AN INVESTIGATION ON THE EFFECT OF COVID-19 ON ENGLISH LANGUAGE TEACHING & LEARNING

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ABSTRACT

The main aim of the current research was to examine the effect of COVID-19 on English language learning and teaching. The objectives included examining the challenges faced by English as a second language Learners (ESLs) as well as teachers in the process of teaching and learning English language during the CVID-19 pandemic. To achieve the goal, 20 ESLs and 10 teachers were sampled and their views assessed on the research topic. The participants were assessed using online interviews. A key finding noted is that using online educational platforms undermined physical interaction among learners which reduced the cognitive development of linguistics. Also, using online learning reduced the instructional time as well as illustration from the teachers which meant that some concepts were not effectively understood by students. Another crucial challenge noticed involved assessing the students based on what they had learned due to difficulty of supervision.

Keywords: COVID-19, English learning, ESLs, pandemic, online learning

INTRODUCTION

Background

The coronavirus disease (COVID-19) outbreak has so far been recognized by many territories and countries to be a global public health emergency. Due to the high risk of contracting the disease, most governments around the world have implemented lockdown measures which have affected majority of people. According to McCarthy (2020), approximately 1.3 billion learners worldwide were not attending either school or university by the end of March, 2020.

By the end of March, 2020, at least 80% of all students globally were not attending school which implies that their right to education was severely curtailed (McCarthy, 2020). Although older people and individuals with chronic conditions have been noted to be the most at risk of contracting corona virus, there have also been few cases of the illness among children. It has been recommended that school staff, teachers, and students who feel sick should not go to school to avoid the risk of spreading the COVID-19 virus to others (UNICEF, 2020). Also, schools have been encouraged to implement social distancing principles since the disease is highly contagious (UNICEF, 2020).

Previous studies have indicated that cognitive ability significantly influences labour market variables including rates of employment and amount of wages (Carlsson et al., 2015). In this respect, having a solid mastery of English is crucial in promoting comprehension of students which leads to opening of more opportunities in the labour market. Therefore, conducting the research on ways of promoting English language learning during the COVID-19 epidemic is crucial in ensuring the students continue to develop their cognitive abilities. So far, studies which have been done concerning COVID-19 have forced on a broad approach on how it affects the different aspects of the economy (International Labour Organization, 2020). As such, conducting the current research is critical in providing deeper insight on how English language learning can be improved and promoted during the COVID-19 crisis.

Aims & Objectives

Aim

The main aim of the current study is to explore how COVID-19 has impacted the teaching and learning of English language.

Objectives

The main objectives of this study include;

- To investigate the impact of COVID-19 on teaching and learning of English language

- To examine the strategies of maintaining learning of English during COVID-19 epidemic

- To investigate the challenges faced by English teachers and learners during COVID-19

Research Questions

The main research questions which the current research will seek to address include:

- Is the use of online platforms effective in teaching English during COVID-19 crisis?

- What essential tools are required to facilitate online English learning during COVID-19 crisis?

Significance of Study

The findings from the current research will be crucial in providing stakeholders in educational sector on strategies they can use to continue providing crucial educational services to schools all round the world. Moreover, the findings from the paper is crucial in revealing how English learning among students can be maintained during the COVID-19 crisis. Specifically, the findings reveals the measures which can be taken by educators to protect children and educational facilities from contracting or spreading COVID-19.

LITERATURE REVIEW

The Impact of COVID-19 on Schools, Skills, and Learning

First and foremost, COVID-19 pandemic is a health crisis affecting education and learning across the globe. Most educational institutions in most countries have been rightly closed to reduce contacts and save lives. According to Moroni, Nicoletti & Tominey (2020) the best public policy that have been proposed to raise skills is going to school. The primary point of being in school is its ability to raise a child's cognitive ability. However, going to school also raises social skills and awareness all of which positively impacts the ability to learn.

The views of the researchers closely relate to those posted Siradjuddin (2020) who noted that school learning provides learners with an opportunity for group works. Group work activities have several advantages such as increasing the learners' motivation and interaction in learning thus leading to better learning outcomes. In coming to similar conclusion, Carlsson et al. (2015) investigated the effect that schooling has on cognitive skills. Conditionally random variation was exploited by observing the variation in the number if days taken by Swedish males in preparation for cognitive tests. The results indicated that just 10 days spent on extra schooling significantly contributed in increasing scores in tests requiring the use of intelligence by 15 of a standard deviation. Thus, going by the current school closures, an extrapolation on the net effect of missing school by 60 days implies a 6% of standard deviation loss. However, the impact on problem-solving skills was found to be insignificant.

