Status & Effectiveness of Teaching-Learning Process in Government Schools of Haryana during Covid Pandemic

State Council of Educational Research & Training
Haryana (Gurugram)

CENTER FOR RESEARCH AND EXPERIMENT FOR ACTION AND POLICY (REAP)
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Report on

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राज्य शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद्
हरियाणा (गुरुग्राम)

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Director's Message

The world came to a standstill with the introduction of a new term called 'Corona Virus' in the early 2020's. In India also, the government introduced a complete lockdown in March, 2020 to stop the threat posed by the growing pandemic in the country. It has jeopardize the whole system to a greater extent, but the most affected area was the educational institutions of the country. The private schools somehow coped with the situation given its infrastructure and technology friendly manpower; but it was a serious challenge for the government school teachers as well as for the students to continue education through the online mode and achieve the desired learning outcomes. However, the department initiated every possible step to keep continuing the classes through different modes. Various teaching and assessment strategies were adopted by the teachers and plenty of e-content was made available to the students through both government and non-government platforms. Keeping in consideration the sudden change in scenario, a need was felt to study about the changes introduced in the pattern of teaching-learning in the field i.e., the government schools of Haryana during that period.

Working on the same line, REAP Cell was entrusted with the task of carrying out a research to study the "Status & Effectiveness of Teaching-Learning Process in Government Schools of Haryana during Covid Pandemic". The study provides a detailed analysis of various aspects related implementations, effectiveness of practice adopted to teach students online during the covid lockdown period. Moreover, it also throws light on the problems faced by different stakeholders in continuing the teaching-learning practices during that period; followed by suggestions for improvement in case such kind of situations occur in future.

Also, I would like to take this opportunity to thank our worthy Additional Chief Secretary, School Education Department Haryana; Director Secondary Education, Haryana; Director Elementary Education, Haryana and the State Project Director, HSSPP for generously funding and supporting such a significant study. I also congratulate all Action Research Associates (ARAs), DIET and school lecturers who collected the data for the study. I also appreciate the schools principals, class teachers, parents and students of concerned sample schools, for cooperating with the researchers and providing the desired information. So, I present this report in a generic form before policy makers and academic fraternity and hope its genuine readers will find this study helpful.

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Introduction

The Covid pandemic hit almost all the countries of the world and India was one of the most impacted countries among the same. To curb the spread of this deadly disease, a nationwide lockdown was introduced in the country starting from March 24, 2020 which got extended time to time as per the number of cases reported in the country. Though the government started to lift lockdown in different phases among different sectors after June, 2020; yet due to the ongoing number of cases during that time it was decided to carry on with the same decision for the education sector, as child and old age people were considered as the most vulnerable group that can get affected by this virus.

1.1 Education sector and Covid in India

When the pandemic start hitting the country, it was almost the same time when the new academic year is supposed to start for all the educational institutions. But due to the rapidly growing number of cases, it was not advisable to start the schools in the traditional way i.e., physically attending the classes. Therefore, as a means to protect the children from this deadly virus, MHRD[1] introduced new guidelines to continue the teaching-learning process in all states as much as possible. These guidelines mainly referred to shifting the physical mode to distance mode or e-learning.

In addition to these guidelines, various approaches were also developed and introduced by the MHRD to make sure that the students can continue their learning at home during this time. These approaches includes various digital learning resources catering to the needs of various stakeholders involved in the process of teaching-learning. Different initiatives were introduced for different levels of education under the guidance of some common and separate organizations working on this goal together. Like for the college level, which includes all graduation and above level programs, UGC was the one who took charge of situation. On other hand, NCERT played an important role in framing guidelines and introducing initiatives for school level course. As this study deals with the school education, below are some of the main

[1] MHRD is now being called Ministry of Education (MOE) after introduction of New National Education Policy (NEP, 2020).

initiative introduced keeping in consideration the school education in the country as listed by Jena (2020):

