A perceptional survey of the consequences of the COVID -19 Pandemic on Tertiary Education: A case of Bulawayo (2019-2021)

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ABSTRACT

The coronavirus was discovered in late 2019, and by March 2020 it had spread far and wide across the globe and hence was declared a global cause for concern by the World Health Organization. (WHO). In a bid to control the spread of the virus, measures such as lockdown restrictions were taken, which put all non-critical services and activities to a halt, with over 4.6 million children affected in Zimbabwe only. The study, therefore, sought to investigate the impact that the COVID-19 pandemic had on the tertiary education system at a university in Bulawayo Zimbabwe. A descriptive survey was utilized. Findings revealed a positive uptake of the switch to remote learning and the use of technology. There was also evidence of the negative impact of the pandemic on the socioeconomic and financial status of both learners and lecturers. Financial challenges were a common setback cited by lecturers. It was concluded that the changes in technology as a result of the shift to digital learning are the main root cause of the socio-economic, and financial challenges faced by learners generating a fall in the learners' academic performance. Socioeconomic inequalities emanate from the different home environments that the learners were in during the period of remote learning. Financial challenges faced by both learners and lecturers were concluded to be what affected their mental well-being, which in turn affected their academic performance and well-being, respectively.

Keywords: Covid-19, Education, Pandemic and Tertiary

INTRODUCTION

In Zimbabwe, the first case of COVID-19 was recorded on March 21, 2020, and by April 13, 2020, Zimbabwe had recorded 14 cases with three deaths of COVID-19 (Rahman & Shaban, 2020). By June 11, 2020, COVID-19 cases in Zimbabwe had soared to 279 where most were recorded among returnees from South Africa (Jokwiro, 2020). A year after the pandemic landed in Zimbabwe, an estimated 40318 cases were recorded in the country while 1637 fatalities were recorded (US Embassy, 2021).In a bid to contain and manage the spread of COVID-19, governments across the globe closed down their national borders while restricting internal migrations. Lockdown measures were the most common response adopted by many countries to reduce the spread of the virus while managing the symptoms of the infected (Alonso-Zaldivar et al., 2020). Zimbabwe like other countries announced its first 21-day lockdown measures starting on March 30, 2020. Regardless of the measures taken to combat the spread of COVID-19 in the early days, the pandemic continued to spread across the globe and that led to the extended lockdown and closure of national borders In the education fraternity a lockdown entailed the postponement of physical lectures across all academic institutions. COVID-19 and the subsequent closure of schools and tertiary institutions affected teaching and learning in Zimbabwe given the reliance on the conventional approaches to teaching. In a bid to save the 2020 academic year, learning was expected to resume, but it had to be done remotely. Under the COVID-19 environment, innovative or modern methods of teaching that embrace the use of technology were the most ideal. Nonetheless, the use of the aforementioned approaches in Zimbabwe was hindered by a myriad of factors that included inter alia: lack of knowledge and subsequent operational skills about the software packages by both the instructors and learners; lack of resources to purchase the licenses of the software packages, computers, and android gadgets; and, limited access to internet and internet costs. It is important to note that68% of the population in Zimbabwe is rural. The study, therefore, seeks to investigate the extent to which the COVID-19 pandemic affected tertiary learners from a social, financial, and academic

perspective.

Primary Objective

The major aim of the study is to investigate the extent to which the COVID-19 pandemic affected tertiary learners from a social, financial, and academic perspective.

LITERATURE REVIEW

Impact of the covid-19 pandemic on the academic performance

The coronavirus was declared a global cause for concern, in March 2020. In an attempt to curb the spread of the disease, physical lectures were postponed. This was sudden and did not give the learners or the institutions any time to prepare for alternative forms of learning or plan for the continuation of the process thereof. Tertiary institutions from developed economies were less affected according to Iglesias-Pradastel (2021). The school of technology Engineering (Universidad Politécnica de Madrid) maintained a high performance due to the use of digital learning technologies prior to COVID-19, which made adjusting to the change a simple process. Contrary to the performance of learners in 52 African countries regardless or not whether the students were familiar with online learning their performance was affected mainly emanating from the fact that online lectures are learner-oriented EdTech (2020).