In the same breadth, Lavy (2015) estimated the impact on learning as a result of differences in instructional times across different countries. The researchers considered the existing differences in instructional times across different countries noting that Denmark records a 55% higher instructional times in language, science and mathematics compared to Austria. The differences in effect caused an observable difference in test scored by up to 6% of a standard deviation. Thus, from the foregoing, it can be observed that the current closure of schools due to COVID-19 has led to school absenteeism significantly reducing school instructional hours. The effect is reduction in learning ability and learning of skills. Language learning has been particularly affected as it is directly related to a learner's cognitive ability which has been shown to be reduced by reduced school hours. Thus, schools need to come up with innovative and new ways of ensuring close monitoring of learners and increasing instructional hours without having to compromise their safety and chances of infection.

For example, schools in Denmark have adopted staggered school reporting to ensure that learners can achieve social distancing while ensuring that school attendance continues. However, school attendance may not be the only way of increasing instructional times as school-like environment can still be created at home. The study noted was the lack of study of the ways of creating school environment outside the school. The results of the studies will help in gaining an understanding of the effect of school attendance on skills and learning.

The Impact of COVID-19 on School Assessment

The closure of learning institutions around the world interrupts not just the teaching of students but also the assessments given that the closure also coincides with key assessment period. Assessment have significant effect in the learning process and their contribution cannot be wished away. Anderson and Nielsen (2019) conducted a study on learning from performance information. The authors investigated how information from a learner's performance based on assessment can be used to improve learning. The results indicated that participation in an assessment had the ability to increase a reading test by 9% of a standard deviation two years later. Thus, assessments are important in identifying of high potential learning opportunities as well as learning difficulties enabling teachers to recognize the areas to put extra effort in for each individual learner. School assessments are fair and can give an assurance of integrity thus helping to bring out the true ability of learners based on learning outcomes. In a separate study, Murphy and Wynes (2020) studied alternative form of assessment; predicted grades as a way of grading. The results indicated that predicted are most often than not, inaccurate and can be lower for high achieving students thus failing to show their true potential and ability. Thus, with the suspension of GCSEs and A-level exams and main qualifications, the alternative assessment criteria may not give a true indication of performance ability by learners thus reducing learning outcomes. Longer lockdown durations will further increase the unreliability of assessment

procedures thus calling for formulation of more indicative assessment options. Similarly, Burges and Sievertsen (2020) shows that higher educational institutions traditional exams are being replaced with online assessments. The online assessment tools are new for both students and teachers thus having a larger error of measurements than the usual assessment methods. However, the results contradict those of Meyer et al. (2016) who studied the effect of performance of assessment modality among learners and the perceptions of learners regarding online examinations. The author sought to determine whether online assessment models are equivalent to traditional examinations. The results indicated that there was no difference in the performance of students between online examinations and traditional examinations. Additionally, the learners also indicated that they felt comfortable with online examinations. As such, the indications show that online examinations can be used to replace the traditional examinations. However, teachers need to come up with strategies of ensuring that the validity of the examinations are upheld to indicate true performance of the learners. In the wake of COVID-19 pandemic, teachers should come up with alternative assessment options that enhances the safety of the learners without compromising the authenticity of the exams. The assessments should ensure that the actual ability of the learners can be observed and that teachers can identify the areas to enhance on teaching. The fact that the global lockdown of learning institutions will cause unequal interruption in assessments can no longer be ignored. Thus, learners should work together with teachers to ensure that the contribution that assessments have on learning process is not watered down.

