TVET Students’ Attitude towards Virtual Learning during COVID 19 Lockdown in Lagos State, Nigeria


Department of Vocational Education, Federal College of Education Technical (FCET) and Federal College of Education Technical (FCET) in Lagos State. A sample size of 500 (220 and 280 participant from FCET and YabaTech respectively) were drawn using the stratified random sampling technique. Self-developed questionnaire was validated and used to obtain data. Reliability index of 0.83 obtained. It can be concluded that virtual learning teaching have great impact of teaching and learning during school closure as result of COVID 19 pandemic. Findings indicated that majority of the respondents have positive attitude toward usage of virtual learning and several ways can be utilized in enhancing students’ attitude. Among recommendations made was that there should be provision of adequate internet services for students and various platforms should be adopted for virtual learning.

Keywords: Covid-19, Teaching, Learning, TVET, Tertiary Institutions.

I. INTRODUCTION

Corona virus also known as COVID-19 has affected 219 countries and territories across the globe. As of March 21, 2021, more than 123 million cases have been reported worldwide and more than 2.5 million people have died of COVID-19 (WHO, 2021). Countries around the world are scrambling and making efforts to curtail and halt the spread of corona virus pandemic. The outbreak of corona virus has shaken the educational sector of Nigeria off its strength. There is no doubt that there is going to be a serious set-back in the development of Nigeria education system if the coronavirus pandemic is not properly managed by government, concerned personnel and other education stake holders (Oluka, Ezeh & Okotie, 2020).

The outbreak of corona virus coupled with the lockdown of schools at various levels of education in Nigeria has served as test for the education technology interventions for teaching-learning activities. On a positive note, it is clear that the pandemic did not only lead to challenges but also provided the education sector with new and unique opportunities for the development of more flexible learning solutions that make better use of distance learning and digital technologies and better cater to the changing nature of work and labour market needs. Unfortunately the Nigeria education system arrived at this point not fully prepared. It was observed that even the E-Learning chosen as the alternatives to be used in reaching out to the learners in the period of lockdown has not successfully worked because of lack of expert to manage the IT section of the Nigeria Education system as well as huge tariff charges from various network providers in Nigeria.

The pandemic has unmasked substantial inequities in the education sector. While some private schools in urban areas are engaging their students through online teaching, a large number of students who are less privileged were left out (UNESCO, 2020). Virtual learning has become imperative in promoting and sustaining educational development globally considering the disruptive effect of COVID-19 pandemic on traditional learning. However, the closure of schools has once again highlighted the huge divide between the educational systems in developed economies compared to developing economies like Nigeria. In Nigeria, schools across all levels have been suspended because of spread of COVID-19 and educational institutions in the country are finding it difficult to adopt digital education. Most schools lack facilities which hindered them to partake successfully in online teaching like they do in the developed countries (Agbele & Oyelade 2020).

Technical and Vocational Education and Training (TVET) on the other hand refers to those aspects of education process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various aspects of life (FRN, 2013). The United Nations Educational, Science and Cultural Organization (UNESCO) and International Centre for Technical and Vocational Education and Training (2012) stated that TVET is concerned with the acquisition of knowledge and skills for the world of work and national development. TVET in the context of this study refers to formal and non-formal educational training programme in Universities that a learner receives which equips him or her with functional and relevant knowledge, skills and aptitudes necessary for creating/entering, sustaining and advancing in an occupation in different training areas.

TVET focus is on acquiring practical skills either in a formal or informal setting. Practical skills are often acquired through learning-by-doing, which occurs in school-based workshops and laboratories or through gaining hands-on experience in work
environments. According to Ogunode (2020), digital learning approaches seems to be a weak substitute for practical exercises, when these exercises require the use of equipment or materials that are usually not found inside the home, except where such exercise can be simulated remotely via, for example, virtual or augmented reality experiences. Simon & Hans (2020) noted that programs that will struggle most when using web-based teaching methods are those that depend heavily on learning-by-doing, and where this “doing” is not usually done via the computer. Programs that can easily adapt to remote learning more easily are those with a stronger focus on academic subjects or that do not require manual activities, and those that rely heavily on computer usage.