The shift from the traditional way of learning to online learning hampered the adoption of online learning by learners more so in developing economies. Lack of proper infrastructure such as tables and chairs, lack of a sound working environment, and regular power cuts are the most discernable. Learners found themselves in very difficult positions to simply participate or gain access to the online facilities. Mosharrof et al 2022 assert that a significant number (60%) of learners had their personal bedroom space, while the rest were sharing. Furthermore, the fact that a learner resided in the urban or rural areas made a substantial difference with the latter being most affected.

Impact of the covid-19 pandemic on the use of technology for education

The biggest turnaround in the education system birthed by the pandemic was the massive shift from the traditional way of learning to technological e-learning. This was Ideal for the situation at hand as it curbed the spread of the virus, yet on the other hand, it was a massive setback for learners as it required an upgrade in technological infrastructure and skill in order to fully access e-resources. The pre-requisite of e-learning is continual access to electronic gadgets such as smartphones and personal computers, augmented by full-time internet connectivity. Janssen, (2021) asserts that approximately 700 million Learners had no internet access at home and about 56 million learners lived in locations that are not served by mobile networks. Mosharrof et al. (2022) propounded that 21% of their respondents had no access to personal gadgets to enable them to attend online lectures. This only further demonstrated that the challenges of ensuring continuity of lectures did not end with the solution of remote learning, but rather further exposed more individual challenges and this was a challenge to those learners with inadequate facilities.

By the same token learners who were not familiar with digital learning technologies, found it more difficult to maneuver through the various learning platforms and this added the burden to have to acquire more knowledge and skill in order to effectively facilitate their learning process. Duraku and Hoxha (2020) submitted that for this reason, the participation of both learners and lecturers on online platforms was very poor. In order to effectively use the online platform to deliver lectures they had to develop certain skills, which was not possible to attain given the limited time and resources. In addition, the lack of information and communications technology (ICT) played a major role in the learners' performance, and this gave the need for all educators to undergo training to develop the necessary skills for the continued use of digital

learning post the COVID-19 pandemic (Schleicher, 2020).

Effects of the pandemic on the socio-economic and financial state of students

The pandemic further divulged socio-economic inequalities among the learners. The direct relationship between online learning and increased financial costs could not be disregarded. Online learning for learners meant increased financial costs as it demanded electronic gadgets for those without, as well as continued access to the internet. Learners who were more privileged had access to e-learning prerequisites such as Wi-Fi, personal computers, and solar power, they were not affected by lack of connectivity or power cuts and had continued access to learning facilities at any given time. Those who had no such privileges were more affected by the pandemic (Nicola et al, 2020). Most of the learners were affected financially, especially international students who had to continue taking care of themselves, paying rent, buying food, and the added online learning facilities whilst having no job or social support being away from their parents or guardians, Adu et al. (2021). The pandemic generally resulted in the loss of jobs for many breadwinners and it was found that most had little to no savings to even cover their day-to-day expenses during the crisis (Blundell, Dias, Joyce, and Xu, 2020). For most households, this entailed that the additional educational costs made it more difficult to make ends meet and education expenses became an opportunity cost as they prioritized survival.

Finances became a major challenge for most students and this created inequities as the more privileged students were able to access learning material with more ease than those with more strained finances. George, Dilworth-Bart, and Herringa, (2021) revealed that these social inequalities caused stress and interfered with the emotional and mental health of those learners of low socioeconomic status. Furthermore, it determined that learners who came from well-educated families performed better than their counterparts from less-educated families. Educated families rendered technical assistance if the need arose which was not possible for their counterparts.

The impact of the covid-19 pandemic on lecturers in service delivery to students

The pandemic has not only affected learners, but also the lecturers who play a major role in determining the success of the Learners. Following the suspension of face-to-face lectures, immense pressure was transferred to lecturers who were tasked with the duty of delivering lectures and preparing learning material. It was revealed that this caused a lot of mental stress, having to adapt to the new way of teaching within a short period. It was also accompanied by symptoms of anxiety, depression, and sleep disturbance as a consequence of the increased workload resulting from home teaching (Besser, et al., 2020). While others on the other hand chose to look at the shift to remote learning as an opportunity for future advancement, it came with major challenges for the educators as most had no prior experience in digital technology, no technological infrastructure effective enough to deliver lectures online, inadequate ICT training and non- conducive environment to be able to hold lectures (Pokhrel and Chhetri, 2021). The whole transition from traditional to remote learning led to anxiety because of the uncertainty as well as mental overload as they had so many things to cover, with limited time to help do so and this had a negative impact on the understanding, participation as well as the performance of the students.

