India Report Digital Education

REMOTE LEARNING INITIATIVES ACROSS INDIA

DEPARTMENT OF SCHOOL EDUCATION & LITERACY
MINISTRY OF EDUCATION
GOVERNMENT OF INDIA

INDIA REPORT
DIGITAL EDUCATION

Remote Learning Initiatives across India

JULY 2021

DEPARTMENT OF SCHOOL EDUCATION & LITERACY
MINISTRY OF EDUCATION
GOVERNMENT OF INDIA

SUGGESTED CITATION – India Report- Digital Education, July 2021, Department of School Education and Literacy, Ministry of Education, Government of India, New Delhi.

Available at https://www.education.gov.in/

TABLE OF CONTENTS

MESSAGES

प्रधान मंत्री
Prime Minister

MESSAGE

It is heartening to learn about the publication of India Report on Digital Education. The endeavour to showcase the joint initiative by Department of School Education and Literacy, State and UT Education Departments, as well as various stakeholders to further the role of digital education is commendable.

Education is a continuous, lifelong process of learning that instils a spirit of enquiry and curiosity among students. It prepares youngsters for greater challenges in life through capacity-building and imparting skills.

Our unwavering commitment to provide quality education is reflected in the New Education Policy that is pivotal towards accomplishing the resolve of building Aatmanirbhar Bharat. Our endeavour has been to enable our youth to be future ready by making our education system modern and globally competitive.

In a constantly changing world that is becoming increasingly digital, the importance of online education can hardly be over-emphasised. The continuity in education and learning in the face of the pandemic has become possible due to numerous digital solutions and making them a part of daily life. We need to take these capabilities forward and make them even more participatory.

The development of National Digital Education Architecture (NDEAR) to enrich school learning is a part of our overarching strategy to leverage digital technology. The digital access to education will further inclusivity and quality.

I compliment valued stakeholders for their commitment and efforts to popularise digital education for the benefit of learners and teachers. May the Report on Digital Education add insights to the Nation's collective endeavour towards new age education.

(Narendra Modi)

New Delhi
आश्विन 07, शक संवत् 1943
29th September, 2021

धर्मेन्द्र प्रधान
धर्मेन्द्र प्रधान
Dharmendra Pradhan

मंत्री
शिक्षा; कौशल विकास
और उद्यमशीलता
भारत सरकार
Minister
Education; Skill Development
& Entrepreneurship
Government of India

MESSAGE

I am pleased to present the India Report – Digital Education 2021 prepared by the Department of School Education and Literacy, Ministry of Education. Indeed, it is a great attempt to collate exceptional innovations and best practices of States and UTs concerning digital education. The report demonstrates our capacity for effective problem-solving and reflects our focus on equitable education for all.

Today, the basket of creativity vis-à-vis the use of technology in education is overflowing. Ranging from online animations and videos prepared by our hard-working teachers, dedicated television channels, radio lessons, and assignments through ICT tools, the Ministry of Education has ensured that the growing and learning of our students is not affected and the country's education system is not disrupted. I am sure that this report will serve as a medium for adapting the country's best practices in digital education.

I am also highly grateful to all the States and UTs for upholding the spirit of cooperative federalism and providing inputs for strengthening the country's digital infrastructure.

I remain confident that this report will motivate all the stakeholders of the Indian education system to overcome the challenges and work collectively for making India a global knowledge superpower and restore India's glory as a great centre of learning.

(Dharmendra Pradhan)

सबको शिक्षा, अच्छी शिक्षा

स्वच्छ भारत

कौशल भारत, कुशल भारत

MOE - Room No. 3, 'C' Wing, 3rd Floor, Shastri Bhavan, New Delhi-110 115, Phone : 91-11-23782387, Fax : 91-11-23382365
MSDE - Room No. 516, 5th Floor, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001, Phone : 91-11-23465810, Fax : 011-23465825
E-mail : minister.sm@gov.in, minister-msde@gov.in

अन्नपूर्णा देवी
ANNPURNA DEVI

राज्य मंत्री
शिक्षा मंत्रालय
भारत सरकार
MINISTER OF STATE
FOR EDUCATION
GOVERNMENT OF INDIA

10 SEP 2021

<u>संदेश</u>

डिजिटल शिक्षा पर भारत रिपोर्ट (द इंडिया रिपोर्ट ऑन डिजिटल एजुकेशन), 2021, प्रत्येक राज्य और संघ राज्य क्षेत्रों शिक्षा विभागों और विभाग के स्वायत निकायों द्वारा की गई सभी अनूठी और प्रेरक पहलों को एक साथ लाने और संकलित करने का एक अच्छा प्रयास है।

अप्रत्याशित वैश्विक महामारी की लहर के कारण, यह आवश्यक हो गया कि उपलब्ध संसाधनों और मांग के आधार पर तेज गति से गुणवत्तापूर्ण डिजिटल सामग्री बनाने पर काम किया जाना चाहिए ताकि कोई भी छात्र पीछे न रहे और डिजिटल अंतराल को भरा जा सके।

शैक्षणिक चुनौतियों के दौरान भी, एक राष्ट्र के रूप में, यह सुनिश्चित करने के लिए हमने मिलकर काम किया है कि हमारा देश समृद्ध रहे और हर तरह के संकटों के सामने मजबूती से खड़ा रहे और इस असाधारण कार्य का साक्ष्य यह रिपोर्ट है जिसमें विभिन्न डिजिटल पद्धतियों के माध्यम से शिक्षा तक पहुंच प्रदान करने हेतु आईसीटी समाधानों को एक साथ लाने के लिए राज्य/संघ राज्य क्षेत्र सरकारों द्वारा उठाए गए कदम शामिल हैं।

कालांतर में, यह इस अप्रत्याशित समय से सीखने का सबक बनने जा रहा है। वर्तमान में सभी राज्यों/संघ राज्य क्षेत्रों ने छात्र के लिए डिजिटल अधिगम अनुभव के पुनर्निर्माण और संवर्धन के लिए विभिन्न शिक्षा भागीदारों के साथ सहयोग किया है। साथ ही शिक्षकों और प्रशिक्षकों के समय और संसाधनों के सर्वोत्तम उपयोग के लिए अनुकूल वातावरण भी तैयार किया है।

शिक्षा मंत्रालय ने शिक्षकों, विद्वानों और छात्रों को उनके अध्ययन में सहायता प्रदान करने के लिए राज्य/संघ राज्य क्षेत्र सरकारों के साथ मिलकर कई परियोजनाएं और अनूठी पहल जैसे दीक्षा प्लेटफॉर्म, स्वयं प्रभा टीवी चैनल, ऑनलाइन एमओओसी पाठ्यक्रम, ऑन-एयर शिक्षा वाणी, विशेष रूप से विकलांग बच्चों के लिए एनआईओएस द्वारा डेज़ी, ई-पाठशाला, ई-सामग्री और सक्रिय पुस्तकों को विकसित करने के लिए राष्ट्रीय मुक्त शैक्षिक संसाधनों रिपोजिटरी (एनआरओईआर), टीवी चैनलों के माध्यम से प्रसारण, ई-लर्निंग पोर्टल, वेबिनार, चैट समूह, पुस्तकों का वितरण और राज्य/संघ राज्य सरकारों के साथ अन्य डिजिटल पहल शुरू की हैं।

मैं डिजिटल शिक्षा पर भारत रिपोर्ट तैयार करने के लिए शिक्षा मंत्रालय और उसके स्वायत निकायों की टीम के साथ-साथ राज्य/संघ राज्य क्षेत्र स्तर के सभी शिक्षकों, छात्रों और अधिकारियों का आभार व्यक्त करती हूं। मुझे विश्वास है कि यह एक सतत अभ्यास बनेगा, और यहां तक कि दुनिया भर की प्रणालियां भी इन पहलों में अपना योगदान देंगी और अपनी प्रणालियों में सुधार के लिए इससे सहायता लेंगी।

(अन्नपूर्णा देवी)

Office : Room No. 126, 'C' Wing, Shastri Bhavan, New Delhi-110 001
Phone : 91-11-23384073, 23386163, Fax : 91-11-23385112

INDIA REPORT DIGITAL EDUCATION 2021

4

अनीता करवल, भा.प्र.से
सचिव

Anita Karwal, IAS
Secretary

स्कूल शिक्षा और साक्षरता विभाग
शिक्षा मंत्रालय
भारत सरकार
सत्यमेव जयते
Department of School Education & Literacy
Ministry of Education
Government of India

MESSAGE

The India Report on Digital Education 2021 has recorded the digital and remote learning initiatives undertaken at various levels, from the centre to the states right down to the grassroots. This is the second in the series of annual documentation, and the purpose is to showcase the unique and pioneering work by the states/UTs contextualized to their local requirements, share best practices of the states/UTs for further understanding of differences between regions and replication wherever possible, help to identify the gaps in our system, and the scope and possibilities of expansion and introduction of newer modes of digital education with the ultimate aim of ensuring that no learner is left behind.

The pandemic has paved the way for a hybrid model in education, combining digital and traditional methods of teaching and learning. The transition to online learning during the COVID induced lockdown in India was undertaken rather systematically. Children who did not have access to any devices were approached through home visits, volunteer attachment, mohalla classes, worksheets, project-based activities, etc. While there may not be equal access to digital learning devices as well as internet connectivity in all parts of the country, but the insight from the IRDE 2020 publication demonstrated how, wherever possible, states, UTs, teachers, students, and parents adapted to new ways of delivering education, to shape educational practice in the future. We have observed very few barriers, if any, in certain areas of digital education, such as, in teacher professional development, creation of innovative e-content by teachers, content in 33 languages, including Indian Sign Language, use of Energized Textbooks, partnerships with CSOs and other organizations, etc.

This report will serve the purpose of peer-to-peer learning, adapting and adopting best practices across the country, and motivating the stakeholders to do better. While education is moving towards blended learning through online and offline modes, it shall continue to be our supreme endeavour to ensure quality education with a focus on inclusion of each student, even if it is the last child in the last mile.

I take this opportunity to convey my deep regards to the teachers who trained themselves professionally on digital platforms and served their learners with utmost dedication and in many creative ways during this challenging period! I am also grateful to the states and UTs and my own team for rising to the occasion by keeping the child at the center of all developments.

(Anita Karwal)

124 'सी' विंग, शास्त्री भवन, नई दिल्ली–110001
124 'C' Wing, Shastri Bhawan, New Delhi-110001
Telephone: +91-11-23382587, +91-11-23381104 Fax : +91-11-23387589
E-mail: secy.sel@nic.in

INTRODUCTION

A Glance

The India report on Digital Education is an attempt to capture and compile all initiatives taken by the Education departments of States/UTs. The scale of work undertaken by each state/UT will help in initiating discussions, replications, adaptations, and collaborations and provide inspirational lessons to other countries as well. This documentation will help in identifying the gaps in the system, differences between the regions, and the scope and the possibilities of expansion and introduction of newer modes of digital education with the ultimate aim of ensuring that no learner is left behind.

Imagining & shaping digital education as a long-term learning strategy towards ensuring "New Age Learning" is critical to our journey which will help us leapfrog. We can leapfrog in education when we unleash the potential of a billion Indians - to learn and to help each other learn. Education is about learning, and learning should not just be restricted to schools. It should be learning by all, learning for all, learning with all. Overall, Indian education is being readied to adapt to a framework for enhancing learning within as well as outside the classroom. The foundation of this framework will be the Online/Digital Education Guidelines and Standards which will address the digital divide, enabling equitable learning.

The Government of India is committed to ensuring learning for all, with equity, to cover all students at all levels of education and in all geographical locations, even in the remotest parts of the country so that the conveniences of accessing any service through the click of a button is no longer the luxury of the rich alone.

To keep the students engaged with the learning process during the COVID health crisis and keeping the futuristic goal of digital learning into consideration, many exemplary initiatives both Online and Offline have been undertaken at the root level to ensure that the learning happens even in the digital divide with almost negligible requirements of the internet.

There are various inclusive considerations undertaken by every State/UT that bridge the digital divide to bring media, internet, and digital literacy to all students, not just those who are easiest to reach. With pro-active lead of the state governments to cater to and engage students in the learning process, tablets/smart phone were provided. Alternative Academic calendar by NCERT with maintaining cyber security and safety has been worked out during the pandemic. State governments have provided smartphones and tablets to the students to keep them engaged with the learning process, within the same context, many remarkable and commendable initiatives have been made by respective State/UT to overcome the digital divide.

For instance, the Department of Education, UT Chandigarh found 9% of its students don't own a digital device and it arranged textbook alternatives and home distribution to such students, and the commendable one being, the school heads arranged a digital device for such children on donations. In the same way, Gujarat has initiated an Offline mobile/tablet mode of learning. States such as Haryana, Kerala, Tamil Nadu, Punjab, MP and many other states (West Bengal, Uttarakhand, and Odisha) had initiated learning through Televisions too.

Improving the status of ICT in States/UTs, the respective Education departments have contributed their utmost efforts to boost digital learning and digitize classrooms. 3304 schools in the State of Bihar have been provided with Smart TV in one classroom for each school under the Unnayan Bihar Initiative. Maharashtra has distributed 5410 laptops, 6857 tablets, 33633 desktops, 24487 projectors, 34339 LCD/LED/Plasma Screen, 2619 DTH-TV Antenna and 3319 Digital boards with LMS for its schools under ICT scheme and in the same pace, Uttarakhand had distributed laptops to 126 schools, tablets to 111 schools, Digital Boards to 36 Schools, PC with Integrated Teaching Learning Device to 126 schools, LED/LCD Plasma Screen to 418 schools and Desktop to 1967 schools for effective implementation of ICT and digital learning.

Uttar Pradesh, through CSIR Funds provided 2487 Smart TVs to its schools. Andhra Pradesh had given 18270 tablets to 609 school students and 2850 laptops to 95 school students at Secondary schools.

Even in challenging times, States & UTs are not leaving any stone unturned to reach out to the students and keep the learning process ongoing. They are setting up a new way of working and utilizing the best of available resources, few milestones undertaken are as follows: Virtual Learning, by DD (BIHAR): Bihar government has taken steps to broadcast special virtual classes for IX, X, XI and XII students. The digital syllabus has been designed in collaboration with UNICEF aiming to reach more than 38 lakh students in 8000 schools.

Video wall Chandigarh: The concept of Video wall plays a significant role by itself. Video walls have been set up in 03 Senior Secondary schools. UT Chandigarh has provided all Secondary and Senior Secondary Schools with LCD projectors in ICT labs.

"Motor iskool": Chhattisgarh has initiated "Motor iskool" to provide a face-to-face learning program, wherein selected teachers travel to remote locations across the state and conduct classes for kids in their settlement areas to become Motorcycle Guruji.

"Mobile Learning Van": Gujarat has got Mobile Learning Van and Utilization Computer Lab Asset in Mobile van for reaching its students for active learning.

"Alumni's Effort, Kerala": In Kerala, through a collective social effort by LSGs, Alumni's etc., all students were provided with access to Digital Classes, thereby ensuring an All-Inclusive digital learning model and Special Audio books for visually challenged students and Sign language Adapted Classes for Hearing impaired were also being made a part of the process.

Chat-based assessment, Telangana: The government of Telangana has launched a chat-based assessment and learning solution in the state with the support of ConveGenius and the Central Square Foundation.

The State Government of Tamil Nadu has provided 24, 69,278 laptops to class 11 and 12 students of Government schools since 2017 and also provided 27279 laptops to teachers as well. Similarly, Delhi Government has also provided tablets to all regular and guest teachers.

Various alternate measures have been considered which is being effectively carried out in reaching students where no digital device is available. Learning through local cable TV, sharing of resources via pen drive in audio-visual mode, PDF or presentation and door-door learning were initiated by Odisha. Students with no access to digital devices are paired with co-students/ alumni/ volunteers for digital learning.

Nevertheless, despite India's ICT-in-education initiatives struggling in choppy waters owing to the existing COVID health crisis, they are collectively moving in the right direction. Certainly, they have awakened all stakeholders, State/UT Governments, private education technology companies, schools, colleges, universities, teachers and students to the immense possibilities of digital technologies to upgrade and rejuvenate Indian education. A lot more is being done and will be done by all States/UTs in improving the ICT status of the Government schools and also to encourage and support digital learning with a "NO" to the digital divide. The real ICT-in-education revolution will begin only when students and teachers in government schools begin to use digital technologies and devices in their classrooms and the same has been initiated by the Ministry of Education and all State/UTs. And for the students of our country, the information and communication technology offer a magical opportunity to rapidly upgrade to a 21st-century learning environment which must not be missed and the same will be ensured to reach the nooks by the Education departments of all States/UTs and the Ministry of Education in exemplifying the quality and its reach on digital learning for a better tomorrow to the students of our country.

This report covers various chapters on the detailed initiatives undertaken by the Ministry of Education, its Autonomous bodies and all States/UTs.

INITIATIVES UNDERTAKEN BY THE MINISTRY OF EDUCATION & ITS AUTONOMOUS ORGANISATIONS

Ministry of Education Initiatives

Approach and Present Impact of Digital and Online School Education in India:

The Government of India is committed to ensuring learning for all, with equity, to cover all students at all levels of education and in all geographical locations, even in the remotest parts of the country so that the conveniences of accessing any service through the click of a button is no longer the luxury of the rich alone.

PM eVidya:

A comprehensive initiative called PM eVidya is launched as a part of the Atma Nirbhar Bharat Programme, which unifies all efforts related to digital/online/on-air education to enable coherent multi-mode access to education.

Initiatives include
- DIKSHA is the nation's digital infrastructure for providing quality e-content for school education in states/UTs: and QR coded Energized Textbooks for all grades (one nation, one digital platform)
- Access through TV channels: One earmarked TV channel per class from 1 to 12 (One class, One channel)
- Extensive use of Radio, Community radio, and CBSE Podcast- Shiksha Vani
- Special e-content for visually and hearing impaired developed on Digitally Accessible Information System (DAISY) and in sign language on NIOS website/ YouTube

DIKSHA:

DIKSHA is the 'One nation: One digital platform' for school education in India. Digital Infrastructure for Knowledge Sharing (DIKSHA) portal and mobile app created by MoE is a storehouse of a large number of eBooks and e-Contents created by States/UTs and National level organizations. The e-Textbooks of NCERT/ states and related e-Contents, mapped with QR Codes, are available on DIKSHA, which can be accessed at https://diksha.gov.in/ DIKSHA is being transformed into a platform for the coherence of access with TV and radio. DIKSHA is designed to inherently support states/UTs and other school boards to exercise autonomy, independence, and choice to craft and run learning programs to suit their needs and achieve their goals.

E-Content is available in 32 Indian languages on DIKSHA: Hindi, Malayalam, Marathi, Bhojpuri, Lepcha, Halbi, Tamil, Bodo, Konkani, Urdu, Sanskrit, Gujarati, Mythili, Sargujia, Kannada, Brij, Odia, Awadhi, Khaasi, Chhattisgarhi, Punjabi, Telugu, Gondi-Dantewada, Gondi-Kanker, Bundelkhandi, Manipuri, Kudukh, Bhutia, English, Bangla, Mizo and Marathi.

Presently the content on DIKSHA relates to grades 1-12. NCERT has also on boarded on DIKSHA and e-Contents from Portals like National Repository of Open Educational Resources (NROER) and e-Pathshala are also uploaded on DIKSHA thereby making access easier for all stakeholders. All the resources of NCERT can be accessed at https://diksha.gov.in/ncert/

- Total Learning sessions on DIKSHA – 337+ crores

- Total Learning in minutes on DIKSHA – 4,139+ crore minutes

- Page hits on DIKSHA from 01.04.2020 – 2,379+ crores

- Average daily page hits 5 + crores

- 4,575 Energized Textbooks developed by States/UTs and NCERT

- 206,547 pieces of e-content are live on DIKSHA as of date.

- DIKSHA app has been rated as one of the top-rated Free Education App on Google Play Store in India since May 2020.

DIKSHA is a flexible and evolving platform, with the below-mentioned diverse set of solutions, developed and that will continue to expand, based on the aggregated needs of the various states/UTs. The anonymized textbook solution allows

educational boards to achieve just-in-time access to digital content through QR codes printed in textbooks. Comprehensive and anonymized data emitted from DIKSHA provides the ability to see and empower all stakeholders to implement data-driven interventions.

NISHTHA on DIKSHA:

A nationwide initiative to train teachers towards their holistic development and to provide quality education. 33 States/ UTs initiated the training in face-to-face mode and due to pandemic, 18 courses have been contextualised for online delivery. Around 24 Lakh teachers have completed these online NISHTHA courses on DIKSHA with a record of 5.1 Crore enrolments and 4.6 Crore course completion across the multiple courses launched by 30 States/ UTs and 8 autonomous organisations under the Ministry of Education (MoE), Ministry of Defence (MoD) and Ministry of Tribal Affairs (MoTA). Courses are offered in 11 languages such as Assamese, Bangla, Bodo, English, Gujarati, Hindi, Kannada, Odia, Telugu, Punjabi, and Urdu.
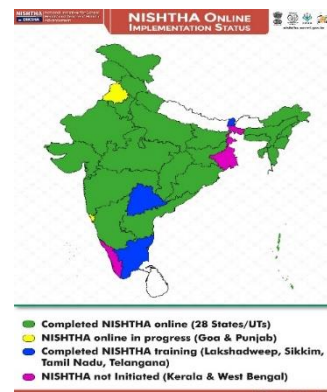
Events on DIKSHA:

Online events on DIKSHA have encouraged participation and knowledge development. Quizzes proved to be an interactive format for joyful learning and promote healthy competition. Several quizzes were conducted on DIKSHA and some are shown below.

- Yoga Quiz
- Aryabhata Ganit Challenge (AGC)
- Indian Constitution
- Discover Gandhi Quiz

Assessment in DIKSHA:

To make assessments more interesting for the learners, various formats are made available to conduct interactive assessments. Creative and critical thinking practice resources are also available on DIKSHA to enable the transition to competency-based learning of students as well as teachers.

VidyaDaan:

- In April 2020, VidyaDaan was launched as a national content contribution program that leverages the DIKSHA platform and tools to seek and allow contribution/donation of e-learning resources for school education by educational bodies, private bodies, and individual experts. Following are some of the key highlights of VidyaDaan as a program from across the nation.
- 12 States/UTs (Goa, Telangana, Kerala, Odisha, Assam, UP, Gujarat, J&K, Chandigarh, Punjab, Maharashtra, Bihar.) and 2 central organizations including CBSE and NCERT are leveraging VidyaDaan to source content on DIKSHA.

MOOCs on DIKSHA:

- Online MOOC courses and chapter wise e-content of the National Institute of Open Schooling (NIOS) is being uploaded on DIKSHA. A repository of ~50,000 content from the National Institute of Open Schooling (NIOS) has been made available on DIKSHA from May 2021 onwards. The repository will comprise explanation videos and reading materials.
- States/ UTs and autonomous organisations conduct several MOOCs courses through DIKSHA.

Interactive Chatbot on DIKSHA:

DIKSHA is also leveraging an open-source AI-based chatbot framework, 'TARA', an interactive chatbot that is engaging users in multiple ways –

- To discover content - Digital textbooks, courses, quiz, etc
- Find answers to frequently asked questions

- Delivering news and announcements
- Clarifying doubts about DIKSHA

Future use-cases include getting answers for curriculum-related questions, practice, or taking a quiz. The effective utilization of artificial intelligence and machine learning technologies is enabling TARA to ensure human-like chat interactions.

Access through TV channels:

Swayam Prabha DTH channels are meant to support and reach those who do not have access to the internet. 12 Swayam Prabha Channels are earmarked for school education under the one class: one TV channel PM eVIDYA initiative. Opportunity for viewer expert interaction is provided through regular live interactive sessions on these channels with experts through Skype. The Department of School Education and Literacy also tied up with private DTH operators like Tata Sky & Airtel to air educational video content to enhance the reach of these channels. NCERT has launched a beta run of leveraging DTH channels to disseminate class wise curriculum-linked content under the PM eVidya initiative with effect from 1st September 2020. To ensure coherent access through multimodal delivery, the broadcasted content has QR codes and can be linked with the chapter and topic wise content available on DIKSHA to ensure asynchronous usage by anyone, anytime, anywhere.

On Air:

Radio broadcasting is being used for children in remote areas who have no internet connectivity (especially for grades 1 to 5) to ensure that the absence of the internet and other digital devices does not impede access to quality education. The broadcasts focus on inclusive learning. 289 Community Radio Stations have been used to broadcast content for NIOS for grades 9 to 12. 1995 pieces of curriculum-based radio programs (Classes 1 -8) and 06 for class 10 produced by CIET-NCERT for its dissemination on 226 Radio Stations (132 All India Radio Stations, 18 GyanVani FM Radio Stations, and 76 Community Radio Stations) have been broadcasted. A Podcast called Shiksha Vani of the Central Board for Secondary Education (CBSE) is being effectively used by learners of grades 9 to 12. All these radio content and podcasts are also coming on DIKSHA in the coming months. The programs are produced under 2 major categories - Dhwanishala Series (Curricular based studio programmes) and Umang Series (Audio programmes for enrichment, infotainment, and edutainment).

For the differently-abled:

 To ensure the participation of children with special needs, the following content types are being provisioned:
- Universal Design of Learning (UDL) based curricular Content in Indian Sign Language (ISL) for CWSN are uploaded on DIKSHA
- Audiobooks are uploaded on DIKSHA
- Curriculum-based audio teaching programs available on DIKSHA
- For visually impaired students, study material has been developed in a Digitally Accessible Information System (DAISY).
- Additionally, one DTH channel is being operated specifically for hearing impaired students in ISL.

ICT Scheme of Samagra Shiksha:

ICT has become integral to the teaching-learning interaction, through such approaches as replacing chalkboards with interactive digital whiteboards, using student's smartphones or other devices for learning during class time, and the "flipped classroom" model where students watch lectures at home on the computer and use classroom time for more interactive exercises.

The ICT Policy in School Education aims at preparing youth to participate creatively in the establishment, sustenance and growth of a knowledge society leading to the all-round socio-economic development of the nation and global competitiveness and to devise, catalyze, support and sustain ICT and ICT enabled activities and processes to improve access, quality and efficiency in the school system.

The government of India had introduced ICT@ Schools scheme in the year 2004 {by merging the scheme of Educational Technology -1972 and Computer Literacy and Studies in Secondary Schools (CLASS)-1984} to provide opportunities to secondary stage students to mainly build their capacity on ICT skills and make them learn through the computer-aided

learning process and to bridge the digital divide amongst students of various socio-economic and other geographical barriers. The Scheme has provided support to States/UTs to establish computer labs on a sustainable basis.

The scheme was revised in the years 2010 and 2011 and a component to develop quality digital content and incentives for teachers (National ICT Award for School Teachers) was introduced. Besides, the Computer Aided Learning (CAL) program under SSA provided ICT infrastructure in Upper Primary schools, through the provision of Rs.50 Lakh per annum per district. Also under the Teacher Education component, ICT infrastructure has been provided to the Teacher Education Institutions (TEIs) i.e. SCERTs/SIEs, DIETs, BITEs, etc.

The aforesaid ICT@Schools scheme along with CAL programme under SSA and ICT interventions under Teacher Education component has been subsumed as ICT in School Education component of the scheme of Samagra Shiksha.

Interventions under the ICT:

- Partnership with State Governments and UT Administrations and TEIs
- Teacher related interventions
- Development of digital learning resources

Under Samagra Shiksha, ICT component envisages covering all Government and Government Aided schools from classes VI to XII and Teacher Education Institutions (TEIs), subject to the availability of budgetary provision.

Preference for various interventions will be given to Educationally Backward Blocks (EBBs), Left Wing Extremism (LWE) areas identified by MHA-GoI, SFDs (Special Focus Districts) and 117 aspirational districts and areas with a concentration of SCs, STs, minorities and weaker sections. Further, fifty percent of the physical targets for strengthening ICT in schools have to be identified from North Eastern States, LWE Districts, Island territories and other backward areas.

National Digital Education Architecture (NDEAR):

The progress of India in the coming decades will be fuelled by the participation of children and youth who should be able to tap into the opportunities offered by a growing economy that is becoming increasingly digital. The technology needs of the school education ecosystem in India are vast and varied, not all of which can be solved by the government acting in a standalone fashion. The National Education Policy, 2020 in para 24.4 (b) states very clearly that – "There is a need to invest in the creation of open, interoperable, evolvable, public digital infrastructure in the education sector that can be used by multiple platforms and point solutions, to solve for India's scale, diversity, complexity and device penetration. This will ensure that the technology-based solutions do not become outdated with the rapid advances in technology."

National Digital Education Architecture (NDEAR) has been conceived as a unifying National Digital infrastructure to energise and catalyse the education ecosystem. The core idea of NDEAR is to facilitate achieving the goals laid down by National Education Policy 2020, through a digital infrastructure for innovations by, through and in the education ecosystem, ensuring autonomy and participation of all the relevant stakeholders. It will pave the way to achieve learning outcomes by offering solutions to learners and teachers. Besides, it will also recognise the digital rights of our children and evolve best practices to ensure safety and security from untoward exposure. Ultimately, it will enable more comprehensive access and faster cycles of innovation in the education sector leveraging technology tools.
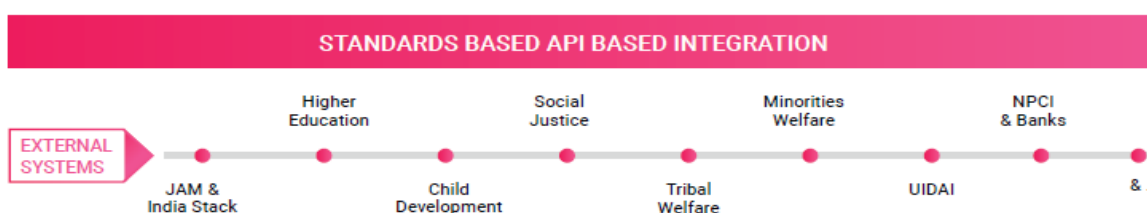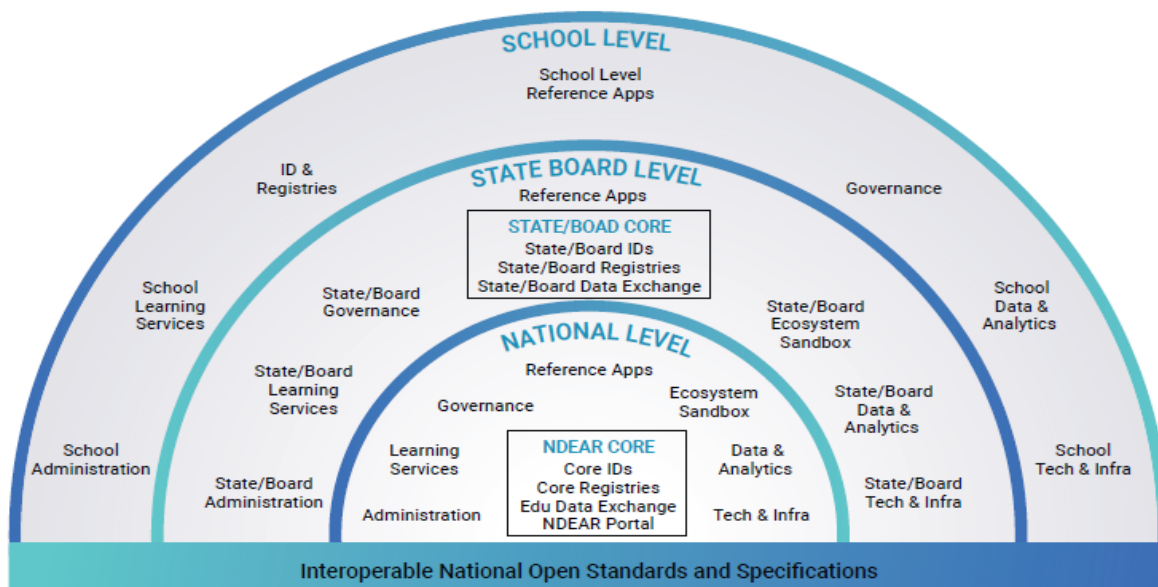
NDEAR is not a project where the Government will be building technology solutions for the use of the education ecosystem. Through NDEAR, the Government will play the role of an enabler, providing a framework where technology can be built by anyone. Further, solutions that use NDEAR frameworks, standards and specifications, would be considered NDEAR compliant. Any technology solution which is NDEAR compatible will be able to connect with other solutions that are NDEAR compliant. State/UT Governments would be free to embark on building solutions to suit their needs. NDEAR, by identifying needs and curating the building blocks needed for the education ecosystem, would be able to help with enabling the States with a leg up by providing technology components that can be configured for different solutions.

