

THE EFFECT OF COVID-19 ON TEACHING AND LEARNING

Executive summary

In the time of the Covid 19 pandemic situation, the education system affects vastly. At that time, students could not able to come to school for offline class. During this time, teachers, as well as educational institute, have decided to conduct the education system by using the online teaching and learning methods. For conducting online teaching methods, some remarkable issues are recognized by quantitative surveys in the pandemic time periods.

Keywords: Online teaching and learnings, Covid-19

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Task A: Literature Review

Purpose of the action research

Covid -19 is one of the most terrifying phases all over the world, during this pandemic situation, the education sector has faced lots of problems and to mitigate those effective issues followed some steps also. During the time of Covid 19, schools and colleges have faced lots of issues related with face to face verbal communication. This section is developed by collecting authentic information about the Covid 19 issues regarding learning and teaching (Edwards, 2021). Therefore lots of students during the Covid 19 periods have faced lots of issues related physically and this affects widely in offline learning methods.

According to the UNESCO report, the Covid 19 virus has played a bad role in over 800 million students around all over the world. In the section, while this virus is affecting rapidly, the students and learners have stopped their education by visiting physically. In addition, this time all education sectors have followed the online teaching process from staying home. In another word, during the time of pandemic time, all over 102 schools followed the school closing rules (Kennedy-Clark *et al.* 2018). In addition, a total of 200000 positive Covid cases were discovered in around 160 nations. Therefore, Covid 19 is one of the notable factors all over the world and this assessment is going to talk about the effects and outbreaks of the pandemic situation regarding teaching and learning sessions.

Key features of action research

In this case, three key features here are recognized appropriately, and the key factors are mentioned below properly.

Operational

During the whole period of Covid 19 periods, teachers have faced lots of problems in the time of teaching. In that situation, a teacher has followed the steps of online teaching methods, and also the teachers have tried to help the students in their education. The teacher always tried to serve proper information through online methods for teaching students or candidates.

Collaboration

During the time period of Covid 19, while all education sectors have faced lots of issues regarding education, the teacher has connected with students using the rule of online learning methods. Due

to Covid 19, teachers have collaborated with students for mitigating the affected education problems. Besides these effective points, the teachers have completed several steps of reading and they have also completed the final examination with an online examination procedure (Feldman, 2020). In addition, the educational sector has made lots of plans for online teaching methods. Along with this, they have collected some feedback regarding their steps and this is the most helpful for mitigating the problems related to education.

Critical reflection

Critical reflection is one of the important factors inside all those key factors, critical reflection indicates basically the questions about the work procedure of the project. During this time of Covid 19, lots of drawbacks are found and in this section, those drawbacks will be mentioned briefly. Therefore, in this assessment, the three key factors play a huge role in completing the project accurately and with proper efficiency.

Implementations of a model of action research

In the section of this assessment, above mentioned all three key processes have been supported vastly for enhancing the teaching systems during the Covid time sphere. In addition, those processes have been supported widely to mitigate the barriers to the teaching and learning of online methods. Therefore, during the time of pandemic, while spreading the virus widely all over the world, the education sector has decided to close the education sectors (Roman, 2020). Furthermore, this affects vastly all over the education sector, and for this specific spreading issue, students or learners have not attended the class physically. In that tough situation, for solving this education problem, teachers have switched ways of teaching from offline to online. Teachers have provided the recorded video to students for teaching the learning chapter information (Edyburn, 2021). In addition, the teachers have provided some tricks to students about the learning topic for understanding the topic easily or simply. This helped vastly students during the time of Covid, in the other words, for online teaching lots of time students have suffered from the low internet connection.

While discovering issues about the low internet connection, some education sectors have provided the proper internet connection holder gadget. Therefore, while the education sectors have provided proper gadgets for following online methods, the students will be getting more benefits (Nel and Marais, 2020). On the contrary, in this section, while students have been provided good internet

connection and gadgets from their education sector, the teachers have provided more data and are able to clear more doubts of students. By using this effective facility, students have connected with others and also get more study materials to enhance their knowledge vastly. Therefore, during the section of Covid 19, lots of challenges have been faced accurately by students and teachers.