Hallmark of TVET focuses on practical skills and work-readiness. However, since most educational institutions, including those in TVET, were closed due to COVID-19 measures, teaching and learning has moved from classrooms to remote means, facilitated by the internet, television, radio, or print materials, there is no doubt that the degree to which TVET learning take place outside the classroom is constrained by many factors. Many educational institutions have adapted their situations to meet the work demands and changing trends in education by adopting e-learning as a mechanism to reach the students who may have no time to sit in class due to prevalence of COVID 19 pandemic. TVET systems are slowly and steadily also starting to move towards implementing virtual classroom in their teaching learning process. The demand for virtual teaching is increasingly being embraced by the educational system in and around the globe due to the COVID-19 pandemic which made the conduct of the traditional classroom instruction an implausible means for the continuous delivery of education. Moreover, Javier (2020) was of the view that the pandemic caused the change in teaching modality. In response to this situation, teachers now are working and attending sets of training through webinars to learn and explore e-learning technologies which is perceived to be an effort of educating and capacitating teachers for the new role they are soon to take – that is to become managers of virtual classes (Khine, 2020). Myers and Haplin (2012) accentuated that the level of accomplishment on the implementation of virtual learning is highly reliant on the attitude of teachers involved. According to Semerci & Aydin (2018), attitude can be defined as an element that guides the behaviour of an individual in line with his feelings and thoughts. In addition, attitude has come to be considered as the level of positive or negative effect related with a specific object or belief (Delgado & Kassim 2019).

Huang & Liaw (2015) submit that the positive attitudes of teachers towards their competence in using computers will affect how they deliver knowledge to the students. In the study of Keeton (2014), he concluded that teachers have positive attitudes towards the online instructional resources that they use for which they believe is significant in creating an online environment that stimulates learning to the students. Gasaymeh (2009) indicated that faculty members tended to have moderately favorable attitudes toward internet-based distance education. Guillen & Mayorga-Fernandez (2020) found that despite having a great responsibility to train students in digital technologies based on their continual growth, university professors have an average attitude on the use of ICT. To a large extent, this attitude determines how they make use of ICT in the teaching-learning process given that the more positive the attitude towards the use of ICT, the more efficient will be the use of such technology. On the other hand, Anekwe (2017) reported that virtual classrooms have positive impacts on the students of federal and state universities, they reported positively on their continued support and preparedness for virtual classrooms. Norziani, Hasmawati & Hanafi (2011) reported that learner’s attitudes play a role in predicting e-learning. Shem & William (2020) studied student attitudes towards online education during the COVID-19 viral outbreak of 2020 and their result showed that majority of students responded that online learning would not be the same as in-class learning. Doric, Blagojevic, Papic & Stankovic (2020) reported that students’ attitude toward online learning during the Covid19 pandemic included students giving relatively low marks for general attitudes towards online teaching, especially its efficiency compared to the traditional one. Additionally, students gave relatively low marks for statements which refer to cheating in exams in e-learning context. When it comes to teamwork in the e-environment, students gave relatively high marks for statements which refer to the satisfaction of working in a team, turning an assignment in on time and coping skills. The majority of students pointed out at least one benefit of online teaching, where by most of them considers that this sort of teaching saves time, and their cognitive load was not too increased due to this type of learning. On the other hand, more than half of students stated that they had at least one issue during their attendance in class, and that Internet disconnection was the most common one. From available literature reviewed, majority of the study were carried out in Asian and Europe with little or none from African and Nigeria in particular. This is the gap in literature that this present paper ought to fill.

II. STATEMENT OF THE PROBLEM

Across the globe, school-based learning has been largely affected by COVID 19. Schools were shut down as a result of lockdown adopted by most countries in a bid to contain the pandemic. Disruptions of academic activities caused by COVID-19 coping phase affected school calendars. TVET schools and training facilities were also closed down and this affected learning and assessment as well as school-based social interventions. Nigeria’s education system is still largely built around traditional pedagogical learning, which is more focused on the physical learning environment. However, the outbreak of COVID-19 has revealed the inadequacies of this mode of education. According to National Universities Commission (NUC), only 11 of the 170 universities in the country operate a distance learning platform while most of the institutions remain poorly equipped. The low level of infrastructural development in Nigeria, in terms of energy and internet connectivity constitutes a setback for the adoption of virtual learning in the country.