Expected Changes in Education after COVID-19

COVID-19 will have major influences on education, changes that will last for years to come. Marguerite (2020) published several changes expected to happen in the educational sector going forward. The researcher noted that a wider role for online learning is sure to happen. Most higher learning institutions have adopted online platforms where learners can continue learning and this is unlikely to stop even after the pandemic. Perhaps, educational managers will have to decide which lessons to be offered in person and which ones to be offered online. Additionally, online recruitment methods will be better embraced coupled with the rise in teleconferencing thus reducing the need to travel far from home to attend college. The views of the researcher closely mirror those of Poornima & Sandy (2020). The authors noted that various changes to educations are expected to occur after COVID-19. According to the study, the disruptions related to COVID-19 presents an opportunity for educators to rethink sector strategies. The role of technology which has stepped in to counter the challenges of schools lockdown is expected to continue into the future. Additionally, the role of the educator must also now be reconsidered. Successful educators in the future will act as facilitators of learning rather than knowledge-holders imparting wisdom to pupils since knowledge is now just a click away. Similarly, Gloria and Diana (2020) also noted various changes that are likely to be observed in the education sector after COVID-19. The researcher noted that the changes in education during the lockdown could spring up innovations in the sector. The innovations will be geared towards resolving entrenched institutional biases and lecture based approaches which have proved to be not the best options. The building of resilience I the educational sector also seems to be unavoidable going forward. The resilience would enable individuals to face various threats that arose during the pandemic.

The resilience will also ensure that skills such as creative problem solving, adaptability and informed decision making remain a priority to all students. Additionally, Steven (2020) also noted that there will be collaboration to build a knowledge base to enable easier handling of future crises with a more informed approach. Learning institutions will come up with innovative strategies to ensure that similar challenges in future does not cause large scale disruption to learning process. The publishing of COVID-19 research on the effects to learning will help with coming up with strategies to address the challenges. Although the studies fail to bring out the effect that future innovation in the educational sector will have on performance, the results of the study will assist in understanding strategies that can be used to during pandemics. Thus, it is important that a clear understanding of the effect of COVID-19 on learning will have in order to assist in developing appropriate strategies. The period after the pandemic will bring a new revolution to learning strategies that will develop long-term patterns in learning institution.

managed, could spring up innovation in the sector that will assist in developing long-term patterns in learning institutions. The entrenched institutional biases and lecture based teaching methods are some of the issues that new innovations should seek to address in coming up with new methods of learning.

METHODOLOGY

As this study seeks to investigate the impact of COVID-19 pandemic on language teaching and learning, a descriptive research design was used I which the main focus is to gather data concerning trends on the research topic. The research was conducted among teachers and ESL learners using online tools. The design helped to accurately portray situations and experiences being investigated (Thomas, Silverman, and Nelson, 2015).

The choice of qualitative method was due to its suitability in collecting previous experiences of respondents regarding a research topic (Neuman, 2013). Unlike quantitative methods which only provide patterns in a large group of data, qualitative approach helps in understanding the feelings and opinions of people regarding specific trends. For the current research, adoption of online interviews enabled the collection of data to be accurately and easily done from the participants. Care was taken to enhance the accuracy and reliability of results thus validating the conclusions made.

FINDINGS

The findings from the online interviews conducted on the effect of COVID-19 on English teaching and learning are presented in this chapter. The chapter is divided into teachers and English as a second language Learners (ESLs) responses.

Interview Responses from Teachers

Online interviews were conducted among a total of 10 teachers. The results obtained from the interviews are explained in this section.

How COVID-19 has Changed English Teaching

A key question asked was the effect of COVID-19 on English teaching approach. All of the 10 teachers interviewed indicated that the pandemic has changed the mode of English teaching from the usual class room teaching to virtual teaching. The main virtual teaching method applied by the teachers was noted to be online teaching. In particular, respondent 1 explained that he no longer have to go to school to physically deliver lessons to the students. The school administration has created online platforms in which all the students can log in at specified times to follow the teachings. The respondent explained;

"Since the beginning of COVID-19 and the subsequent schools lockdown, I have not delivered any physical teaching lessons due to the physical distancing rule. However, this has not meant that classes have been fully suspended. The school administration has created an online platforms where students log in at certain given times to follow the lessons virtually from their homes."

Meanwhile, respondent 5 noted that she also uses WhatsApp groups created for students. In the groups, she uploads learning materials and class assignments which the students downloads and read on their own. The assignments are done by the students and then sent for marking through WhatsApp. The teacher posits;

"We also have a WhatsApp group created where all students can access the learning materials and class assignments. The learners download these materials, go through them and then subsequently attempts the assignments. The assignments are sent back to me on completion within the set time limits for marking."