Methods of collecting qualitative and quantitative data

The qualitative data related to the following data has been collected by the secondary method which involves gathering data from several books, journals and articles also. In this case, most of the articles stated that the time period of Covid 19 affected vastly in the education era. As an example, the articles stated that the use of online learning processes widely along with the papers also stated the role of education sectors in providing the learning lesson. In addition to these statements, the pandemic situation affected the financial sector (Mishra, Gupta and Shree, 2020). Moreover, this financial disaster affects the people's mentality and it also affects the poor condition of all countries. In this case, the education sector has faced issues related to online classes and offline classes. Of this remarkable issue, the students were not able to come to the class for offline class.

Collection methods of the quantitative information involve the initial method, which is conducted by surveys as well as interviews. The surveys were hosted in both rural and urban areas, and the survey result came out the same as qualitative data. Therefore, the qualitative data has also shown the same report of Covid 19 effects amount regarding teaching and learning. As an example, the quantitative data also has collected the same results of shut down schools and colleges. In addition, the quantitative survey has discovered one effective issue inside the online class (Sepulveda-Escobar and Morrison, 2020). The effective issue is the lack of poor attention during the session of online classes, therefore due to lack of poor attention, students could not learn appropriately in their learning topics. Therefore, it is the most remarkable issue during the time period of online classes, in this time; the teachers need to split the class into little amounts (Hassan, Mirza and Hussain, 2020). Therefore, quantitative data has supported to find of lots of issues regarding online teaching methods during the pandemic time sphere. Therefore, qualitative and quantitative data have played a great role in any project, and also supported serving lots of information related to the selected project.

Methods of action research

The methods of action research involve some measures such as examining the groups as well as their individuals, proper implementation of video and audio tape recordings and implementing structured interviews and semi-structured interviews. In the time of the Covid 19 era, these calculations played a wide role as the learner sectors communicated with learners or candidates as well as understood the need of conducting audio-visual classes. Therefore, these helped properly for making better structures to protect the online education system.

Task B: Proposal

Area of practice for action research

In order to begin the action research, it is most necessary to research and read books, and journals, along with articles as well as documents also related to this topic. This procedure helps to provide lots of important input for improving the situation as well as also allows enhancing the structure of online teaching. First, the school and college management authority needs to give more attention to mitigate the issues of students. During the period of Covid 19, the teachers and education management sector have focused the students to enhance their motivation for learning (Ma *et al.* 2021). For executing this process, the authority should detect the disabilities and difficulties of students or candidates. After detecting issues, the school management authority must maintain the proper timing for running online secession accurately.

On the other hand, for mitigating other issues related to online reading sessions, teachers should also focus on students' academic performance during the online teaching period. Besides all those points, the authority must be noticed to check the prosperity of students' learning activities for improving their reading skills (Fatonina *et al.* 2020). In this case, the education authority and teacher both should be aware of all students' problems regarding the online teaching sessions, and the teacher needs to take extra care of those students. Therefore, for mitigating these remarkable problems the education institute and teachers must follow those effective ways for solving online teaching issues.

Planning a clear intervention strategy

Intervention theory is one of the notable steps for helping any project vastly. Furthermore, this strategy helps to take appropriate decision-making solutions and also mitigates the barriers of anything accurately. In the case of the online learning process era, communication is one of the remarkable phases during the teaching sessions (Fatonina *et al.* 2020). Therefore, the education institution provides the proper schedule for controlling the online sessions significantly as well as the institution also needs to give proper guidance for enhancing communication power.

Justifying the choice as well as timescales of an intervention strategy

Activities	Timescale
Managing the student's mental growth	2.1 months
Detecting the blank or gap areas	3 months
Communicating with each and every student	2 months
Communication with parents	2.4 months
Excellent quality online classes	3 months

Table 1: Timescale of Intervention Strategy

(Source: Self-Developed)

Managing the mental growth of the students

During the time sphere covered 19, it is tough to \handle the student's mental health, the guiders manage a huge amount of students mental health by conducting good motivational class and also tries to give the adequate knowledge about their daily life (Gu *et al.*2018). In addition, the teachers also conduct sessions for asking about students' issues directly. This is one of the finest processes for mitigating the student's problems and managing students' mental health.