III. STUDY PURPOSE:

The research sought to:
1. Examine the perceived impact of virtual learning on teaching and learning TVET as result of COVID 19 in Lagos State Tertiary Institutions
2. Examine TVET students attitude towards usage of virtual learning as result of COVID 19 in Lagos State Tertiary Institutions,
3. Determine ways of enhancing students’ attitude towards usage of virtual learning as result of COVID 19 in Lagos State Tertiary Institutions.

IV. METHODOLOGY

The study adopted descriptive research design. The population comprised of all TVET undergraduate students from School of Technical Education, Yaba College of Technology (YabaTech) and Federal College of Education Technical (FCET) both in Lagos State. A sample size of 500 (220 and 280 participant from FCET and YabaTech respectively) were drawn using stratified random sampling techniques. The instrument used for data collection was questionnaire titled “COVID 19 and TVET Virtual Learning Questionnaire (CTVLQ) with 25 items built on four point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The instrument was validated by experts in Technical and Vocational Education. The reliability of this instrument was determined using Cronbach Alpha and reliability index of 0.83 obtained. Percentage and Mean were utilized for data analysis.

V. RESULTS

RQ1: What is the impact of virtual learning on teaching and learning TVET as result of COVID 19 in Lagos State Tertiary Institutions?

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>Agree (SA+A)</th>
<th>Disagree (SD+D)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adequate study materials are available online</td>
<td>312 (62.4%)</td>
<td>188 (37.6%)</td>
<td>2.75</td>
</tr>
<tr>
<td>2.</td>
<td>Online education is viable alternative during Covid 19 pandemic</td>
<td>288 (57.6%)</td>
<td>212 (42.4%)</td>
<td>3.32</td>
</tr>
<tr>
<td>3.</td>
<td>Technical education learning takes place better in physical classrooms</td>
<td>292 (58.4%)</td>
<td>208 (41.6%)</td>
<td>3.24</td>
</tr>
<tr>
<td>4.</td>
<td>Online education is exposing the digital divide of students and teachers</td>
<td>276 (55.2%)</td>
<td>224 (44.8%)</td>
<td>2.87</td>
</tr>
<tr>
<td>5.</td>
<td>Teacher-student interaction takes place better in physical classrooms than through online platforms</td>
<td>302 (60.4%)</td>
<td>198 (29.6%)</td>
<td>3.25</td>
</tr>
<tr>
<td>6.</td>
<td>Online education is stressful and affecting health and social life</td>
<td>274 (54.8%)</td>
<td>226 (35.2%)</td>
<td>3.42</td>
</tr>
<tr>
<td>7.</td>
<td>Vocational and technical education takes place better in physical classrooms than through online education</td>
<td>322 (64.4%)</td>
<td>178 (35.6%)</td>
<td>3.16</td>
</tr>
</tbody>
</table>

Grand Total/ Mean 2066 (59%) 1434 (41%) 3.14

Table 1 shows 312(62.4%) of the participants agreed, 188 (37.6%) of the participants disagreed that adequate study materials are available online with the mean score 2.75>2.50 exceeding the benchmark set. In the same vein 288(57.6%) of the participants agreed, 212(42.4%) of the participants disagreed that online education is viable alternative during Covid 19 pandemic with the mean value 3.32>2.50 higher than the benchmark set. Similarly, 292(58.4%) of the participants agreed, 208(41.6%) of the participants disagreed that technical education takes place better in physical classrooms with the mean response 3.24>2.50 above the benchmark set. Likewise, 276(55.2%) of the participants agreed, 224(44.8%) of the participants disagreed that technical education takes place better in physical classrooms with the mean score 2.87>2.50 greater than the benchmark set. In spite of the mixed responses the grand mean value 3.14 exceeded the statistical benchmark 2.50 set. Also 59% of the respondents agreed the statement raised on the impact of virtual learning on teaching and learning during school closure as result of COVID 19 pandemic.
RQ 2: What is TVET students attitude towards usage of on-line learning as result of COVID 19 in Lagos State Tertiary Institutions