According to Ed Tech (2020), it was revealed some educators lost their jobs without being officially laid off due to some schools' failure to pay them, especially in countries such as Nigeria and Uganda, and all this is attributed to the suspension of face-to-face lectures. The report also revealed that in Rwanda, 91% of the schools were unable to afford teachers' salaries and therefore unable to pay them, what this then meant was that teachers had to find their own means of survival. This resulted in financial pressure on the educators seeing the majority of them are breadwinners in their families. They had to deal with the double costs of adapting to online methods of delivering lectures and learning material, whilst also having to provide their children who are still in school with the same facilities to enable them to access learning material and these were only just the new and sudden expenses, excluding the pre-existing day-to-day expenses.

To echo this, Daks et al (2020) noted in their study that managing a family in such times of crisis comes with different stresses, such as financial worries, the additional burdens of parenting homeschooling, or the demands of homeschooling. These circumstances could only mean reduced interest and commitment to work by lecturers, putting more pressure on the students. Zamarro, Camp, Fuchsman, and McGee (2021) highlighted in a report that due to their experience between the years 2020 and 2021 during the pandemic, 74% of a population of 1,045 teachers were less certain of their willingness to work their full career in the classroom.

METHODOLOGY

A descriptive survey design was used. Data for the survey was collected with the aid of an online questionnaire. . Respondents were selected using stratified random sampling. The data collected was analyzed using descriptive statistics.

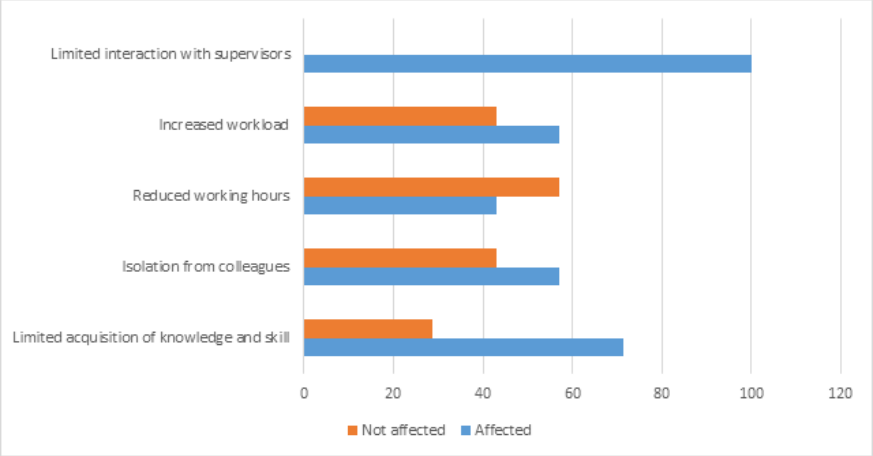
FINDINGS

The consequences of the Covid19 pandemic on learners' academic performance

The study revealed with certainty that the Covid-19 pandemic affected the learners' academic performance. Notable factors were the inability of access to online learning facilities, an unconducive learning environment at home, and mental health-related issues.

97.7% of the respondents' academic performance was affected either positively or negatively by the pandemic of which 95.2% were affected negatively by the changes in learning. The lecturers' views concurred with the findings from the learners as only 7.7% found their learners' academic performance positive. Leaners on internships were similarly affected, the greatest challenge being acquiring placement to do the internship. Findings revealed that 85.7% of learners faced some form of difficulty in securing a placement with 76.2% alluding that the difficulty was a result of the pandemic. Furthermore, 85.7% felt that the pandemic had a negative impact on the working environment at their various places of attachment. Challenges faced by learners on internships were varied. All interns (100%) in the study had limited interactions with their supervisors at their place of internship, others had their workload increased (57.7%) due to the cut-down on interns recruited. 42.9% claimed to have experienced a reduction in working hours, 57.1% claimed to have experienced isolation from colleagues and 71.4% claimed that there was the limited acquisition of knowledge and the skill where they were conducting their internship. This is depicted in figure 1 below

Figure 1- Challenges faced by Leaners on Internship



Source Primary Data

The findings reveal that learners were affected negatively by the shift to remote learning, therefore, having a similar impact on their academic performance. This however differs from the findings of Iglesias-Pradas, S et al (2021) who determined that learners were affected positively. A comparison of learners' results pre and post-pandemic revealed that learners performed better with the shift to digital learning. The positive results were attributed to the institution's development in various aspects such as organizational structure (flexibility), communication channels, and technological infrastructure. In Zimbabwe, however, students were affected negatively by various factors with the lack of access to technologies that facilitate online learning being the most prominent. Learners on internships were also immensely affected by the factors highlighted above, no previous research has targeted learners on internships.