- ***The DIKSHA portal*** *contains online learning content for students, teachers, and parents aligned to the curriculum, including video lessons, worksheets, textbooks and assessments. Under the guidance of its national board of education (CBSE) and NCERT, the content has been created by more than 250 teachers who teach in multiple languages. QR codes in textbooks encourage students to go beyond the book. The app is available to use offline.*
- ***e-Pathshala*** *is an online learning app by NCERT for classes 1 to 12 in multiple languages. The app houses books, videos, audio, etc. aimed at students, educators and parents in multiple languages including Hindi, Urdu, and English.*
- ***The National Repository of Open Educational Resources (NROER) portal*** *provides a host of resources for students and teachers in multiple languages including books, interactive modules and videos including a host of STEM-based games. Content is mapped to the curriculum for classes 1 – 12, including aligned resources for teachers.*
- ***Swayam*** *hosts 1900 complete courses, including teaching videos, weekly assignments, exams and credit transfers, aimed both at school (class 9 to 12) and higher education (undergraduate and postgraduate) levels. Subjects are aligned to the curriculum and include engineering, humanities, social sciences, law and management courses including robotics.*
- ***Swayam Prabha*** *is a group of 32 Direct To Home (DTH) channels devoted to telecasting of educational programs round the clock and accessible all across the country. The channels air courses for school education (class 9-12), higher education (undergraduate, postgraduate) as well as for out-of-school children, vocational education and teacher training. Subjects include arts, science, commerce, performing arts, social sciences, humanities, engineering, technology, law, medicine and agriculture. Schedules for the television broadcast as well as archived programs are available on the website.*

1.2 Infrastructural dimension and readiness of Education sector in country

There was no doubt that all the states left no stones un-turned in continuing the teaching-learning process, however the process could not be continued in uniform way due to the given

inequalities. Given every state had its own infrastructure in terms of technology friendly teachers, availability of IT infrastructure, readiness of department for providing digital support to the students as well as teachers, geographical locations and the like; the impact varied from state to state.

Even a report from 2019 states that "only 32 per cent of the rural population of 12+ years and 54 per cent of urban population had internet access, and that only 11 per cent of Indian households have computers such as desktops, laptops and tablets (excluding smart phones)[2]". The similar concerns over digital divide in India were raised by many other researchers and academicians as well. As per a study conducted by QS-ERA [3] (2020), the technological infrastructure of the country is not a state that can ensure the best and effective conduction of online classes for students learning from home. The usage of dedicated professional platforms especially developed for this purpose like Moodle, Black-Board, Google Classroom etc. were being used by very few institutes and that too of higher education level. Whereas most of the institutions were found using open-source platforms which mainly includes watsapp, youtube, video calls, zoom etc.

1.3 Need and significance of the study

There is no doubt that a lot of e-content was generated for the students of all level to ease the learning process, but it is quite difficult to assume how much of it reached to students or we can say, how many of the students were able to access it; and even among those who could access it, how many of them were able to grasp it successfully.

Moreover, the schools have reopened, yet the pandemic has not come to its complete end. There is no surety that such kind of situation will not arise in the future. Given the scenario, it became important to study what ways or methods were adopted to continue the teaching-learning process in these difficult times by the schools and teachers. It is also important to note, where do we lack in situations like these and what measures can be taken to prevent loss of learning in suck kind of situations.

[2] "Situation Analysis on the Effects of and Responses to COVID-19 on the Education Sector in Asia: India Case Study", October 2021, UNICEF-UNESCO Report.

[3] QS-ERA India Pvt Ltd. (2020, April). COVID-19: A wake-up call for Indian internet service providers [Web log post]. Retrieved from https://www.igauge.in/news/2020/4/covid-19-a-wake-up-call-forindian-internet-service-providers

So, through this study an attempt has been made to study all the key-points as mentioned above in terms of:

1. To study the status of availability of infrastructure required for online classes with teachers and students.
2. To enlist the perception of teachers and students about the e-content made available by the Department through various platforms.
3. To find out about various teaching and assessment strategies followed by the government school teachers.

