 indicate that the perception of teachers towards VTL is a positive one. Out of the 10 participants, 80 % (8) selected *perfectly acceptable* when they were asked about their perception or acceptability rate for VTL. The remaining 20% (2) who selected *slightly unacceptable,* said that before VTL can be adopted holistically in the STU context, policymakers and the university authorities should streamline challenging issues of data allocation, internet connectivity, computer literacy or illiteracy rate of both staff and students and motivation. For example, one respondent cited that 'during the COVID-19 era, most of his/her students could not actively join his/her virtual teaching and learning sessions because of challenges of computer illiteracy and lack of internet and computer accessibility.' For those who had a positive perception towards VTL, some cited that in education, the world is gradually drifting towards VTL, and both staff and students need to re-orientate their minds and perceptions towards this phenomenon.

The telephone interview also brought out some revelations on the perception of teachers about VTL. When the participants were asked about their general view about VTL, the majority of them indicated that it was time for all language teachers and learners to realise that VTL had come to stay and that measures should be taken to ensure that its full operationalisation in the technical university context is faced with fewer challenges, in terms of training, data allocation, internet connectivity, and motivation. About 7 of the interview responses corroborated the questionnaire responses on possible challenges of VTL. The interview responses confirmed Auma and Achieng's (2020:22-25) findings, which cited insufficient training and empowerment of teachers as some of the challenges of online teaching and learning. In sum, though the majority of the respondents (80%) had a positive perception of VTL, they want policymakers and university authorities to address some challenging issues before VTL is fully utilised.

Prospects of Virtual Teaching and Learning

This section analyses the prospects of virtual teaching and learning.

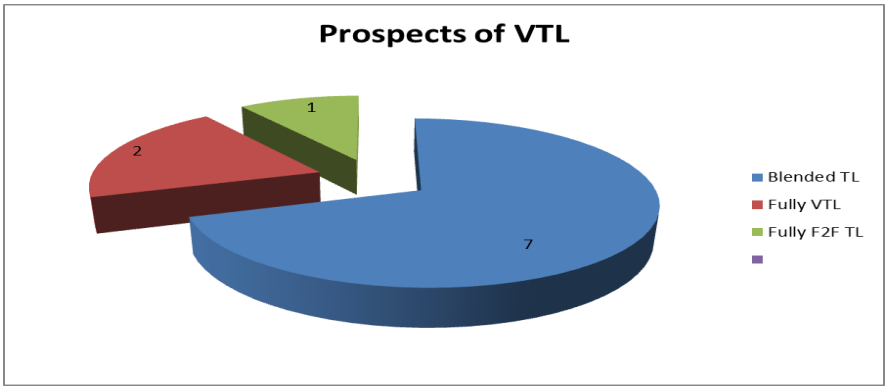

Figure 2: Preferred teaching mode

On prospects of VTL, the participants were asked to select their preferred teaching mode. The modes were blended teaching and learning (blended TL), fully VTL, and fully face-to-face teaching and learning (fully F2F TL) modes. Out of the 10 participants, 7 of them opted for blended TL mode, 2 opted for fully VTL, and 1 selected fully F2F TL. This is seen in Figure 2. In the telephone interview session, the 7 participants who opted for the blended TL, said that 'although, globally, VTL has become a popular mode of lesson delivery and learning for most higher institutions, accepting it as the sole teaching and learning mode in the context of the technical university, will be problematic.' According to them, for VTL to be fully accepted, numerous challenges have to be addressed. The blended mode, according to them (the 70% majority of respondents), must be encouraged in most jurisdictions, including the technical universities in Ghana. By this, both teaching staff and students would be gradually oriented for a fully VTL mode, should there be any educational disruption like a pandemic.

This finding agrees with Bordoloi et al. (2021) that brought to light that blended learning was the solution for providing education in this 21st century. According to Asiri et al. (2012), blended learning plays a major role in enhancing foreign language skills. Though the implication of blended learning has been proven to be effective in improving foreign language skills, there is a lack of willingness on the part of teachers to use this technology in their teaching mode. So, Rivera (2009) noted that although the use of blended learning is imperative in teaching and learning practices, there is a need to provide methodologies and computer training sessions to foreign language teachers for the effective deployment of blended learning in foreign language

classes. This assertion on computer training confirmed what 6 (60%) of the respondents, generally, said.