All building blocks across Core, Common, and reference categories will be organised well to allow easy discovery and reuse through machine-readable catalogues, directories, and dictionaries within NDEAR Portal.

NDEAR is meant to enable a common set of principles and approaches to be followed in building, using and re-using technology for education. Making NDEAR functional will help in gaining the following:

- Systems would continue to function effectively with the ability to connect and leverage their combinatorial values.
- Great innovations and solutions by States and the wider education community would be possible to be leveraged by others.
- The lead time for getting technology projects and solutions by States and UTs would be much lesser than actual.
- Solutions and ideas that have worked in a particular State would be reusable and reconfigurable by another and they would not have to start from scratch.
- There would be wide access to communities of practice and best practices leveraging technology in the Indian context.
- Data systems would be able to talk to each other using a common framework, thereby curtailing policymaking, particularly to drive learning outcomes.
- There would be common frameworks on data and policies around data. This would make technology systems and individuals adaptable and is expected to result in consistent handling of data and protection of individual data-particularly children's data.

Future Impact:

Imagining & shaping digital education as a long-term learning strategy towards ensuring "New Age Learning" is critical to our journey which will help us leapfrog.

We can leapfrog in education when we unleash the potential of a billion Indians - to learn and to help each other learn. Education is about learning, and learning should not just be restricted to schools. It should be learning by all, learning for all, learning with all. An approach towards integrating the use of technology with the education system will lead to development. Provisioning virtual labs, AR/VR content, games, and simulations on DIKSHA is aligned with the objectives of NEP to focus on 'learning by doing'.

The NEP 2020 lays stress on several areas of integration of ICT in school education as shown below. The PM e-Vidya initiative aims to achieve each of these outcomes.

- The teachers - 'our heroes' - are also being trained to leverage digital tools and resources. Ensuring multi-modal access is not limited to student learning initiatives only. The digital training courses for teachers are also made available online in a way to enable "anytime, anywhere" access.
- Overall, Indian education is being readied to adapt to a framework for enhancing learning within as well as outside the classroom. The foundation of this framework will be the Online/Digital Education Guidelines and Standards which will address the digital divide, enabling equitable learning.
- The present initiatives and the collective efforts are aimed at fulfilling our vision of making India a Global Knowledge Superpower and restore India's glory as a great centre of learning.

As per NEP 2020, Ensuring Equitable and Appropriate use of technology in all levels of education—

- To improve student learning outcomes,
- Teaching-learning and evaluation processes at scale.
- Enhance educational access to disadvantaged groups.
- Increase availability of data to enhance understanding of how children learn and
- Streamline educational planning, administration and management.
- Creating a Dedicated Unit for Building of World Class, Digital Infrastructure, Educational Digital Content and Capacity
- Promoting Education Technologies for Improving the Quality of Education
- Align major technology-related schemes with NEFT (ODB, ICT@Schools) etc.,
- Establishing NDEAR (Digital Architecture)

National Council of Educational Research & Training (NCERT) Initiatives

Resilient and Coherent services through the use of TV and Radio Channels during COVID-19 pandemic:

NCERT has geared up its TV and Radio programme production process and has developed a large number of educational audio-video programmes based on the NCERT curriculum or its dissemination under PMeVIDYA. As part of One Class, One Channel, 12 DTH TV channels have been started w.e.f. September 1, 2020, and curriculum-based programmes are being telecast on a 24x7 basis from classes 1-12 (a channel for every class). All the channels are carried by DD Free dish and some of the private cable operators also carry these channels. Contents of these channels are also available on the Jio TV Mobile app. Curriculum-based educational radio programmes are also broadcast on 220 Radio stations (12 Gyan Vani Radio Stations, 76 Community radio stations and 132 All India Radio (FM) stations) and on Jio Saavn Mobile and podcast.

Continuous Orientation on Educational Technology:

COVID-19 has forced every teacher and student to utilise the potentials of digital technology to continue their learning remotely. Teachers and students were struggling and facing challenges due to lack of awareness, insufficient competency in handling digital technology and lack of digital infrastructure. It was a time where everyone started looking to improve their digital competency. Keeping in view the requirements, CIET- NCERT initiated a webinar series focusing to orient teachers, students and other stakeholders on various ICT tools, digital initiatives at the national level, emerging trends in educational technology, cyber safety and security. A variety of sessions in English and Hindi has been conducted live which is simulcast through YouTube live as well as 12 PM eVIDYA DTH TV Channels and Jio TV mobile App. Till June 2021 more than 345 live sessions of one hour, each has been organised on ICT tools for teaching learning and assessment. A repository is also created for easy reference and can be accessed at the link provided here https://ciet.nic.in/pages.php?id=webinar&ln=en.

Manodarpan and Sahyog:

To provide Psychosocial Support for Mental Health & Well Being of Students during the COVID Outbreak and beyond, the Manodarpan initiative has been launched by the MoE, GoI. Manodarpan Cell has been set up in NCERT and orientation of counsellors associated with Manodarpan Helpline was organized. Guidelines for the counsellors to provide psycho-social support to callers on Manodarpan Helpline were shared. NCERT has taken various steps to reach out to school students and their primary stakeholders (parents and teachers) for helping them to maintain their mental and emotional well-being during the present times of the COVID-19 pandemic. To help school students across the country share their concerns and seek help to deal with stress, anxiety and related mental health concerns during and after COVID-19, 'NCERT Counselling Services for School Children' was started in May 2020 on phone/email through its trained counsellors. This service was provided free of charge by trained counsellors across different regions of the country.
Live interactive sessions 'SAHYOG: Guidance for Mental Well-Being of Children' are telecast to deal with guiding handling stress and related concerns of students. These sessions are being held by school counsellors and Experts on the 12 PM eVIDYA DTH TV channel daily from 5.00 pm to 5.30 pm.

> Analysis of calls received from school students, youth and parents was undertaken and it was found that
> - School students at the middle and secondary stages were mostly concerned with academic and career-related issues such as difficulties in online learning, inappropriate time management, strategies for improving study habits, etc.
> - Youth were concerned about not getting a regular salary, worried about final examinations at UG/PG level, anxiety due to uncertainty in job placements and semester examinations, etc.
> - Parents were mostly concerned about academic and career-related issues such as lack of concentration, reopening of schools, change in behavioural patterns, mood swings of children, etc

Training on e-Content Development:

COVID-19 has increased the demand for quality e-Content that can be disseminated through various channels like TV, mobile apps, instant messenger, web portal etc. Every state/ UT and autonomous organization has initiated the process for the development of e-Contents. CIET-NCERT has trained around 800 SRGs across 36 States/ UTs on the instructional

design process, development of a variety of OERs using FOSS, evaluation of e-Content, e-Content for CWSN etc., to enable the development of quality e contents in the country. SRGs have further initiated training at the state level to orient more teachers as content developers to develop quality e-Content to be uploaded in DIKSHA and also to disseminate through various other channels. The training session videos can be accessed at https://www.youtube.com/channel/UCqTcfrzuHlZcm-0HprVV0tQ/videos

Continuous Professional Development (CPD) Courses on DIKSHA:

NCERT offers continuous professional development courses for teachers through DIKSHA during the pandemic to support teachers to continue their learning, some of the courses offered by NCERT are COVID 19-Responsive Behaviour in collaboration with UNICEF, e-waste management in collaboration with MeitY, Action Research, Cyber hygiene etc. These courses are also rerun by the States/ UTs in their respective DIKSHA tenant.

School MOOCs on SWAYAM:

NCERT offers 30 courses for Classes XI and XII covering 11 subjects through the SWAYAM portal. These courses have become a boon to students during the pandemic. Courses are designed following a four-quadrant approach. The courses are also being translated into regional languages. Details of the courses can be accessed at https://ciet.nic.in/swayam-moocs.php?&ln=en

Guidelines and Orientation on Cyber Safety and Security:

Safety concerns during online learning are considered seriously and NCERT has designed cyber safety and security guidelines for teachers, students, parents, schools and also has developed guidelines on cyberbullying in collaboration with UNESCO and ISEA-CDAC, MeitY. An online quiz was conducted to orient various stakeholders in the safe use of technology. Guidelines can be accessed at https://ciet.nic.in/pages.php?id=booklet-on-cyber-safetysecurity&ln=en&ln=en.

E Pathshala and NROER:

E Pathshala initiative of the Ministry of Education, GoI is for the dissemination of Digital Books and e Contents. Using the e-Pathshala web portal (https://epathshala.nic.in/) and mobile app (Android, iOS, Windows), students, teachers, teacher educators and parents can access more than 696 digital books including 377 e-textbooks (classes I to XII) and 40000 audios and videos of NCERT free and open resources in various languages (Hindi, English, Sanskrit and Urdu). E-Pathshala (https://epathshala.nic.in/) portal having nearly 13 crores visitors and 45 lakhs app downloads.

The National Repository of Open Educational Resources (NROER) web portal is a storehouse of e-Contents for students, teachers, teacher educators and parents. About 19,723 e-Contents of NCERT and other collaborative partners are available on NROER for free in various school subjects (Classes I to XII). These curriculum-based e-contents can be accessed by logging on to: https://nroer.gov.in/welcome NROER is reporting about 2.5 lakhs visitors and 9,000 unique visitors per day. These contents are also available on the official YouTube channel of NCERT.

Live Telecast on PM eVIDYA to support Alternative Academic Calendar (AAC) developed by NCERT and use of IVRS for feedback:

As a part of the implementation of Alternative Academic Calendar (AAC) developed by NCERT from classes 1 to 12 continuous online education support through 12 PM eVIDYA DTH TV channels. Curriculum-based video programmes are telecast by NCERT for Primary, Upper Primary, Secondary and Higher Secondary level students daily. These programmes are simultaneously telecast on DD-Free Dish, Tata Sky, Videocon, Sun Direct, Dish-TV, YouTube Official Channel of NCERT and Jio TV Mobile App. Interactive Voice Response System (IVRS) number 8800440559 is used for obtaining feedback from the viewers and supporting live phone calls with the experts in CIET-NCERT studio.

Production and dissemination of e-Contents for CWSN/ DIVYANG:

NCERT has signed a Memorandum of Understanding (MoU) with ISLRTC-Ministry of Social Justice and Empowerment, Govt. of India for the development of e-Contents in Indian Sign Language. NCERT has started production and telecast of ISL videos on PM eVIDYA DTH TV channels and its further dissemination on the DIKSHA portal.

Online Quizzes for students and teachers:

To keep the students and teacher engaged in a meaningful learning environment various online events were organized. NCERT in collaboration with various partners organized quizzes on Yoga, Indian Constitution, Discover Gandhi, cyber safety and security, NEP-2020, Republic Day, Swatantra Bharat etc. These events motivated the stakeholder to come in a large number and participate and enrich their intellectual horizon.

Support to Mauritius for creation and maintenance of Student Support Programme (SSP) portal and mobile app.

NCERT supported the Republic of Mauritius for the creation of a Mobile App (Android) during the COVID-19 pandemic situation and delivery of e-contents through the SSP mobile app. Also continuously associated with the development and maintenance of the SSP portal (https://ssp.moemu.org/).

National Institute of Open Schooling (NIOS) Initiatives

NIOS (National Institute of Open Schooling) reaches out to its prioritized client groups which include school dropouts and marginalized groups, such as rural youth, urban poor girls and women, scheduled castes, scheduled tribes, backward classes, Divyangjan and ex-service personnel and weaker sections of the society. In pursuance of the directives of the Ministry of Education and the need for necessary social distancing resulting in school closures, NIOS has taken several initiatives and utilized various learning platforms to ensure that the learners of NIOS get continued learning support during the COVID-19 pandemic which include the following:

Transaction of content through live sessions on e-Vidya at the Secondary and Sr. Secondary level:

- NIOS started with this innovative idea of imparting 3 hours live programmes every day on PM eVidya 10 and 12 channels for providing continuous learning support for learners at the Secondary and Senior Secondary level including Vocational Courses and Indian Sign Language based content w.e.f. 01.03.2021 i.e., after the onset of the second wave of Covid Pandemic.
- Earlier, NIOS has also imparted daily 8 hours live programme 4 hours each on PM eVidya channels for classes 10 and 12 for providing continued learning support for learners at Secondary and Senior secondary level including Vocational Courses and Indian Sign Language-based content from 01.09.2020 to 28.02.2021
- Before launching of PM eVidya channel, NIOS imparted 8 hours live sessions every day including holidays, Saturdays and Sundays for secondary and senior secondary level on Swayam Prabha – Panini (Secondary) and Sharda (Senior Secondary) channels from 7th April to 31st August 2020,
- Between July 2020 to June 2021, 1597 live sessions were telecast to provide continued learning support to learners. NIOS guidance and counselling sessions through live video programmes were also organized where students interacted with experts. Special sessions on Yoga, Music and Painting were also held to destress the learners and engage them in co-curricular activities.
- Through this initiative, NIOS can reach out to the learners of the country, especially in the far-flung areas where learners do not have access to the internet during these difficult times. The students can also log in to the website sdmis.nios.ac.in or call NIOS toll free telephone number and ask questions to the teachers.
- The queries are being responded to by the experts thereby, making these programmes more interesting and interactive.

Content Support for NIOS Learners on DIKSHA:

- NIOS content is available on a separate vertical 'DIKSHA' (Digital Infrastructure for Knowledge Sharing) of PM eVidya involving e-content and QR coded energized books for all the classes and provides multi-mode access to digital/online education called 'one nation, one digital platform' comprising one channel for each class. The special e-content for visually and hearing-impaired students is also available on the platform.
- Till now, 652 NIOS contents related to different subjects at the secondary level and 1018 contents at the Senior Secondary level are uploaded on DIKSHA Portal. The learners can download the video and content and learn at their own convenient time.

E-content on SWAYAM platform:

- MOOC courses relating to NIOS (grades 9 to 12 of open schooling) are uploaded on the SWAYAM portal.
- 42 courses including 13 courses at the secondary level, 20 courses at the senior secondary level and 8 vocational courses were offered on SWAYAM Platform. In between July 2020 to June 2021, about 125,000 learners have enrolled in these courses. Students and teachers can access all the course modules - text, videos and assessment questions etc. through SWAYAM.

Worksheet by NIOS for Secondary and senior secondary level learners:

- Worksheets are being developed with the purpose to provide academic support to learners and keep them academically engaged through constant practice. These are exploratory in nature and help in developing problem-solving skills, creative thinking, and life skills; in the form of project work that engages learners in some activity, etc.

Provision of Learner's Guide at secondary and senior secondary level:

- The learner's guide is being prepared by NIOS for addressing the unfinished learning and learning losses due to the COVID-19 pandemic. In the learner's guide, the content presented in the textbook (Self-Learning Material of NIOS) are broken down into concise summary and are presented with the support of visual cues, pictures and flow charts. It will facilitate the learner for the revision of study material in a short time. Further, the learner's guide is also being developed with the purpose to initiate the thinking process and enable the learner to co-relate the content with real-life situations.

E-content For Children with Special Needs:

- For persons with blindness and low vision and deaf and hard of hearing learners, study material has been developed in Digitally Accessible Information System (DAISY) and in sign language; both are available on the NIOS website/ YouTube.
- Course materials in 6 subjects of NIOS at senior secondary level and 10 subjects at the secondary level have been converted into Talking books in DAISY format which is available in English and Hindi language.
- 176 sign language videos for deaf and hard of hearing learners are uploaded on the DIKSHA portal by NIOS.
- For the education of deaf and hard of hearing learners, Contents in sign language medium are delivered twice a week through a live video programme on PM eVidya 10 channels.

Transaction of Content through Web Radio:

- NIOS has made provision of Podcasting the contents at secondary and senior secondary level courses through Mukt Vidya Vani (MVV). Daily 2 live PCP are transacted through MVV, which are also repeated consequently.
- To make these PCPs interactive, a toll-free number, 18001802453, and phone number 0120-4626949 are provided to get questions directly from the learners to the Academic Officers/Course Coordinators conducting live sessions as per the schedule. Learners can also email their subject related queries through Mukta Vidya Vani.

Learning support through Community Radio Programmes:

- To create awareness on various social issues and quality education among the masses, particularly among learners of NIOS; NIOS broadcasts radio programmes through its Community Radio Station – Radio Vahini FM 91.2 MHz Apart from the transaction of contents at the secondary and senior secondary level, community radio programmes which comprise sessions on - guidance and counselling, skill development, Gender sensitization, Issues of Divyangjan, Yoga, Safe Drinking Water, Meditation and motivation etc.
- To provide a safe and comfortable atmosphere for healthy living and education during the COVID-19 pandemic, various civic issues related to COVID-19 such as Guidance and counselling, social distancing measures and health and nutrition, Yoga and meditation are discussed. The experts are being invited to participate through telephone and learners can raise their queries. The recordings of these audio programmes/PCPs are available 24x7 on the NIOS website www.nios.ac.in and its YouTube page.
- The required information and content for awareness on the corona pandemic are constantly being broadcast before every program.

Online learning support for Vocational courses:

- Few of the Accredited Vocational study centres conducted online vocational theory classes such as Community Health, Yoga Teacher Training Programme, Cutting & Tailoring, Beauty Culture, ECCE etc., at their study centres for the registered learners.
- On-line support was provided by the faculty to learners registered under vocational MOOCs programmes such as Bee-Keeping, Beauty Therapy, CRM Domestic Voice, Yoga Teacher Training Programme, Panchakarma Assistant.

Solving Queries of Learners through the Mobile app:

- Keeping in view the learner's interest NIOS installed a window based mobile app in the Learner Support Centre. Now executives are answering the call from home and solving the learner's issues.

Use of e-service for correction of Learner's document:

- Regularly correction cases of documents of learners were carried out through e-service.

Navodaya Vidyalaya Samiti (NVS) Initiatives

Online classes:

- Single Learning Management System (LMS) using the Microsoft Teams for Education is being adopted in NVS for online classes. Teachers are being trained and MS Teams would be used by all JNVs for conduct of online teaching & learning by providing personalized e- content/ projects for students, assessment and performance analysis of the students as well as monitoring of classes. Attendance of students during online classes is being recorded.
- Online classes for all students were started w.e.f. 15 June 2020 in all subjects. Online classes in subjects like Physical Education, Art and Music were also conducted.
- Blended mode of learning was adopted, including synchronized and asynchronized online learning and doubt clearing sessions for the students.
- O-Labs platform was used for conducting virtual experiments.
- Government Portal and other freely available open-source apps/platforms, Swayam Prabha Channels, PM e-Vidya, DIKSHA are being used by students and teachers for ICT integrated education.
- Libraries of 600 JNVs have been brought on e-Granthalaya version 4.0. Students and teachers are using the resources available on JNV e-Granthalaya.
- Teachers are using e-content available on DIKSHA Portal for online teaching.
- To make the developed learning material handy, the Class-wise Handouts of e-Content developed by NVS teachers as well as links of DIKSHA, MANODARPAN, PRAGYATA Guidelines, e-Textbooks, Virtual Labs, Sample Papers etc., were prepared and circulated for its utilization by teachers and students.
- Online additional academic support with knowledge partners is being provided for competitive examinations (JEE, NEET, CLAT etc.) to the students of classes XI & XII.

Development of digital infrastructure:

- JNVs are residential schools that are well equipped with Desktops, Laptops and internet connectivity.
- Navodaya Vidyalaya Samiti with support from the Ministry of Minority Affairs has implemented the project for converting all the 1173 classrooms into smart classrooms (including Virtual Classrooms one in every 99 JNVs) in the 99 JNV located in Minority Concentrated Areas during the session 2020-21.
- 755 Smart classrooms are established in 545 JNVs with a fully integrated 1:1 learning platform including 41 Laptops/tablets, Interactive board displays etc in each smart class.
- 80 new smart classes (with 40 Tablets and 01 Laptop, Interactive Board etc. in each smart Class) under CSR were commissioned during session 2020-21.
- 10 Smart Classes (40 Tablets, Interactive Board etc. in each smart class) had been established at seven training institutes of NVS.
- Efforts are made to improve internet connectivity and Wi-Fi networking in all classrooms and Labs so that teachers can effectively use the ICT infrastructure of JNV for online Teaching-learning. Efforts are also being made to ensure dedicated internet connectivity with 10/ 20 Mbps speed to all JNVs.
- All efforts are being done to provide digital devices (Tablets) to all students of classes XI & XII in the current session.
- Graphic Tablet (digital pad and pen) is being provided to each teacher for making online content transactions effectively during online classes.

Creation of e-content by NVS teachers:

- NVS teachers have created 1755 videos, 1394 PPTs and 6966 competency-based questions for Classes VI to XII in the same taxonomy of the DIKSHA portal.
- For the creation of the above e-content, the services of 1195 teachers were taken across the Regional Offices.
- The e-content created by NVS teachers was shared with the DIKSHA team and NCERT for curation and selection for uploading on the DIKSHA Portal out of which 386 Videos have been uploaded on the DIKSHA portal.
- 59 teachers across the country are continuously contributing for Swayamprabha Channel of NIOS in various subjects at the Secondary and Senior Secondary levels. 284 sessions of NVS teachers were broadcasted through NIOS Swayamprabha Channel during 2020-21.
- 20 Teachers from NVS are contributing to the creation of e-Content for PM e-Vidya Programme under the guidance of NCERT.

Online Training:

- To train all the teachers in Virtual Classroom Management, 634 teachers were trained as Master Trainers in the first phase who further imparted training at JNV level to 8451 teachers.
- For Virtual Training in Online Assessment, 1935 Master Trainers were trained who have further imparted the training on Online Assessment to 8505 teachers at JNV level.
- 7706 Teachers including Principals of JNVs have attended the Orientation cum Training Programme on the Alternate Academic Calendar conducted by CBSE.
- Online Training in GeoGebra software was also given to 422 Maths Teachers.
- Guided Learning programme in Mathematics (Class VII to X) was conducted in collaboration with Khan Academy for 758 TGT (Maths).
- Awakened Citizen Programme for TGTs was conducted in collaboration with Ramakrishna Mission for 337 teachers.
- An online webinar on NEP was conducted by NNLI Noida for 212 officers & PPLs of NVS.
- Online Training on Cyber Safety & Security Awareness was conducted in collaboration with C-DAC Hyderabad for 866 PGT (IT) / TGT.
- Online Session on Career Counseling for 1015 Vice Principal/Senior Most teacher and Librarian was organized.
- Virtual Training on Olabs was organized for 2802 PGTs (PCMB) & TGTs (Sci, Maths) in collaboration with Amrita University.
- Online Training for Enhancing Blended and online teaching capability of PGTs/TGTs was given to 469 Teachers by NABET-QCI.
- Online Training on Exposure to Open Educational Resources has been provided to 508 Librarians across all the JNVs.
- Online Workshop on "Preparing Schools for Competency-based Education (CBE)" was organized for 60 PGTs from each Region. 467 participants attended this online workshop. (Dec 2020)
- Under the NISHTHA on DIKSHA training programme in NVS (from 16.10.2020 to 15.02.2021), 7251 participants - PPLs, VPs & TGTs (including Creative Teachers) have completed all 18 courses.
- A series of "Six Days' Online Workshop on Teaching, Testing & Evaluation for Regional Language Teachers of NVS" is being conducted in which 45 Malayalam language teachers & 106 Marathi language teachers have already been trained. The said online workshop is ongoing for 94 Kannada language teachers & 69 Telugu language teachers (Total-314).
- Online Training on Pedagogical Leadership was conducted in association with NIEPA in which 97 Principals across eight Regions in two batches were given training.

National Council for Teacher Education (NCTE) Initiatives

After the occurrence of the unprecedented situation of COVID 19 in India from March 2020, the NCTE besides other initiatives has also taken the initiative of providing online study material to the students admitted in teacher training courses and for the teacher educators throughout the country by launching an online 'Open Education Resources (OERs)' Portal.

The aim of launching the Portal is to make available useful study material to various stakeholders of the NCTE in a user-friendly manner through different modes of online transmission. The Committee has identified 29 core areas related to different teacher education programmes. The Committee has also identified the subject experts and they were requested to submit the study material developed by them and after passing through different steps of assessment, the same is being uploaded on the OERs Portal on the website of NCTE.

The OERs Portal comprises of three Sections-

1. OER Developed (study material developed by the invited experts).
2. OER Curated (study material suggested or adapted by the experts).
3. OER by the Institutions and Academic Groups (study material received from different Institutions/Groups).

The Portal can be reached through the Link as https://ncte.gov.in/Website/OER.aspx

The NCTE has also taken special care that the study material available on the portal is of high quality and in simple language and should be useful to all stakeholders of the NCTE. The study material is available free of cost on the website of NCTE.

Central Board of Secondary Education (CBSE) Initiatives

CAPACITY BUILDING PROGRAMMES (FOR TEACHERS AND HEADS OF SCHOOLS)

Online Training Programmes:

CBSE has trained more than ten lakh teachers (from July 2020 till June 2021) in different areas including online pedagogy. Several bite-sized modules have been prepared and disseminated post-training to augment the capacities of teachers. Apart from the above, teachers have also been trained under National Initiative for School Heads' and Teachers' Holistic Advancement (NISHTHA) program of the Government of India

Online Conference for Heads of Schools:

The Board in collaboration with the Bangalore Sahodaya Schools Complex organised the 26th National Annual Conference of Sahodaya School Complexes in a virtual mode on 11-12 December 2020 and a record number of 9000 plus principals attended it. The Honorable Minister of Education inaugurated it with the Minister of Primary and Secondary Education, Karnataka. Secretary, School Education and Literacy also addressed the Heads of the Schools and highlighted the need for every teacher to take up the challenges and convert them into opportunities to bring about the realisation of holistic education with a focus on New Education Policy 2020. The theme of the conference was *Building Competencies in Challenging Times* in which 27 experts and CBSE Directors spoke to enable teachers to adapt to the learner's needs by adopting novel pedagogical practices.

Webinar Series on NEP:

CBSE conducted a series of webinars (100 programmes) for its Principals, Teachers and Parents to facilitate effective implementation of NEP-2020 from July-August 2020 onwards. Live streaming of webinars was also done and no registration was required. During live streaming, a link to the quiz was provided and a certificate was awarded to the participants of the quiz.

MOOCs modules on experiential learning and competency-based education:

The Board has prepared activity-based and highly engaging modules on the pedagogies related to experiential learning and competency-based education and the need to integrate real-life situations into the teaching and learning process. These modules are available at https://bit.ly/cbse-explrn-wb and http://bit.ly/CompetencybasedEducation

Training on the use of Olabs:

CBSE organised virtual training for the Mathematics, Biology, Physics and Chemistry teachers of its affiliated schools on Olabs in which 22,000 teachers participated. Online Virtual Labs (OLabs) is a platform that teaches lab experiments using the Internet. Content at Olabs is aligned to NCERT/CBSE and State Board Syllabus. These are available at olabs.edu.in.

ONLINE STUDENT ENRICHMENT PROGRAMMES/ACTIVITIES

CBSE Expression Series for Students:

To provide a platform for students to creatively express their ideas/ views on the theme "Thinking Innovatively in Unprecedented Times like COVID-19", CBSE conducted an Expression Series in an online mode from 15th June to 15th July 2020. 343984 students of 1336 schools participated in this Expression Series.

Aryabhaṭa Ganit Challenge:

To promote interest and proficiency among students through joyful assessment, a Ganit Challenge was conducted by CBSE. The Computer Based Test mainly focuses on the extent to which children can apply mathematics to their daily life. The feedback from the performance of the test helps the Board to handhold the schools and children in the application of mathematics in daily life. This year's Aryabhata Ganit Challenge started on November 12 and concluded on December 7, 2020, after an extension. A total of 2.5 Lakhs students enrolled in this year's edition of AGC with 1.8 Lakhs out of it completed at least one module and 0.9 Lakhs participants completed 100% questions.

Celebration of Constitution Day:

The schools affiliated with the Board observe Constitution Day commemorating the adoption of the Constitution of India. As part of the celebrations, several activities highlighting and reiterating the values and principles enshrined in the Constitution are being organised in the schools. This year, 592363 students and 54352 teachers of 1038 schools observed the constitution day.

Fit India School Week:

Fit India School Week was celebrated by the CBSE Schools in November 2020 to create awareness about fitness not only for their students but also their parents, teachers and school staff. During the week, various virtual/online activities like yoga, free hand exercises, painting, debates, symposiums, brain games like Chess, Rubik cube etc. were organised by the schools following the guidelines of COVID-19.

Heritage India Quiz 2021:

CBSE Heritage India Quiz is conducted every year to raise awareness about preserving human heritage, diversity and vulnerability of India's built monuments and heritage sites. To reach out to maximum students across the country, the Board hosted the Heritage India Quiz 2020-21 on the DIKSHA platform. This Quiz course was available on the DIKSHA platform from 20th January 2021 to 10th February 2021. All Students from classes 1 to 12 (irrespective of the Board) were eligible to participate in this Quiz. No merit list was displayed, and no separate certificates were issued to the participants. Participation certificates were issued online after fourteen days on the DIKSHA platform itself upon 100% completion of the course. The theme for the Quiz was 'EK BHARAT SHRESHTH BHARAT'. The medium of the Quiz was Hindi and English. A total of 135345 students participated in the quiz.

CBSE Expression Series on Students' Perspectives on Teaching and Learning:

To provide a platform for students to creatively express their ideas/ views on the theme of Students' Perspectives on Teaching and Learning, CBSE conducted an Expression Series from 6th February 2021 to 28th February 2021.

Storytelling Competition on Stories of Human –interest:

CBSE launched a Storytelling Competition from 6th to 16th February 2021 for invoking interest in the true stories of the Covid-19 lockdown period on various topics such as innovation, sacrifice, going beyond the call of duty, challenges faced and creatively solved, humour, finding joy in adversity etc.

The CBSE Reading Challenge 2.0:

The Central Board of Secondary Education announced the organization of the CBSE Reading Challenge 2.0 for students of classes 8th to 10th for the English & Hindi languages on the DIKSHA platform from 16th February 2021 to 15th March 2021. No merit list was displayed to promote participation. Participation certificates were issued online on the DIKSHA platform itself upon completion of the course.

Observing International Day of Yoga (IDY) on 21.06.2021:

CBSE advised all its schools to organise the 7th International Day of Yoga virtually on 21 June 2021 for its students in an online mode. Online events like quiz competitions on Yoga, Yoga workshops for parents, teachers and students, 15 days Yoga Training Program for Parents, Teachers and Students through a Qualified Yoga Trainer were organized by the schools in such a way that they culminated on 21st June 2021. Schools were also advised to visit the website of the Ministry of Ayush for further details about the International Day of Yoga 2021 including Common Yoga Protocol and Guidelines for Physical and Psychological Well-being during COVID-19. Schools were also advised to create an 'International Day of Yoga 2021 link' on the school's website's homepage and upload the information and pictures about the celebration.

INITIATIVES TO ADDRESS THE MENTAL HEALTH OF THE STUDENTS

Online student counselling:

CBSE provided assistance and psychological counselling to 14000 students of boarding schools affiliated with the Board by establishing contact with the residential schools and their school management. Due to the corona pandemic, CBSE started an additional Toll-Free Tele Helpline on CORONA VIRUS safeguards for students. Audio-visual presentations on issues affecting mental health during this crisis were made available for masses on Aggression, Internet Addiction Disorder, Depression, Exam Anxiety, Substance Use Disorder, and Life Skills on official YouTube and Facebook handles of CBSE.