Detecting the blank or gap areas

In order to improve the educational state of learners or candidates, teachers and educational institutions need to detect the gap areas in the student's knowledge. In this stage, the guide needs to communicate with those with poor knowledge and tries to solve students' problems accurately.

In order to help in this way, the education sector can enhance the student's knowledge and also improve teachers' teaching skills significantly.

Communicating with each and every student

Communication is one of the important factors in solving problems regarding the pandemic situation. In this section, while teachers communicate with each and every student, students feel free to express their doubts. Along with using the communication strategy, the education sector can detect the student's issues and also mitigates those effective reading and learning issues accurately.

Communication with parents

After communication with students, the major part is coming while teachers communicate with students' parents. Therefore, in this way, the teacher can express the student's academic report and also suggests the problem-solving procedure for students in front of guardians.

Excellent quality online classes

Besides all those effective points, the major and last point is providing excellent quality, online classes. In this stage, while educational institution gives proper online class session for students, the students will be more beneficial for improving their knowledge (Feldman, 2020). In addition, while teachers host their classes in a splitting manner, the students will be understood more learning topics deeply. Therefore, it is an innovative update inside online learning and teaching methods and it helps to grow the connection between teachers and students.

Task C: Research Report

The Implementation of a clear intervention strategy

During the time period of Covid 19, clear intervention strategies are followed by education institutions and teachers. In this case, teachers and educational institution sectors amplified the intervention strategy inside their education sector. The authority gets a huge response to this strategy. Therefore, using this strategy learners enhanced their power of learning along with candidates have improved their knowledge vastly (Aliyyah,*et al.* 2020). Therefore, the student's progression reports were collected by teachers and education authorities with this intervention strategy. In addition, it, using this intervention strategy students connected more with their education and they improved their learning patience during the Covid 19 pandemic time sphere.

This type of system can help to provide valuable information to clinicians and careers and equally important is that it can provide the data that help to inform and empower their efforts on disease management. The way that people can take the opportunities that includes with the thoughtfulness and thoroughness of this research and evaluate it and it will benefit the future generation. In Covid 19 pandemic situation this can help to recognize the disease and number of patient and the application can able to generate the bill and also the covid reports. There are many interventional strategies that are implemented with information technologies and education sector industries. Nowadays web-based screening smartphone or tablet applications can allow a huge scale of people to give reviews on their own topic of illness and wellbeing. This is much easier to use and user friendly and does not take much time (Oye *et al.*2018). It can also have effects on mental health.

Collecting as well as presenting information

In order to collect information that is implied in the particular assessment, the quantitative and qualitative methods played a remarkable role. In another word, the qualitative data most of collected from publishing articles, blogs, and particular time period newspapers. In addition, the end results of those sources, due to this disaster, students could not able to visit the school for offline classes (Tanis, 2020). This affects vastly on their education parts, therefore in the other words, quantitative data showed the same information or presented the same scenario of Covid 19 as qualitative data. In addition, the quantitative survey also discovered one important thing about this intervention strategy (Zhou *et al.* 2020). Therefore, while teachers have served their knowledge by using online teaching methods, some students could not understand the teaching subjects. *Five qualitative questions* and *five quantitative questions* are prepared for better understanding for further studies and those questions are asked to the participants. As per their answer the result will depend on whether the study is getting effective or not. Primary qualitative data has many problems such as it is difficult to make the comparisons, difficult to find the correlation and representativeness is much low and reliability is much low. The secondary quantitative data also has many disadvantages such as it may not be specific that researchers need, biasness and no time limit. For COVID 19 pandemic situation, this reserarch faces many kind of difficulties.