Methodology

For the purpose of survey a sample of 10 government schools (including equal proportion of high and senior secondary level) were selected from all the districts of the state with keeping in consideration that at least fifty percent of the blocks from each district should be selected for the survey. So, the sample finalized for the survey was a total of 210 government high and senior secondary schools of Haryana across all districts.

The field work of data collection was done by a team of dedicated surveyors which includes ARAs and DIET Lecturers. All the field surveyors underwent a brief training of tool developments and execution to ensure that all surveyors understand the rationale of the study and use the survey instrument consistently for assuring high accuracy in data. The training was oriented and briefed about collection of primary data from sample schools through planned but unannounced visits.

Data collection was done with the help of 4 self-administered questionnaires especially designed for the purpose of the study. These 4 questionnaires were designed for different stakeholders including School Principals, Subject teachers, Students and their Parents.

Working definitions

There are various terms used in this study that are representing more than one activity for the purpose of the study. So, below is a description of some of the main terms used in study with the nature of activities covered under them:

- ***Online teaching:*** The term 'online teaching' wherever used in this study covers all the medium that were adopted by teachers to teach the students during 'Ghar Se Padhao Abhiyan' due to covid lockdown restrictions. It includes audio-video call using various platforms, normal phone calls, zoom, google meet and classroom etc.
- ***Time table:*** As mentioned earlier, various mediums were adopted by the teachers to teach during online classes like through video calls, EDUSAT videos, broadcasting of educational content on free dish and local cable channels. For the purpose to students benefit from it, all the teachers were required to inform students regarding the schedule of the same in advance. So, the term time-table mentioned in this study refers to the informing these pre-schedules activities to students and also to be followed by the teachers for various sessions and classes taken online.
- ***Resources for online learning:*** Resources for online learning refers to the resources and facilities that support the online teaching-learning process during covid times. It includes devices like phones, smart phones, computer, laptop, tablets, television, internet facility, data packs, data speed, etc.
- ***Covid period:*** Though the covid period is still going on technically due to existence of cases all over the world (at a slower rate), but for the purpose of study it refers to the information collected for the academic period of 2020-21.

Main findings from the study:

1. Overall implementation of online teaching-learning during covid times:

i. The teaching-learning process was continued by sharing the educational learning contents through watsapp and by organizing online teaching through various modes like video calls, google meet or zoom, as reported by 81-82% respondents.

ii. To access e-content, Diksha platform was used by majority of the teachers (i.e., 64.3%), followed by Edusat videos and Google/Open Educational Resources as reported by 48.9% and 41.3% respondents.

iii. Android phones and internet facilities were the 2 most commonly available and used facility with the teachers at both, home and workplace for teaching during covid times.

iv. Majority of the teachers (i.e., 86.6%) mentioned assessments of students using Avsar App.

v. 86.6% teachers mentioned that for better learning and understanding purposes, they used to give revision homework to students always.

2. Training & capacity building:

i. Only 40% teachers mentioned that they get training regarding online teaching during covid period. Majority of these trainings were given by SCERT (54%), DIETs (22%) and NCERT (15%).

ii. Social distancing during re-opening of schools (43.8%), student's counselling (39.1%) and parent's counselling (30.8%) were the 3 main topics covered in trainings during covid period.

iii. Only 64% principals mentioned that they received some kind of orientation regarding re-opening of schools.

3. Efficacy of teaching-learning process followed during covid times:

i. Majority of principals agreed that the process helped in developing and improving the teaching (77.8%) and technical skills of teachers (81.6%).

ii. 18% teachers mentioned their overall experience of teaching during covid times as 'Good', while 56.4% found it average.

iii. 91% students found the online classes interesting.

iv. 88% students mentioned that the classes were understandable.

v. 92.5% students found the educational content useful.

vi. 81.2% students felt that the material was sufficient enough to support their learning ta home.

vii. 79.9% students mentioned that the educational material provided was easy to understand for them at home

viii. 67% students still prefer to attend the classes offline, followed by 27% who would like blended mode of learning.

ix. Majority of the parents were completely satisfied (38.7%) or satisfied upto some extent as reported by 28.6% respondents respectively. However, 32% showed their dissatisfaction regarding the same.

x. Things students missed at home during covid times: Face to face interaction with teachers (77%), Peer learning and group activities (63%), Socialization at school (37%).