Manual on Mental Health and Well Being:

This manual emphasizes the importance of Mental Health and Well Being and encapsulates the role of school, family and community while covering other significant aspects related to Health conditions, risk factors and challenges in the adolescent period. It has a dedicated chapter on psychological support amidst COVID-19 covering Self Care, positivity, dealing with fear and anxiety, dealing with stigma, and the importance of social support and staying connected. The manual is available at http://cbseacademic.nic.in/web_material/Manuals/MENTAL_HEALTH_AND_WELLBEING.pdf
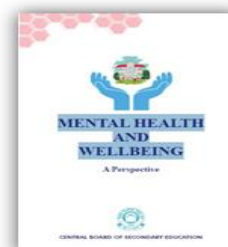
SPECIAL RESOURCES DEVELOPED FOR TEACHERS, STUDENTS AND HEADS OF SCHOOLS

Learning Outcomes mapped to Curriculum:

CBSE took up the task of mapping each of the Learning Outcomes laid down by NCERT (for all subjects till class X) with the topics in the prescribed textbooks to facilitate teachers to further their understanding of competency-based education and apply the same to their efforts during the pandemic. This document of mapped Learning Outcomes to the curriculum is available at http://cbseacademic.nic.in/web_material/Manuals/TeachersResource_LODoc.pdf
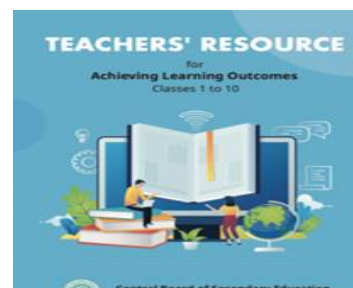
Teacher Energized Resource Material or TERM:

The Central Board of Secondary Education has developed *Teacher Energized Resource Material (TERM)* handbooks for two subjects – science and mathematics – covering the entire syllabus of grades 6 to 10 that will aid teachers in aligning their classroom transaction to a competency framework. The resources contain concepts that have been linked to the NCERT Learning Outcomes with a set of assessment items. The 10 TERM documents are available on DIKSHA at: https://diksha.gov.in/cbse/explore/1?key=TERM%20 and also on CBSE academic website: http://cbseacademic.nic.in/manual.html
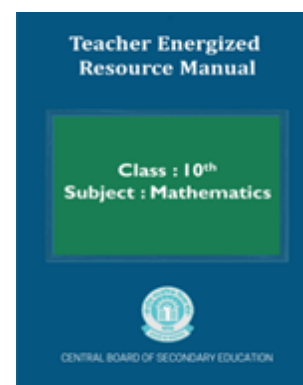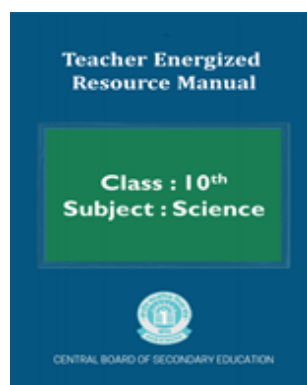
Comic books for students for imbibing 21st-century skills:

To ensure that learners continue their learning through joyful means and also acquire/augment 21st-century skills even during the pandemic, two comic books were released online for school going children by CBSE. These help the learner imbibe critical thinking and problem-solving skills through the storyline. They are available on the CBSE website at http://cbseacademic.nic.in/web_material/ComicBooks/Cogito.pdf
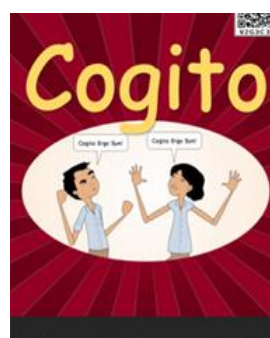
Handbook on Cyber Safety:

There has been a sudden and unprecedented expansion in online activities not only by teachers but also by schools, during the pandemic. This expansion brings with it, the possibilities of cyberbullying and also throws up issues of cyber safety, particularly for young users. With this background in mind, a student-friendly Handbook on Cyber Safety – for students of secondary and senior secondary schools, has been prepared by CBSE. This handbook contains content in very engaging and simple formats, with e-content tagged to QR codes at several places to augment the understanding of the student further. This Handbook is available at http://cbseacademic.nic.in/web_material/Manuals/Cyber_Safety_Manual.pdf

Kendriya Vidyalaya Sangathan (KVS) Initiatives

The pandemic and consequent lockdown which hit the world unawares, despite posing to be a challenge, provided an opportunity to tap the humongous potential of online education. The Kendriya Vidyalaya Sangathan (KVS) has braced itself and utilized every possible way to mitigate the learning gaps while charting out ways to face the issues not only of accessibility, connectivity, transparency, accountability, privacy and cyber security but also of physical and mental well-being of its students, parents, teachers and officers. KVS has explored every possible technological input to use the digital platform in its best version and is still forging ahead by making new collaborations to make the teaching-learning process an enjoyable and enriching one. There have been no gaps in the teaching-learning process. Its quality and continuity have been maintained by improvising and integrating all the available resources. Every effort has been made to keep the students motivated and engaged in the challenging world scenario.

Connecting with Students:

Online education depends on the availability of devices that can connect students to digital platforms. For a smooth transition of the pedagogical approaches from offline to online mode, the following steps were ensured.
- Mapping of Students to assess the availability of Digital devices.
- Planning for the synchronous and asynchronous mode of academic transaction.
- Resources like Alumni, CSR, and NGOs tapped for providing devices to students.
- ICT Facilities available in the school extended to students and teachers.
- Timetable with limited screen time and staggered time slots prepared to address the issue of availability of limited devices.

Alternate methods to reach out to students:

- Sharing the devices with the peers and siblings
- Content material made available in pen- drives in case of poor network connectivity

Mitigating Digital Divide- Efforts undertaken for the students with no device or internet connectivity-
- Worksheets and Handouts are prepared in all subjects and delivered to the students at their homes.
- Community Teaching maintaining Physical Distancing undertaken in some Kendriya Vidyalayas
- Guided Peer Learning for students staying in the same locality encouraged
- Use of Asynchronous mode of transaction such as free e- resources available on various DTH channels, like SWAYAM PRABHA.

Avalability of Device for Online CLasses
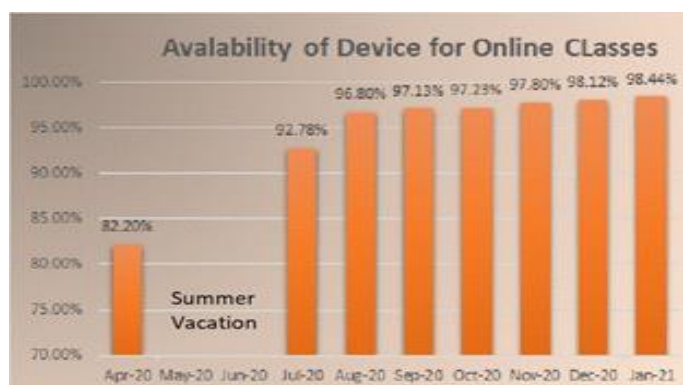
Teacher's Training:

Online training programmes have been conducted to train the teachers in designing and use of e- resources for online teaching in classrooms. In-service training programmes, workshops, various certification programmes organised by CBSE, NISHTHA, DIKSHA Portal and NCERT, have been undertaken for subject enrichment, pedagogy, and effective use of assessment tools. The teachers of Kendriya Vidyalaya have created resources like videos on lessons, practice content items, etc. and contributed to VidyaDaan 2.0. Besides, teachers have also been involved in the task of creation of practice content and its review for the NCERT textbooks of various subjects of classes I to XII which have been published on DIKSHA. For optimum utilisation of the online resources, lesson plans have also been modified and teachers have been trained to implement these lesson plans effectively.

Details of Courses Conducted for Capacity Building of Teachers:

The five Zonal Institutes of Education and Training (ZIETs) and the 25 Regional Offices create the framework of teachers' training. They have organized various online workshops throughout the academic year to prepare the teachers for online transactions of the teaching-learning process. Teachers have felt confident and competent in using the TLMs hereby

enhancing the efficiency and effectiveness of the online classes despite them being at different levels of technological know-how.

Some of the programmes undertaken are-

- Online In-service courses
- Online Training of HMs & PRTs to orient and sensitize them for online handling of newly admitted class-one students
- G- Suite Classroom online training for teachers
- Faculty Development Programme on effective tools for online teaching & assessment Online course on designing e- resources
- 5-week online workshop on Mathematics Teacher Education Programme for ICT integration (Geogebra Training) Connected classroom online training for teachers
- Online training of Primary teachers for competency-based learning
- PRTs/ HMs have been sensitized on Foundational Literacy and Numeracy (FLN) through the modules prepared by the KVS Zonal Institutes of Education and Training
- Online training programmes like NISHTHA, DIKSHA

Teaching-Learning Material (TLM):

Special Teaching-Learning Material has been prepared to meet the requirement of the students for online, offline, and blended mode. These TLMs cater to the needs of all types of learners. There are audio lessons for auditory and musical learners, graphic lessons for visual and spatial learners, textual lessons for verbal learners, numerical lessons for logical and mathematical learners, and lessons including physical activities for kinesthetic learners.

- Master cards on concept -mapping have been designed.
- Subject wise and class wise content developed by ZIETs has been shared with all Kendriya Vidyalayas.
- Puppets and toys as TLM especially in primary classes are being encouraged.
- Science exhibition on the use of Toys as learning resources was conducted in all Kendriya Vidyalayas across the country. Nearly 600 Podcasts and videos have been made for different subjects for all classes.
- Videos on demonstrations of activities related to practice in different subjects have been prepared.
- Blogs have been prepared by various KVS Regions which is a comprehensive online school where video lessons and content materials, notes for all classes are available. Further, students participate in literary and cultural competitions, thus giving a scope to hone talent.
- Teachers have contributed content on the online DIKSHA Portal and VidyaDaan 2 portal. Apps for online learning have been developed by Jammu, Raipur, and Ernakulam Regions.

Academic Transaction:

Online Classes- Google Workspace is used for conducting online classes. All the students and teachers have their IDs on this platform. Online classes take place on Google Meet and the assignments are posted and submitted on Google Classrooms. Videos, audios, worksheets, quizzes and other multimedia are used to make the teaching process effective, joyful and engaging. To provide students with multiple alternative ways of learning at home through interesting activities, Alternative Academic Calendar by NCERT has been integrated with the school curriculum. Parent-teacher meetings are also conducted virtually through Google Meet.
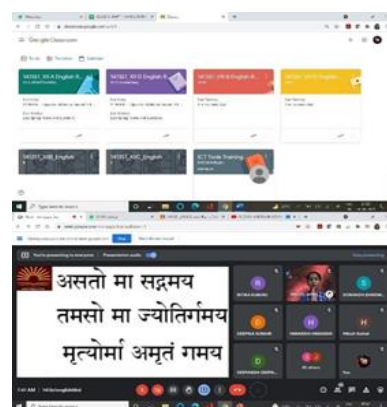
Special Experience for Class I Students:

The academic year 2020-21 was very special for class I as they began their formal schooling through online mode. ZIETs organized orientation training to sensitize the teachers of primary classes for meaningful engagement of newly admitted students of Class I. Engagement with students commenced with one-to-one interaction with the student along with the parents followed by interaction in small groups with the gradual merger of the groups into the whole class in a phased manner. Familiarization activities were conducted, and students were given opportunities for peer interaction. Before the initiation of curricular transactions, students were provided opportunities to demonstrate their talent in singing, dancing, and storytelling, drawing etc.
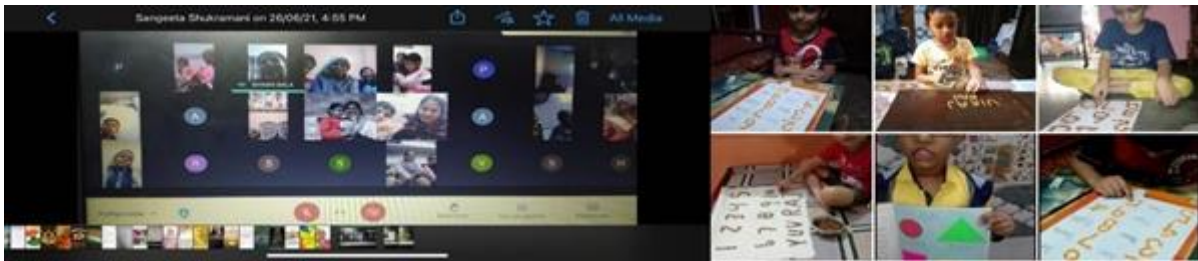
Honing Mathematical Skills and Scientific Temper:

- Use of OLabs for virtual experiments
- Use of different apps for enhancing mathematical and scientific skills
- Virtual Science exhibition on 'promotion of toys as a tool for education'.
- Jigyasa: Student Scientist Connect Programme in collaboration with CSIR
- Toycathon- Students have made educational toys with the material available at home.
- Olympiads- Students participate in Science, Maths, English, and Cyber Olympiads.
- JNNSME- Students showcase their talents in science and mathematics and their applications in different areas related to our everyday life through Jawaharlal Nehru National Science, Mathematics and Environment Exhibition for Children (JNNSME).
- NCSC- National Children Science Congress (NCSC) allows students to showcase their project activities adopting the process of learning through doing.

Online Reference Material:

- Implementing CBSE Initiatives- All the students from classes VII to XII appear in the CCT Practice Test regularly.
- Use of DIKSHA Portal- Students access the DIKSHA portal for reference and downloading teaching-learning material. KVS HQ has uploaded and published CCT practice items and videos on Maths & Science for classes VII to X of chapters 1 to 4 on the DIKSHA portal under the project 'KVS- CCT Practice Items & CCL Videos'.
- Television Channels- Swayam Prabha DTH, Doordarshan, Edu-sat are available for reference and self-study.
- Reading Challenge by CBSE

Blogs by Teachers:

Teachers have created their blogs to provide notes and other study material to the students that can be accessed by the students at their own pace.
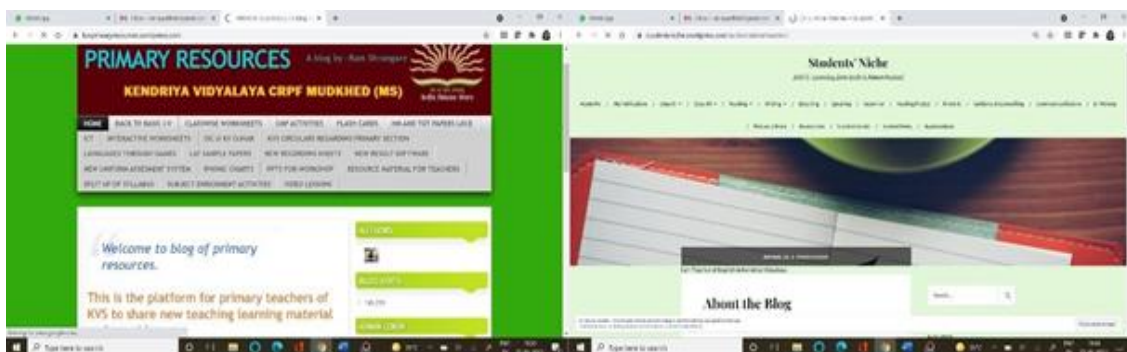
Innovative Ways of Engaging Students:

Use of Augmented Reality in Online Class:

To keep the students connected with the school building, the teachers in Jabalpur Region are using augmented reality to give a realistic experience to the students sitting at home. This virtual tool has led to an increase in content understanding and long-term memory retention. The heightened student motivation has had a direct impact on the number of students attending the classes. They look forward to such novel ways of teaching. Emotionally, too, they feel connected to their physical school which comes alive on their computer screen.

Cable Connect:

In remote areas of the Dehradun Region, KVs have taken the help of the local administration and local cable TV network to telecast video lessons prepared by teachers. A separate channel is dedicated to the telecast of KV classes. As most homes have a television and electricity connection, this has proved to be a boon in disguise especially for students who do not have a device for attending online classes and for those who face network problems.

Chaupal Concept:

For the students who did not have any access to devices, the teachers in Jammu Region call small groups of students in the chaupal (open-air community centres) of their localities and guide them personally, clarify their doubts, and check the assignments. The teachers have gone beyond their calling to connect with the students. This has led to increased mutual trust between the teacher and students and has provided a window for face-to-face interaction which the students have missed in the pandemic months.

Laboratories at Home:

For the practical work, teachers guide the students to use the material available at home and perform practical experiments and investigatory projects. With commonly used kitchen ingredients and easily available waste items such as plastic bottles, newspapers, candles etc. many real-time activities have been performed in the safe vicinity of students' homes. Teachers have gone to the extent of providing laboratory apparatus to students of senior secondary.

Online live classes on various Social Media platforms:

Social media platforms like Facebook are being used to telecast live classes by distinguished teachers. This has been of immense help during the early days of the pandemic when no formal platform was available.
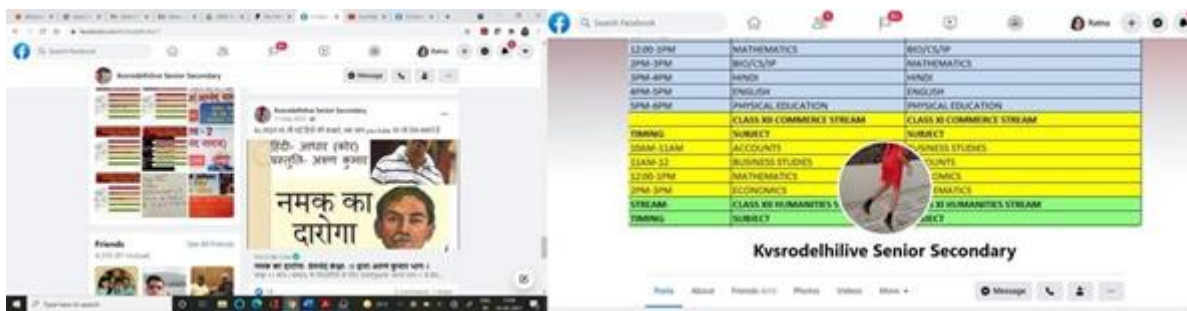
Connecting with Grandparents/ Elders through Folktales:

Staying at home and no outdoor activities have been utilized for connecting students with the elders of their families. The students were asked to record folk tales by interacting with elders in their families or neighbourhood. The idea was to make the students understand the value of relationships, an important requirement for the emotional and mental well-being of family especially during the time of pandemic and work on their language skills, both in their mother tongue and English. Such efforts, though small, help in preserving the 'Intangible Cultural heritage' of our country which has a diverse and rich repository of folklore, literature, and music and art- forms. It also helps young minds in appreciating shared values and practices of our country and encourages mutual respect and connects them to their surroundings as well. Further, ZIET Mumbai has used these stories for integrating technology in language teaching. These stories have been compiled in an e-book that has bilingual audio and text both.

Mental Health and Guidance and Counselling:

- Each Vidyalaya has an email dedicated to counselling the students, Counsellors and senior teachers address stress and anxiety-related issues of students and even have parents in the loop if at all the need is felt.
- Students access the Manodarpan helpline for counselling.
- Awakened Citizen Programme- A three-year graded value education programme for students of upper Primary & Secondary levels is being run in collaboration with Ramakrishna Mission.
- The Adolescent Education Programme is a part of daily transactions in online classes. The teachers include the topics related to adolescent issues in their lessons.
- Counselling to Improve Familial Bonds- To ensure emotional support and a healthy atmosphere at home, there are continuous efforts by teachers to strengthen the bonds of the students with their family members. Programmes like Grandparents' Day are a part of this initiative.
- Students participate in poster making and write slogans to spread awareness about mental health.

Physical Fitness and Yoga:

Ensuring physical well-being through Fitness Week Celebration, National Sports Day, and daily physical education activities under the guidance of the physical education teachers. The subtle science of Yoga is interwoven in the curriculum and imparted during the Physical Education period regularly. Celebration of International Day of Yoga, Yoga Week, Quiz based on Yoga is organised for harmonised functioning of the body and mind.

Ek Bharat, Shreshth Bharat:

To promote National Unity and Integrity through Ek Bharat Shrestha Bharat activities are conducted online. In Bhasha Sangam, e-books have been prepared in the language of the partner state. Webinars and video conferencing with partnering states/UT have been conducted to understand the art and culture of each other. Students have made projects on the culture, customs, dress, agriculture, climate and topography of the paired state/UT.

SPICMACAY:

To enrich the quality of formal education by increasing awareness about different aspects of Indian heritage and inspiring the young mind to imbibe the values embedded in it, KVS collaborates with SPICMACAY. Online workshops are being held regularly on tribal arts, classical dances forms, and music.

Library Facilities:

With the onset of online teaching-learning, KV Libraries have also gone digital. The strategies adopted by libraries to provide all the resources to the students at home are the following:

- All the KVS across the country have their e-libraries to help the students in online learning. The libraries use the online version of e-Granthalaya for the Automation and Networking of libraries. Union Catalog of these libraries is also available for access in the Public domain along with other online member services.
- To provide access to reliable and authentic study material, all the KV libraries have virtual libraries too. These virtual libraries provide links to e-book portals, e-magazines, and other reference material. This platform also publishes the stories written by students in the form of flipbooks.
- Providing access to e-textbooks and e-learning resources for promoting self-learning is one of the objectives of the portal. Class-wise and subject-wise lists are prepared for NCERT e-textbooks and e-learning resources which can be accessed easily by the students.
- Exploring the possibility of an e-learning platform, exercises and quizzes are being added to the library portal with the help of students. These quizzes are at the national level, regional level, and school level.
- The portal also provides up-to-date information on various educational programmes and events hosted by various organisations and agencies.
- The library orientation videos and materials are also made available to the students to make them familiar with the school library collection and services.
- The book talks and book reviews prepared by the students are shared on the Readers' Club Blog and the digital library portal to motivate other students to read and share their reading experiences.
- Students and teachers can access the library catalogue online and put- on- hold- books they would like to get issued and the parents are allowed to collect the books from the school.

Future Plans for the E-Libraries:

- The possibilities of further extending the portal to incorporate the following features are being explored.
- Develop the library portals into a full-fledged online learning platform by adding content developed by the teachers and students.
- Enhance the portals to develop it into a platform for online assessment.
- Create textbook-based fun-filled activities with the help of talented students to make the learning of the basic concepts.

Since learning is an ongoing process, and KVS is in its zest to continue being a pace-setting organisation, with school buildings still closed, there is a continuous effort on its part to adapt and adapt itself to the changing times and with the ever-evolving technology. With the recent switch-over from offline mode to online and blended mode, the transition has been quite a smooth one. The concerted efforts of KVS will continue and means and mechanisms will go on being devised to reach out to every student so that no student is deprived of his/her right to education.

In a Nut Shell

Schools and education systems are getting on track now to realize technology's potential owing to its diverse reach. Gaps in the digital skills of both teachers and students, difficulties in locating high-quality digital learning resources and software, a lack of clarity over learning goals, and insufficient pedagogical preparation on how to blend technology meaningfully into teaching, have driven a wedge between expectations and reality. We have been working with Schools and State/UT governments to address these challenges. Some other challenges being faced are as:

- Adaptability among teachers and students
- Gadget Unavailability
- Connectivity Issues in rural areas
- Computer Literacy
- Data Privacy
- Security

A pool of digital infrastructure for promoting the growth and development prospects of schools. Its effectiveness is more than just getting the participants connected and offering relevant subject material. It is by and large about how to engage and involve students and improve their lessons with those tools. When this technology is properly used (with continuity, consistency, smoothness, and thoughtfulness), teachers, students, and parents not only become more participatory but start taking more control over their knowledge, skills, and education, too. As a result, they generate better learning outcomes. It brings positive changes in classroom refinements and dynamics thereby promoting smart learning. India, its students and teachers have lived up to the challenge, and it is hoped that the lessons learnt during these tough times will create a robust and adaptive education system in the country.

ENCAPSULATION OF DIGITAL INTERVENTIONS

Summary of States/UTs for Digital Interventions

	Activities	Andaman & Nicobar Islands	Andhra Pradesh	Arunachal Pradesh	Assam	Bihar	Chandigarh	Chhattisgarh	DNH + DD	Delhi	Goa	Gujarat	Haryana	Himachal Pradesh	Jammu & Kashmir	Jharkhand	Karnataka	Kerala	Ladakh
1.	Smart Classroom	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2.	ICT Labs	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3.	E-content repository	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4.	E-Books	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5.	Offline books Text Books	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6.	Interactive Resources Online	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7.	Educational TV	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8.	Educational Radio channel	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9.	WebTV Channels	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10.	E-Learning Portal	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
11.	Computer-Based Learning	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
12.	Mobile Application	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13.	Initiatives for CwSN	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
14.	Online orientation for parents	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
15.	Online Assessments	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
16.	Online Teacher Training	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
17.	Online Psychological support to students	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
18.	Initiatives for students without device	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Activities	Lakshadweep	Madhya Pradesh	Maharashtra	Manipur	Mizoram	Meghalaya	Nagaland	Odisha	Puducherry	Punjab	Rajasthan	Sikkim	Tamil Nadu	Telangana	Tripura	Uttar Pradesh	Uttarakhand	West Bengal
1 Smart Classroom	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2 ICT Labs	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3 E-content repository	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4. E-Books	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5. Offline books Text Books	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6. Interactive Resources Online	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7. Educational TV	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8. Educational Radio channel	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9. WebTV Channels	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10. E-Learning Portal	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
11. Computer-Based Learning	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
12. Mobile Application	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13. Initiatives for CwSN	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
14. Online orientation for parents	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
15. Online Assessments	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
16. Online Teacher Training	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
17. Online Psychological support to students	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
18. Initiatives for students without device	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Summary of DIKSHA data at a glance

	State/UT	No. of Textbooks QR coded	VidyaDaan (No. of E-contents contributed & Uploaded)	Medium of Content (number & medium)	Learning Sessions on DIKSHA in AY 2020-21 (01-04-20 to 31-07-21)	No. of NISHTHA Elementary Trainings Done
1.	A&N Islands	163	0	2 (English, Hindi)	36,29,732	59,099
2.	Andhra Pradesh	116	16,020	4 (English, Hindi, Telugu, Urdu)	12,14,22,509	1,46,324
3.	Arunachal Pradesh	102	0	2 (English, Hindi)	54,64,175	1,01,438
4.	Assam	197	4,616	5 (Assamese, Bengali, Bodo, English, Hindi)	96,08,363	49,825
5.	Bihar	114	2,353	9 (Arabi, Bengali, Bhojpuri, English, Hindi, Maithili, Parsi, Sanskrit, Urdu)	27,62,51,016	51,94,812
6.	Chandigarh	211	3,256	3 (English, Hindi, Sanskrit)	77,60,426	77,028
7.	Chhattisgarh	71	4,043	9 (English, Hindi, Sanskrit, Chattisgarhi, Gondi-Dantewada, Gondi-Kanker, Halbi, Kuduk, Sargujiya)	9,44,83,695	19,50,577
8.	DNH and D&D	Adopts ETBs of GJ & MH	0	-	-	29,355
9.	Delhi	163	3,535	4 (English, Hindi, Sanskrit, Urdu)	3,92,81,097	7,86,369
10.	Goa	134	3,102	5 (English, Konkani, Marathi, Hindi, Sanskrit)	35,03,815	53,714
11.	Gujarat	146	13,308	4 (English, Gujarati, Hindi, Sanskrit)	19,75,12,491	19,64,814
12.	Haryana	272	7,657	4 (English, Hindi, Sanskrit, Urdu)	6,19,51,857	11,29,763
13.	Himachal Pradesh	273	1,310	3 (English, Hindi, Sanskrit)	1,22,49,033	2,39,572
14.	Jammu & Kashmir	61	3,969	3 (English, Hindi, Urdu)	7,46,37,911	16,68,574
15.	Jharkhand	102	1,402	4 (English, Hindi, Sanskrit, Urdu)	12,58,05,078	16,21,128
16.	Karnataka	260	20,805	5 (English, Hindi, Kannada, Urdu, Sanskrit)	16,24,02,169	28,71,533
17.	Kerala	169	3,713	6 (Arabic, Kannada, English, Hindi, Malayalam, Tamil)	32,20,881	Not conducted NISHTHA through DIKSHA

	State/UT	No. of Textbooks QR coded	VidyaDaan (No. of E-contents contributed & Uploaded)	Medium of Content (number & medium)	Learning Sessions on DIKSHA in AY 2020-21 (01-04-20 to 31-07-21)	No. of NISHTHA Elementary Trainings Done
18.	Ladakh	0	-	-	41,63,537	79,594
19.	Lakshadweep	Adopts ETBs of KL & TN	-	-	-	Not conducted NISHTHA through DIKSHA
20.	Madhya Pradesh	280	359	4 (English, Hindi, Sanskrit, Urdu)	32,52,40,765	47,30,394
21.	Maharashtra	790	17,940	14 (Sanskrit, Bengali, English, Hindi, German, Gujarati, Arabic, Marathi, Urdu, Kannada, Japanese, Spanish, Tamil, Telugu)	13,87,55,521	10,56,615
22.	Manipur	75	551	2 (English, Manipuri)	99,30,983	1,97,126
23.	Meghalaya	31	498	1 (English)	1,84,16,856	3,70,767
24.	Mizoram	17	362	2 (Hindi, Mizo)	21,66,273	39,116
25.	Nagaland	19	478	1 (English)	24,34,735	21,291
26.	Odisha	165	6,135	5 (English, Hindi, Sanskrit, Urdu, Odia)	16,02,50,644	31,36,216
27.	Puducherry	Adopts ETBs of TN, AP & KL	-	-	46,94,562	56,532
28.	Punjab	16	1,478	2 (English, Hindi)	14,74,242	14,484
29.	Rajasthan	119	2,835	3 (English, Hindi, Sanskrit)	24,20,38,257	32,91,102
30.	Sikkim	30	157	3 (English, Hindi, Sanskrit)	1,72,924	Not conducted NISHTHA through DIKSHA
31.	Tamil Nadu	361	16,973	2 (English, Tamil)	5,16,95,233	Not conducted NISHTHA through DIKSHA
32.	Telangana	313	4,768	3 (English, Telugu, Urdu)	17,60,797	Not conducted NISHTHA through DIKSHA
33.	Tripura	27	606	2 (Bengali, English)	1,28,32,753	53,712
34.	Uttar Pradesh	180	9,506	8 (Awadhi, Bhojpuri, Brij Bhasha, Bundelkhandi, English, Hindi, Sanskrit, Urdu)	64,18,29,609	94,61,880
35.	Uttarakhand	25	279	3 (English, Hindi, Sanskrit)	23,88,118	11,366
36.	West Bengal	0	-	-	-	Not conducted NISHTHA through DIKSHA

INITIATIVES UNDERTAKEN BY THE STATEs/UTs

1. ANDAMAN AND NICOBAR ISLANDS

The Department of Education, Andaman and Nicobar Islands has taken proactive steps to ensure that school children do not lose any opportunity of learning due to the closure of schools during the pandemic period. To facilitate the students with learning activities during the lock-down and school closure period, the Directorate of Education initiated various alternative methods to continue the learning process from Class I to XII as per the local conditions.

Broadcast through Doordarshan

This is a joint initiative by the Department of Education in collaboration with the Doordarshan, Port Blair, to broadcast pre-recorded tele classes for the students of Class X and XII throughout the Islands. The key highlights of these teleclasses are as follows:

- One hour slot daily (4 pm to 5 pm) except on Saturdays and Sundays.
- Covering the main subjects of Class X and XII.
- English, Maths, Science and Social Science are being taught for Class X.
- English, Physics, Accountancy, Geography, Chemistry, Economics, Mathematics, Business Studies, Computer Science, Political Science, History and Biology subjects were covered for Class XII.
- Followed the syllabus as prescribed by NCERT.
- Classes taught using various teaching aids, including PowerPoint presentations and other digital tools.
- This learning resource is accessible across the length and breadth of the Andaman and Nicobar Islands.