Therefore, it is one of the remarkable drawbacks of online teaching methods during this pandemic situation. Besides these effective drawbacks, the quantitative data also presented the effectiveness of audio-visual reading procedures. As an example, while teachers have guided students with visualizations and presentation methods, the students attached more than previously. Therefore, quantitative data played an important role in finding the issues of this intervention strategy regarding online teaching as well as reading methods. Therefore, it can be proved that quantitative data is more important than qualitative data as per side of indicating the whole situation.

The analysis of the information collected from the action research

This procedure helps the observers and institution authorities as well as teachers for taking accurate steps for solving the situation adequately. This analysis supports understanding the project objectives appropriately. In this case, during the time sphere of Covid situation, the students could not understand the learning topics deeply. Therefore, after detecting this effective problem, the education institution authorities and teachers have decided to host the online class for a low amount of students (Roy *et al.* 2020). This method can use the sample randomly. Secondary qualitative data also has many advantages such as this type of method is more time saving, easier and much more effective. It is much cleaner and structured the data properly. On other hand Primary qualitative data is not good such as it is difficult to compare, difficult to find the correlation and cannot have any representativeness is much low and reliability is much low.

The secondary quantitative data also has many disadvantages such as it may not be specific that researchers need, biasness and no time limit. Along with this, using this class-splitting method, teachers should be given more attention to each and every student in the online class. Besides this effective side, the teachers have decided to communicate with students' parents for motivating students about making home tasks appropriately. Therefore, these are the notable points for solving the problems regarding the online hosting class which is getting from quantitative surveys (Saha, Dutta and Sifat, 2021). In addition, it, during this time the teachers focused more on the topic of mathematics learning as well as teachers also tried to give brief knowledge about communication skills.

Findings and conclusions,

In this case, it can be stated that lots of problems are faced by students and teachers also regarding the Covid 19 pandemic time. Therefore, here focused on the main issues with teaching and learning conditions during the time period of the pandemic. In addition, while spreading the Covid 19 widely, this affects widely on education sectors (Coman *et al.* 2020). This time, the education sector has decided to run its education system with online teaching methods. At first time, all students don't have a good internet connection for maintaining the online learning methods. In the other words. While quantitative survey reports showed the problem of poor paying attention by teachers, this also affects the education sector. The main important findings of this research are that information technology can upgrade the education sector system. Technologies can make easier and fearless connections with the teachers and educational staff. Through this research, one of the main findings is that technologies can easily track the data of management and patients. Doctors may easily use the technologies for the patient's treatment. Robotics surgery has many advantages in modern days. Nurses and doctors can use the device to monitor a patient by several devices

Recommendation,

Therefore, for mitigating these effective and remarkable issues related to online learning and teaching, and in this stage, the authority needs to follow several steps. At first in the case of poor connection to the internet, the authorities need to provide accurate internet connection for those crisis students. In another word, while teachers follow the procedure of splitting hosting online class, as well as this procedure support teachers to give attention more to students. Therefore these are effective recommendations for mitigating the problems regarding online learning processes.

Task D: Reflective Account and Plan

From my personal perspective, Covid 19 was involved vastly in the amount of disaster inside the education sector. During the pandemic situation, education sectors went to shut down, and all over the world education system went to follow online teaching and learning methods. Therefore, in my personal opinion, the online method is an innovative way to convey knowledge to learners. In

addition, while Covid 19 bounded all over the world, online methods helped to run the education system peacefully. Along with this, this fully conducted work from home, and besides those effective points, I also examined some issues regarding online learning methods. In this case, students have faced some learning topics doubts as well as also suffered the problem of poor attention from teachers (Carrillo and Flores, 2020). Therefore in my personal perspective for mitigating those issues, the educational sector needs to follow some processes regarding online teaching and learning. In order to divide one class into two parts, helps teachers to give more attention to students. Therefore, I thought these effective procedures help to solve online teaching and learning problems accurately.