Challenges of Virtual Teaching and Learning

The use of every technological process or device has challenges. This section analyses the difficulties of virtual teaching and learning

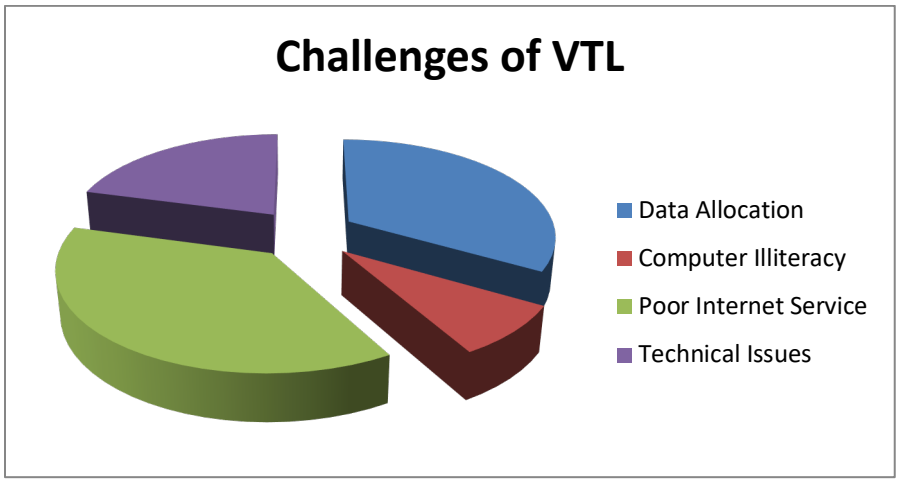

Figure 3: VTL Challenges teachers face
***KEY**: Tech. Issues – 5; Comp. illiteracy – 2; Poor Internet Service – 9; Data Allocation given - 8*

From the questionnaires, the participants were asked to tick the challenges they encountered in using VTL during the COVID-19 lockdown in Ghana, where VTL mode was fully activated in all educational institutions. From Figure 3, nine (9) of the participants ticked poor internet service, eight (8) selected insufficient data allocation, five (5) selected technical issues, and two (2) ticked computer literary challenges. The result of the interview session corroborated the questionnaire data. When the participants were asked to state the VTL challenges they faced during the COVID-19 era when VTL mode was fully activated, they cited various problems of internet connectivity, insufficient data allocation provided by management, low motivation, and patronage on the part of students, computer illiteracy, online insecurity, and technical issues from the selected virtual platform.

On the part of the teacher respondents, the study revealed that lack of capacity affected the online teaching of language teachers. Similarly, in Tabiri et al. (2022), it was revealed that the majority of the student respondents who studied English and French online had lots of challenges with technology availability, accessibility, and affordability. This assertion aligns with the results of Mahyoob (2020) that showed that most EFL students are not pleased with persistent online

learning, as they could not achieve the anticipated development in language learning performance. Again, the study revealed that out of a total of 184 participants, 48% cited that they had internet speed problems, 14% cited problems of online access and material downloading, 13% cited online exam problems, 8% indicated that they had problems of lack of laboratory for online classes, and 18% said they didn't have problems at all. What this means is that, generally, both language teachers and students face some challenges associated with the VTL of language across the globe, especially in most developing countries in Africa. So, for VTL to be fully accepted, policymakers, and all stakeholders, especially authorities of institutions should pay attention to the challenges that have emanated from various research studies.

Preferred Platforms used for VTL

In this section, I have analysed the respondent's preferred platforms used for virtual teaching and learning.