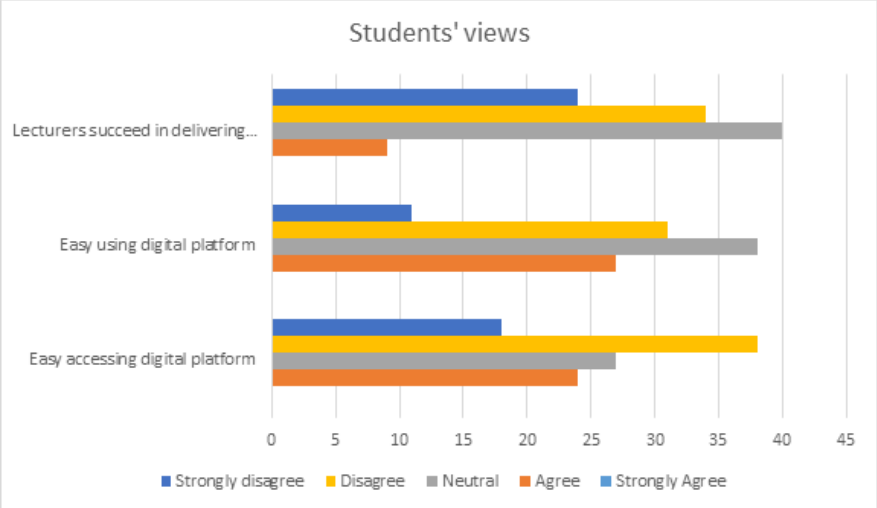
Consequences of the COVID-19 pandemic on the use of technology for tertiary education

Learners embraced positively the idea of the shift to remote learning and the use of technology as it was the only solution for them to progress with their studies. Despite their positive attitude, it was however embedded with a number of challenges. Only 26.1% of the learners were fully equipped with the necessary facilities to access learning material on online platforms when remote learning was launched. The figures did not change much a few months after adoption as only 46.7% of the learners still did not have consistent access to the digital platforms. Lack of access to a wireless internet service, laptops, and smart devices were prominent factors. Despite the fact that 69.2% of the learners had no gadgets to access online learning resources they however found it easy to use and manoeuvre the digital platforms as they possessed technological knowledge and skill and know how to do so. Lectures on the other revealed that 38.5% had access to the necessary facilities at the onset of remote learning, the rate increasing by 30.7% as the use of the platform progressed.

Lecturers were also technologically efficient as 84.6% of the respondents, had the technical knowledge and skill to use and maneuver the digital learning platforms and only 15.4% claimed that they struggled and required training.

Leaners' views and attitudes towards remote learning were also revealed. Options were provided on a Likert scale, 22.4% agreed that it was easy for them to access digital remote learning, 25.2% were neutral, 35.6% disagreed and 16.8% strongly disagreed. On being quizzed as to whether it was easy to use the digital platform 25.2% agreed, 35.5% were neutral, 29% disagreed and 10.3% strongly disagreed. On whether the lecturers were successful in delivering online lectures and learning material, 8.4% agreed, 37.4% were neutral, 31.8% disagreed and 22.4% strongly disagreed.