Table 2: TVET Students Attitude to Virtual Learning

<table>
<thead>
<tr>
<th>S/N.</th>
<th>Items</th>
<th>Agree (SA+A)</th>
<th>Disagree (SD+D)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I have some level of anxiety towards written exam online</td>
<td>266 (53.2%)</td>
<td>234 (46.8%)</td>
<td>2.56</td>
</tr>
<tr>
<td>2.</td>
<td>I find it difficult to understand teacher online</td>
<td>202 (40.4%)</td>
<td>298 (59.6%)</td>
<td>2.40</td>
</tr>
<tr>
<td>3.</td>
<td>I have some level of anxiety towards written test online during Covid 19</td>
<td>289 (57.8%)</td>
<td>211 (42.2%)</td>
<td>2.63</td>
</tr>
<tr>
<td>4.</td>
<td>I have phobia of losing internet connectivity</td>
<td>278 (55.6%)</td>
<td>222 (44.4%)</td>
<td>2.62</td>
</tr>
<tr>
<td>5.</td>
<td>Excessive screen time is causing stress and affecting sleep</td>
<td>292 (58.4%)</td>
<td>208 (41.6%)</td>
<td>3.01</td>
</tr>
</tbody>
</table>

Grand Total/ Mean 1327 (76%) 1173 (24%) 2.64

Table 2 reveals that 266(53.2%) of the participants agreed, 234(46.8%) of the participants disagreed that they have some level of anxiety towards written exam online with the mean score 3.26>2.50 greater than the benchmark set. However, 202(40.4%) of the participants agreed, 298(59.6%) of the participants disagreed that they find it difficult to understand teacher online with the mean value 2.40<2.50 below the benchmark set. On the contrary, 289(57.8%) of the participants agreed, 211(42.2%) of the participants disagreed that they have some level of anxiety towards written test online during Covid 19 with the mean response 3.13>2.50 above the benchmark set. Equally, 278(55.6%) of the participants agreed, 222(44.4%) of the participants disagreed that they have phobia of losing internet connectivity with the mean score 2.62>2.50 higher than the benchmark set. Finally, 232(46.8%) of the participants disagreed that excessive screen time is causing stress and affecting sleep with the mean response 3.01>2.50 exceeding the benchmark set. On general note, with the grand mean value 2.64 exceeded the statistical benchmark 2.50 set and 76% of the respondents agreed with the statement raised on the TVET students attitude towards usage of on-line learning as result of COVID 19 it can be deduced that majority of the respondents have positive attitude toward usage of virtual learning as result of COVID 19.

RQ 3: Determine ways of enhancing students’ attitude towards usage of virtual learning as result of COVID 19 in Lagos State Tertiary Institutions.

Table 3: Ways of Enhancing Students’ Attitude towards Usage of Virtual Learning

<table>
<thead>
<tr>
<th>S/N.</th>
<th>Items</th>
<th>Agree (SA+A)</th>
<th>Disagree (SD+D)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Providing online training for students on virtual learning</td>
<td>242 (48.4%)</td>
<td>258 (51.6%)</td>
<td>2.20</td>
</tr>
<tr>
<td>2.</td>
<td>Provision of adequate internet services</td>
<td>308 (61.6%)</td>
<td>182 (38.4%)</td>
<td>3.12</td>
</tr>
<tr>
<td>3.</td>
<td>Adopting various platforms for virtual learning</td>
<td>316 (63.2%)</td>
<td>184 (36.8%)</td>
<td>2.80</td>
</tr>
<tr>
<td>4.</td>
<td>Regular feedback and assessment</td>
<td>232 (46.4%)</td>
<td>268 (53.6%)</td>
<td>2.42</td>
</tr>
<tr>
<td>5.</td>
<td>Making virtual learning more interactive</td>
<td>290 (58%)</td>
<td>210 (42%)</td>
<td>3.22</td>
</tr>
</tbody>
</table>

Grand Total/ Mean 1388 (56%) 1102 (44%) 2.75

Table 3 indicate that 242(48.4%) of the participants agreed, 258(51.6%) of the participants disagreed that providing online training for students on virtual learning with the mean score 2.20<2.50 below the benchmark set. On the contrary, 308(61.6%) of the participants agreed, 182(38.4%) of the participants disagreed that provision of adequate internet services with the mean response 3.12>2.50 higher than the benchmark set. Likewise 316(63.2%) of the participants agreed, 184(36.8%) of the participants disagreed that adopting various platforms for virtual learning with the mean value 2.80<2.50 above the benchmark set. But 232(46.4%) of the participants agreed, 268(53.6%) of the participants disagreed that regular feedback and assessment with the mean score 2.42<2.50 below the benchmark set. Finally, 290(58%) of the participants agreed, 210(42%) of the participants disagreed that making virtual learning more interactive with the mean value 3.22>2.50 greater than the benchmark set. Above all, in spite of the mixed response the grand mean value 2.75 exceeded the statistical benchmark 2.50 set. This implies that several ways can be utilized in enhancing students’ attitude towards usage of virtual learning as result of COVID 19 in Lagos State Tertiary Institutions.