Tele-Classes on Local Cable TV Network

Steps have been taken to telecast pre-recorded digital classes through the Local Cable TV Network for the students of Class VIII to XII. The telecast of classes on local cable TV channels is a continuous process. The details are as follows:

- A 03 hours slot (10 am to 1 p.m.) has been provided in the channel for the telecast of content.
- Repeat telecast of the same content is being done in the evening (6 pm to 9 pm)
- Covering the content for Class VIII to XII.
- The digital content available are of HD Quality
- Teachers use various teaching aids including PowerPoint presentations and other digital tools.
- The reach of this telecast is the entire South Andaman District.
- The soft copy of the digital content is made available for telecast through the local cable TV channel in other educational zones also.
- Major subjects from every class are covered by making a balanced telecast schedule which is published weekly in the mass media.
- Students are provided with Phone numbers and email IDs to ask queries regarding the topics being taught.
- Alternative learning through Radio Classes

Audio classes

The Primary and Upper Primary classes (Class II to VII) are provided with alternative learning through the audio classes on All India Radio, Port Blair. The details of this are mentioned below:

- 03 Sessions per day are being broadcast (9 am to 10 am) except on Sundays.
- The broadcast is done on the Primary Channel at AM 684 KHz. and the same can be heard on 'newsonair' app which is accessible across the globe.
- All the major subjects like English, Hindi, EVS, Social Science and Science are covered.
- Special efforts are made by the teachers to develop the content for the easy and better understanding of students in Primary Classes.
- Doubts, if any, can be clarified by sending SMS or messages on WhatsApp and email.
- Providing Digital Learning content Online
- Online videos on YouTube Channel

- The learning content recorded for the teleclasses is also uploaded on the YouTube channel "AN Education Dept Andaman".
- Students who have missed any classes on Television or want to see the classes again have an opportunity to view such videos online sitting at their home.
- Around 200 learning content have been uploaded on various subjects.
- Good response from the students and there are hundreds of views on the channel.
- Tele-Quiz and Tele-poster competitions are conducted.
- Subject-wise WhatsApp groups are formed by teachers across the UT. Through this group, teachers are continuing the teaching-learning process systematically and assessment is being done.
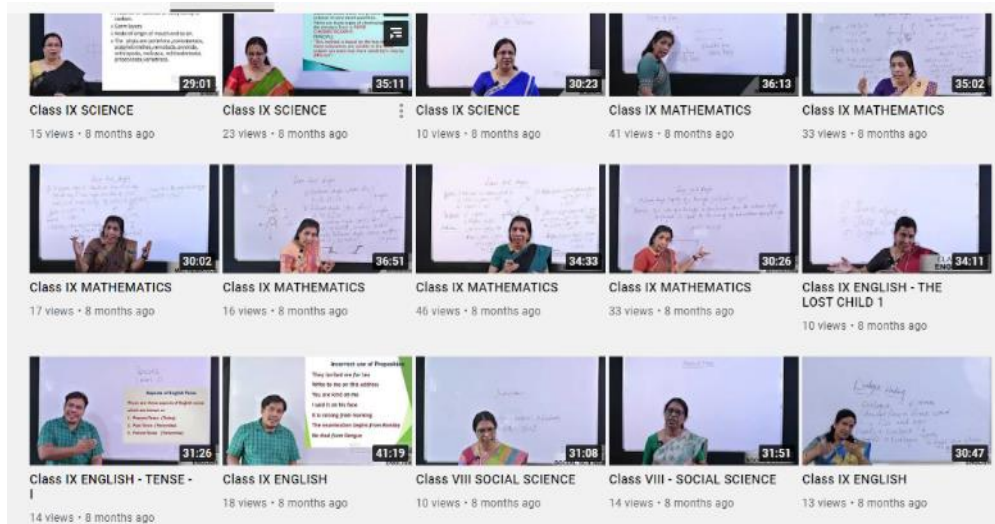
Repository of Digital content

- Considering the demand by Students, Parents, Teachers and other stakeholders for video and audio content, the Department has made a repository of the teaching-learning content and provides the same to those who require it.
- The Digital Library of the e-content is available with the State Institute of Education.

Initiative through Google Platform

- The Department of Education started online teaching through Google Platform (Google Classroom and Google Meet) for a few selected schools in the South Andaman district.
- There was a positive response from the students and parents.
- It is planned to expand this initiative in other zones of these islands where net connectivity is available.

2. ANDHRA PRADESH

The Department of School Education of Andhra Pradesh adopted several innovative initiatives during the COVID-19 pandemic. To bridge the gap, many surveys, and online training were conducted for building capacities of teachers and students. The following digital initiatives have been implemented in the state to promote learning and to provide support to students for continuing their learning systematically.

The initiatives are as follows:

Vidya Varadhi T.V Lessons:
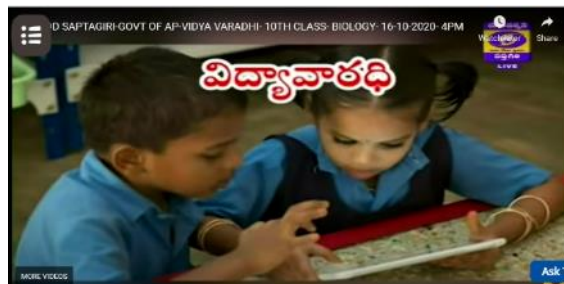
It is broadcasted through Doordarshan for class 1 to 10th Students in all subjects by subject experts, with the objectives of providing learning opportunities to students, recapitulating concepts and bridging the learning gaps during the closure of schools in the COVID-19 pandemic. This was scheduled from 10th June 2020 to January 31st 2021.

NISHTHA online courses:

A National Initiative for school Heads and teachers for Holistic Advancement of the elementary stage under Samagra Shiksha was launched. It is a flagship program of MHRD. The first pilot of NISHTHA online was undertaken in Andhra by NCERT. Therefore, Andhra Pradesh is the pioneering state in the country in conducting the online NISHTHA training of NCERT.

Andhra Pradesh state has conducted 90 days of NISHTHA online courses with 18 modules (Courses) duly providing live classes and collecting portfolios through the online cloud. A dashboard is also provided to teachers to check their submitted portfolios. 1,03,897 teachers are pursuing primary level training; out of these 97,894 teachers have completed all the modules and have been awarded online certificates through the DIKSHA platform.

Online training for teachers on School Safety, Health and Teaching aptitude levels:

The Government of A.P has initiated a school safety program through virtual mode in all elementary and secondary schools to bring awareness on school safety in the post-Covid-19 scenario. E- Modules based on school safety were prepared and made available on the DIKSHA platform. Poster and pamphlets are printed and displayed in the schools on the School safety program.

"We love reading" virtual orientation to stakeholders.

- The state launched the "We Love Reading" Campaign in all schools for the improvement of reading as part of the development of foundational literacy skills.
- State-level inauguration of the meeting was conducted 26th Nov 2020
- Orientation meetings were conducted for stakeholders to school-level teachers on "We love reading".
- Committees were drafted at State, District, Mandal and Panchayat levels for monitoring the campaign implementation.
- As a part of these initiatives, the State has been organizing "Sunday story times" at all public libraries, DIETs, community centres and Schools in general. Faculty and student teachers of DIETs, community volunteers, public library department staff and Grama Sachivalayam volunteers as well as teachers are monitoring and participating in the program.
- 3-days online orientations were conducted for 130 DRPs (10 from each district) on the 'Effective utilization of library resources and managements' by subject experts from NCERT.
- The virtual orientation sessions are available on the DIKSHA platform.
- The state has planned to establish 1000 model libraries and designed to digitalize the libraries.

'Physiotherapist work done' dashboard application:

The state has initiated an online monitoring mechanism for checking the performance of physiotherapists who serve children at their homes. A state-level dashboard application is created to know the progress of the visits and health improvement of children. This special feature of this application is to show the image with the time and date of the particular visit.

Bridge course material:
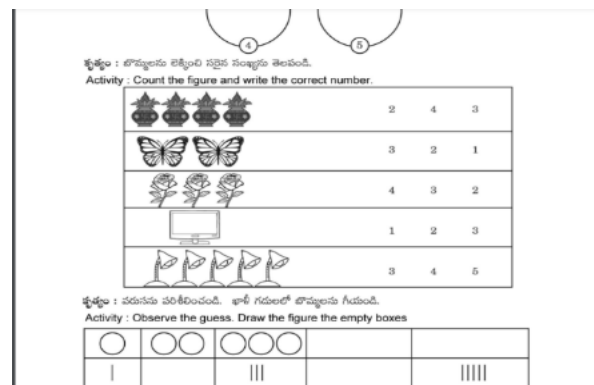
The state has developed bridge course material which contains workbooks for languages and mathematics. It helps the students to practice at their homes. TV lessons were conducted based on these workbooks.

Online learning through WhatsApp groups:

Class wise WhatsApp groups were created especially for class 9th and 10th by the teachers across Andhra Pradesh. E-Content was supplied to the groups, especially through links to DIKSHA, YouTube, NROER and other useful websites. Some of the assessments made through DIKSHA, H5P and Google forms were shared with the students through these groups.

Identification of children with and without access to technological devices:

An exclusive online survey was conducted to know the status of tech falicities available to the students. The survey was conducted to know the No tech, Low tech and High tech facilities available with Andhra Pradesh students.

Zoom class for students for better understanding of critical topics:

School teachers conducted zoom based classes for students with high tech facilities. The zoom link was shared through WhatsApp groups connected with the teachers. Teachers would assess students with the help of MCQ sets available on the DIKSHA platform.

Monitoring of student's attendance through the app:
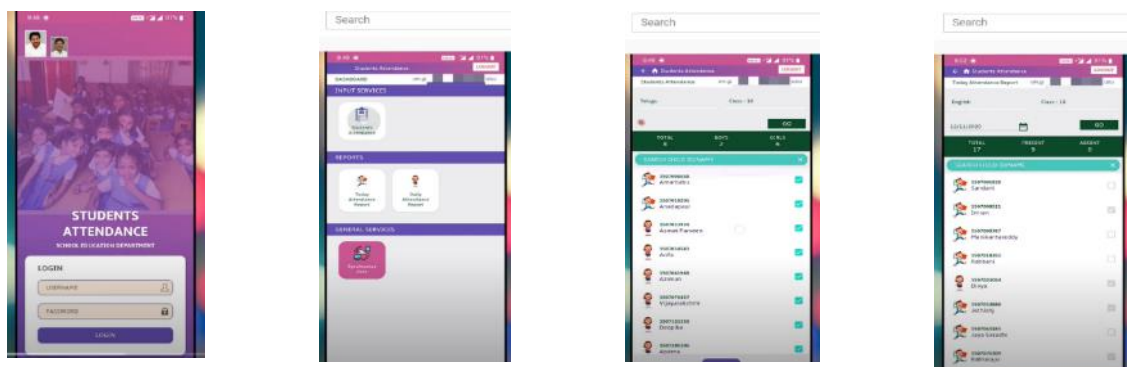
After the reopening of schools in 2020, the State has developed an online monitoring attendance application to track the students in schools. Based on the analysis of attendance, instructions were given to village volunteers to meet the parents of absentees and bring them to school regularly.

'Teacher work done' dashboard application:
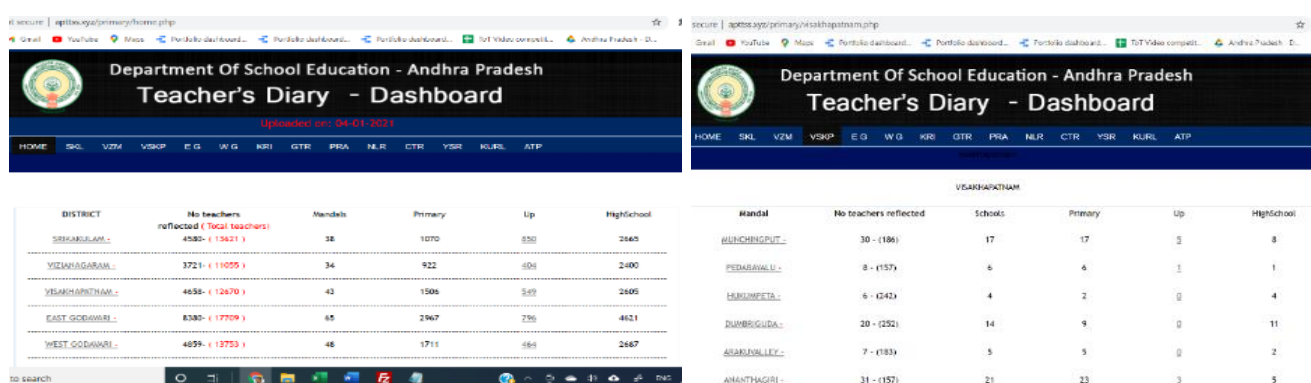
The state has designed a Google form to collect the work done statement of the teachers during the COVID-19 pandemic time. Teachers regularly upload the work done by them, such as correcting the student's workbooks, remedial education as per the alternative academic calendar, etc.

Conduct of language festivals through virtual mode:

The state conducted a language festival during the last week of December-2020 in all schools in the areas of language proficiency - essay competitions, elocution, drawing competitions. The program was conducted online and offline mode at the Mandal level. Prizes were awarded to the students based on performance.

Survey of Online classes in private schools – Conducted by DIETS:
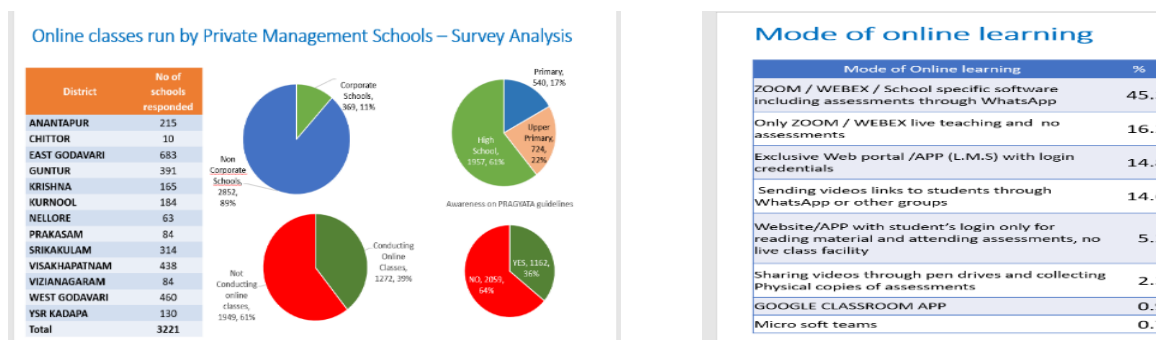
The state developed an online tool to administer the survey to know the status of online classes being run by private management schools across the state of A.P. DIET faculty acted as administrators for the above survey. Around 3221 schools were randomly selected for the survey. The entire survey was done through an online app created by SIEMAT.

Pooled e-Content for English language lab:

As a part of the Nadu Nedu program in the State, language labs are being established in the Nadu Nedu schools. For this, State pooled up e-Content from grades 1-6 covering all subjects, (English, Maths, EVS, Science, and Social). The pooled e-Content consisting of videos was crowd sourced from various sources - ICAP, Pratham, DIKSHA, and National Geographic channel. A pen drive with videos (1610 videos) with 120 hours of engaging content was supplied to schools for telecasting through smart TVs.

Ek Bharat Shresth Bharat online quiz:

As part of the implementation of the EBSB, the state conducted online quiz competitions. All the students participated in the online quiz conducted every month. The responses were collected through online Google sheets and a dashboard was created for dissemination of the results to the students.

The state also undertook online lectures on Punjab state's cultural heritage and history as a part of the Vidya varadhi program. 110 schools of Andhra Pradesh were paired with Punjab schools for the EBSB activities through virtual mode. Students of these 110 schools prepared videos of their festivals, important areas, etc. 40 such selected videos are available on the Shagun portal of the Ministry of Education.

DIKSHA e-Content creation training:

Nearly 6500 teachers were trained on e-Content creation through DIKSHA Platform.

- 130 teachers were trained on FOSS tools and multimedia techniques at the state level. These 130 teachers acted as District Resource Persons for DIKSHA training at the district level.
- At the district level, around 1300 teachers (each district @100) were trained on FOSS tools and multimedia techniques. These 1300 teachers acted as Divisional Level Resource Persons for DIKSHA training divisional level.
- At the Divisional level around 4500 teachers were trained on FOSS tools and multimedia techniques. All these teachers acted as Block Level Resource Persons.

- Instructions were given to Mandal level resource persons to train their colleagues at their respective schools.
- The outcome of the training is that 130 videos at the State, 1300 videos at district and 4500 videos are developed at the divisional level.
- State's best e-Content presenters were identified through the video competition at different levels and 192 best e-content creators were awarded.
- Teacher Education institutions – Pre services teachers training – E-Content: Pre-service teachers (Student teachers) were trained on e-Content development in all 13 DIETs in the state.
- Nearly 1000 students were trained on FOSS tools (image editing, video making and editing, animations). Each student developed a subject-specific e-Content and uploaded it on DIKSHA.
- Online classes for KGBV, APRIL and Model schools' students: Conducted online classes for intermediate 1st and 2nd-year students studying in KGBVs, APREIs and Model schools from September-2020 to January-2021.
- Expert teachers delivered classes and those classes were telecasted through YouTube live streaming.
- Orientation to KGBV teachers (CRT): All CRTs working in KGBVs were trained for their professional development on teaching and communication skills.

OSC Survey app:-
- Samagra Shiksha of the State conducted a household survey through "Mana badiki podam mobile App" for identification of Out of School Children from 23.03.2021 to 02.04.2021.
- 49138 students were identified as Out of School Children in the age group from 06 to 14 years, and 38036 students were identified as Out of School Children in the age group from 15 to 19.
- Further 30396 children of migrant labourers were identified in the state of Andhra Pradesh.

Continuous Learning Enhancement Program - Online training to Primary teachers on New Textbooks:

The new syllabus from class 1st to 5th is focusing on promoting foundational literacy and numeracy skills among students duly embedding Constitutional values. For effective transaction of these activity-based new textbooks, teachers need to know the philosophy of textbooks, understanding Learning Outcomes, Strategies for the achievement of Learning Outcomes, Student Assessment Process.

In this context, Samagra Shiksha A.P started conducting Online training through the DIKSHA platform from 07-05-2021 onwards.

The online training is intended to train the teachers to explore the different innovative methods for the transaction of new textbooks in the classroom and to provide live examples for different transactional processes of subjects through videos, language games etc.

This course was made optional for the teachers keeping in view the challenges of the Covid-19 second wave. Out of 91,000 primary teachers, 62,000 teachers enrolled in the courses and completed them. For each course, portfolios are collected from the teachers and a dashboard of portfolios is also made available with the help of a data studio.

3. ARUNACHAL PRADESH

In the current scenario of the ongoing COVID-19 pandemic and the subsequent lockdown periods, the Department of Education, Arunachal Pradesh has been working proactively towards ensuring an adequate opportunity for students to learn and keep progressing steadily in their respective academic curriculum. Moreover, the department has also laid stress on providing orientation to the students with regards to the local history, culture, dialects and traditions to instil the sense of conserving the same. The Department has also leveraged Information Technology to bring the learning ecosystem on digital platforms to not only supplement the needs of the students in various ways but also to make the learning process more interesting and enriching. The Department has undertaken various initiatives to achieve the aforesaid objectives recently.

Digital learning with classroom teaching was integrated with post COVID by introducing well planned following interventions to ensure a conducive and continuous learning ecosystem for the students:

Radio School:

In collaboration with All India Radio, Itanagar, the Dept of Education, Government of Arunachal Pradesh broadcasted online radio talk for classes -1 to 5, on Arun FM 103.1Mhz & MW 675Khz (Monday to Saturday) at 1.20 pm every day w.e.f. 02.06.2020. The first radio talk started with Class – 1 then for class 2 and so on.

Other digital platforms:

WhatsApp groups /webinars/Google meet are used by teachers to remain in touch with their students directly. These platforms are used in limited areas due to limited network connectivity.

Classes via Doordarshan – Arun Prabha Channel:

Online live classes were conducted through Doordarshan studios for classes VI-VIII for 40 minutes each on six days a week.

Live classes through EDUSAT:

EDUSAT network is used for live classes wherever possible.

E-Studio:

A multipurpose **State of the Art E-Studio** has been set up in the state capital to relay the centrally organized programs, talk shows, and classroom sessions on selected subjects to support students sitting across remote areas of this hilly state using VSAT technology.

Local content in Vernacular:

The SCERT has started developing various Teaching Aid Posters/Charts for the 3-6 years age group children at ECCE centres in the major vernacular languages of the state.
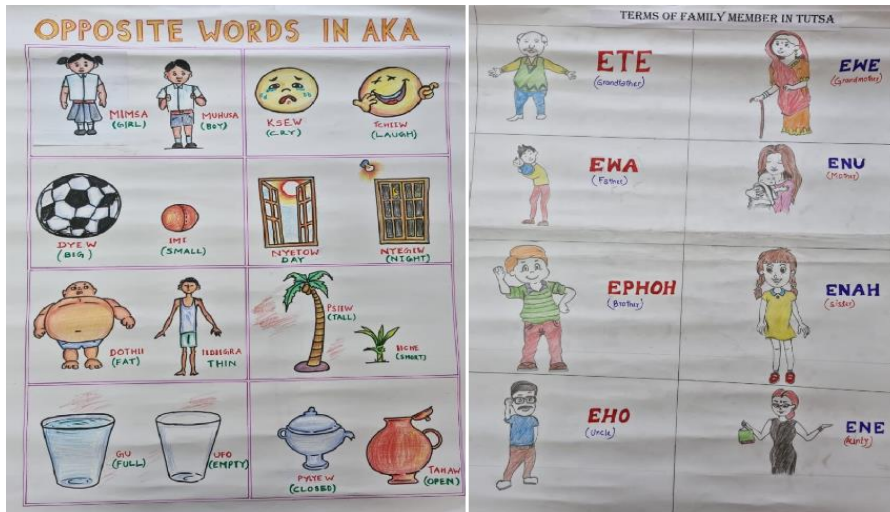
A book on local culture and history is being developed by SCERT which shall be part of the school curriculum to celebrate the ethnic-cultural diversity of this vibrant state of North-East India. Similarly, a series of local folk tales describing the cultural richness of state viz.

These are the Orchid Series and these shall be digitized for wider circulation through the integrated portal and mobile applications of the Department.

App for Teacher Posting:

To bring accountability and transparency in the system specifically to tackle the issue of absentee teachers in remote areas, the department is in the process of finalizing a Mobile Application wherein the details of the teachers and their posting place have been made public with an issue redressal mechanism.
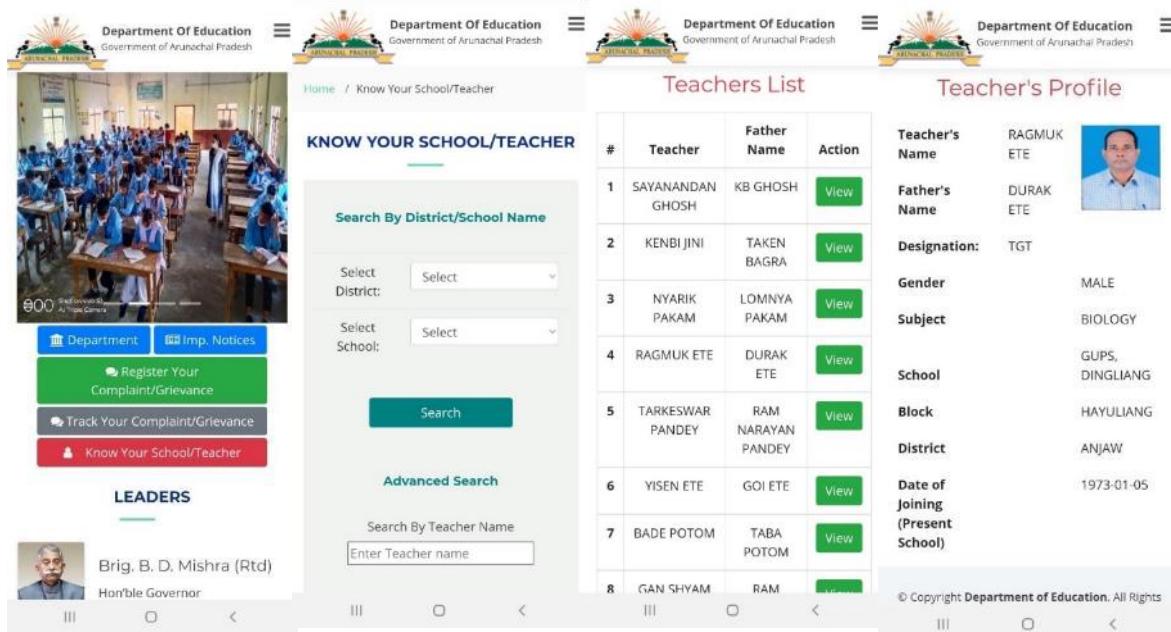
Portal for Educational Administration:

An integrated portal of the department is also being developed to cater to the needs of the department, students, teachers and general public concerning better administration for providing effective education to empower students for their better future.

4. ASSAM

DIKSHA:

- The state of Assam is using DIKSHA-Assam under One Nation, One Digital Platform of PM e-Vidya programme as the e-content Repository, e-Content creation platform, Training Platform and Energized Textbook creation platform for providing support to students and teachers.
- Around 4900 e-content (Audio, video, practice resources, interactive content) are uploaded on DIKSHA-Assam to date.
- E-content in Sign Language and audio lessons for CWSN are also created and uploaded on DIKSHA, Assam.
- Students are accessing the e-content through DIKSHA Mobile App and DIKSHA Portal.
- Most of the e-contents are created by teachers and teacher educators of Assam.

Energized Textbook:

- 152 textbooks are energized with 2564 QR Codes and are implemented from April 2021.
- QR Codes are printed on each lesson of the 152 physical textbooks.
- One additional QR Code is incorporated on the inner cover page of each textbook to link additional resource material/guidelines as and when required.
- Different types of e-content-audio/video/Practice Resource/Interactive content are created in Assamese, English, Bodo, Bengali, Hindi medium for 1st 50% lessons as per academic calendar (April 2020 to September 2021) linked with the QR Codes printed on the 152 textbooks.
- Students are also accessing e-content by scanning QR Codes printed on Energized Textbooks through DIKSHA Mobile App and DIKSHA portal.
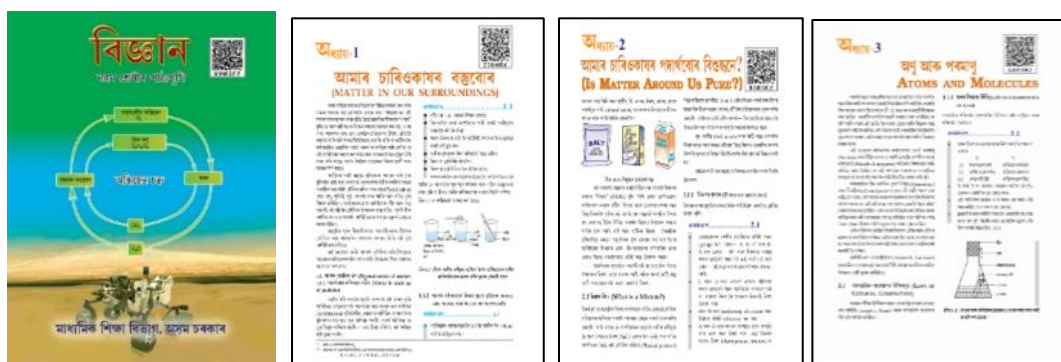
Television programmes:

- Video lessons from Class I to Class X are telecasted through Gyan Brikshya TV Channel
- Video classes telecasted through PM e Vidya, class-wise channels daily for grades VI, VII, VIII, IX, X and XII since September 5th, 2020. Before that, daily 4 hours video classes (2 hours fresh telecast and 2 hours repeat telecast) was done through Swayamprabha Free DTH Channel No 23 from May 24th, 2020 to September 4th, 2020.
- SCERT, Assam in collaboration with Assam Higher Secondary Education Council has taken the initiative to telecast video classes through DD, Assam for 1 hour on 4 days a week for classes XI and XII from June 2020 to September 2020.
- Telecasted 1-hour video class 4 days a week through DD, Assam for elementary level students (Class I to VIII) from November 2020 to February 2021.

Radio programmes:

- "Biswa Vidya" Radio Programme: Broadcasted 15 minutes audio classes 3 days a week through AIR, Guwahati and Dibrugarh for elementary level students (Class I to VIII) up to February 2021.
- "Biswa Vidya" Radio Programme: Weekly 3 days Radio programme for Elementary Students through AIR, Guwahati, Dibrugarh is started again from 10th May/2021.

Training on Virtual/Online mode:

- Conducted virtual/online capacity building training for 1000 Teachers and Teacher Educators on e-content and resource development using different free and open offline and online software, scriptwriting and storyboarding, Cyber security, Copyright licenses etc. and received 1800 e-content after the training.
- Online CPD Course NISHTHA on DIKSHA, Assam is completed in 4 mediums viz. Assamese, Bengali, English & Hindi and 4904 teachers have completed the course.
- Launched an e-learning platform- http://nivh.org.in/assam/ for online Teacher Orientation Programme on Inclusion of Students with Disabilities for regular classroom teachers.

VidyaDaan Programme:

- Completed 194 projects under VidyaDaan, Assam programme in 2 phases till March 2021 and received 1200 e-content from teachers, teacher educators and NGOs.
- Coherence undertaken between online and TV/Radio mode: Video classes telecasted through Swayam Prabha (PM e-Vidya Channels) and Door Darshan, Guwahati and Audio lessons broadcasted through AIR are also uploaded on DIKSHA, Assam portal for providing asynchronous/coherence access to students.
- Teachers and teacher educators after undergoing online capacity building training have uploaded e-content on DIKSHA and VidyaDaan portal.
- Uploaded e-content in the YouTube channel "BiswaVidya Assam" for Science and Mathematics" for students of class VI to X after the same was telecast through Gyan Briksha TV Channel.
- Uploaded e-learning resources for class VI to X for Science, Mathematics and English Vocabulary and Grammar in the Android App "BiswaVidya Assam".

5. BIHAR

Bihar has been intensively working on school education to maintain the continuity of learning of the students during and post lockdown period. It has also been envisaged to bridge the learning gap after the reopening of school in a planned manner to address the learning loss.

Several Digital Initiatives are taken by the School Education Department, Bihar during the COVID Period as well as post lockdown period areas:

Children who have access to Digital Devices

State initiated innovative interventions for students who have access to digital devices at their homes and can access e-content as and when required.

Web-based learning:

Bihar Education Project Council has started a YouTube channel to share the digital content for teachers & students, which can be visited using the link: https://www.youtube.com/channel/UCk-LGy9rQLi6t_A3UXw2GTQ
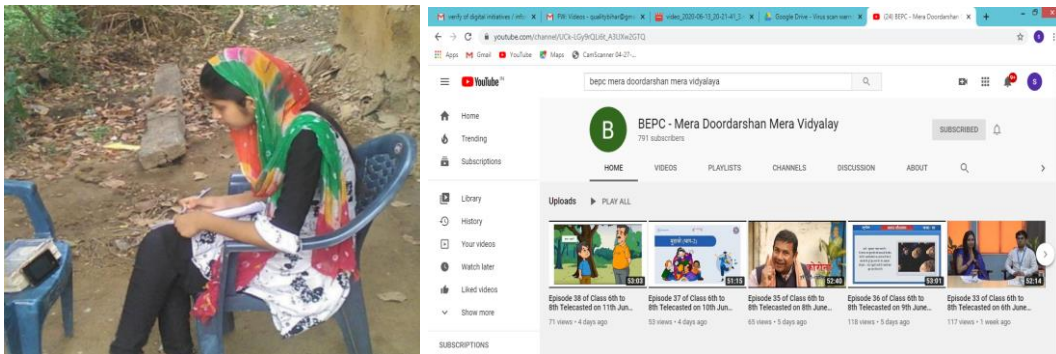
Mera Doordarshan Mera Vidyalaya:

With joint efforts of Bihar Education Project Council and UNICEF, 5 hours' time slots (one hour each for Class I-II, Class III to V, and Class VI to VIII, Class IX-X and Class XI-XII) for digital learning through Doordarshan was initiated during the lockdown. The state started the telecast of e-content in a phase-wise manner from April 2020 and the telecast for all the classes are continuing.

Digital Education Portal:

Bihar Education Project Council created a digital learning platform on its official website, where all e-content telecasted on DD Bihar are available. http://www.bepcssa.in/en/digital-learning.php

Vidyavahini App:

The state has developed an educational app for students of grades 1-12. This App named Vidyavahini Bihar is available in the Google Play store. It primarily contains all the books of Class 1 to 12 that students can download on their smartphones, Laptops or Computer.