Figure 2: Learners' Views on Remote learning



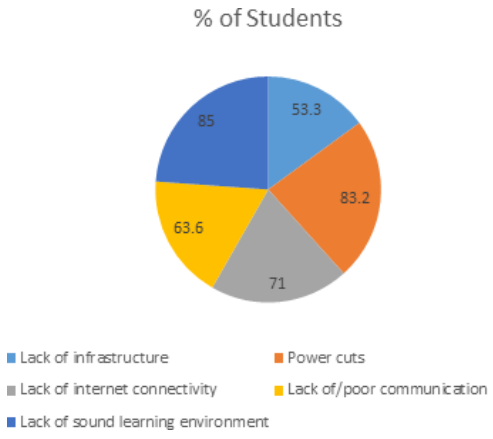
Source: Primary data

The findings disclosed a positive reception to online learning and teaching by both learners and lecturers despite the slow rate of adoption. A majority of the learners however disagreed and strongly disagreed that it was easy to gain access to online platforms this was, however, one of the major reasons for the negative impact on the learners' academic performance. The findings concur with the findings of the EdTech Hub Survey, (2020) which found that the biggest barrier in remote learning was the lack of access to technology as most learners were found to be struggling and at a disadvantage than those with access. They further noted that both learners and lecturers were short of the necessary skills to effectively utilize digital platforms. This differs from the case in Zimbabwe as the majority of both learners and lecturers asserted that they are quite knowledgeable and well-skilled in the operations of the digital platforms, however on the Likert scale, it was revealed that the majority of students were rather neutral as to whether or not it was easy to use the new technologies.

How the pandemic has contributed to socioeconomic and financial challenges faced by Learners?

The changes brought by the pandemic in tertiary education came with negative implications on the majority of learners' socio-economic and financial state as the remote learning systems favoured some learners over others who had both the financial means and the necessary facilities for accessing online lessons as well as learning material. Findings revealed that 72.9% of the learners felt that remote learning favoured other learners more than themselves or vice-versa as a result of inequities in access to the required learning resources and issues relating to privilege. Further socio-economic inequities amongst the learners were revealed in the different home environments as 53.3% stated that they had no infrastructure such as desks, 83.2% revealed that they lived in areas with constant power cuts, 71% declared that they had limited or no connectivity to the internet, 63.6% had challenges of lack of poor communication with their lecturers or other learners and 85% identified their homes as an unsound environment for learning.

Figure 3 -Socio-economic inequities caused by the different home environments for the Learners



Source: Primary data

Furthermore, there were program-specific challenges that caused differences in the problems faced by learners, for example engineering learners had projects to carry out that required them to use certain equipment and software in computers that were only available on campus. This was however a small proportion of the learners (4.7%) who revealed that they did not have adequate equipment, 26.2% emphasized the lack of practicality and 7.5% stated that there were added expenses solely because of the program they were doing. The data further revealed that regardless of one's socio-economic status, the pandemic had an effect on their mental health as the majority of the learners were affected mentally by the pandemic. 43% of the learners revealed that they had experienced some form of mental stress, 85% confirmed that they had developed sleeping disorders, 29% had experienced some form of depression, 62.6% developed some form of anxiety, 57% experienced fatigue, while none attested to a substance or drug abuse.

Additionally, the data has made known that 68.2% of learners experienced financial challenges as a result of the pandemic in their education this being largely a result of the added expense of accessing online learning. 2.8% of learners claimed to have had a delay in their results being processed after graduating or completing their degree because of the lack of financial means to pay their fees on time, being attributed to losing their source of income during the Covid-19 pandemic.

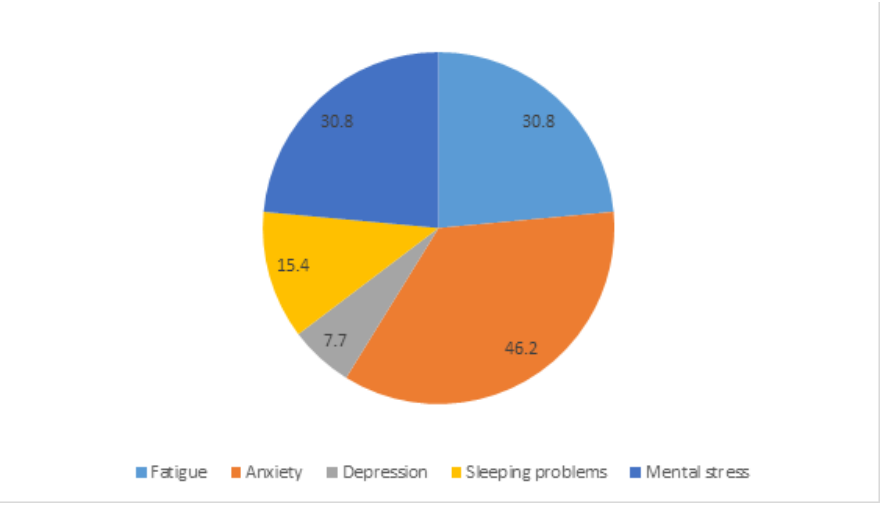
The findings disclosed that there is a positive relationship between socioeconomic and financial challenges and the shift to remote learning with the larger population of learners experiencing a number of socio-economic inequalities as a result of different backgrounds and programs of study as well as financial challenges, and these findings are similar to that of Jones, H. E et al (2020) who in their research divulged that 61.1% of their research population had various financial concerns which are inclusive of the loss of jobs or income caused by the Covid-19 pandemic and the added expenses that came with digital learning. They further asserted that the differences in the socio-economic status of learners had a larger impact as some learners lacked the finances to buy food, failed to pay rentals, and the uncertainty of the future with regards to their graduating, this further contributed to the mental health issues that they faced. The findings then differ in that they only looked at the impact on learners, neglecting the key providers of education who are the lecturers who also were affected financially by the pandemic as they incurred more costs in trying to deliver lectures to the learners.