In the same breadth, respondent 8 noted that the main teaching methods currently being applied are the online platforms. The respondent explained that the online platforms ensures that the learning process do not come to a halt during this pandemic. The teacher explained;

"Of course there are no longer school learning going on but the available online learning platforms have been adopted to ensure that learning is not stopped during this pandemic. The process is fine except for a few technical challenges like slow internet at certain times. "

Effect of COVID-19 on English Assessment

From the comments of teachers on English learning, the effects of COVID-19 on English assessment was also noted. 7 out of the 10 teachers interviewed noted that the reliability of the assessments have reduced due to online examinations. Respondent 2 explained that since no invigilated examinations can currently be conducted, the reliability of the assessments may not be ascertained. The respondent explained;

"...The challenge comes in assessments. Under the current conditions, we cannot carry out invigilated examinations. This has compromised the reliability of the examination results and in some cases, no examinations can be carried out at all and therefore we just rely on lesson assignments for grading which may not reflect the true ability of the learner."

Additionally, respondent 4 also noted that since the assessments are not supervised by the teachers, they may not reliably point out the challenges that the students experience. As such, it becomes difficult to know which areas of to put more emphasis on for better learning outcomes. The respondent explained;

"...However, the tests administered are not supervised by the teachers. As such, it may be difficult to rely on them to determine the learning difficulties that the learners are experiencing to help improve teaching strategies and know which areas to put more emphasis on. The challenges can be overcome by uploading examinations online, setting a specified time where all learners can log in, start the test at the same time and finish at the same time."

Respondent 6 also explained that even though attempts have been made to come up with innovative assessment methods, their reliability are still questionable. The grading method may therefore not be fully relied on to observe students' performance. The teacher noted;

"I also want to speak on the issue of examinations. I know attempts have been made to come up with innovative assessments strategies like online exams with set durations. However, since teachers cannot see what is going on the other side of the computer, the reliability of the outcomes is still questionable. May be we should conduct telephone oral examinations."

Interview Responses of English Secondary Learners (ESLs)

Online interviews using video calls were also conducted among 20 ESLs and the results obtained from the interviews are covered in this section.

Learners Options during COVID-19 Pandemic

The ESL learners were asked the challenges that they have experienced during the COVID-19 pandemic. 11 out of the 20 ESLs interviewed indicated that even though face-to-face learning delivered better learning outcomes, they were open to more learning options. Specifically, respondent 3 indicated that she would find class room learning more fulfilling but since that has been rightly suspended, she is open to online learning platforms currently in use. The respondent explained.

"I would love face-to-face learning because of the possibility to interact with other English speakers thus enhance learning outcomes. But since that has been rightly suspended, I'm ready for other available over the internet learning methods since we cannot suspend the learning process all together as that will affect our progression to the next level. I would say I'm open to new learning opportunities"

Further, respondent 7 argued that he usually find class room learning better as interaction with the teacher facilitates faster grasp of ideas. With the online learning currently being used, there

may be reduction in learning outcomes but he still enjoys learning English and finds it just fine in delivering the outcomes. The respondent explained;

> *"Of course, face-to-face interaction with the teacher is better for faster learning and I think to some extent that is still possible through teleconferencing which is used sometimes. I still enjoy learning English through the online platforms currently being used."*

Respondent 20 noted that he is open to learning options available during the pandemic to help him progress with the learning sessions. The options if well followed, still help in learning and are just as similar to classroom learning. The respondent explained;

> *"During the COVID-19 pandemic, teachers mostly upload materials for learning or conduct face-to-face learning through online method. I'm open to these new learning options and find them good in the learning process. We are also able to do our exams through the internet which I would say is important in learning progression. It is so far good despite the social distancing rule."*

Meanwhile, 9 out of the 20 ESLs interviewed noted that they experienced difficulties with the online learning options currently being used which has reduced their ability to learn. In particular, respondent 14 noted that he finds it difficult to interact in the online classes due to language barrier as some of the English used is too difficult to grasp. The respondent noted;

> *"The online platforms have so many difficulties. The main one I see is that language barrier sometimes exist as I find some terms used too difficult to understand making face-to-face interaction even over the internet hard. However, I noted down these terms and do research later which somehow helps me in learning. I also experience technical difficulties like the internet is very slow sometimes"*

Expected Changes in Learning

From the interview responses, some of the changes in learning expected even after the pandemic were also observed. 8 of the respondents noted that even after the pandemic ends, there changes they would make to their learning process. Specifically, respondent 12 noted that he would consider registering for online classes which he finds easy to attend from the comfort of his house. The respondent explained;

> *"...Apart from that, I think even after COVID-19, I would consider taking up online classes. I think I find them easier and can be attended from home. I think schools will also consider offering more of online classes even though it may not work well for all learners, many people will take them up."*

Meanwhile, respondent 17 noted that going forward, he will consider teachers just as facilitators of learning rather than as people who have to be present at all times for learning to continue. The respondent also noted that innovations including stay away exams are also likely to come up. The respondent explained.