4. ***Challenges faced by stakeholders:*** Internet issues, Lack of digital resources, Problem in studying subjects with practical portions, Parent's did not allow to use phones and Student's lack of interest in online classes.

5. ***Best initiatives:*** Online classes under 'Ghar se padhao abhiyaan' and Avsar app, EDUSAT videos, E-PTMs and Door to door MDM distribution.

6. ***Scope for improvement:***
   i. Resources required for e-learning should be provided.
   ii. Teachers should be trained to integrate ICT with teaching practices.
   iii. Offline classes should be preferred wherever possible.

Recommendations

After the detailed analysis of the information received from all the stakeholders it becomes necessary to conclude and suggest some actions to improve the teaching-learning process as executed during covid time. If acted upon, these suggestions are expected to bring a great change in integrating computer technology with education in government schools of Haryana. Hence the following suggestions have been listed on the basis of input received from the field i.e., government schools:

1. ***Ensure availability of resources required for e-learning:*** Addressing the issue of digital divide is a big concern for India. As evident from the study, there was a mix of modes adopted by teachers to continue the teaching-learning process during pandemic times but majority of times it was android phones. There were very few teachers or students, who mentioned having used computers, laptops etc. due to the unavailability of the same with teachers as well as students. Where this was a persistent issue in the government schools, the same was absent from the schools working under private schools.

There is no doubt that the classes cannot be conducted as efficiently as they should be in the absence of required resources. So, government should take necessary steps to minimize this digital divide among students from different background to ensure that the students of government schools will be on the page as their counterparts from private schools in situations like covid-19 in future, if occur any. Though the process has begun in the form of distributing tablets to school students studying in government schools of Haryana, yet it's a long way to go ahead and covering all classes under this scheme.

2. ***Infrastructural improvements:*** As evident from the suggestions made by all type of stakeholders, there is a dire need of supporting infrastructure to make the effective use of online tools and technology. Even the absence of any one of them can work as hurdles in reaping its maximum benefits. For example: Internet connectivity issues were reported by a majority of the respondents and explained how adversely such issues have impacted learning through online modalities. Government should take immediate measures and also motivate the telecommunication companies to invest in expanding their services even in remote locations of the state.

   In addition to this, government should also make efforts to support the school education by providing free internet or some monetary incentives related to same to all teachers and learners. This will encourage them for learning more and more about online teaching-learning as a result of which they would engage themselves in situations like pandemics. So it is recommended that the government should keep all these necessary supporting infrastructures available and updated to be used by all stakeholders for educational purposes.

3. ***Capacity building of school staff:*** There is no doubt that the decision of shifting the traditional mode to online mode was quite sudden as it was made keeping in consideration the then ongoing pandemic situation. However, integrating ICT with teaching practices was not a new phenomenon. During this time, many teachers used it as an opportunity and worked on creating interesting ways and lesson plans to deliver the educational content. On the other hand, there were some who merely forwarded the

content provided to them by the education department or NCERT and were also not comfortable with web based interaction platforms. When investigated about the same, many teachers expressed their inability to handle the online platform to take classes or creating content.

So, it is suggested that rather than waiting for such situations to occur, the department should work on building the capacity of the human resource available within the department. On one hand it will update the existing skills of the teachers and add to their skill inventory, on the other it will help the department to keep functioning in an uninterrupted and effective manner in situations like these. In other words, a regular and effective pre-service and on-going teacher professional development will help the teachers to develop digital and pedagogical tools to teach students effectively; both in remote and in-person settings.