Unnayan App: Mera Mobile Mera Vidyalaya

Unnayan App: Mera Mobile Mera Vidyalaya provides subject-wise e-content according to Bihar School Syllabus. Students can access the e-content for classes VI to XII on the app. Students can also ask their doubts on the mobile platform and get answers from the respective Subject Experts. Children can access this App through mobile and tab.
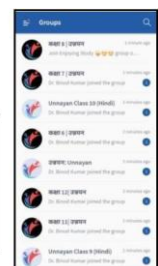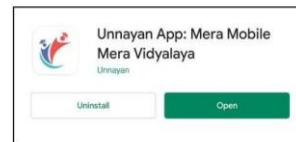
Bihar Career Portal and App:

After passing 10th and 12th grades, students have many queries regarding the subject to study further or career path they would like to choose and where the subjects lead to. Bihar Career Portal and App provides them with clear guidance and direction. With the joint effort of UNICEF and Bihar Education Project Council (BEPC), the Bihar Career portal was launched in August 2019 for students studying in 10th to 12th who are registered in Bihar School Examination Board (BSEB). The Portal and App provide all the information related to careers, colleges, entrance exams and scholarships. Students can use their BSEB registration number as a Unique ID and use a universal password i.e. 123456. Around 7.2 lakh children have been registered in the portal/app. Various online career counselling sessions through YouTube were organised during the lockdown in which experts and celebrities guided the students.
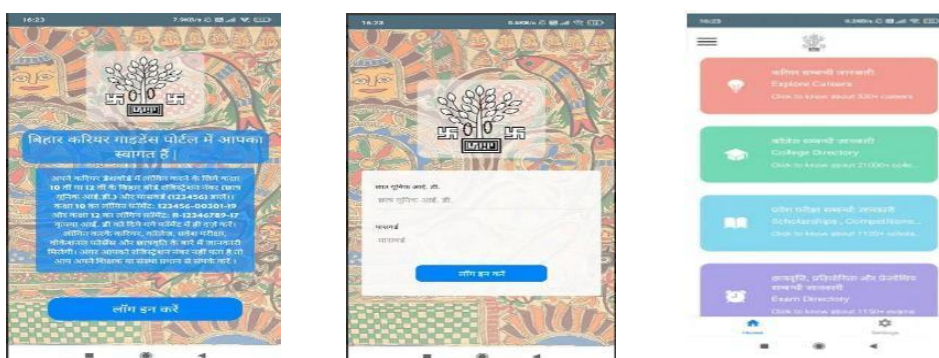
Portal can be accessed at https://biharcareerportal.com. Bihar Career App is available in Google Play Store.

Children who don't have access to any digital device

Some of the blended interventions initiated keeping in mind the children of the remote area, who do not have any digital devices are as follows:

Mobile Learning Centre:

To ensure continuity of learning of the children who don't have access to any type of digital equipment 'Mobile Learning Centers' were started during the COVID-19 lockdown. These centres are being run in seven districts of Bihar namely Banka, Purnea, Gaya, West Champaran, Patna, Sitamarhi and Sheikhpura districts.

This UNICEF initiative was started with the partnership of different NGOs, working in the education sector. The mobile learning centre has been established in a van equipped with digital facilities like TV screens, educational resources such as videos, math games, illustrated posters and toys to teach the children lessons in an interactive method. Special focus is given to Mahadalit/Mushahar communities.

Providing Mobile phones to School Students to continue online studies:

Bihar Education Project Council has distributed 42 Android mobile phones to the students of class 10th in one of the schools of Patna. The mobile phones were provided by an NGO named 'Going to School'. Government Girls High School, Mahuabagh, Patna was selected for this program because the girls studying in that school were not able to attend the classes due to the unavailability of android mobile phones.

Activities under 'Anandshaala':

Anandshala is a joint effort of Bihar Education Project Council and Quest Alliance, for enhancing language abilities and ownership for schooling by building stronger relationships between students, teachers and parents. During the COVID-19 the program has initiated various interventions in Samastipur District, such as, established learning centres, created WhatsApp groups, prepared to learn Apps and organized Online Yoga and Art-integrated learning classes for continuity of learning.

Household survey, Orientation and planning workshop, Art integrated learning, distribution of safety kits and community awareness programs were conducted during the COVID-19 period.

6. CHANDIGARH

To commemorate the father of the library movement late P. N. Panicker and to promote Reading habits in students, Reading Day & Reading Week was celebrated from 19th to 26th June 2020 in all Govt. schools of UT, Chandigarh. Students of class 1st to 10th participated in different reading-related activities.

In the light of the COVID-19 pandemic, a suggestive list of different online Reading related activities was shared with the teachers. Further, teachers motivated the students to perform the following activities and other related activities at home and share back with the teachers through class WhatsApp group as to how they performed these activities:

- Poetry recitation
- Storytelling
- Story writing
- Picture composition
- Book review
- Thoughts and Quotes on Reading.
- Drawing/Painting with suitable captions
- Puppetry, etc.

29183 Students across 114 Govt. schools participated enthusiastically in various activities during Reading Day & Reading Week. Students shared their performance during Reading Day and Reading Week with the teachers in the form of small video clips & their   Photographs while reading a book/ reciting a poem/making poster/picture composition/book review etc.

Glimpses of activities performed by students during Reading Day/Reading Week:
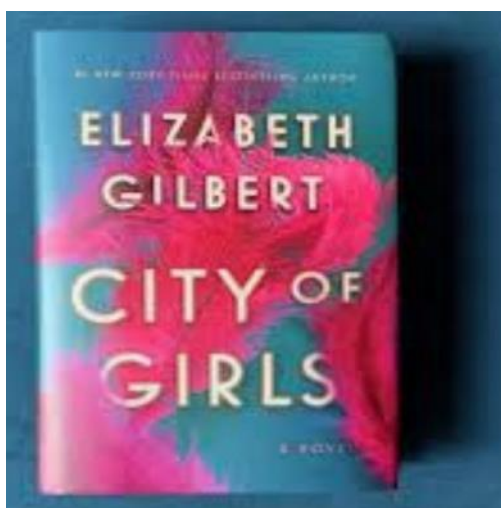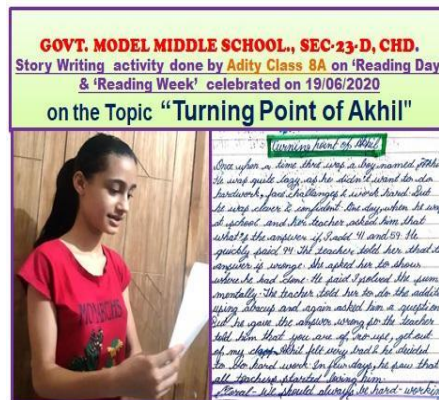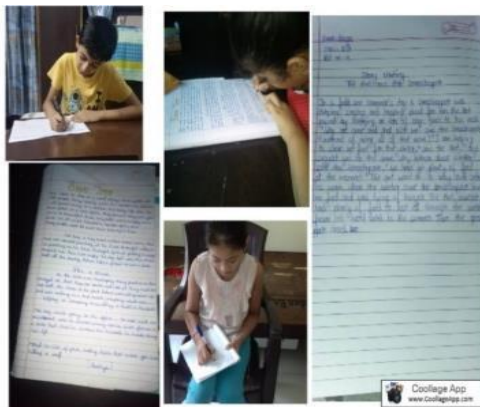
Online Talent Hunt:

Talent Hunt activity conducted separately for Primary, Upper Primary & Secondary classes. Various activities conducted through online mode in three subjects (1) Mathematics (2) Science and (3) English such as project, poster making, drawing competition, declamation, speech, debate, caption contest, slogan writing, creative writing etc. at home with the help of Parents and Siblings. All Govt. schools carried out productive activities to create a platform for experiential learning. Proper records of projects were also maintained by the respective class /subject teachers.

Glimpses of the activities conducted under Reading Promotion Week:

Online Maths and Science Club Activities conducted under Rashtriya Avishkar Abhiyan (RAA) during 2020-21:

Maths and Science clubs have been formed in Govt. schools of Chandigarh to involve students in different activities which are helpful to promote experimentation and critical thinking. To rejuvenate these clubs along the lines of RAA, the school students need to be encouraged to participate in the programme and events that promote Mathematical and Scientific skills. Teachers teaching class 6th to 10th along with Maths and Science club in charge of the school were requested (vide letter no. SPD/SS/Pedagogy/2020/2371-482, dated 25.08.2020) to engage their students in various Maths and Science activities through online mode due to unprecedented pandemic situations.

The following suggestive activities (to be taken up by schools) with Timeline were shared with the schools.

No	Activity	Timeline	Remarks
1	Maths and Science Quiz competitions based on Critical and Creative Thinking	Between 1st to 5th September 2020	The teachers concerned will help/orient/motivate the students to undertake some activities /experiments in a way so students can:-
2	Preparing/Performing/conducting activities syllabus with available resources while promoting the theme of 'Best out of the Waste'	Between 1st to 12th September 2020	
3.	To record their observations pre, during and post-activity	Between 1st to 12th September 2020	Apply to learn scientific concepts in day to day life.
4.	Article writing based on their (students') experience of preparing/conducting/performing any activity	Between 14th to 16th September 2020	Identify the reason for any problem /event/phenomenon in

5.	To share lecturers, links and videos of eminent scientists/personalities who have contributed in the field of Maths and Science	Continuous Process- As per the availability of best resources worth sharing with the students.	the natural and social environment. Express curiosity while observing new objects, situations in natural and social environments. Learn to provide reasoning and convincing arguments to justify his/her conclusions in a Mathematical context.

The teachers reached out to the students, guided them and interestingly conducted different activities. Students participated in online activities conducted by teachers and they shared their performances through class WhatsApp groups in the form of written text /scanned copies and small videos clips. 30023 students of Upper Primary classes (6-8) and 21236 students of Secondary classes (9-10) participated in different activities under Maths and Science Clubs as per the details given below-

Class 6-8

No	Activities	No. of students participated
1	Maths and Science Quiz competitions based on Critical and Creative Thinking	8835
2	Preparing/Performing/conducting activities syllabus with available resources while promoting the theme of 'Best out of the Waste'	5139
3	To record their (students) observations pre, during and post-activity & share with teachers	4167
4	Article writing based on their (students') experience of preparing/conducting/performing any activity	3600
5	Sharing of lecturers, links and videos of eminent scientists/personalities (by the teachers) who have contributed in the field of Maths and Science	8282
	Total	30023

Class 9-10

No	Activities	No. of Students participated
1	Maths and Science Quiz competitions based on Critical and Creative Thinking	6797
2	Preparing/Performing/conducting activities syllabus with available resources while promoting the theme of 'Best out of the Waste'	3450
3	To record their (students) observations pre, during and post-activity & sharing with teachers	2500
4	Article writing based on their (students') experience of preparing/conducting/performing any activity	2730
5	Sharing of lecturers, links and videos of eminent scientists/personalities (by the teachers) who have contributed in the field of Maths and Science	5759
	Total	21236

Glimpses of the activities conducted under Maths and Science Clubs:

Online activity 'To Encourage Writing Skills among young learners of classes III & IV conducted during 2020-21:

Objectives:
- Linkage of listening, reading and writing skills.
- To promote written expressions
- To provide space for creative thinking and writing.
- To bring out the potential to be young budding writers
- Recognizing the importance of writing skills in language, different activities were conducted through Online Mode between 1st and 7th September 2020 to promote writing skills among young for the students of classes 3rd & 4th studying in Govt. schools of Chandigarh. Teachers motivated every student of their class to participate in different competitions like Create and Compose a story, Guided writing, Picture composition, Story completion etc.
- The teachers reached out to their students and guided them. Students participated in online activities and shared their performances through class WhatsApp groups in the form of written text /scanned copies and small videos clips.
- Approx. 10,000 students of class 3rd & 4th participated in this activity.

Readers' Club in Govt. schools of Chandigarh:

- Different activities such as Writing Book reviews, Extending/Re-Writing the story, Library Treasure Hunt, Summarizing the Story, Host a book quiz, Book-reading competitions, Spelling bee etc. to promote reading habits have been conducted in the schools through online mode.

Online Reading Meal for class- I & II:

- For making young learners an engaged reader and creating their love for reading at the initial stage, they must be given every possible opportunity to take their turn to start reading and writing at their pace.
- All Govt. schools of Chandigarh UT organized an Online/Virtual 'Reading Meal' in December 2020 for the students of classes I & II
- Approx. 10,403 students of classes 1 & II of Chandigarh Govt. Schools participated in this activity with great zeal and enthusiasm.
- The concerned teacher (s) helped students of their class by providing ample opportunities and material to read and enjoy the storybook of their choice.
- The teacher applied need-based techniques i.e. picture reading, sight words, guided reading, etc. to motivate the students to read gradually/at their own pace
- Teachers shared children literature i.e. online Graded Reading Series -'Barkha' (NCERT's Publication), NCCLs 'Reader Bulletins' and other online children Reading material by sending links so that they can get a variety of material to read and enjoy.
- During Reading Mela, Language Games and Reading Competitions based on children literature shared by teachers/general awareness and understanding of the children etc. were conducted. To encourage and motivate the students, class-wise best performers were recognised.
- Students shared their performances through class WhatsApp groups in the form of written text /scanned copies and small videos clips.

Glimpses of Virtual Reading Mela:

Online Language Festival:

- To make children engaged readers, inculcate reading habits and learn about varied culture and languages of the country, Online/Virtual 'Language Festival' was celebrated in all Govt. schools by involving the students of class 3rd to 8th between 5th to 8th January 2021.
- Class level competitions focusing on language skills were organised wherein students were motivated to participate in different activities by opting for the languages of his/her choice.
- Students were encouraged to show interest in expressing in the language other than their own mother tongue/state language specifically while participating in different activities/competitions to establish the essence of the language festival.
- Activities conducted during Language Festival include:
- Slogan writing competition
- Elocution
- Poster making
- Project-based on different languages
- Composition –short story, poem, article etc.
- Role Play
- Magazine Scavenger Hunt
- Writing a morning message (in different languages).
- Spell bee competition
- Debate, Declamation etc.
- Glimpses of activities conducted under Language Festival
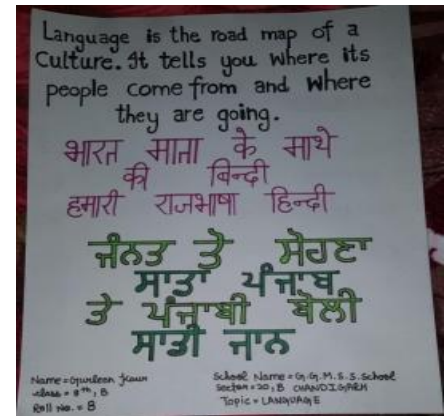
Digital Initiatives under Inclusive Education:

(a) Virtual Therapy camps for CWSN:-

- Due to the COVID situation, all the hospitals were closed for General Public for routine treatments as well as therapies
- Parents of CWSN were not trained enough to carry out the therapies on their own at home.
- As a result of this, problems arose amongst CWSN like stiffness, behavioural issues, and inability to cope with the situation.
- Online therapy camps with the help of trained therapists were planned and all the clusters were given instructions to conduct therapy camps every month as per the convenient time of parents so that the parents after getting individual guidance from therapists can conduct the same activity at home with their wards.
- All the 20 clusters are now organising two therapy camps (speech & Physio) once a month in a virtual mode in which all the queries of parents are addressed by therapists and schools are witnessing good responses from parents.
- Approx. 1080 CWSN are benefiting from virtual therapy camps.

(b) Environment Building Programmes (Online Quiz and poster making competitions) for inclusion of Children with Special Needs:

- Quiz competitions, poster making & slogan writing competitions were conducted amongst all students of upper-primary and secondary classes in virtual mode.
- The theme for quiz competition was awareness among students on different disabilities and appropriate behaviour for inclusion of CWSN.
- Similarly, the theme for Poster Making completion was Inclusive Classroom and approx.
- 1413 students participated in this activity.
- The competitions were conducted at the school level and the school level winners further competed in cluster level activities. The winners at the cluster level are being facilitated. To motivate the student, prize winners were also declared for these activities at the cluster level.
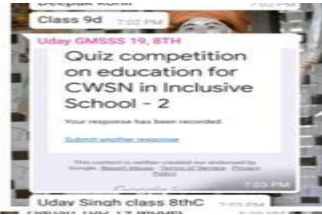
Innovation of Out of school children:

- The Special Training unit of SS Chandigarh created a WhatsApp group, connecting the Special Training Teachers with identified Out of School children for providing academic support to the students. The majority of the students got connected.
- Thereafter, teachers were provided with a format to ascertain the number of students who were not connected due to lack of facilities. This exercise helped the Unit to guide the teachers on how they could help these students.
- Suggestions from teachers were also asked for, which were found very useful and practical.
- WhatsApp group of teachers is receiving hundreds of messages containing pictures and videos from teachers.
- The Unit Coordinator and the Mission Coordinator give their observations and feedback regularly to the teachers.
- Given below are the glimpses of the teaching-learning process being conducted during the present extraordinary situation

Initiatives undertaken for reducing dropouts:

- During the lockdown period, all the teachers of STC connected with one group of WhatsApp that is "STC Chandigarh" made by a unit of STC.
- Information gathered by teachers to find the facilities available with children -This information helped teachers to make child-centric plans for the continued learning process.
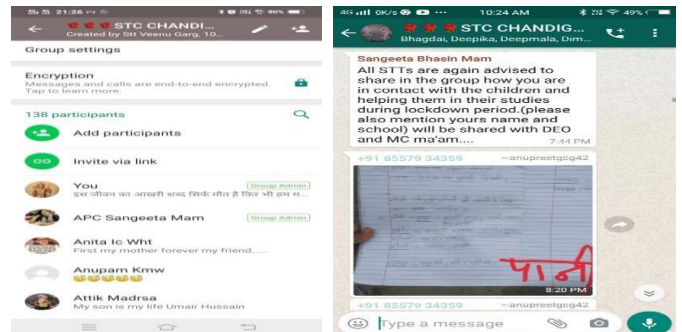
Online admission process:

- The teachers filled the forms of children who do not have online facilities or found difficulty in submitting online admission forms.

WhatsApp group learning:

- WhatsApp group created by teachers with children who have network facilities.

- Teachers shared various TLMs with students.
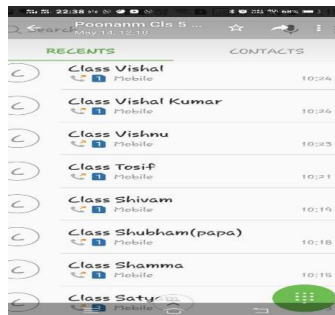
- Feedback of learning given by children through WhatsApp by incorporating Audio and Visual Materials.
- Co-curricular activities done through WhatsApp group: - Co-curricular activities done every Saturday, helps children to come out from the stress of lockdown as well as from anxiety of COVID -19 and to make them feel positive and stimulate students' thinking, self-reflection, and self-understanding to promote their individual growth.

CO-CURRICULAR ACTIVITIES by OoSc children - during lockdown period

Participation of parents increased in the learning of their children:

- Most parents cooperated in giving access to the mobile device to help their children access learning

Teaching – Learning process for offline OoSC children:

Quality and innovation in Vocational/Skill Education under Samagra Shiksha:

- During the lockdown period, all the 56 trained vocational trainers were brought under the group of WhatsApp "SKILL EDUCATOR, S.S. CHD".
- The Ice Breaking session of all the trainers was also done online
- A webinar was conducted to enrich Trainer's to apprise them of the need for blended learning and to familiarize them with different methods of teaching-learning, especially for practice.
- At present, 7 Vocational courses are being run in 28 Government Secondary Schools under Samagra Shiksha in Chandigarh.
  - o Apparel
  - o Automobile
  - o Beauty & Wellness
  - o Food Production
  - o Information Technology
  - o Retail
  - o Artificial Intelligence
- Teachers have linked the children in WhatsApp groups and are following both offline and online modes of teaching. Some photographs of the efforts put in by the teachers to ensure that loss of learning is minimum.

Digital Initiatives Undertaken For Promoting Critical & Creative Thinking / Experiential Learning among Students:

- To prepare the students for the changing pedagogy and NEP 2020 curriculum the students of classes 7th to 10th are being given the practice to learn from their surroundings and the resources available at hand during the time of the pandemic.
- There are four Subject Expert Group Committees (Scientific Literacy, Mathematical Literacy, Reading Literacy – English and Hindi) formed.
- Each Subject Expert Group Committee is headed by 02 Principals (one from Govt. School and the other from Private School) and is composed of master trainers (25 teachers) from schools of UT Chandigarh.
- These committees are developing resources for teachers and students, both online and offline, and also acting as Master Trainers for the training of subject teachers on the concept of Critical and Creative Thinking / Experiential Learning which is being circulated to all schools.

Resources Developed By Subject Expert Groups and Shared With Teachers and Students:

- "Step by Step" is a booklet for mathematics for the students of classes 6th to 10th to make the learning of concepts joyful and to enhance the Critical and Creative Thinking skills.
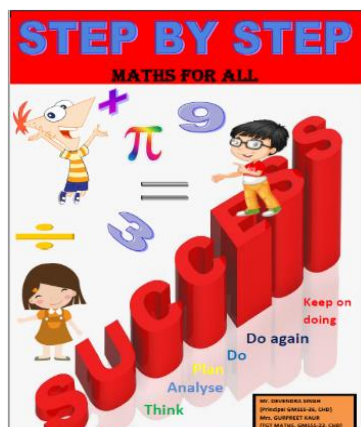

- This is the name given to share the practice questions and to challenge the students in Mathematics to check their learning every week.
- This is an initiative that makes mathematics joyful for students.
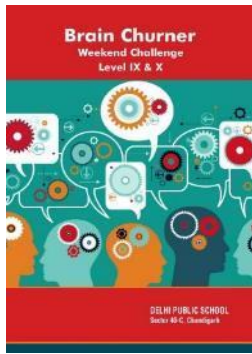
- Online Weekly Comic book Series in Science called "Joyful Learning in English and Harshit for Hindi medium students. It is a weekly Comic Series (classes 6th to 8th and 9th to 10th) developed by the teachers of the Scientific Literacy Group to develop scientific literacy joyfully. 24th edition has been shared to date.
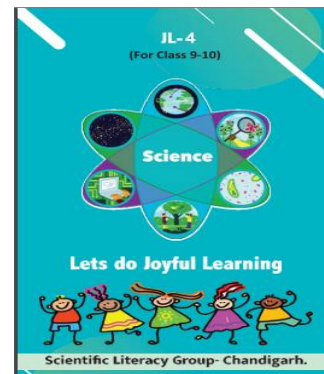

- Mathematics Literacy: Hard and soft copies of Mathematical Literacy Practice Book for Students has also been developed by SCERT, Chandigarh which is being used to promote logical and creative ways to develop an interest in mathematics.
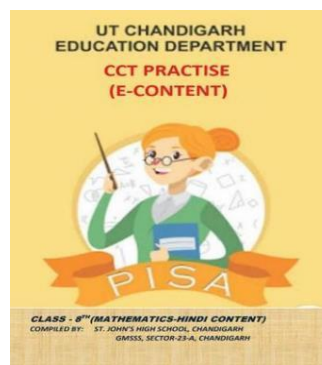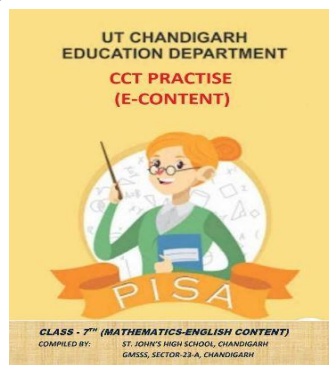
- "Sankalp" is the fortnightly CCT Booklet for developing Hindi Literacy skills among Hindi medium students.


- Series of Webinars have also been conducted to create awareness about the approach to Creative and Critical Thinking.
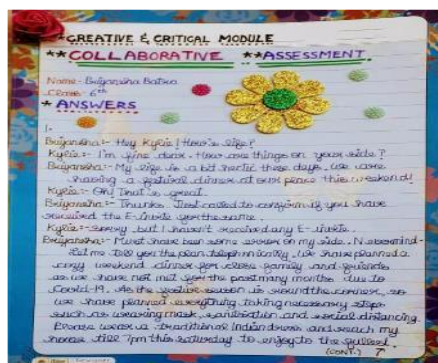
## Samvaad – A Monthly Newsletter:

Samvaad – a monthly newsletter, was launched in September 2020 with the following objectives:

- To share the on-ground efforts for Creative and Critical Thinking (CCT)
- To motivate schools to come up with more CCT focused initiatives and activities
- Six monthly newsletters have been released since August 2020 in which some of the Best Practices of CCT have been documented and shared with all schools to replicate.
- It has been observed that during the pandemic the teachers have been replaced with parents and home tutoring has become an integral part of the teaching-learning space. Thus Parent's viewpoints are also being shared for it helps them understand the need for change.
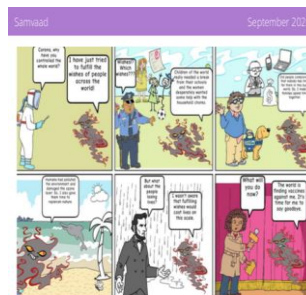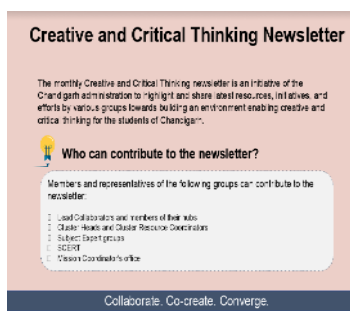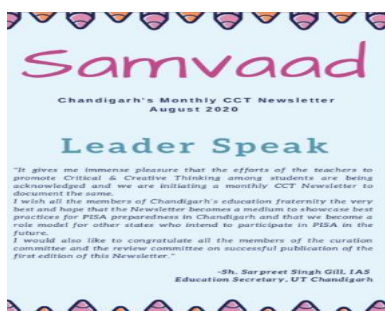
Training Sufficiency after June 2020:

- Virtual Orientation of Principals /Heads regarding CCT preparedness and Digital Education was held on 24th July 2020 by Director SCERT.
- Orientation Regarding Review of CCT Preparedness and Mapping of the resources with Taxonomy was held with all the Subject Expert Groups on Google Meet Application during the second week of August 2020.
- Pilot Online Course in ICT -Pedagogy Integration in Teaching, Learning and Assessment was done by teachers of Chandigarh through DIKSHA Portal from 20th August 2020 to 24th August 2020
- A webinar on 'Features of National Education Policy' was conducted for URC's, CRC's, SCERT faculty on 4th September 2020 and all the Subject Expert Groups on 7th September 2020 in collaboration with SAS.
- Online Interactive sessions with Principals by Director School Education UT Chandigarh to enhance the Critical and Creative Thinking Capabilities of students.
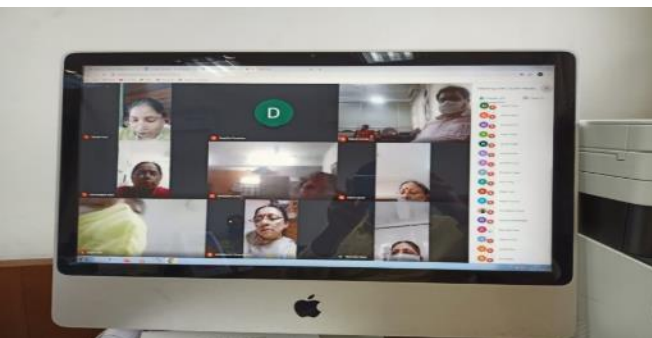
Online CCT competencies training/orientation sessions of 2785 teachers (23rd Oct to 18th Nov, 2020)

- One day Capacity Building Programme for English teachers by CBSE (27th October, 20).
- Approx. 4200 teachers completed 18 courses of NISHTHA Online Courses on DIKSHA (21st October, 20 to 18th January, 21).
- 226 teachers from 112 Govt. Schools trained as Health Ambassadors under the School Health Programme of Ayushman Bharat. (2nd to 9th December, 20 and 9th to 14th December, 20)
- Online Training/Orientation sessions to familiarise regarding the CCT competencies for 2785 teachers taking classes from 6th to10th have been conducted from 23rd Oct to 19th November 2020 by COE Chandigarh and Central Square Foundation (CSF).

Initiatives done by School Heads to improve Digital Access

Smart Phones donated by Sonu Sood to needy students of GMSSS-Dhanas

Smart Phones donated by SHO to needy students in his area

Smart Phones donated by Head-GMHS-RC-II Dhanas to needy students

Around100 Smartphone received in donation and 100 more will be distributed shortly.

Digital Education Initiatives:

Project PHOENIX:

- Phoenix Mobile Application based on Learning Outcomes has been developed at the Elementary level in collaboration with SPIC, to track the progress of the students.
- It is based on the technology to assess the Learning Outcomes and covers the students from classes 1 to 8.
- Subject Assessed: All Subjects
- This program is accessible via both Mobile App & Web Portal
- Helps to identify the gaps and weak students who are given remediation.
- For Micro level observation, Login Id and Password has been generated to track the progress based on Learning Outcomes. By using Login ID, Teachers, Heads of School and Monitoring Teams can monitor cluster wise /school wise/ students wise/ section wise/ teacher wise progress of the students for classes I -VIII for all Govt. schools of UT, Chandigarh

VidyaDaan Projects:

- Chandigarh Project Class-8th: Quality Digital Content for Class 8th in Hindi Medium for the subjects Mathematics, Science, SST, English and Hindi. Total 877 contributions were received, and 550 digital content pcs are approved for this project which is now published on DIKSHA.
- Chandigarh - Fun with Science project for classes 3rd to 8th in the subject EVS/ Science. Total 90 activity-based videos were uploaded, and 88 Digital Content Videos were approved by the curation team.
- Chandigarh - Critical and Creative Thinking Reading Literacy Hindi, Class 6-10. Total 207 Digital resources are uploaded and approved under this project.
- Chandigarh - Critical and Creative Thinking Scientific Literacy Class 6-10 Hindi and English medium. Total 252 Digital resources are uploaded, and 248 resources are approved under this project.

- Chandigarh - Critical and Creative Thinking Reading Literacy English, Class 6-10. Total 239 Digital resources are uploaded, and 232 resources are approved under this project.
- Chandigarh - Critical and Creative Thinking Mathematical Literacy Class 6-10 Hindi & English medium. Total 918 Digital resources are uploaded, and 852 resources are approved under this project.
- Chandigarh Project Class-9
- Quality content in Hindi Medium for the core subjects of Class 9. Total 1252 digital content are uploaded and 1023 are approved to date under this project. This project is still open for contribution till the 10th of June 2021.

PM eVidya Kishore Manch:

Recordings for PM eVidya/ Kishore Manch for all the subjects and classes are done in collaboration with Rotary International Society and the telecast schedule for the same is shared with the schools.
The process is as under:

- The daily schedule of the program is received by SCERT UT Chandigarh from NCERT and SWAYAMPRABHA portal
- The schedule is shared with Principals of all government and Government aided Schools through the DEO office
- The Principal conveys the information to the respective teachers which are further shared with students.

DIKSHA:

Energized Textbooks with QR codes are available on the DIKSHA portal for all the classes as Chandigarh is using NCERT textbooks.

7. CHHATTISGARH

Padhai Tuhar Dwar (PTD):

The objective of this initiative is to connect teachers and students by providing access to good quality educational content from the comfort of their homes. Post-COVID 19, it has become necessary that children should be provided with the opportunity to read, write and learn while staying in their homes. Through this program students are now able to continue their studies on the e-platform, PTD's YouTube channel, PTD mobile App through video lectures, simulations, animations. The School Education Department of the Chhattisgarh Government has launched this platform in the interest of the students. With this, students will now be able to continue their studies on the e-platform through video lectures, simulations, animations. SCERT Chhattisgarh has developed approx 15 thousand minutes of video content for grades 11th and 12th. SCERT has also developed content for Grade 9th & 10th, Subjects like Mathematics, English, Science and Social Sciences. The content has been uploaded to the Youtube channel & Padhai Tuhar Dwar Platform.

The state has won the prestigious E-governance award from CSI in Lucknow for Padhai Tuhar Duar.

CG Multimedia Mobile App (CG-MMTB App):

It is an initiative seeded by National Informatics Centre (NIC) and SCERT Chhattisgarh. The goal of this initiative is to create a teaching-learning process more interactively. All the textbooks of class 9th and 10th have been converted and packaged into a mobile platform. It can be accessed anywhere anytime by teachers, students and parents etc. The content contains videos, audio, animation and text which are open source.

EDUSAT Network:

ISRO has provided the Bandwidth for the EDUSAT System and demonstrates the efficacy of the satellite system for interactive distance education. EDUSAT is the first exclusive satellite for serving the educational sector. It is specially configured for audio-visual medium, employing digital interactive classroom and multimedia multi-centre system. The School Education department has developed and maintained 330 SITs in Higher Secondary Schools, DIETs across the remote parts of Chhattisgarh.