> *"...I have always thought teachers must be present for learning to take place. Now I realize that sometimes, they just send us materials and we learn on our own. They are just like facilitating the whole process. I think this will continue even after COVID-19. I also think certain innovations such as exams from home will also be applied."*

DISCUSSION

The current chapter will compare the results obtained with those of previous researchers. The comparisons are important in coming up with trends to enable in making conclusive observations about the study topic.

How COVID-19 has Changed English Teaching

The results on the changes that have occurred in English teaching and learning indicated that COVID-19 has changed the way learning takes place. The results show that learning is currently done through online teaching methods. The main challenge observed with the online teaching is reduced learning outcomes. The results are similar to those of Moroni, Nicoletti & Tominey (2020) who noted that going to school has the impact of improving learners' cognitive ability thus leading to better learning outcomes. The cognitive ability boost that is observed through school attendance may not be possible or reduced in stay home learning due to limited interaction thus the observed challenges. Similarly, according to Carlsson et al. (2015), attending school has been observed to improve learners test scores especially in those subjects that require intelligence use. As such, English language learning has been affected by the schools lockdown due to inability to carry out physical learning strategies that improve cognitive ability. The result can also be explained by Lavy (2015) who noted that reduced instructional times which is observed in online platforms reduces students' performances. During the COVID-19 pandemic, teachers are spending increasingly less time issuing learning instructions to learners as learners are mostly left to study on their own. The net effect is expected to be reduced performance. In order to mitigate these challenges, teachers should consider innovating ways trough which learners can interact albeit remotely as a means of creating a class room environment even away from the class room.

The strategy will ensure that the cognitive ability of the learners is enhanced, learning through interaction is made possible and learners communicate and share their learning difficulties. Teachers will in turn be able to better plan for their lessons and come up with strategies to address the areas of difficulties experienced. Another way in which learning interactions can be improved during this period is to enhance telephone conversations among learners and teachers which apart from acting as reassurance, will also enhance language communication thus improving learning outcomes.

The Impact of COVID-19 on School Assessment

Further, the current study also investigated the impact that COVID-19 has on English school assessment. The results obtained indicated. The results showed that majority of the English teachers (70%) consider the current online assessment methods used during the COVID-19 pandemic as unreliable in determining the learners' ability. The results of the study are similar to those obtained by Murphy and Wynes (2020) who found out that other alternative methods of assessments that attempt to replace the traditional examinations including predicted grades usually have limitations. The methods are usually inaccurate and do not indicate the true ability of the learners. Similar results were also obtained by Burges and Sievertsen (2020) who found out that the traditional classroom examinations are currently being replaced by online examinations during the COVID-19 pandemic. The trend is specifically observed in institutions of higher learning. The online examinations pause a variety of challenges including technical network errors which means that certain students may be unable to take them when required.

The end results is that the results of the assessments can be used only to a small extent to observe the learning trend of the learners. However, the results of the study are inconsistent with those of Meyer et al. (2016) who found out that there is no observable difference between the reliability of online examinations and the traditional examinations in determining the capability of students. The researcher noted that just like the traditional examinations, online examinations can be used to identify students' weaknesses thus aid in lesson planning. Thus, the current trend that has been created by the COVID-19 pandemic has changed the way English exams are conducted. Teachers now have to contend with examination conductions through online platforms. The challenge with the online examinations as indicated by the teachers is the lack of reliability. The reliability challenge can be solved by coming up with more stringent online assessment procedures to ensure that the exams are conducted within the specified durations and manner. Additionally, students also experience technical issues such as network downtimes which may affect their delivery and hence, results. The technical issues can be resolved by ensuring that all students have stable internet connections prior to the beginning of online examination sessions. However, this may also seem to be time consuming thus leaving teachers with the option of coming up with make-up examinations for those unable to take the examinations within the prescribed timelines. Additionally, other assessment methods including the use of lesson assignments can also be used for grading and progression purposes. However, just like the online examinations, the methods must also be used with a lot of caution.