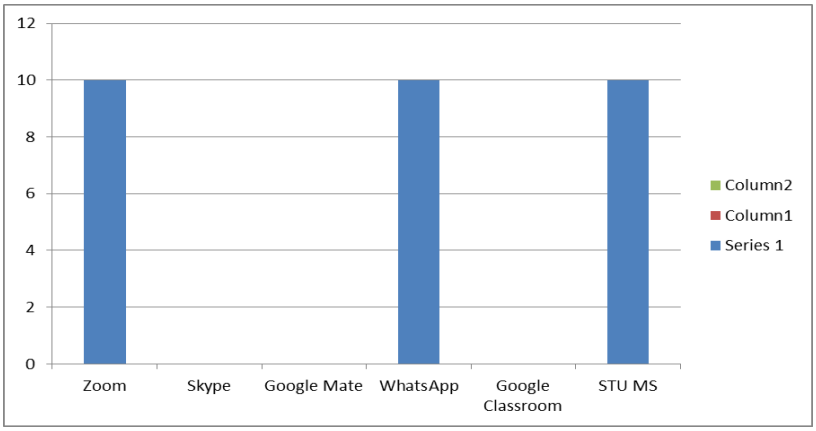

Figure 4: Preferred platforms used for VTL

Usually, without certain gadgets or platforms that serve as interfaces that connect the teacher and the learner, it becomes difficult to use the online mode for teaching and learning. Several such platforms have been in existence for a long time. However, COVID-19 saw the introduction and development of additional platforms that provide better and higher quality services to users. Some tools and applications used for VTL are ProofHub, SurveyMonkey, Skype, Zoom, Moodle, Google Classroom, Canvas, computers, and smartphones. All these tools and applications require the use of constant internet connectivity.

From a list of 6 VTL platforms, the participants were asked to select their preferred and most used platforms for VTL. These platforms were Zoom, Skype, Google Mate, WhatsApp,

Google Classroom, and Sunyani Technical University Management System (STU MS). Prior investigation conducted at the onset of this current study revealed that these were the platforms that the participants were exposed to, hence my decision to ask the participants about their preferences. From Figure 4, all ten (10) participants selected Zoom, WhatsApp, and STU MS as their preferred platforms used for VTL. None of the participants selected Skype, Google Mate, or Google Classroom. In the interview session, the respondents stated that it was comfortable and easy using the platforms they selected, aside from its popularity. According to them, while Zoom provided them with the opportunity to conduct synchronous audio and video lessons, WhatsApp helped them to share asynchronous content with all their students. Again, they specified that the Sunyani Technical University Management System (STU MS) provided them with the opportunity to provide both synchronous and asynchronous assessments for their students. On why they did not select the other platforms, – Skype, Google Mate, and Google Classroom – they said they were not familiar with these platforms. Some of the respondents, who were familiar with these platforms, indicated that most of his students were familiar with Zoom, WhatsApp, and the STU MS instead.

Conclusion, Pedagogical Implications, Future Directions, and Recommendations

During the COVID-19 lockdown in Ghana, where a ban was placed on face-to-face teaching and learning, language teachers at Sunyani Technical University (STU) used various forms of platforms for their online teaching and learning activities. This study, therefore, investigated the perception of these teachers about the virtual teaching and learning (VTL) process they embarked on during this period. Studies on VTL aid a lot in streamlining policy statements, and the entire process of operationalization of VTL. The participants who were drawn from the Communication Studies Department of STU concluded that the platforms they used for VTL were Zoom, WhatsApp, and the STU MS. Again, they identified poor internet service, insufficient data allocation, and technical issues are key challenges of VTL. Though the results of the study showed that teachers' perception of VTL was positive, the respondents said that for a context like STU, the blended mode of teaching and learning would fit appropriately.

The study has some pedagogical implications: 1) both teachers and students should be well-oriented before the VTL exercise is deployed, 2) the motivation of both teachers and students in VTL is imperative, and 3) all stakeholders of language teaching and learning should embrace that VTL has come to stay, and this calls for attitudinal change.

Future research could focus on the perception of language students about online teaching and learning in crises, a comparative study of synchronous and asynchronous online teaching and its effect on student's performance, and the perception of staff and students about blended teaching and learning mode. The study recommends that:

1. in crises, VTL mode should be fully activated for teaching and learning,
2. however, in normal situations, blended teaching and learning should be activated,
3. language teachers should be well-resourced in terms of logistics for VTL,
4. technical training on VTL should be given to teachers on periodic basis,
5. language teachers should explore other free virtual platforms for VTL such as Voov, Google Mate, Google Classroom, Microsoft Teams, Free Conference Call, and Skype,
6. smart classrooms should be piloted at STU, and
7. data allocated to teachers for VTL should be looked at again.

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