VI. DISCUSSION

Findings to research question one revealed that online education is viable alternative during Covid 19 pandemic despite that
Technical education learning takes place better in physical classrooms through education. Majority of the participants 64% of the participants agreed that vocational and technical education takes place better in physical classrooms than through online education. This implies that usage of web-based teaching method has great impact on teaching and learning of TVET. The impact is felt both on the teachers and students. This agreed with Javier (2020) view that the pandemic caused the change in teaching modality and that in response to this situation, teachers are now working and attending sets of training through webinars to learn and explore e-learning technologies which is perceived to be an effort of educating and capacitating teachers for the new role they are soon to take – that is to become managers of virtual classes.

Participants’ response to second research questions indicated that majority of the TVET students have positive attitude towards online learning during COVID-19. Despite that there are some levels of anxiety and phobia towards online learning, the grand total of 76% of the students agreed to statement raised on students attitude towards online learning showed that students have positive attitude online learning.

Findings to research questions two revealed that students attitudes towards online learning during Covid-19 is positive. Majority of the respondents 76% agreed with the statement raised on the TVET students attitude towards usage of on-line learning as result of COVID 19. This implies that majority of the respondents have positive attitude toward usage of virtual learning. But majority of them are not in favour of written test and examination online. The finding is corroborated with that of Shem and William (2020) when they study student attitudes towards online education during the COVID-19 viral outbreak of 2020 and their finding revealed a significant positive attitude towards online learning during COVID 19.

Findings to research question 3 revealed that several ways can be utilized in enhancing students’ attitude towards usage of virtual learning as a result of COVID 19 in Lagos State Tertiary Institutions. The ways of enhancing students’ attitude towards virtual learning included provision of adequate internet services, adopting various platforms for virtual learning and making virtual learning more interactive. However, the respondents disagreed with provision of regular feedback and assessment as well as providing online training for students on virtual learning. In line with the findings, Huang & Liaw (2015) noted that positive attitude of teachers towards their competence in using computers such as making virtual teaching and learning more interactive will affect how they deliver knowledge to the students. Haung & Liaw (2015) further reported that positive attitude of teachers and mastery of virtual teaching and learning approaches would enhance students’ attitude in virtual classrooms. In the study of Keeton (2014), it was concluded that teachers with positive attitudes towards the online instructional resources and those that use such is significant in creating an online environment that stimulates learning to the students.

VII. CONCLUSION

The outbreak of corona virus has shaken the educational sector of Nigeria off its strength. There is no doubt that there is going to be a serious set-back in the development of TVET in Nigeria education system if the coronavirus pandemic is not properly managed by the government and concern personnel. Usage of virtual teaching method has become sine qua non to maintain and sustain teaching as result of school closure caused be COVID-19 pandemic. This paper have empirically revealed that despite Vocational and technical education takes place better in physical classrooms that online education is viable alternative during Covid 19 pandemic. The paper vividly disclosed that both teachers and students have positive attitude towards online teaching-learning with little of anxiety from initial time. Based on the result from the findings of this study, it was concluded that there was a significant impact of virtual learning on teaching and learning of TVET as result of COVID 19 in Lagos State Tertiary Institutions.

Recommendations

Based on the findings of this study, the following recommendations were made:
1. There should be provision of adequate internet services for virtual learning,
2. Lecturers should adopt various platforms for virtual teaching and learning,
3. More seminar, conference and workshop on virtual teaching should be organized for TVET teachers for effective instructional delivery,
4. TVET teachers should be trained on how to effectively utilize online teaching in the delivery of TVET programmed in the tertiary institutions.

VIII. REFERENCES

Competence among Language Teachers teaching Filipino. *Asian ESP*, 16(21):210-244.