The impact of the COVID-19 pandemic on lecturer's service delivery to the Learners

The larger role in the education system is played by the educators, therefore the importance of identifying how they were affected by the pandemic in delivering their services to learners should be emphasized. A negative trend was identified between the shift to remote learning and the quality of service delivered by the lecturers and this was attributed to various factors both financial and mental related issues.

The data disclosed that 30.8% of the lecturers had experienced some form of mental stress, 15.4% had sleeping problems, 7.7% experienced some form of depression, 46.2% had some form of anxiety and 30.8% experienced fatigue, during the period of remote learning. Furthermore, educators also faced financial challenges in delivering lectures and learning material online. The data revealed that 84.1% of the lecturers had financial challenges of some sort. This is depicted in figure 4 below:

Figure 4: Mental Related issues faced by Lecturers



Source: Primary Data

The new financial costs were further identified and only 15.4% incurred costs of acquiring new infrastructure such as desks, 7.7% incurred costs of acquiring digital facilities such as laptops, and 69.2% incurred costs of acquiring internet access to prepare and deliver lectures and learning material online.

Indications from the findings are that lecturers were negatively affected by the pandemic and this in turn had a negative impact on their service delivery to learners as the majority was neutral in terms of whether or not they succeeded in delivering lectures and learning material (This is similar to the research conducted by Ozamiz-Etxebarria et al, (2021) who reported that the lecturers experienced severe and extremely severe symptoms of stress, depression, and anxiety and this was attributed to the uncertainty of the future as well as the risks involved with their job and the possibility of risking their children's lives as well as they returned back to physical lectures. They further asserted that this had a negative impact on their performance especially after, they returned to the traditional way of learning. Despite a low percentage of lecturers being affected by mental-related issues played a major role in the challenges they faced and the new costs, brought by the pandemic affected their access to the online platforms as well.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The research concludes that there was a decline in the academic performance by learners due to the COVID-19 pandemic. Learners and Lecturers have adapted to the use of technology in learning However, this change contributes to a fall in the learners' academic performance. Only a few learners had full and constant access to digital facilities for learning.

Furthermore, it can safely be concluded that the pandemic contributed to the socio-economic and financial challenges faced by learners. The socio-economic and financial challenges faced by learners had negative implications on their mental health, and consequently their academic performance

Lastly, it can be concluded that the failure to successfully deliver services by lecturers is attributed to the financial challenges which were the fruits of the pandemic as well as the new costs of accessing digital platforms.

RECOMMENDATIONS

It is recommended that learners should invest in both acquiring the digital infrastructure as well as the technical knowledge of using digital platforms. Learners should be able to blend the digital and the traditional mode of learning and embrace the advantages of each mode of learning. Furthermore, students can make use of the available innovation hubs to create their own software which is cost-efficient for both students and lecturers.

For Lecturers, it is recommended that they should continue with the use of online digital platforms even after the pandemic so that learners familiarize themselves with the digital platforms. This will in turn make the learners see the need to have the technological facilities and invest in them.

For administrators, it is suggested that they could intervene by starting workshops for the educators to gain more knowledge on the use of various digital platforms.

Finally, to counter the problem of internet connectivity, the government can intervene through price controls which will keep the price of data or Wi-Fi connection services affordable for both learners and educators. The other alternative is to subsidize the major internet service providers to ensure that they keep the prices affordable for both learners and lecturers.

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