Key Achievements:
- Regular classes for Students by SCERT Faculties and experts.
- Extensive use for building capacity for Teachers.
- The project has impacted approximately 12000 Students every year.
- This network has been used for various Competitive examination Preparation like Engineering and Medical Entrance.
- Also, this network has been used for Meeting with District Officials.

Connected Learning Initiative (CLIx):

Connected Learning Initiative (CLIx) is a bold and innovative intervention designed by TISS Mumbai and MIT Boston. CLIx offers students opportunities to work in a hands-on manner to construct knowledge in active ways, and enhances the prospects of professional development for teachers through the use of ICT. CLIx has created resources for high school going students in the areas of Mathematics, Sciences, Communicative English and Digital Literacy. The resources are designed to be interactive, enable collaboration and integrate values and 21st-century skills.

SCERT Chhattisgarh has been offering these interactive open educational resources to students and teachers of government secondary schools in Chhattisgarh, in Hindi. CLIx has been internationally recognised and awarded with the 2017 UNESCO-King Hamad Prize for Excellence in the Use of ICTs in Education and the OER Collaboration Award 2019 by Open Education Consortium.

Activities during Academic Year 2020-21:

With the support of SCERT, TISS has conducted teacher training for 4500 teachers on ICT integration in effecting Teaching. With the Support of SCERT, TISS is conducting a Workshop for integrating ICT for all B.Ed/M.Ed College Faculties across Chhattisgarh.

Code Clubs:

To Align with New Education Policy (NEP) 2020, TISS has supported 30 schools in Dhamtari to demonstrate coding in schools.

Post Graduate Certificate course on Reflective Teaching with ICT (8 Credit Modular Course):

To prepare a resource person group for teachers in educational technology, Samagra Chhattisgarh in collaboration with Tata Institute of Social Sciences, Mumbai is offering an eight credit blended certification course-Reflective Teaching with ICT for a cohort of 300 High/Higher Secondary School teachers of Chhattisgarh. The specific objectives of the collaboration are 1. Develop a cohort of resource persons across three subjects (English, Maths and Science) for technology-enabled education who could support the state in District-level Training and contribute meaningfully in Professional Learning Communities (PLCs) to ensure ongoing professional development. 2. Development of Open Educational Resources (OERs) content and supporting State in developing technical expertise. This cohort will support teachers to integrate curricular resources into their subject teaching through professional development programmes.

Tech4Teachers (Daily Challenge):

One of the positive sides to COVID 19 lockdown was the digital upskill of many teachers in the state of Chhattisgarh. The digital quotient of the teachers grew exponentially. Many teachers learnt in many different ways. Some were self-taught and others relied on third party tutorials and help videos. To motivate the left out teachers, the department also rolled out a daily Challenge video via YouTube channel 'Tech4Teachers PTD' where the department partnered with KPMG to create 5-10 minute nugget videos on many interesting topics like

- How to use Canva for graphic designing?
- How to create a Quiz in Google form?
- How to teach Math using Microsoft Math Solver?
- Learning Chemical reaction using Beaker App
- How to create your website using Google site
- How to use Bit.ly
- How to create a QR code?
- How to use Google Maps in classrooms
- How to create like a PRO etc.
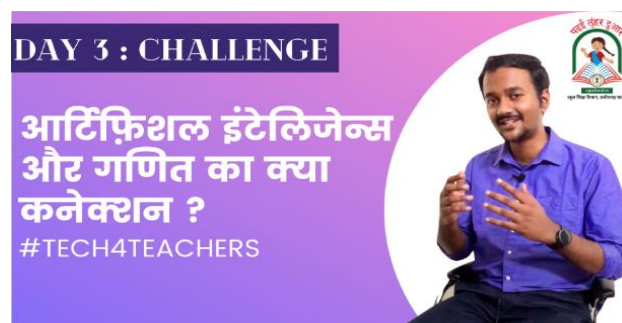
There was a very good response from teachers, as this was given the shape of self-challenge. So far, these videos have garnered more than 3 lakh views. Many of the teachers started learning from these videos and started posting their self-videos on many social media platforms of them using these techniques in their online and Mohalla classrooms. These videos were also viewed from countries like the USA, Pakistan and UAE.

SAGES Young Professional Community:

More than 1500 teachers were newly hired in Chhattisgarh for the newly formed 52 Swami Atmanand English Medium Schools of Excellence. One of the challenges was to keep these newly recruited teachers engaged and give them a platform to develop their teaching skill sets.
For this, few group leaders were selected and members were aligned to each group. They took an active interest in creating a group name for themselves and created a Facebook group and took up different kinds of digital assignments for discussion in peer groups. Mentors were also assigned to help them upskill remotely. The Principals of these schools were invited to state-Capital -
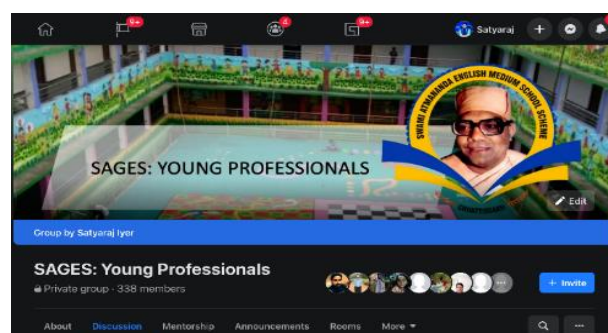
Raipur and given a 10-day residential training on effective School Governance- Including managing and motivating fresh recruit teachers, as they have a huge responsibility in taking the next generation forward. The department is also gearing up to expand this program to other government schools, after the successful pilot.

Our Chief Minister Mr Bhupesh Baghel interacted with the principals of these English medium schools using technology. He also visited almost all the schools functional in districts to meet students, teachers and staff and motivate them to make these schools the best quality schools for our weaker section of the society. Online classes of students of these schools are continuously going on.

Use of Augmented Reality in Classroom:

The best part about technology is that it is always path-breaking and innovative people will always find a way to use them in their daily life. This is a classic case that happened in the case with the teachers of Chhattisgarh. Despite the lockdown, the department continued to conduct many weekly webinars for teachers and students. One such webinar was on using Augmented

Reality in Classroom. Although, the department had no idea that the introduction of this technology would spread like wildfire and create a huge teaching revolution.

The webinar was broadcasted on 24 Oct 2020 and within 2 months, there were thousands of teachers who started experimenting with new pedagogies of teaching using AR. The kids like a LIVE Dinosaur, Tiger popping out of the tree. Some teachers went near a pond and brought a virtual Shark right out of water. Few other teachers created solar systems right inside their classrooms. Students were now able to see and experience 3 Dimensional models in front of them, what they would have otherwise only heard or seen pictures in their textbooks.

To boost creativity, a competition was also held and a team of blog writers wrote stories/case studies on teachers who successfully adopted Augmented Reality in their classrooms. Within no time, the newspaper and local media also started reporting the usage of AR in the classroom by many teachers in the remotest area of Bastar, Dantewada, Kanker etc.

Setting new records for Online Classes:

Despite many bottlenecks like connectivity issues, lack of good devices at home, many teachers did not give up the spirit of conducting online classes from home. They not just learnt to teach in a new environment but also started conducting virtual training for their peer teachers.

To date, more than 12 lakh virtual classes have been hosted by teachers, which is an astounding feat in itself! Besides this, around 600 classes for grades 5-12 were also broadcasted from SCERT and CGBSE which were viewed by over 26 Lakh students.

What is more astounding is the fact that

these classes were not only attended by students of Chhattisgarh but also students and teachers from the USA, Bangladesh, Pakistan, Nepal, Indonesia and 7 other countries where Hindi is widely spoken.
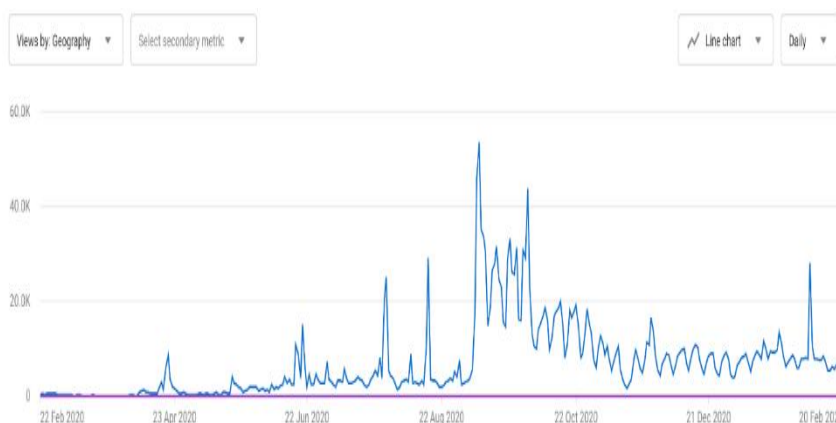
Tech Adoption Initiative by Room to Read: Bridging the Accessibility during the pandemic
Project Vijayi (Girls Education Program)

Lockdown and school closure during the pandemic has affected the education of students, mainly the girls across the nation. Given the increased risk girls face in dropping out of the school, the need for ensuring their specific needs are

considered in all continuation of learning and school reopening, various initiatives were taken by the girl's education program of the Room to Read in Chhattisgarh in collaboration with the Education and Tribal Welfare Department.

The Girls Education Program has shifted towards the online mode of connecting with the girls and sharing the online content was the important aspect of engaging the girls and ensuring their continuous learning at home. Likewise, communication was ensured with all the parents and girls through WhatsApp groups where pertinent information was shared regularly.

To raise awareness about girls' education within the community at the mass level, diverse media platforms were used like radio, social media (Facebook, Instagram, Twitter), podcasts, flipbooks, and direct community outreach such as loudspeakers at village level and traffic signal loudspeaker announcement at Raipur city.

Usage of online alternatives, such as the cgschool.in an online portal, WhatsApp, Telegram were the means to establish reach with the girls and the community.

Some of the initiatives were:

"Har Kadam Beti ke Sang" Campaign:

Girls' education is one of the most powerful positive changes and is about ensuring the girls learn and feel safe while in school and at home by having an opportunity to complete their secondary schooling, acquiring the knowledge and the skills to be useful in leading a happy and healthy life ahead. With this objective, the girl's education program of the Room to Read started a two-month-long campaign named "Har Kadam Beti ke sang" across the nation wherein an awareness program took place about the girl's education and ensuring the continuity of each girl in the school post-pandemic. As schools were closed and social distancing was enforced, it

resulted in making the girls vulnerable to various challenges like dropout risks, this awareness campaign was organized virtually where people from across the state participated. Government officials from the Education and Tribal welfare departments of Chhattisgarh like Honourable Education Minister, CG govt., Managing Director, Samagra Shiksha, Director, TWD and bureaucrats and many social influencers shared their messages (Audio/Video messages) on girls' education with the community. Some of the social activists like Phoolbasan Yadav Ji, of the state, also shared their messages on ensuring the education of girls with the community.

School Ek Ehsaas:

School ek ehsaas is a series of activities for engaging girls, parents, and teachers to undergo the self-reflection on how important a school is, what are the reasons which are making the school so special, what are those individual specific things that are being missed, thoughts and feelings of teachers about their students and many more related aspects were part of this process. Also, one of the major realizations could be that a school is incomplete without a teacher, children, and the learning transactions and it needs to be ensured by all, be it children, parents, or teachers. The activities and reflections were shared by creating flipbooks and podcasts and were further shared with the scholars, their parents and teachers, which was appreciated by all.

"Haushle Ki Dagar":

Ensuring the life skill education of the girls, an initiative was taken to air 32 life skill episodes named "हौसले की डगर" from 9.00 am to 9.15 am from 17th November to 18th December 2020 on various radio frequencies with Akashwani. These Radio episodes contain the audio version of the life skill sessions like managing time, setting priorities, stress management, critical thinking, and many more in a way of making it both entertaining as well as putting across the correct messaging.

E-Gupshup:

E-Gupshup is an online magazine for the girls wherein various themes are shared along with some pictures to create awareness among the girls and their parents. The themes of Gupshup include the 'Online Safety and Protection in Pandemic' (Ghar ho Ya Bahar, School ho Ya Mobile – Suraksha Mera Adhikar, Mera Jimmedari) and another theme is 'Health and the Hygiene, Empathy' (Swasth Rhanea mera adhikar, Sahanubhuti meri jimmedari).

These e-gupshups are uploaded in the cgschool.in an online portal, to be accessed by all by going to the portal. In total 22 e-gupshups is being uploaded and shared with all.

Also, Jeevan Kaushal Pitara has been shared with School teachers and Wardens under Project Vijayi in June 2021. (What are life skills, adolescents and facilitation were key pointers under JKP).

Literacy Program:

In March 2020 when schools were closed due to the pandemic COVID 19, Room to Read as an organisation kept exploring different technological platforms which can enable the learning for students who were continuously affected by this learning loss. Different channels were explored to address this learning loss and below is the description of the medium with objectives.

Content development for online e-Learning portal: When students could not access schools, it became important for the state of Chhattisgarh to support vulnerable students by sharing material at their doorstep. Therefore, Room to Read leveraged its expertise in creating virtual learning materials for different government e-Learning platforms such as "Padhai Tunhar Dwar". Room to Read uploaded 350 plus virtual learning content catered to address foundational skill development on the DIKSHA platform as well as on cg.school.in ranging from different categories of audio games, Read-aloud videos, Flip Books, Storybooks and worksheets for students practising these skills with the parent being the facilitator using Video on how to facilitate the worksheet. As a result, all the virtual learning content created by Room to Read is in the public domain which can be accessed by any person in the state having access and information about the medium.
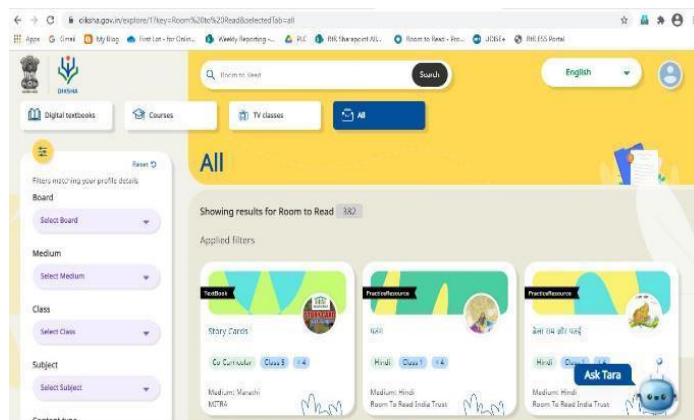
Usage of WhatsApp & Telegram group to support the state in content dissemination:

To complement the State's effort, Room to Read leveraged the conventional medium of mobile-based groups such as WhatsApp and Telegram to disseminate virtual learning material to various Government stakeholders further disseminated the messages in a cascading manner to the community. This drive led to the creation of 2096 WhatsApp/ telegram groups where systematically every week learning materials were shared and feedback and its usage stories were captured. These groups not only became a medium to connect with schools and teaching staff weekly but also resulted in understanding "how quickly parents and students are adapting to new learning mediums".

Toll-free number for children to listen to stories "kahani suno": With the support of different WhatsApp groups and on-ground field staff in most of the district, Room to Read understood the gravity of the situation of the digital divide. As a state, on one hand, we were adapting to new learning means at the same time, the awareness that most of the parents do not have a smartphone to access these materials and portals is also very evident. To address this, we started the initiative called "Kahani Suno" where students or parents can call from any phone they have access to and listen to the stories of their choices by dialling a toll-free number from 28 districts to listen to three different stories daily. This initiative was critical not just in accessing content but also in initiating conversations on how parents can contribute to children learning using stories for insightful conversations.

Leveraging the reach of Doordarshan "National TV" as an educational medium: Door Darshan has been known for educational programs for children as well as adults. The pandemic has given it a new meaning to use as a medium of education programs when schools have been shut down.

Therefore, Room to Read has telecasted 14 episodes of a Program called "Chunnu Munnu Ki Bhasha Boli" in alignment with the motto of the station "Bahujan Hitay, Bahujan Sukhay". Each episode of the program was composed to provide diverse learning opportunities for children to learn from stories, games, poems and interesting facts. It also conveyed some facilitation tips for parents to engage children in learning at home.

Leveraging the Radio's accessibility as an educational medium: Prasar Bharti has been known for educational programs for children.

Room to Read utilized this medium to broadcast "Kuch Kisse Kuch Kahani" a program for children where facilitation tips were also provided to parents to engage children in learning opportunities at home. The program had 24 episodes of 15 minutes each which gave children diverse components such as stories, games, poems and interesting facts. These programs were also listened to in Mohalla Classes using loudspeakers where children were listening to it together.
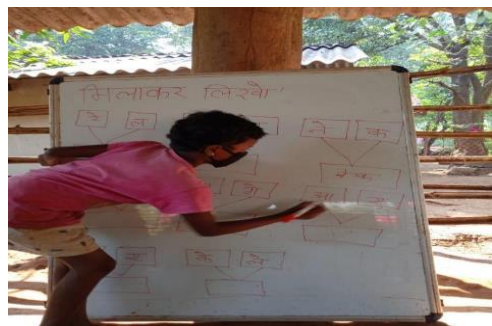
Seekh Program:

In Chhattisgarh, the 'Seekh' program is UNICEF's rapid response in the face of the Covid-19 pandemic to promote and nurture learning in primary school-going children in a manner that is not burdensome and boring. It complements the efforts of the Chhattisgarh Government like Padhai Tumhar Dwaar and Mohalla Classes to ensure that children continue to learn even when schools are closed. Seekh is a collaborative effort that involves UNICEF, State Literacy Mission Authority and Samagra Shiksha.

Based on the grade-wise 'learning outcomes' outlined by the state for its children, Seekh works in two complementary ways to reach the child. One, it uses digital platforms such as WhatsApp groups anchored by the teacher at the school or community level to communicate easy, simple and fun activities in language, mathematics, basic science, environmental science and sports which parents and their children can access. Two, Seekh also aims to mobilize and harness the positive energy within local communities towards supporting children's learning.

This is in the form of 'Seekh Mitras' or community-based volunteers who engage with children in their neighbourhood. This community support can also help to address issues of digital inequality and inequity in general to learning.

The Seekh program, which is in the 35th week, is currently on in 11 districts (Surajpur, Jashpur, Raigarh, Durg, Raipur, Dhamtari, Bastar, Narayanpur, Dantewada, Sukma and Bijapur) covering 35 blocks of the state. It reaches at least 6000 habitations and a minimum of 1,60,000 primary school-going children. Nearly 15000 community volunteers or 'Seekh Mitras' engage with children in their communities to create a supportive environment for learning. They are provided with a 'Seekh Pitaara' or learning kit by the district administration which supports their work with children. The 'Seekh Kendras' (community learning spaces) are established within homes or any other community space allotted by the parents, local Panchayat or school management committee.

The Centre for Innovations in Public Systems (CIPS), an autonomous body set up as part of the Administrative Staff College of India, Hyderabad, is documenting Seekh as a case study for wider dissemination and learning among states.

Sampark Foundation:

$1 Innovation:

Sampark Foundation was founded by Anupama Nayar and Vineet Nayar (Former Vice Chairman and CEO of HCL Technologies and Author of Employees First Customer Second) with a belief that "frugal innovation" along with execution in partnership with the government can improve learning outcomes in children at scale. This thought led our founders to give up what they were doing in 2013 and dedicate their lives to lead this change.

A focus on innovation in classroom transaction, based on a user-driven design thinking approach gave birth to Sampark Smart ShalaTM (SSS) which is a learning outcome focused initiative, uses a sound box with a voice mascot called "Sampark Didi" to teach English using LSRW (Listening, Speaking, Reading Writing) and whole language approach. Math is taught through innovatively designed TLMs in the concrete to abstract methodology. We train each teacher physically on the programme design and methodology and augment this with access to ongoing learning through a BOT enabled mobile app that works without the internet, customised for teachers to teach children effectively. We have designed multimedia workbooks with QR codes for children that help reinforce learning and thereby improve learning outcomes. All this is achieved at less than $1 per child per annum.

The 7 million impact:

Our journey of learning by working with 85,000 government schools and 7 million children in 6 states (Chhattisgarh, Jharkhand, Haryana, Uttar Pradesh, Himachal and Uttarakhand) is just that – a learning journey – because problems at scale can only be solved with patience, perseverance and lots of passion. Today we train 200,000 teachers each year and they are our true partners of change and responsible for the encouraging results we have seen through third party assessment.

SAMPARK-BAITHAK for COVID-RESPONSE:

The COVID-19 has created a crisis, unlike anything the world has ever faced in the recent past. With schools and colleges shut as a precautionary measure, it has suddenly upended lives across the world, affecting the education of millions of children who are forced to sit at home. As a result, children are losing precious learning time. Global agencies such as WHO and UNICEF have asked schools and authorities to consider remote learning as an immediate step to ensure education.

This time of fear and uncertainty has given us, and the world, an opportunity to introspect and decide what role we will play in creating a brighter future for the children of our country. For us, it is simple- Leave no child behind.

We foresee a closure of schools for at least 100 days hence and this requires urgent and immediate action to address the educational needs of these children. While school closure seems necessary to slow the spread of the virus and ensure the safety of children, the current situation can adversely affect students' education and mental progress. We are committed to ensuring that children receive optimal primary education for their holistic development, even within these difficult circumstances.

If children can't go to school, why can't the school go to the children? This is the question based on which we have launched "Sampark Baithak" in April 2020.

"Sampark Baithak" platform would ensure Sampark Didi reaches all children while they are at home through their parents mobile. You can download the Sampark Baithak from the Google play store and look at our existing Application. Presently Sampark Biathak has a viewership of above 3 Lac teachers.

Each day Sampark Didi is sharing lessons mapped to state textbooks in the form of animated videos and engaging activities to ensure that the learning journey of children continues while at home. Since the children know Sampark Didi we expect the excitement to come back to learning as she reaches their homes.
During this difficult time, our program is reaching children of 27000+ schools and 51000+ teachers in Chhattisgarh and have a plan to reach 5 Lac children by 2021 through you from class 1 to 12 by using digital platforms like Door darshan, WhatsApp, Telegram, local state applications/ microsites and Sampark Baithak.

PRATHAM'S ADVENTURES DURING COVID-19
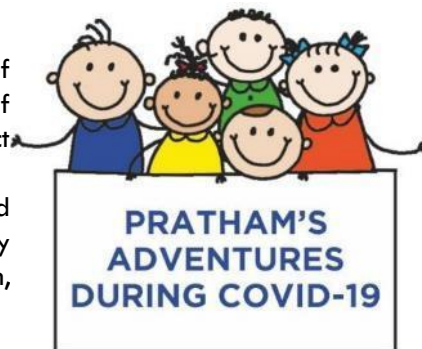
Connecting with Children and Communities:

We believe that it is crucial, especially now in this time of crisis, to remain connected with children, families and with the communities where we work. In a time of tension and crisis, engaging children in interesting activities is one way for the family to deal with the stress. We are lucky that in the past few years, our digital team has developed a vast resource repository in 11 Indian languages which are readily available in Pratham Open School. We could select engaging activities and learning tasks from this collection and send them to children using the phone numbers that we had from each location. We also shared useful and authentic information in multiple languages on the virus and ways to stay safe with our teams and communities.

We learned quickly that not all families have smartphones. In who is being left out, we realized that to reach many more children in the same village, we will have to connect exploring through basic phones. Quickly more phone numbers were gathered through our village volunteers, children, and their friends. SMS messages are being developed in 10 languages; we are continuing to experiment with how in a short text message you can communicate an interesting activity idea.

We also realized that in addition to sending messages, children are energized when a known Pratham person calls and chats with them and their families. It is from this "voice connect" that we learn how the family is doing, whether children can follow the instructions and do the activities we send, how much they like them and what else would be good to do. Routinely, children also send us pictures and videos of their daily activities.

Hybrid Hamara Gaon-Tablet Program:

The Hybrid Hamara Gaon program aims to create local community ownership of children's learning and promote guided self-learning through digital devices. The program aims to improve children's foundational skills and develop an open learning environment where children can learn on their own, at their own pace using a digital device like Tablet.
Digital learning tools (device, technology and content) are placed directly in the hands of children and youth - thus providing them with the opportunity to learn at their own pace. The program has been designed on the premise that learners can be motivated to learn on their own.
The design involves getting children in grades 6-8 in a village to form groups of 5-6 each around a tablet, thus enabling them to co-create a learning space within their community.

Community members especially volunteer in the age group of 14-25 support and enable this learning by effective facilitation. They have access to new courses and opportunities for learning. Digital devices and content (developed in-house) are placed directly in the hands of children providing them with opportunities and choices to learn on their own. At present, over 3,500 children across 167 villages are being benefited by this program in Chhattisgarh.

HUMANA PEOPLE TO PEOPLE INDIA's support towards the implementation of KADAM program (NRSTC):

Samagra Siksha (earlier RGSM) is implementing an out of school children programme in partnership with Humana People to People India since Oct 2017 through Kadam programme. This 5-year partnership programme is for OoSC in bridging the learning gap and bringing them into the mainstream of the formal schooling system through Residential and Non-Residential Special Training Centers (RSTC/NRSTC).
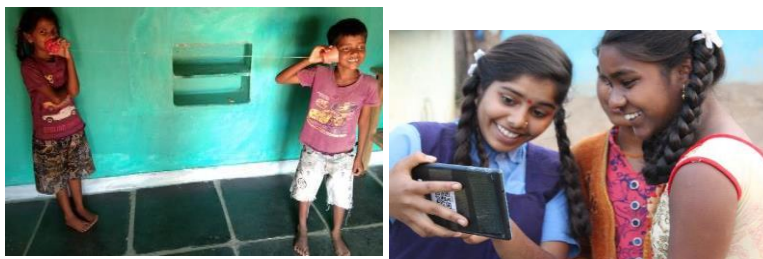
We have successfully implemented the KADAM Program in 2018-19 and mainstreamed 2867 students as per their age-appropriate level. In the session 2019-20, we have started our implementation with many ups and downs. We started 115 NRSTC with the enrolment of 2438OoSC / dropout students. In the year 20-21 we are working with 15 districts with a target of 4000 OoSC / Drop out children.

HUMANA PEOPLE TO PEOPLE INDIA's support towards the implementation of PADAI TUHAR DWAR:

To help children stay connected with education at home, the Department of School Education, Government of Chhattisgarh took an initiative by introducing the 'Padhai Tunhar Dwar' program. An online education program through which government school teachers teach students through online education portals accessed through smartphones. However, most of the students didn't have smartphones and hence many students staying in remote areas could not benefit from this program.

To overcome this challenge, school teachers and education volunteers imparted education to children by visiting them and holding classes in small groups, following all the necessary precautions against Coronavirus. Teachers and education volunteers are using Kadam theme books for teaching students activity-based learning.

The Humana People to People India is implementing "PADHAI TUNHAR DWAR" in 2 Districts, In Raigarh and Mungeli through its Digital Classroom Project, with the involvement of the local Govt. Teacher or Education Volunteer since July 2020.

To date, in total 91 Govt. Teacher and 44 Education Volunteers engaged in the implementation of the program. We are in communication with 8 Schools in Mungeli and 8 Schools in the Raigarh district. 2438 children participate in the classes' regular basis through 300 small groups. Approx. 9 students participate in a group.

HUMANA PEOPLE TO PEOPLE INDIA's support towards the implementation of PADAI TUHAR PARA:

To date, 490 Government Teachers and 206 Education Volunteers are in contact with our district representatives in different districts, among them 282 teachers and 67 education volunteers engaged in the implementation of the program. We are in communication with 153 Schools in 7 districts. 5056 children participate in the classes' regular basis through 572 small groups. Approx. 9 students participated in a group.438 students formed a trio Group.

8. DADRA AND NAGAR HAVELI & DAMAN AND DIU

Introduction:

Due to the COVID-19 pandemic, all the 403 Govt. Primary/ Upper Primary/ Secondary/ Higher Secondary schools of UT of Dadra & Nagar Haveli were closed and impacted 79250 students who were enrolled in these schools. To provide education to these students and tracking their progress during the pandemic situation is the most important task for the Department. Approximately 71% of the students of UT are having Smartphones and pursuing online education through E-gyaan mitra mobile application.

The Education Department, UT of Dadra & Nagar Haveli and Daman & Diu has taken several initiatives in the year 2020-21 to ensure that the school going students don't lag in their studies during the COVID-19 pandemic. Some of the major initiatives taken up in this regard are:

- Survey regarding availability of the Internet, Digital devices, TV etc among students.
- Creation of Academic Calendar.
- Creating class wise/subject wise/medium wise videos by subject teachers.
- Creating whats app groups of students, Teachers and Headmasters in all Schools, WhatsApp groups of Education officers & Head Masters.
- Introducing Egyaan Mitra Mobile Application for online education.
- Uploading of videos on Egyaan Mitra Mobile Application
- Tracking of students using Egyaan Mitra Mobile Application.
- Providing Workbook and Notes to the students who are not having digital access i.e Smartphones and the internet.
- Distributions of textbooks

Tracking of the students provided with workbooks and notes.
- Grants to schools for the printing of notes and workbooks
- Students were provided with Take home ration.
- Appointing Educational Volunteers for out of school children.
- NISHTHA Teachers Training through DIKSHA App.

Tracking / Mapping of all Learners:

Particular	Boys	Girls	Total
No. of Children who have access to Digital Devices for learning and registered on E-gyaan Mitra Mobile Application.	27455	27890	55345
No. of Children who have no access to any Digital Devices and are not registered on E-gyaan Mitra Mobile Application.	11036	11212	22248
No. of In-Migrant Children to the U.T	105	104	209
No. of out Migrant Children from the U.T	270	249	519

Action taken for Teaching and Learning:

- For Students with Digital Devices (Smartphone, TV, Radio, PC/Laptop, Community PC/Laptop), development of E-Gyan Mitra Mobile application for Class 1st to 12th for English, Hindi, Gujarati and Marathi Medium
- 7576 Lectures are uploaded on the Portal till now.
- Academic Calendar is followed.
- HM & Teachers monitor the progress of their Students through Portal
- WhatsApp Groups are also being used.
- Regular Visits of Education Officer to the field
- Thorough awareness is being done (through media/ regular field visits)
- TV Channels: Gujarat (Vande Gujarat), and Maharashtra (DD Shyadari) Learning Channels and NCERT Channels.

For Students not having access to Digital Devices:

- Textbooks are distributed to all the students.
- For Class 9th to 12th Notes were created by expert teachers and circulated.
- Workbooks prepared for Class 1st to 8th and distributed as per Academic calendar.
- Corrected workbooks are also given (Distribution linked with THR)
- Teachers are visiting habitations to monitor the progress of Students.
- NSS Volunteers are working as volunteers for group learning at habitation levels in remote villages.
- Home visits by Teachers.

Innovative Measures:

List of Innovative measures taken for ensuring continuity in learning for all Children enrolled in Schools.

- E-Gyan Mitra Portal and Mobile Application is available for Class 1st to 12th
- Workbooks for Elementary Classes.
- Subject Notes for Higher Classes.
- Training to Teachers for preparation of e-content.
- Home visits by teachers for academic support.
- Awareness to access Vande Gujarat Channels.
- Continuous visits by Education Department Officers/ Officials to see the progress in the field.
- Awareness/Consultation with all Stakeholders.
- Regular monitoring through Report Generation on the e-gyan mitra Portal
- Primary School targeted through Mission Vidhya Project.

9. DELHI

Efforts made at the state level, for students without access to digital devices:

By SCERT:

- The ways to reach the children, who had no access to digital devices, were discussed in teacher capacity building programmes.
- Worksheets, to be provided to the student, were vetted.
- Ways to assess the children's achievements were discussed.
- Providing socio-emotional support to children as a precondition to academic achievements was emphasized during the pandemic.
- An alternative academic calendar was suggested to teachers. Online and offline timetables were made and more and more emphasis on building connectivity with students and reaching out to them was implemented.