The survey has been done on 10 participants and the questionnaires have been asked by using electronic media such as Email. From a total of 10 questions, 5 questions will be quantitative and 5 questions will be qualitative questions. All the participants are directly associated with the education sector sector, therefore the data or answers provided by the participants will be trustable and highly acceptable. It has been believed that no bias was present in the answers given by participants as they are not associated with information technology related companies and they are not promoting any information and technology product. The researchers associated with this research are experts in quantitative and qualitative methodology of emerging areas. Action research is the investigation of social issues systematically for promoting democratic changes. Action research has been characterized by flexibility, reiteration, interchangeability and dynamic movement.

Identification of personal strengths as well as areas that need to improve

I, as a teacher, in this situation of the pandemic as well as I need to enhance myself significantly. While I am allowed to improve my skills, my teaching skills will be enhanced vastly. Due to improving my teaching skills, I am able to support the students in the time of teaching and learning topics.

Strengths	Weaknesses
<ul style="list-style-type: none"> ● Handle lots of students in one way. ● Strong communication power. 	<ul style="list-style-type: none"> ● Issues regarding internet connection. ● Not capable of handling a huge amount

<ul style="list-style-type: none"> ● Motivating students accurately ● Trying to solve doubts effectively. 	<ul style="list-style-type: none"> ● Lack of confidence to manage time accurately.
<p>Opportunities</p> <ul style="list-style-type: none"> ● Communication through internet networking. ● Providing lots of visualization presentations for understanding better. ● Flexibility to share lots of ideas between students. 	<p>Threats</p> <ul style="list-style-type: none"> ● Legal compliance ● Loss of student's trust ● Lack of skills in classroom management. ● Poor experience with audio-visual teaching and learning.

Table 2: Personal SWOT analysis

(Source: self-developed)

Illustration of personal development plan

Focus area	Where now	Will be?	How known?	Activity	Resources	Timings	Reward
Focusing more about disabled students	Can be improved	Short listing of those students along with providing a proper guide for improving those	Will support my teaching abilities and it makes my skills more efficient.	Research on the internet and local books ethics	Articles	3 weeks	Improved the student's knowledge efficiency.

		students.					
Paying more attention for all students	Can be improved	by Dividing one class into two parts. Making schedules for hosting the online class. As well as needs to give proper attention for each and every students.	Will improve my teaching skills and communicating skills. In addition, helping also to improve my interpersonal skills regarding students handle.	Research on the internet and practice myself daily basis.	Articles	3 weeks	Improving the patience of teaching.
Communicating with guardians for student's academic performance.	Moderate understanding	By providing academic reports of students in front of guardians .	Will improve my building power of relationship with guardians .	Conducting relationships with student's parents and solving the	Appropriate research	6 weeks	Enhance the relationship establishing power with students and their

				student's doubts in front of student's guardians .			parents.
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Table 3: personal development plan as a teacher

(Source: self-developed)

Therefore, for enhancing my own interpersonal skills regarding teaching skills through online teaching methods. The first time needs to make a schedule for teaching the students appropriately and needs to find the issues of students regarding the teaching topics. In addition, a teacher also needs to establish a good relationship with students' parents for reporting the student's academic performance also. Therefore, these are the most remarkable procedure for improving my teaching skills effectively. By applying SWOT analysis for the implementation of information technology in the education sector sector, I have observed that the education sector sector is facing various challenges for improving patient safety as well as assuring security of patient information. In order to address these problems, more investment is required in information technology that will facilitate information flow and help in access to providers and partners.

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Appendix

Quantitative Questions

1. What is your age? (Please Tick)

18-25 26-34 35-4 46-56

2. What is your gender? (Please Tick)

Male Female

3. The main distance to the Education System from your location? (Please Tick)

Approx. 1-5km 6-9km 10-15km 16-20km

4. How much time you utilize the Education system? (Please Tick)

1-3 4-6 7-9 10-15 (Times)

5. How long do you know about Information technology? (Please Tick)

1-2 3-5 6-9 10-15 (Years)

Qualitative Questions

1. What is the quality of the Education System in your location?

2. Are your local Education facilities adopting new technologies?

3. Dose Information technology are adopted in your local Education facilities?

4. What is like to conduct the Education facilities in your location?

5. How much do you know about Information Technologies?