4. ***Increasing parent's involvement to add greater values:*** In addition to teachers, government should also train the parents to make them comfortable with the online learning tools; as they were the single point of contact for teachers and students during the covid lockdown. Increasing the involvement of parents can work as greater contribution in the academic progress of their wards. Moreover, it was observed during the survey that a majority of parents were bit hesitant in providing mobile phones to their kids even for learning purposes, as they were afraid that the kids might misuse them. Making them aware even the basics of how to handle the online learning platforms, web based interactions etc. can help the parents to keep a track of student's activities (especially the senior ones) and help them whenever needed.

Also, practices like E-PTMs as introduced during the pandemic should not discontinued as the situation is almost normal now. In fact practices like these should be continued as it will keep parents continuously in touch with the school staff even in case they could not make them available physically during the scheduled PTMs or any on the call of teacher to discuss student's progress. Also, the use of technology is well remembered if practiced on regular basis. So, either way it will help both the parents as well as the school staff itself.

5. ***Adopt a flexible approach to teaching:*** After experience pandemic situation, it is advised that the education department should adopt the blended model of teaching where both offline and online teaching takes place. It can be done in many ways like preparing introducing online teaching for particular days or time slots on weekly basis, doing online assessments, give project-based assignments which will require use of online tools. All this can be done under teacher's guidance. These type of blended approaches keep the learners and educators familiar with various web-based interactions and online learning tools such as email, discussion boards and chat rooms before joining online classes. As post covid period has witnessed many countries transiting to a more consistently blended learning model, it is necessary for us also to adopt strategies that provide guidance to teachers & parents and equip them with the tools required to support students learning.

6. ***Addressing student's concerns/issues:*** Student should also be oriented about using the online learning tools. Government should take necessary steps to train all stakeholders of education on online learning platform to tackle such crisis of lockdown during any pandemics. Government should create awareness on online education with safety measures for children and take measures to create awareness on cyber security. They should be made aware of their new reality and how they should face it. The school faculty too should administer surveys and sessions to monitor students' situations; pause and ask students about their needs, their expectations and how things are going with them in e-learning. An effective interaction between the teacher & student bridges the gap between desire of knowledge and the availability of digital sources of learning.

7. ***Create inventory of accessible materials:*** It is suggested that the schools should have their own inventory of learning material which will be accessible to all students. This inventory can be in form of recorded lectures, caption videos, audio content and the like. This can be developed by both teacher as well students. Normally, the teacher as a mediator should look at the content, evaluate it, and approve it for use by other students. In this way, the students by using the OERs expand the useful repositories of knowledge from which other students will draw information that is relevant for the teaching unit. This activity of the creating inventory will not only enhances the skills of students

involved, but also improves the overall understanding of the relevant subject. Similarly, the teachers would also benefit because they would enrich their library with new literature, and at any moment they will have feedback from the student and can exchange information and discuss no matter where they are. This way of working can be shared by different schools over a centralized platform where they can share their best practices in form of learning content prepared by themselves.

8. ***Ensure financial support and equipment:*** The hurdle related to the availability of updated & relevant content & infrastructure can only be handled if the maintenance grants come on time in schools. As evident from findings and even reported by many of the stakeholders, lack of financial support for online learning related infrastructure is one of the main constraints in the smooth functioning of the same. Most of the times schools don‘t get the budget or even if they receive it sometimes, it is not properly utilized due to unclear guidelines. Hence, it is suggested that the maintenance grants should be made timely available so that the systems and other required facilities can be procured and maintained as and when required in order to avoid inordinate delays and hurdles in the process. Also, it is suggested to facilitate students' access to financial aid and technological equipment, or provide this when possible during the pandemic like situations to students facing financial constraints.

To conclude, it can be said that in the awake of covid like situations and continuous developmental & technological changes being introduced in the field of school education, it is necessary that schools should be ready to face any situation like these. It is also possible that in the times to come, we may experience increased use of hybrid mode of delivering education. So, this study will provide useful insights for reimagining and redesigning the delivery of teaching-learning process in the field of school education with components involving online mode.

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