By Inclusive Education Branch:

When the schools were closed for face to face classes due to COVID-19, TGT-Special Education Teachers implemented a Home-Based Intervention Plan (HBIP) for Children with Special Needs (CWSN) studying in schools of DoE. To facilitate the education of CWSN during this period, a booklet namely 'Samarth' was prepared and distributed to parents of CWSN. TGT-SETs did the follow up of activities listed in the Samarth Booklet at home. Subsequently, based on the feedback received from parents of CWSN, the need was identified to have a booklet containing more activities to be used at home for ensuring continuing education to CWSN during the period when schools are closed for face to face classes. Accordingly, 06 'Saksham' booklets were distributed to facilitate the follow-up and education of CWSN at home
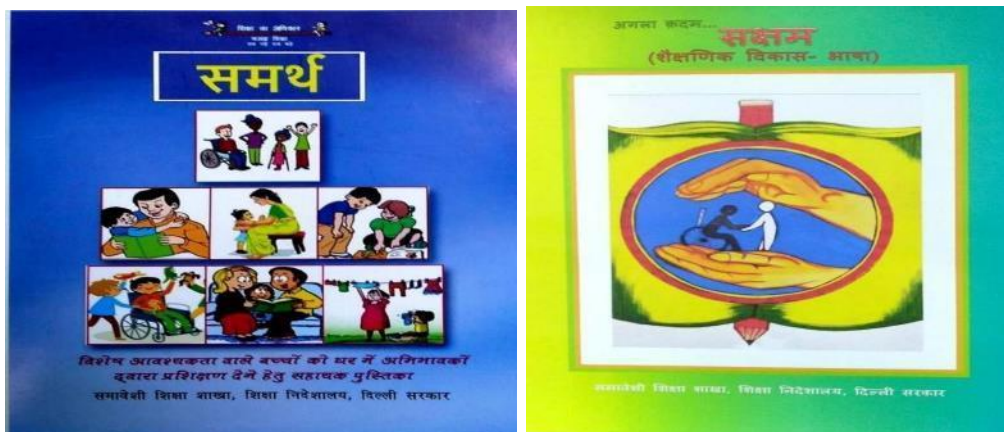
under the supervision of parents to ensure that children with disabilities remain connected to the learning activities and the time at home was effectively used.

Efforts made at the State level, for students with access to digital devices:

By SCERT:

- The ways to reach the children who had access to digital devices were discussed in a 10 days induction programme for Teachers training & 5 days induction programme for HoS especially the use of Online teaching-learning tools (various categories).
- Worksheets to be provided to the student were vetted.
- Ways to assess the children's achievements were discussed.
- Alternative academic calendars were suggested to teachers.
- The online lecture series "Learning Never Stops" is going on.
- Webinars on educational issues were organized.
- Teachers were oriented on MS Office tools and usage of social media for planning and making their online classes more interesting and activity oriented.

By Inclusive Education Branch:

Since face to face classes are not being held currently, the Directorate of Education (DoE) has devised stop-gap solutions to continue teaching and has given digital platforms a new dimension in utilizing it for educational approaches for the benefit of students. Special Educators thrive on structured timetables, routine resource room/therapeutic activities, an Individualized Educational Plan (IEP) - a meticulous, planned operation made to transform all these tasks into an online mode practically by the SETs of DoE.

All efforts were made to shift to a multimodal - a mix of live classes, recorded lessons, physical Samarth booklets, etc. During the online learning, CWSNs, inter alia, have undertaken activities ranging from the curricular syllabus to co-curricular activities like dance, music, drawing, painting, cooking, computer, indoor games with family members, yoga etc. and improved their skills/talent in those areas. Guidance and suggestions were given by SETs whenever required and active participation by the parents of the CWSN was also provided. SETs through their online sessions explained and shared certain techniques with the parents to overcome the problems faced by them with wards/children at home.

By Samagra Shiksha and Directorate of Education:
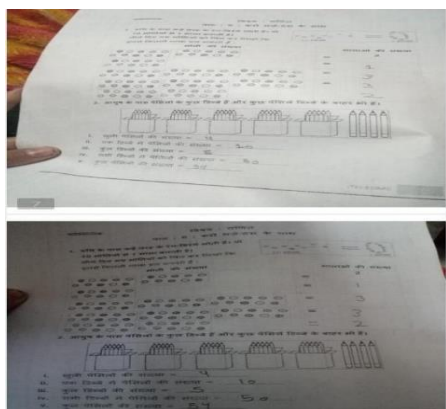
E-Learning- During the COVID-19 pandemic, online teaching was initiated to minimize academic loss in the absence of regular classes. Special sessions with teachers were conducted on social-emotional learning to build their confidence and train them in sailing through these difficult times first so that they can deal with students with compassion as the pandemic has hit everyone unanimously. Primary Education Cell, Samagra Shiksha and SCERT took initiative for the development and dissemination of Common e-Learning material for uniform learning in primary schools and all the managements of Delhi under the guidance of the Honorable Secretary.

Directorate of Education, GNCT of Delhi immediately constituted a cohort of teachers to plan online classes and semi online learning material/worksheets for students of KG to class XII. A mechanism was developed wherein students were kept in direct contact with their school through WhatsApp group/SMS/telephonic message so that the learning material /worksheets and assignment reached them regularly and the same was duly monitored & checked by their subject teachers.

A timetable was prepared for the class-wise and subject specific worksheets based on the prescribed syllabus and learning outcomes. A separate mechanism was developed for the online classes conducted centrally for classes XI and XII as per NCERT guidelines.

Live online classes were facilitated and monitored by a team of subject experts so that students benefit through their active involvement and participation by raising their doubts and giving responses to the quizzes and MCQs. These classes were highly appreciated by all for their innovative methods of teaching and interaction with the students. All the online classes, related Google forms, assignments and sample papers have been uploaded on the website of the Directorate of Education, which is available and can be accessed by teachers & students at any time.

## Reference Material available on the Departmental website:

Step 1: Visit the Departmental website at www.edudel.nic.in and click on the "Academics & Examination" link available on the website.
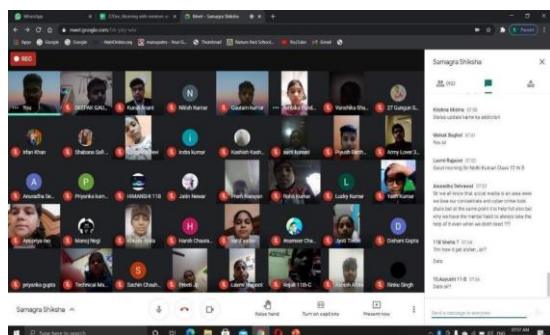
Step 2: You will be redirected to the "Examination Branch" home page under which various options are available regarding study material.
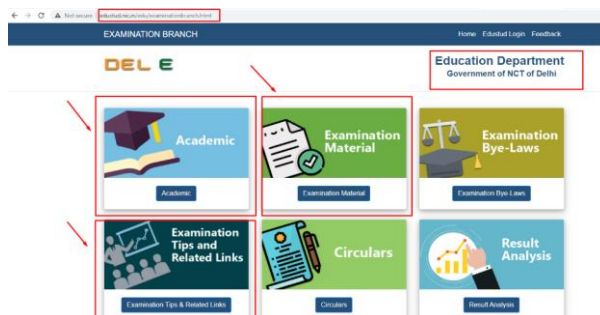
Step 3: One can navigate through various options available and can easily access the required content.
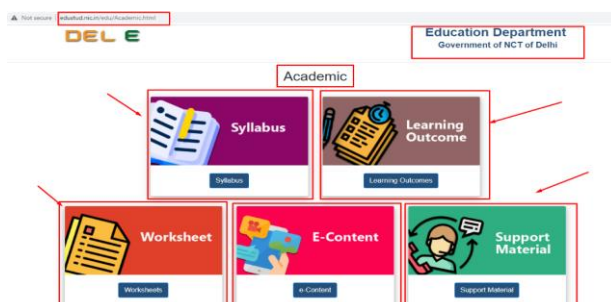
Activity: Responsible use of Social Media" under Special Projects for Gender & Equity

The online session started on 23rd Nov 2020 and was completed on 22nd December 2020. Students from Class 9th to 12th of 1033 schools of Delhi Govt. have attended online classes. Each student has attended a class for 1 day for 2 hours.

Students were very happy to learn about cyber-security issues and how to prevent them. Faculties of different areas including Professional Cyber Experts, Cyber Lawyers, Cyber Police (Indian Police Service), Cyber Educators were brought on the same platform online successfully by the Dept of Education.

Key Identification:

Students were very much interested to learn cyber-security and web development also. Special Dignitaries were invited for the session to motivate them.

10. GOA

Online Teacher Training Programme:

During Covid-19 lockdown, Goa SCERT in collaboration with the Directorate of Education, Goa Samagra Shiksha, DIET and some NGOs strived to maintain the momentum in the School Education sector through alternative channels of education, to reach out to students and teachers and to engage them in teaching-learning activities in virtual mode.

555 Computer Teachers were trained on the use of online tools for online teaching and learning on 11th & 12th May 2020. Online training was conducted to train 406 Master Trainers on "Use of Online Tools for Online Teaching-Learning". These Master trainers subsequently trained 11,119 teachers teaching in Primary, Secondary and Higher Secondary Schools. All Government and Government Aided school teachers were trained in three phases in May and June 2020.

S.No	Phase	Training Date	Total Groups	No. of Participants
1	I	13.05.2020 to 16.05.2020	168	5008
2	II	20.05.2020 to 23.05.2020	126	3357
3	III	03.06.2020 to 08.06.2020	94	2754
	Total		388	11119

A five-day online training programme on "Effective Planning for Achievement of Learning Outcome for Special Children" was conducted for 397 Special School teachers / Resource Room Teachers during June 2020.
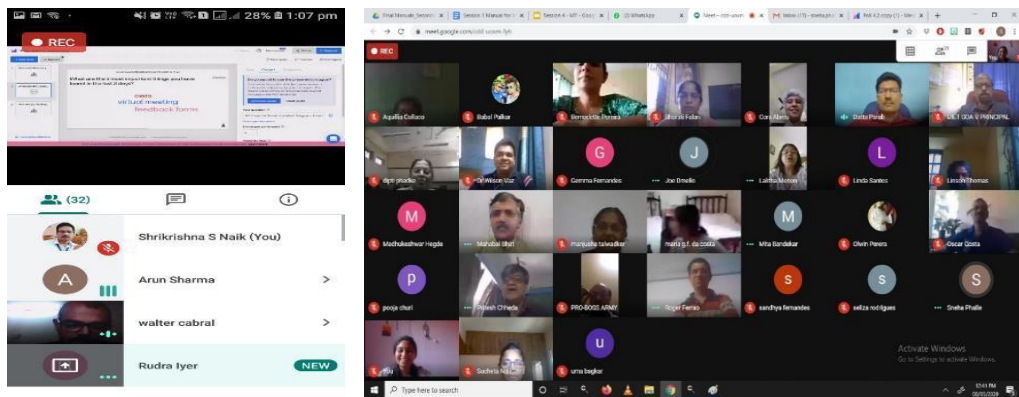
Continuous Learning of Primary Classes:

By engaging expert teachers, BRPs prepared worksheets for all subjects for 4 weeks and distributed them to parents to reach out to the students through teachers and instructed the primary schools to continue the teaching-learning through worksheets and other learning materials. Same was uploaded on Goa DIKSHA Portal and SCERT Website.
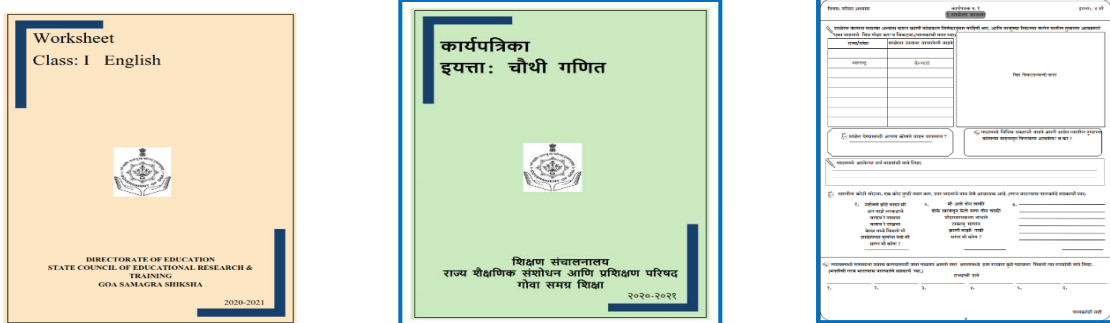

TV Lessons – Educational E-Content:

During the COVID-19 Pandemic SCERT, Goa took the initiative to develop the video TV Lessons and broadcast the same on local TV channels with the help of a CSR initiative for the benefit of the students staying in the remote areas.

The educational e-content (TV lessons) were prepared with the help of 185 Expert Teachers, BRPs and CRPs. These TV lessons were based on the second term portion for classes I to VIII in the subject Mathematics (Ganit), EVS (Parisar Abhyas) and Science and broadcasted on Goa Local TV Channel Goa365 from 5th January to 31st March 2021 daily from 9.00 AM to 11.00 AM through CSR Initiative by M/s. Funminds Learning Tech. Pvt. Ltd, Panaji. The Chief Minister of Goa launched the broadcast of TV Lessons on Goa365 TV Channel.

For primary students, the content is available in Marathi and Konkani medium and for upper primary students in English medium.

These 120 TV Lessons videos were also uploaded on the Goa DIKSHA Portal as well as the SCERT Goa YouTube Channel for the benefit of students.
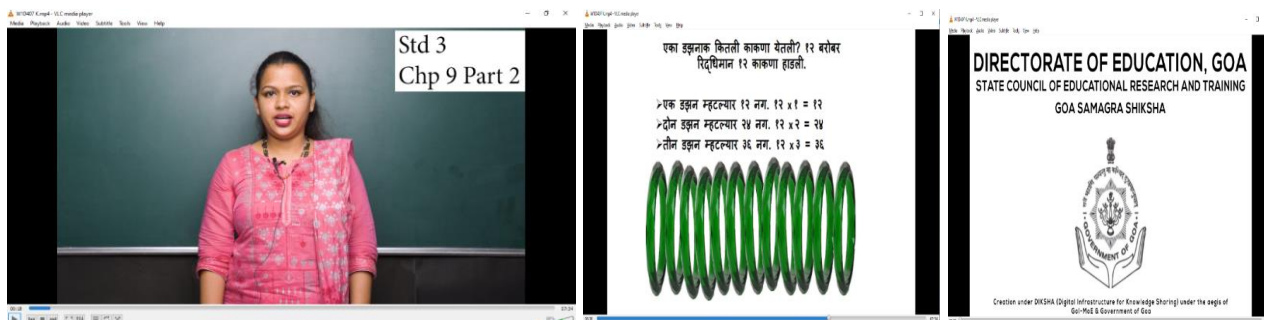
DIKSHA – Digital Learning Platform:

SCERT, Goa has constituted a Content Curation Team and Content Creation Team for the primary and upper primary section. The Content Creation Team consists of expert teachers for each class in a subject-wise combination. This team focuses on creating good quality learning materials in the form of worksheets, lesson plans, question banks and content-based videos for each class, subject wise and chapter wise. The Curation team consists of expert teachers for each class and subject combination for reviewing the existing content created by the Content Creation Team, before publishing on the DIKSHA Platform. The whole Content Curation & Creation team is equipped with 400 expert teachers.

As of now, 64 Lesson Plans, 119 videos & 230 worksheets/question banks are uploaded on the Goa DIKSHA portal. Twenty-eight textbooks from class V to class VIII have been embedded with chapter wise QR codes. Imposing QR codes will also be completed for vernacular language textbooks (Konkani/Marathi/ Hindi) in due course of time.

The e-textbooks, chapter wise in form of PDF documents, are uploaded and available on the Goa DIKSHA Portal for all the students across the state. Subject wise Worksheets / Learning Materials which have been prepared by the subject experts for the 1st to 4th week are uploaded to the Goa DIKSHA Portal and available under each class/subject. TV Lessons/Videos (120 in number) prepared by the Expert teachers along with BRCs – GSS are also uploaded and available on Goa DIKSHA Portal.

Rank Improvement Programme by JIO EMBIBE:

The Directorate of Education and SCERT – Goa partnered with Jio - EMBIBE, an Artificial Intelligence (AI)-powered online platform for learning, practising and test-taking with deep learning outcomes improvement analysis, to benefit the students and teachers in the State. This partnership began with an AI-powered diagnostic test on Embibe's Personalized Adaptive Learning platform for Grade 10 students across Goa. The diagnostic test helped students, their parents, their teachers as well as the administration to identify gaps in preparation and plan for remedial classes on weak concepts and behavioural correction. The students
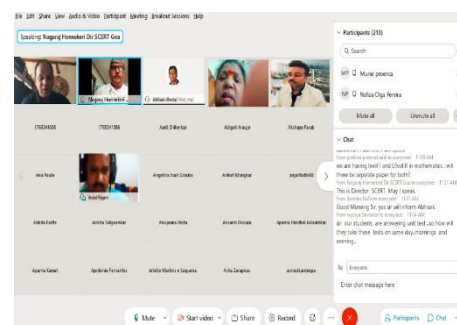
in grades 11th and 12th, who were preparing for Goa CET, JEE or NEET were offered Embibe's premium Rank Up score improvement platform.

More than 88,000 students from grades 6th to 12th were onboarded on the platform. Around 1,200 Educators from all 12 Talukas of the state were trained online on the product and later given refresher training sessions so that they could take their classes effectively throughout the COVID period. They were given access to a customized dashboard to identify and remediate the learning and behavioural gaps of the students.

It was observed that more than 73,000 students logged in 6,68,000 sessions, spending an average of more than 2 hours each on the platform. There is a considerable enhancement in the learning outcomes of the students. The platform helped the students identify their gaps, which was also remediated by the platform through automation without the involvement of teachers.

With the Grade-X exams being cancelled for the Academic Year 2020-21 due to the pandemic, the intervention has been further extended to cover more than 23,000 students from over 480 schools of the state. In April-May 2021, a diagnostic test was conducted for these students covering Mathematics and Science subjects. With the help of a dedicated team of academic counsellors from EMBIBE, each student was given a personalized revision plan to improve weak concepts identified in these tests. Rigorous learning and practice sessions have started on these concepts.

With the dedication of all teachers involved in the project, EMBIBE's AI-powered remedial system and achievement counsellors, this digital intervention has been a great success with learning outcomes improvement demonstrated (in a completely cloud-based implementation) on an unparalleled scale across the state of Goa.

Online Capacity Building Programme:

The SCERT Goa, in collaboration with Million Sparks Foundation, Delhi conducted Online Capacity Building Programme (OCBP) for Government and Government Aided School Teachers on topics of:

- Digital Proficiency (for all teachers, i.e, Primary + Secondary + HSS),
- Value-Based Integrated Teaching (Primary and Middle School Teachers (Class 1 to 8))
- NEP 2020: Inclusive Education (All Teachers (Primary + Secondary + HSS))

in January 2021 and February 2021 through the ChalkLit app.

Brief Summary of OBCL:

No	Training Name	Training Month	No. of teachers registered	No. of teachers certified
1	Making Good Videos as Teaching Aid	July 2020	7744	7383
2	Mental Health Awareness - Basics	August 2020	6635	6126
3	Digital Proficiency	January 2021	7692	6800
4	Value Based Integrated Teaching	February 2021	6847	6399
5	NEP2020: Inclusive Education	February 2021	7353	6505
Total			36271	33213

STEP app Program:

Directorate of Education, SCERT, Goa in collaboration with Eduisfun Technologies Pvt. Ltd. Mumbai implemented the STEP app program for classes 6th to 12th to learn the concepts in science and mathematics subjects in all Govt. and Govt. Aided Secondary & Higher Secondary Schools of Goa. STEP app is a gamified, personalized, interactive and adaptive learning app that makes learning Maths and Science fun and interesting for school students from grade 6 to 12th.
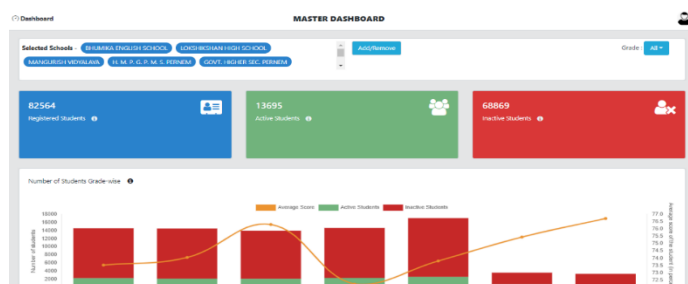
11. GUJARAT

Background:

Coronavirus COVID 19 is a global health and humanitarian crisis that the world is grappling with, at present. Around 2.5 million people have lost their lives worldwide, millions of people have been affected socio-economically and are also struggling with the insecurities of its long-term impact on their lives. While children seem to be less impacted by the direct physical impact of the pandemic, they are impacted as the health system is generally under stress and immunization and nutrition-related services are affected badly too. The closure of schools for the unplanned duration is creating a learning discontinuity for millions of children worldwide. Along with this, the negative impact of the pandemic on the lives of adults directly creates socio-emotional distress for the children.

Introduction:

The government of Gujarat declared the schools to be closed on the 16th of March 2020 as a step to curtail the spread of the pandemic. This was followed by a declaration of a national lockdown by the central government and a continued school closure for the whole of the year 2020.

Initiatives by the Government of Gujarat to ensure learning at home:

Risk communication by teachers, special educators and other education functionaries:

Just after the schools were closed down, teachers, special educators, CRCs and other education functionaries made community and home visits to share about the COVID pandemic, how it spreads and the precautionary measures that should be followed to prevent getting infected.

'Study from home' initiative by Samagra Shiksha:

After one week of the closing of the schools, Samagra Shiksha put in place the plan to share the weekly worksheets of all the subjects for grades 3rd to 10th for self-learning of the students. The weekly package of home learning called 'Study from Home' aimed at consolidating the learning of the present academic session to ensure that the foundation of the next academic session is laid strong. Around 32 Lakh students benefited from this program.

For sharing of the materials online, a network of parents' WhatsApp groups was created at the cluster level:

For sharing the materials of 'study from home' weekly digital materials, 3200 cluster level parents' groups have been created for dissemination of materials. The materials were shared from the state offices to the district/ Block resource groups, then to cluster resource person groups and finally to the parents' WhatsApp groups.

Parivar no Maalo Salamat ane Hufado:

For providing psychosocial support to the students because of the stress of the pandemic and schools' closure, daily posters of Parivar no Maalo was shared with the parents. The digital poster contained links to the activities that the families can do together, songs, motivational speeches, art and craft activities, stories, etc.

The parents were facilitated to take help from the daily digital posters to conduct activities at home. The daily posters have been created and circulated by GCERT. Around 29 Lakh students were benefited from this program.

Support and follow up through calls:

All the teachers were instructed to make at least ten calls to the students and discuss with them regarding the disease, how they are spending time at home, provide emotional support and also talk to them about the learning difficulties that they might be facing at home. Around 1 lakh 20 thousand teachers were involved in this program to cover nearly 32Lakhs of students.

Rapid assessment of the reach of the students to digital devices by UNICEF:

UNICEF conducted a sample rapid assessment in which 12000 schools participated to understand the access of the students to digital resources. The assessment highlighted that around 60% of the students have access to the internet and smartphones whereas 40% of the students do not have access to smartphones and the internet

Teachers' capacity building courses:

For utilizing the time of the school pandemic for building the capacities of the teachers on digital teaching-learning methods and on the pandemic too, various courses have been conducted through the DIKSHA platform and webinars and online training platforms. A list of possible courses that the teachers and block/ cluster/ state officials can do at different international universities have also been compiled and shared with everyone.

Special interventions for CwSN:

For addressing the specific needs of the students with special needs, the special educators took the initiative of creating short videos on different concepts like ensuring orientation and mobility of the students at home, ADL activities, learning different curricular subjects, art activities, therapy activities, etc. The short videos have been shared with the parents to give them insights into how they can support the continued development and learning of their children. A total of around 2500+ videos have been created and shared with the students in the complete academic session. Along with this, the special educators also provided input and took follow-ups through home visits, telephonic conversations and video calls.

https://m.youtube.com/channel/UCtAEwgkreQvmMpXnWRooZFA/channels?disable_po lymer=1

Embedding Sign language into already existing Home learning videos for easy access to standard 10 HI Students.

https://www.youtube.com/watch?v=5xp2vcK8FM8&list=PLDas_-OQK0By1q62QZ1yM5BTtPjhZfUoK&index=4

Initiatives conducted during the academic session 2020-21

Distribution of the textbooks for the new sessions:

The state ensured that all the students receive the textbooks of the new academic session on time. For this, timely printing and distribution of the materials till cluster and the home level was ensured. Around 51 Lakh students of classes 1 to 12 were targeted for timely distribution of the books.

### Ghare Shikhye Materials printed and distributed:

To support all the students to learn, it was decided that the students must be provided with 'learn at home' self or blended learning workbooks so that those who do not have access to digital platforms can also learn. For this, monthly blended learning modules for all subjects have been printed and made available to all the students at

home. UNICEF has provided the financial support for the development of the material and Samagra Shiksha and GCERT together printed and distributed the materials to the students. The materials have been created for classes 1 to 9 and have been printed in five different languages. Around 48 lakh students were benefited by this program.

Assessment of students' access to digital resources:

Samagra Shiksha conducted an online exercise of mapping the access of all the students to different digital platforms of learning like –TV, SmartPhone, and normal Mobile, Tablet, Radio or none of these. The objective of the exercise was to understand the percentage of the students who do not have access to any digital platforms and planning and implementation of special interventions for the students who are most vulnerable in the COVID -19 situation. The assessment underlined that there are almost 6% of students who do not have access to any digital platform. Based on this survey data, State has been classified into two categories – Students with Devices (SWD) and Students without Devices (SWoD), based on which the Home Learning program was designed further.
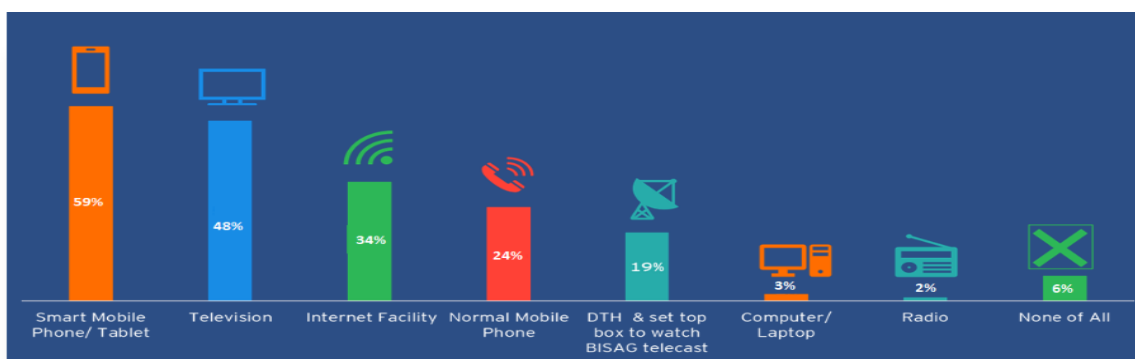
Device accessibility status as on 27.01.2021

Home learning initiative' on DD Girnar:

- As TV is a medium that a great percentage of the students have access to, it was decided that pre-recorded teaching videos should be telecasted on the DD Girnar channel that the students can watch at home.
- For this, Samagra Shiksha, GCERT and Commissionerate of Schools decided to collectively create teaching-learning videos for grades 1st to 12th and a partnership was established with DD Girnar where three hours of learning content was telecasted on the TV as per a pre-decided timetable.
- Earlier the initiative catered to the students of the grades 3rd-12th but later classes 1 and 2 were also included and the parents were advised to join the students during the telecast to get insights into how the children of the age group 7 years can be facilitated.
- Around 48 Lakh students were covered through the DD Girnar telecast.
- Apart from regular classes in DD Girnar, co-curricular activities are also included for the holistic development of the children.

Distribution of the digital content through different platforms:

To make sure that the students can re-watch the videos telecasted on the DD Girnar channel or they can view it in case they missed watching it on TV, all videos are uploaded on YouTube Channel & DIKSHA and daily digital posters that had links of all the videos telecasted on that day have been shared with the parents through WhatsApp groups. Along with the link to the teaching video, a pdf of the relevant part of the textbook was also shared in the poster. All the teaching videos have also been uploaded on the DIKSHA platform so that the parents or students can access those through the DIKSHA too. The objective of the exercise was to make sure that the materials are distributed through different channels so that the outreach can be maximized, and all the students can be reached out to.

YouTube (Gujarat e – Class), Subscriber's 3,81,262 and Views 51.5 million

Virtual classes with the students through Microsoft teams:

For the students who had access to the internet and smartphones, it was felt that taking live classes would be helpful. For this, 15 teachers (tech-savvy and those who were willing to teach digitally) per cluster level was created and the teachers were provided with the training to use the 'teams' platform for conducting virtual classes.

Around 45000 teachers were trained, and their IDs were generated for facilitating them to conduct virtual classes. Team ids were also generated for over 10 lakh students for ensuring that the virtual classes are conducted.

During the latter part of the academic session, all the teachers were instructed to conduct virtual classes and the team's id and passwords for almost all 2.5 lakh teachers and 50 lakh students were created.

A Dashboard for monitoring the progress in respect to the number of teachers conducting virtual classes and schools' performance in respect to that was created and used for review and planning.

Gujarat Virtual Shala Programme for secondary and elementary grades:

To strengthen and support the secondary grades, it was felt that especially for the schools where the Math and Science teachers were not being available, studios were established at the state level for conducting live classes. Best teachers were selected through a screening process to conduct live classes that the students can access through YouTube live, Facebook live or Microsoft teams and interact by using the comment options of these platforms.

In the developed studios ICT Infrastructure like interactive screen, set up of camera and system for going live have been integrated.

Under the GVS program, Samagra Shiksha has also taken below initiatives to maintain the student's interest through learning at home:

The state wishes to continue the streaming of live classes even after the schools reopen to ensure that the students can get additional support from the best faculty of the key subjects of the secondary grades.

The programme for conducting virtual classes for the elementary grades was also included in the gambit of GVS (Gujarat virtual shala) to underline the rationale of using technology effectively for students' learning.

Around 29 Lakh students were connected through virtual classes.

All the home learning digital initiatives are daily updated on the Samagra Shiksha website and dissemination of all the links of the programs to all the students is done through proper channels.

Development of Continuous Learning Plan in all schools:

All the schools were asked to develop a continuous learning plan mentioning the plan for supporting the learning of the students who have digital access and those who do not have any access to digital resources. Different ways to reach out to the students with no digital access were suggested through a letter and also through the Home learning course.

Follow up on CLPs:

Two/ three rounds of detailed review have been taken by the State Project Director, Samagra Shiksha with the DPEOs and the block officials for reviewing the implementation of CLPs. Different available data related to access of the digital content was taken into consideration for reviewing the progress made by each district. Data like the number of views made on DIKSHA, number of students attending the GVS sessions live, YouTube views, data of the virtual classes, etc., was taken as the basis for the review and discussions.

Career counselling through live sessions and encouraging access to Gujarat Career Guidance Portal:

Five two hours long live sessions have been held for the students of classes 9 to 12 to facilitate them to understand how they can access the Gujarat Career Guidance portal and YouTube live sessions have also been held on the career opportunities the students have in streams like vocational, biology, etc.

YouTube channel created by the Vocational trainers:

To ensure the learning of the students of the vocational subjects they have enrolled in, the vocational trainers were facilitated to conduct online virtual classes or create short videos (with appropriate pedagogy) and share them with the students for ensuring continued learning.

Home learning course for all teachers and parents/ SMC members:

A one-hour simple digital course was created and hosted on the Diksha Platform by Samagra Shiksha for facilitating the teachers, parents and SMC members to understand the different initiatives that are implemented by the education department to support the learning of the students. The course also highlighted the role of teachers, parents and the monitoring officers in supporting all children.

Focus on learning continuity of the students with no access to digital platforms:

Around 2000 Bal Mitras that facilitate learning of the students in the Special Training Programme centres have been re-recruited during this period for supporting the learning of the students with no access to digital mediums. The Bal Mitras were facilitated to provide learning support by teaching the students in small groups within the community.

Along with this, the teachers, volunteers/ youth/senior students mobilized by the schools also actively participated in Faliya (Hamlet) teaching where they created small groups of the students at different places within the community and provided the teaching inputs.

Granthalaya programme:

To encourage the teachers to create or collect stories/ poems or children's (normal & special) literature as an effort to engage in creative endeavour's, Granthalaya programme was launched by Samagra Shiksha. Facebook workplace platform was used to get the teachers' and IE Special Educators entries. A total of around 4000 creations have been submitted by the teachers and 200+ by IE Special Educators. A committee has been formed for the review and editing of these submissions and for evolving children's stories books from the submitted materials.