Learning options during the COVID-19 pandemic

The various learning options available during the COVID-19 pandemic were also investigated. The results showed that online learning platforms are the options currently available to facilitate a continuation in learning. Teachers can still interact with the learners in the online platform through teleconferencing and other available video interaction modes. The learners also noted that they experienced challenges with the online learning since interaction with teachers and fellow students was reduced thus reduced learning outcomes. The results are similar to the views of Burgess & Sievertsen (2020) who noted that students find the online learning options currently available satisfactory in delivering learning outcomes. However, the author also noted that a lot of time will undoubtedly be lost during this time as not much coverage can be done through online platforms where interaction is reduced thus slower learning rates. In mitigating this, the author recommends that schools need to acquire resources that will ensure that will ensure that the lost time is gained when schools resume. The resources should particularly target learners who were hardest hit by the pandemic. Additionally, the author also recommends that schools consider postponing rather than skipping important assessments. On learning outcomes, Carlson et al. (2015) found out that going to school positively affects the cognitive ability of learners as compared to virtual learning. Language learning particularly depends on cognitive ability thus learners may find online platforms to deliver reduced learning outcomes. Thus secondary English learners may particularly find the difficulty enhanced due to language barriers and less interaction with other English speakers. The concerns noted by the learners on interaction and language learning coincide with the views of Zolfagharian et al. (2019) who noted that peer interaction enhances second language learning.

As such, the learning options that are currently available in facilitating learning though effective in delivering teaching outcomes, pose certain challenges among a section of learners. The challenge of reduced interaction thus reduced learning outcome can be mitigated by having longer video sessions and use of simple language. Learners should also be encouraged to read more materials to improve their English written and spoken ability. Technical issues with internet connections can be mitigated by using stronger internet connections with less downtime. Teachers should strive to make learners comfortable during face-to-face interactions in online learning to ensure that their concentration span is longer. The step will help in improving retention rates thus better outcomes.

Expected Changes in Learning

The expected changes to learning after the COVID-19 pandemic was also investigated. The findings obtained indicated that online classes and the role of teachers as learning facilitators are some of the changes that may last forever. The indications are similar to those of Marguerite (2020) who argued that several changes are sure to happen to the education sector after the pandemic. One of the changes that the author noted is the increased prevalence of online learning options. The researcher recommends that learning managers should decide which lessons to carry out through the online platforms and which ones to carry out through physical learning techniques. As such, English teachers should use this pandemic as an opportunity to formulate strategies for efficient online teaching as the lessons learnt during this period may prove important even after the pandemic. Additionally, schools should invest in resources that facilitates online learning since they will remain important even in the future. Similar views were also given by Gloria and Diana (2020) who noted that after the pandemic, various innovations are likely to rise in the education sector. Among the changes that are projected to happen include those that will facilitate learning over the internet without having to travel for long distances

from home to attend classes. Perhaps teachers should innovate teaching techniques that develop cognitive abilities in the learners even with limited physical interaction. The author points out that most of the innovations expected will be geared towards reducing and elimination institutional biases in the educational sector. The innovations will aim at making schools more resilient to similar future challenges. Additionally, Steven (2020) also noted that building a knowledge base that will assist in handling future crises will also be a key priority change in the education sector. On the role of teachers, Poornima & Sandy (2020) noted that the role of educators will change following the COVID-19 pandemic. Teachers will be expected to facilitate learning rather be sources of knowledge. As has been seen, teachers are sometimes forced to share learning materials that learners read on themselves during the stay at home and school lockdown period. The situation is unlikely to change even after the pandemic. Therefore, teachers are expected to come up with ways of mitigating common problems that have been observed as regards online learning to make the learning smooth and deliver better outcomes. The solutions formulated now will lead the path towards more innovative practices to improve long-distance learning that has been so commonly adopted during this period.

Recommendations

Future researchers should consider studying strategies that would help create resilience within the education sector so that in case of future similar pandemics, learning is not hugely affected. One such strategy is creating complementary systems of learning other than classroom learning to ensure students can remotely engage in classes. Additionally, ways of improving online learning options to realize better learning outcomes should also be formulated so that students' performance is not affected even in times of pandemic like the current COVID-19.

The challenges observed with alternative learning options such as unreliability of assessments should be addressed by inventing better assessment options so that the reliability of the assessments is improved.

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