Training of the resource group of trainers on Adolescent Education/ Empowerment Programme:

A four-day training plan was implemented for building the capacity of a resource group on different aspects related to adolescent education programmes. In this area like adolescent psychology, issues of protection, health and nutrition, online safety, etc were discussed. More than 1 lakh teachers are benefited from this program.

Digital sessions with teachers on AEP:

The resource group of trainers later conducted digital capacity building seminars for the teachers to further support the students. The sessions were facilitated by the District Gender Coordinators, select CRCs/ BRCs, KGBV Wardens/ teachers.

Online Self-Defence training:

During COVID 19, as physical training was not possible to conduct, the Gender branch of Samagra Shiksha took the initiative and developed an online training module on self-defence. This course was uploaded on the DIKSHA portal and more than 2 Lakh girls enrolled for this course.

Creation of Help desks using IVRS:

Samagra Shiksha with the support of the Control and Command Centre (CCC) has established a system where IVRS is used for providing support to the students of secondary grades to solve their subject matter related doubts. The students can call on the toll-free number and select the subject in which they are seeking support. They get a call from the teacher of that particular subject available to extend support.

Assessment of learning:

Ekam Kasauti:

In order to ensure that the student's learning is assessed by the teachers regularly and the feedback is also shared accordingly, Ekam Kasauti which is a system of fortnightly assessments have been conducted regularly and the students' notebooks of the filled assessment sheets have been collected by the teachers for checking and sharing remarks. Around 50 Lakh students participated fortnightly in Ekam Kasaut.

"Prashna Ukelo Inaam Melvo" for Class 3 to 5, IVRS based system for receiving responses on learning:

In November- December, a system has been put in place where a number was shared with the students to call and share the response of the questions asked in the home learning teaching videos. Ten best students who gave the right answers were acknowledged through a digital poster created daily of the champions who have given the right answers and they are being called from CCC to motivate them.

Swamulyankam Programme:

In order to undertake a comprehensive assessment, another initiative has been implemented where WhatsApp numbers are shared with the students on which they get the questions on the taught subject and they provide responses one by one in the chat. The data of the number of the students who appeared in the rest (subject wise, class wise) and their responses (correct/ incorrect) is consolidated at the state level to understand the impact of the learning initiatives on the actual learning of the students. Few features of this system are Automatic Assessment of Student Progress, Performance, Misconceptions and sending remedial video links to students based on their performance. School Teachers are given performance reports of their students through which they can use actionable insights & pedagogical recommendations to calibrate the teaching process in a virtual/real classroom. Total 12 lakh students were registered and taking assessments.

Capacity building of the teachers and district/ cluster education officials:

Capacity building of the special educators:

A four days long training was planned for all 1800 special educators on home learning of the children with special needs. For this, a partnership was established with the BM Institute of Mental Health for facilitating the training. The training has been held using Microsoft teams.

Capacity building of BRC/CRC:

To enhance the capacity of BRC coordinators/ CRC coordinators and to bring more clarity on their roles and responsibilities an online training module was developed and uploaded in the DIKSHA portal which is completed by all the BRCos and CRCos.

Online training to develop a practical skill:

Samagra Shiksha Gujarat has established Learning by Doing Centres in 780 upper primary schools to develop 21st-century skills among the students. 2 days of online training of Science and Math teachers on the use of equipment provided in the centre was conducted to develop practical skills. Another 2-day training program in association with IIT Gandhinagar was conducted to develop a critical thinking and creative environment in the classroom. Samagra Shiksha also distributed learning by doing a kit prepared by IIT Gandhinagar.

Capacity building of the Inclusive Education Field Staff:

A total of 16-hour i.e. 4 hours per day online training was conducted for all the Dist. Coordinators & SEs in coordination with BM Institute of Mental Health, Ahmedabad on the following topics.

Topic 1	Online teaching for special need children: Issues and its management
Topic 2	Self-Care and Hygiene for special need children and adolescent
Topic 3	Home Management of Problem Behaviour
Topic 4	Pre-vocational Training for Special Ability Children

Orientation on Digital Accessibility:

Conducted 2-day online orientation workshop with all the District Coordinators (37) on how to access Gujarati medium e-Books (std1-12) on Bookshare (Bookshare is a library of more than seven lac books and contains books that are easy to read and useful for people who cannot read print books.) digital platform through Smart Phone & Computer.

In-Service Teacher Training through Chetna Mobile Application:

Around 1.9 lakh teachers have registered on Chetna mobile app and completed online training on inclusive education. The training modules cover key topics like 21 disabilities, the special educational needs of the children with special needs and the development of inclusive classrooms, learning practical tools, techniques and best practices. Etc.

Distribution of Aids and Appliances:

After the lockdown was lifted, the assistive devices such as Special MR Kit, Wheelchairs, CP chairs that were planned to be distributed at the beginning of the sessions were distributed. MR Kit consisted of learning tools such as - flashcards, charts, plastic balls, puzzles, small plastic bat, small table tennis kit, wooden toys of different shapes, drawing books and colours.

Roll-out of Divyaan Application:

DIVYAAN app is a mobile app with a geotagging feature to monitor & track the progress of CwSN enrolment, attendance, IEP, provision of aids & appliances, girls' stipend, transport & escort allowance, etc. Rolled out Divyaan Mobile Application and oriented all IE field staff on its usage.
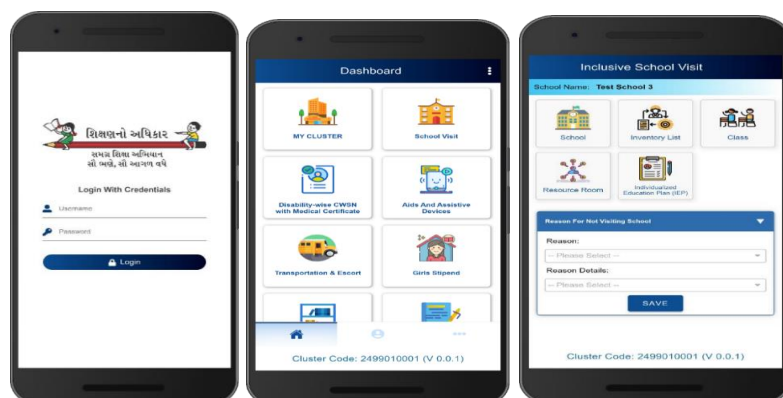
Study of the impact of interventions during COVID by UNICEF and Dalberg:

Dalberg with the support of UNICEF conducted a study focusing on 6 districts to understand the reach of the children and adolescents to the learning resources shared and programmes implemented by the state and their level of satisfaction in respect to the same. Gujarat came out to be the state which has had the highest reach of its programmes till the level of the students and most of the parents shared that they have been contacted regularly by the teachers regarding the progress of learning and wellbeing of their children.

School reopening guidelines:

Based on the national framework and guidelines for school reopening, reopening guidelines have been created and shared with the schools for reopening of the classes 10th and 12th. The guidelines are also followed for the reopening of the schools for grades 6th to 8th standards.

Assessment of WASH status of schools using Swatchhata Gunak application:

With the support of UNICEF, an assessment of the condition of WASH in schools has been conducted using a mobile application. The questions for recording the status of WASH have been created using the national standard parameters of WASH in schools. The status of the results of the outcomes on WASH was highlighted using stars. The list/ percentage of schools that have received the highest 5-star rating, 4 stars and below were created and shared with the district officials using two VCs to support them in understanding the status of WASH in schools in their respective districts. The block officials were also capacitated on supporting the schools for the development of an improvement plan in respect to WASH in their schools. The districts are instructed to create the district level plans too where they map the targets with the requirement of funds and their mechanisms for support and monitoring.

The training of the teachers on understanding WASH in schools and COVID was also conducted utilizing the SSG application. Self-learning modules were uploaded on the application and the teachers were encouraged to complete the course and undertake an assessment to finally receive a certificate of acknowledgement.

The objective of undertaking this exercise during the COVID time was to underline the need for ensuring quality WASH practices as these hold all the more important especially in the context of COVID and once the schools reopen.

Out of school children survey:

Starting the month of January 2021, the special educators, BRPs and Bal Mitras of the Access and retention unit have been conducting surveys across the state to identify the out of school children and enrol them in the schools or STP centres as per their present status of learning and need. The mobile application to track the progress of CwSN has been used to host the questions related to the survey to identify and record the details of the OoSC found during the survey.

Secondly, Samagra Shiksha is also determined to cater to the children of the in-migrant population by setting up Tent STPs at the location of the worksite of the parents.

Plan for the Academic Session 2021-2022:

Remedial programme:

For ensuring that learning loss might have happened in the present academic session because of the school closure, a programme for remediation is conceptualized and would be implemented in the new session so that the student's learning gaps can be addressed and bridged. The remediation programme would be implemented based on the diagnostic assessment of

the learning that the students have acquired from the previous academic sessions and identification of the gaps in the same.

Ensuring that all the students are back to school:

In the new session, the teachers would make sure that all the students are enrolled back to the schools and do not drop out because of the discontinuity.

Digital Content Creation for CwSN:

Under the Home Learning initiative, Samagra Shiksha will create digital content with the support of the B.M Institute of Mental Health, Ahmedabad. The content will be created around the areas- Early Identification, Multidisciplinary approach for treatment like Medical & Therapeutic, Life skills and Pre-Vocational skills for CwSN. On completion, it will be uploaded on DIKSHA, YouTube and other platforms for the knowledge building of all stakeholders and beneficiaries.

Capacity Building of HI Specialized IE Special Educators:

The education department has decided and is taking necessary steps to conduct 10-day online training sessions for 450 + HI specialized Special Educators on basic Indian Sign language (ISL).

12. HARYANA

The outbreak of the Coronavirus pandemic has significantly disrupted teaching in schools across the country. As schools closed to contain its spread, the Department launched multiple initiatives to mitigate student learning loss and build teacher credibility:

- TV learning through EDUSAT
- घर से पढ़ाओ Campaign via WhatsApp and SMS
- Community engagement through SHIKSHA MITRA campaign
- eContent Creation and teacher training through DIKSHA-Haryana

TV Learning through EDUSAT:

EDUSAT is a satellite content streaming service owned by the Government of Haryana for sharing Educational content with TVs in schools across the State which has been operational for the last 10 years. During the lockdown, EDUSAT is now being streamed through all Cable and DTH TV networks across Haryana direct to the student's doorsteps.

4 Dedicated TV channels have been launched to show EDUSAT content with different channels showing content for elementary and secondary grades

Content is streamed throughout the day, with time slots for each grade publicly promoted through a timetable
Video content is a combination of in-house State EDUSAT content (made by SCERT and State teachers) and videos from academic partners like Pratham, or Tic Tac Learn from CSF.

घर से पढ़ाओ Campaign via WhatsApp and SMS:

The घर से पढ़ाओ Campaign has been launched through the network of 200+ centralised teacher WhatsApp groups already created as part of the Saksham Haryana programme. This campaign connects students and teachers directly through WhatsApp and SMS to ensure active learning by students.

Implementation of the घर से पढ़ाओ Campaign has 5 major components:

- Awareness and Momentum
- Academic Content
- Reviews and Monitoring
- Rewards and Recognition
- Assessments
- Awareness and Generating Momentum

The Campaign was launched to District and Block level officers in April'20 over Video Conferencing with over 250 participants
A campaign video was created in-house and disseminated to create awareness among the parent community
Easy to consume infographics were created to communicate the responsibilities of all stakeholders - Parents, Teachers, Block/Cluster Resource Persons, and District & Block Officials.

Academic Content:

Content for WhatsApp & SMS is curated centrally and shared with Teachers on the Saksham WhatsApp groups daily for forwarding to parents.

Elementary classes (1st - 8th):

- Week wise calendar created for core subjects - Hindi, Maths, EVS and Science, based on the month-wise distribution of annual syllabus by SCERT
- A State level resource group curates daily videos and worksheets for each grade as per the week wise calendar
- Videos are taken from a range of verified academic sources including Pratham, Bodhaguru, Khan Academy, Goyal Prakashan Bros, and TicTac Learn
- SCERT, in collaboration with Pratham Foundation, began curating and disseminating simple bite-sized activities that can be shared via SMS for students without digital connectivity.

Secondary classes (9th - 12th):

- Content for Secondary classes is curated with the support of Avanti Fellows for Maths and Science students
- Grade wise daily messages are curated by the Avanti team which include short videos, reading notes, and practice question

Review and Monitoring:

To track the reach of the campaign, weekly reporting forms are sent to all teachers, block and cluster resource persons, principals, and block/district officers.

Tracking data from May shows that approximately 10 lakh students (50%) are connected on WhatsApp with 41,000 teachers reporting active participation in the Campaign.

Teacher and Student Participation Summary				
Class Category	# Teachers in the State	# Reporting weekly actions	# Students in the State	# Students connected on WhatsApp
Classes 1-5	36,284	21,816	890,964	313,533
Classes 6-8	16,689	11,068	548,283	373,014
Classes 9-12	18,702	8,643	618,649	324,054
Total	71,675	41,527	2,057,896	1,010,601

- Additionally, Districts and Blocks have introduced several innovative best practices to track the campaign and improve participation
- E-Monitoring (Rohtak): Mentors get added to parent-teacher groups for 3 days at a time to report on the participation of teachers and students within the group.
- ePTM (Jhajjar, Panchkula): Video conferencing with parents and teachers to get feedback on the campaign
- Weekly reports on Ghar se Padhao being prepared at the cluster and block level and shared on WhatsApp groups

Rewards and Recognition:

To motivate officials and teachers to support the study from home, nominations have been taken from all districts for Champion teachers and officials. Those nominated are being recognized through WhatsApp infographics.

Online Assessments:

- Weekly quizzes are conducted for Classes 5th - 12th every Saturday based on the content being shared on WhatsApp between Monday to Friday in the particular week.
- Quizzes for elementary classes (5th - 8th) are created and administered by the SCERT Testing and Assessment Wing.
- Quizzes for secondary classes (9th - 12th) are developed by Avanti Fellows and administered by the Department.
- In the weekly quiz conducted on 12 February 2021, over 4.9 lakh responses (70% of student enrollment) were received for elementary quizzes and over 4.7 lakh (~50% of student enrollment) for secondary quizzes.

Community Engagement through Shiksha Mitra Campaign:

To connect students with digital learning content, providing access to internet-enabled devices was critical. To this end, the 'Shiksha Mitr' campaign was launched in July'20

Teachers, principals and mentors were responsible for taking this forward:

- Teachers identify a Shiksha Mitr for each student in their class
- Teachers register each student's Shiksha Mitr through an online form
- The resulting database would facilitate direct department communication with parents
- Currently, ~70% of students in the state have been mapped to a Shiksha Mitra
- Example Infographic for Shiksha Mitr:

Who is a Shiksha Mitra?	• Parents • Siblings • Neighbours • Extended family • Community volunteers
What will they do?	Provide students with smartphones to enable access to educational content Enforce a learning routine for students Act as a link between teachers and students through the department app
What will they need?	Smartphone/internet-enabled device Regular in-person contact with the student

DIKSHA-Haryana Progress 2020-21:

Online Capacity Building Program on DIKSHA:

Building teacher capability was key in the successful implementation of the home learning program. Haryana leveraged the Ministry of Education's digital learning platform - DIKSHA to conduct teacher training in the state. National Initiative for School Heads' and Teachers' Holistic Advancement (NISHTHA) training for primary and middle school teachers was also conducted through DIKSHA.

The uptake of DIKSHA has been highly encouraging for the state:

- 85000+ teachers have registered
- 8+18+12=38 teacher training courses have been completed
- 18 NISHTHA courses completed by 68000+ elementary teachers.
- On average, 87% of teachers enrol and complete.

Content development Progress:

State Council of Educational Research and Training (SCERT) Haryana is also organising the digital content library on DIKSHA through a comprehensive process:

- Conducting quality and quantity analysis of existing videos
- Curation/creation of video content to meet existing gaps
- Uploading and tagging videos on DIKSHA
- District DIKSHA teams were created under the supervision of DIETs with one DIET faculty as DIKSHA District SPOC and 4-5 subject experts from the field (Teachers/BRPs/ABRCs) as creators.
- 200+ content creators and reviewers trained in multiple workshops at SCERT offline and online.
- Regular meeting orientation and review of district teams are continued from 1st April onwards to check the DIKSHA Haryana Status and progress.
- Additional 96 books for Class 6 to 12, with the incorporation of NCERT content, are made live on the Haryana DIKSHA portal.
- 300+ content pieces prepared, Content pooling exercises in the pipeline from existing portals and third-party platforms.
- Rolled out a state-level initiative to crowdsource high-quality online content and identify additional hard spots in the textbooks.
- More than 8000+ content pieces are live on DIKSHA Haryana which includes learning outcomes, explanation videos, and assessments. 1000+ have been created under the guidance of SCERT Haryana while other pieces have been curated from different approved sources
- SCERT has created a Learning enhancement program (LEP) resources repository for dissemination at the start of the new academic year.

13. HIMACHAL PRADESH

During the year 2020-21, the pandemic caused unprecedented lockdowns, thus also disrupting the state's education system. From World War II to past calamities, school breaks have led to lifelong losses for the students. Hence, to save children from these learning losses, *Political and administrative will* lead to the declaration of the home-based educational programme, 'Har Ghar Pathshala' dated on 9th April 2020.

There was very little time to catch up. The dissemination of the content was to start on 16th April. The greatest challenge was to engage more than eight lakh students of rural and urban households, for effective learning, with limited resources during the lockdown period. All the classes from first to twelfth were to be covered. Forty-five subjects (up to class 8), forty-two subjects (from 9th to 12th classes) of three different streams of Science, Commerce and Arts were to be covered.

The work started with the promise to hold the flag high of the Education department. The journey saw its trigger point with the selection of one hundred and fifty education disseminators, the State Resource Group. All had to be convinced and motivated to volunteer for the creation, presentation and dissemination of their digitized content and to face thousands of teachers and lakhs of students. Series of online training sessions and deep discussions were organized to transact the pedagogically enriched content. Even dry subjects were correlated with routine applicability and innovation by leveraging audio-visuals and animations while ensuring content comprehension.

As a part of this ongoing initiative, Technical-team, Samagra-Shiksha uploads about 87 video tutorials and worksheets, on the site https://bit.ly/hargharpathshala, daily. The whole administrative authority along with school heads and teachers have been establishing direct contact with the students through WhatsApp morning messages framed at State Project Office Samagra Shiksha. The students are routinely instructed to study the material and then attempt the worksheets which are being checked by the teachers on daily basis. The teachers fill the feedback to the next higher authority.

CONTENT CREATION AND ASSESSMENT THROUGH HAR GHAR PATHSHALA:

The next herculean venture was to examine the students of 1st to 12th and identify their learning gaps. Hence, first and second summative assessments and third and fourth formative assessments were executed up to middle classes. 1st and 2nd term examinations were organized through online and offline mode for the classes of 9th to 12th. Weekly assessments through WhatsApp quizzes have also become a regular feature. Remedial notes and videos are also being provided in case of under-performance.

The efforts of Political and Administrative machinery, Coordinators, Resource Persons, Technical Team of Samagra-Shiksha & Samarth Group, Schools Heads, Teachers and even Students proved immensely commendable and received state and nation-wide acclaim and applaud. HP's Har Ghar Pathshala program featured in the article of Brooking's, one of the top-3 premier international public policy think tanks. It appreciated Himachal Pradesh for its multilayered approach to remote learning that engages parents in an active and novel way. The program was also featured on 25th January in the 50th Himachal statehood day and on 26th January in the Republic day program.

This initiative has developed an impeccable database of thousands of videos and digital worksheets to reach more than 80% of students covered under the program. Simultaneously, 68,000 teachers have also been deployed to connect to all the parents (a whopping 92%) through "ePTMs". The initiative has been a visionary step towards the creation of an evergreen asset not just for the state but for generations to come.

In Himachal Pradesh, the Gyanshala programme was started to telecast small video lessons on 17th April 2020 during COVID-19 lockdown. It was for the students of 10th and 12th. The content was telecasted through the Doordarshan channel, for two hours, from 10 to 12 o'clock.

HIM Shiksha programme was also started through JIO TV on 28th October 2020. Three channels were allocated for Elementary, Higher and Vocational classes.

All the subjects and streams were covered under this programme.

14. JAMMU AND KASHMIR

The Jammu and Kashmir Knowledge Network (JKKN):

The JKNN is an initiative of Samagra Shiksha J&K to connect school children of J&K to the world of knowledge through the internet. At present more than 1 lakh students have been connected with the internet and there is an application for 2-way interactive lectures from across the state.

Salient features of JKKN Portal:

1. E-Content for the students is regularly updated on the portal by teaching faculty of respective districts. The students can search the content topic wise/subject wise on the portal regularly. 6000 videos have been uploaded on the portal https://jkkn.co.in/econtent
2. The total number of visitors visiting the JKKN portal is around 3000 per day and they downloaded the various e-content/e-resources on the portal. The total number of visits on the portal is around 8.3 lakh.

Useful links are available on the portal like DIKSHA, NISHTHA, Swayam Online Courses, Swayam Prabha, National Repository of Open Educational Resources (E-books, E-Content, Links of Educational Sites, Software, etc.)

https://jkkn.co.in/links.php
https://jkkn.co.in/books.php
https://jkkn.co.in/useful-links.php

Students join online sessions through the link https://jkkn.co.in/ and the same recorded lectures/sessions are uploaded on the Content section of the JKKN portal so that students can view the lectures later on also.
Samadhan is an AI-based Educational Chatbot developed by the JKKN team for the students and teachers of the School Education department. The chatbot helps students and teachers to get quick responses related to educational queries and it will be continuously updated with feedback from teachers and students. Push Notifications are also available on the Android app of JKKN.

JKKN-DNOs (District Nodal Officers) and SNOs (School Nodal Officers) can add/upload the information from backend to JKKN portal https://jkkn.co.in/log-book/index.php by using their logins and passwords which includes

- Online Monitoring tool (Log Book)
- Add Schedule for Online Subject Specific Classes
- Add Career Information on Portal (CIP)
- Add E-Content Links on JKKN Portal
- Add Useful Online resources/Software on the portal

From this, JKKN is also taking the following initiatives to enhance the teaching-learning process:

- Providing quality education to the students in subject-specific areas.
- Organizing online Brainwaves/Samvaad sessions/debates, seminars, quiz & cultural exchange programmes for the students led to their overall development.
- Organizing online interaction with eminent personalities for motivation and career guidance from within the UT/country and outside the country.
- Organizing Capacity Building Programmes/workshops for teachers/masters/lecturers.
- Organizing online lectures for the schools where there is a scarcity of subject experts/faculties.
- All the innovative and informative lectures/activities delivered/carried through are to be recorded and stored as e-resource for future use to benefit both the students & teachers.
- Samagra Shiksha J&K issues a monthly calendar for carrying out various ICT based activities which are to be followed by every ICT/CAL School.

Several various online sessions have been generated on the portal by ICT DNOs.

District wise Video conferencing links:
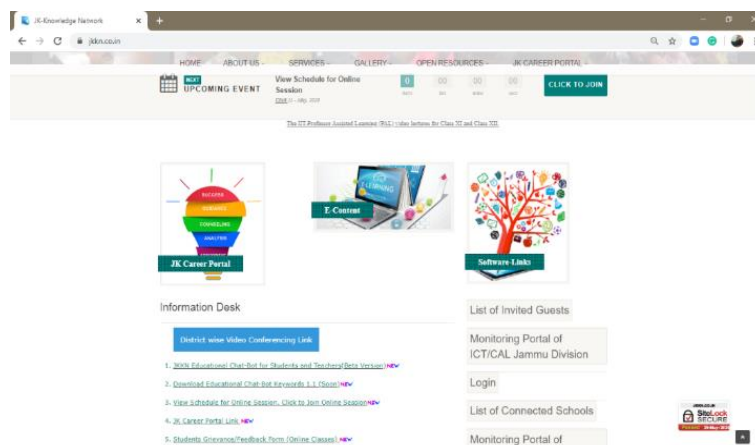
Samadhan Educational Chatbot for the students and teachers:
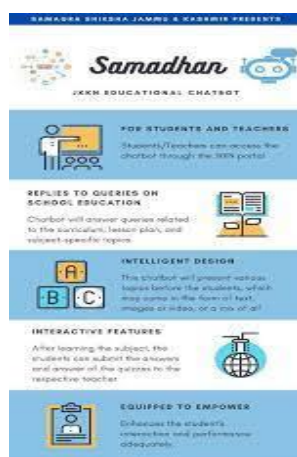
Post-COVID Achievements:

Due to the Covid-19 crisis, all school-related activities were shifted to online portals. We have used Zoom for various online activities during this period but there is some security apprehension in the Zoom app and we were trying to develop our own video conferencing tool for the last few months and have successfully developed our own video conferencing tool.

IMPACT (Integrated Multidisciplinary Professional Advancement Course for Teachers): Trained more than 34000 Grade 2nd and 3rd teachers through JKKN Platform (20th July 2020 to 15th November 2020 was the Online Training Period). The IMPACT training programme consisting of three phases were conducted in online mode using the JKKN platform by the concerned DIETS face-to-face (for five days) online. The fieldwork of twenty-one days will be actual implementation or practical work of the face-to-face training phase and Reflection and Assessment for three days.

DIKSHA outreach Programme:

- Samagra Shiksha JK organized an online interaction programme on 27th July 2020 wherein teaching faculty of District Srinagar, Shopian, Anantnag, Budgam, Bandipora and Kulgam participated.
- On 15th July 2020, an online interactive session was organized on the topic Creation of Quiz using Quizizz Tool to inform students how to prepare interactive quizzes.
- On 17th July 2020, an online interactive session was organized on the topic KAHOOT quiz and assessment purpose wherein 150 participants took part in it.

15. JHARKHAND

Learning Continuation through collaborative efforts of JEPC, JCERT and CSO network:

The onset of the pandemic and the subsequent lockdown severely disturbed the teaching-learning process as schools remained closed for most of the teaching sessions in 2020 as well as the current year. Jharkhand Education Project Council, and Jharkhand Council of Education, Research and Training initiated several learning continuation efforts using digital platforms, television and home-based learning medium. To enhance the reach and effectiveness of these initiatives JEPC communicated with the community for their participation in the state efforts. These initiatives included:

- DigiSath Initiative and the formation of school-based WhatsApp groups
- Teacher Professional Development through Diksha app
- Initiative for Career Counseling of Students
- Capacity building of SMCs and community outreach
- Efforts for Inclusive education
- Initiatives for vocational education
- Liaison with Civil Society Groups

DigiSATH Initiative:

The Jharkhand Government launched the Digi-SATH initiative to digitally reach out to students studying in government schools during the country-wide lockdown. Schools organized WhatsApp groups that were linked with the WhatsApp groups of the state administration. The content was transmitted to schools to enable students to conduct their studies.

The Jharkhand Government launched the DigiSATH initiative to digitally reach out to students studying in government schools during the country-wide lockdown. Jharkhand DigiSATH has been initiated as part of Project SATH with the support of the Boston Consulting Group and Piramal Foundation. The program has created a tremendous state-wide momentum ensuring continued learning through multiple means - WhatsApp, Television, DIKSHA App, offline learning.

DigiSATH is enabling students to study through both remedial and grade-level content being sent out every day. The entire State education administration has been connected through thousands of WhatsApp Groups created at different levels. Multiple steps have been taken to mainstream digital learning for continued learning through the DigiSATH initiative.

DIKSHA App:

The DIKSHA platform offers teachers, students and parents engaging learning materials relevant to the prescribed school curriculum. Teachers have access to aids like lesson plans, worksheets and activities, to create enjoyable classroom experiences. Students understand concepts, revise lessons and do practice exercises. Parents can follow classroom activities and clear doubts outside school hours. Digital content is available on DIKSHA App for teachers and students. Consequently, more and more teachers are getting themselves registered on DIKSHA. For capacity building of Teachers, there is another app named TeacherApp, it connects them for video lessons. There is mapping of open access, free content developed by partners/agencies/available on DIKSHA Network of 3000+ BRP/CRP and 100,000+ teachers for daily sharing of content. More than 90% of teachers and students have given positive feedback on the content and have also begun to realize the long-term potential of digital learning.

Student and teacher learning through WhatsApp:

(Platform connections: 30,000 school groups, 90% teachers, 10 lakh students)

There is now a statewide network of WhatsApp groups covering block and cluster resource persons and video content links are being provided to teachers and students through this network. Digital content like Quiz/ interactive activities are

shared every day for assessment. This daily content for students and teachers is prepared as per a structured calendar covering all major subjects and topics. Development of digital content is done by JCERT with UNICEF and other agencies. High-quality student and teacher learning material has been curated for all classes (I -XII). Content messages are being disseminated through 30,000+ groups at a fixed time in the morning ensuring continuity and regularity. Teachers across the State are also creating content and sharing it with students at the local level.

Television: Doordarshan:

Once it was realized that there were access-related challenges in the context of utilization of digital content through WhatsApp, JEPC and UNICEF engaged with Doordarshan to ensure telecast of regular digital content. Telecast of remote learning content for grades 1 to 12 along with life skill content started. Grade appropriate and life skill-based learning content is being shared five days a week, three hours per day from Monday to Friday.

NIOS with CBSE and NCERT has started live classes for secondary and senior secondary students. The students can watch the broadcast of recorded programs on Tata sky channel 756; Dish TV Channel 946, 947, 949, 950; Airtel TV channel 437, 438, 439; Videocon channel 475, 476, 477.) There is open access for life skill content: Sesame Street, Meena stories, etc.

Four hours of dedicated TV programming under "Hamara Doordarshan Hamara Vidyalaya" with a special focus on grade X and XII students for Board examinations are being broadcasted. Content has been curated with a collaborative effort of multiple Ed-Tech organizations. A toll-free number is given for children to clarify doubts; to be cleared by SCERT every Saturday.

Phase 2 of Doordarshan based learning has been initiated; focused efforts to promote DD based learning by the government. Short videos and WhatsApp friendly digital posters have been developed by JEPC with the support of UNICEF. These have been circulated across teachers', parents' and students' groups.

Saturday Quizzes:

The State also organizes quizzes every Saturday for students of classes 3-10 to strengthen student engagement and ensure regular assessments. More than 300,000 students across grades participate in these quizzes weekly. 10-20% improvement in learning has also been observed in grade 9-10 students.

Mass VCs conducted to orient officials, teachers and parents:

There has been a change in the ways of working of education administration at a massive scale across the State with the adoption of video conferencing methods. Mass scale VCs and webinars have been organized at all levels of administration. This has created momentum for digital learning and ensured direct accountability. VC with District/ Block officials and Weekly VC with HMs/ Prabhari HMs are being conducted.

Identification and Certification of Champion teachers:

An initiative to recognize extraordinary work on the part of the teachers was made part of the DigiSATH program. Meritorious teachers are felicitated with Certification by the State leadership. This acts as a catalyst in teacher motivation and has resulted in further activation of the teacher base.

Psycho-social support aspects in COVID response:

Webinars for teachers with support from UNICEF and the Central Institute of Psychiatry on providing psychosocial support have been conducted. From April to September, through radio/ television/ webinars. The issue of psycho-social support has been discussed with the parents/ teachers/ students. There was even a DD Panel discussion on psycho-social wellbeing conducted. More than 50,000 teachers, students and parents reached out through webinars on psycho-social wellbeing. The data shows that 5,000 watched the webinar live while the remaining accessed it through a recorded session. 1000 teachers trained as first psycho-social contact points for students with the support of the Central Institute of Psychiatry.

UNICEF continues to engage with the JEPC, Jharkhand on the creation of awareness on psycho-social wellbeing during the COVID induced school closures. Discussions to train 1,000 teachers as first psycho-social contact points for students continues- the training schedule is being worked out. To reach secondary school teachers, parents and students with knowledge and support on psycho-social wellbeing and exam preparedness during the specific COVID situation, a

webinar was organized by JEPC in collaboration with UNICEF on 15th September. This was planned by the Education section in convergence with CAP. Clinical Psychologist, Dr Anuradha Wats and Psychiatrist Dr Nishant Goyal from Central Institute of Psychiatry were the key speakers. The webinar was chaired by Secretary, School Education and Literacy. 5562 teachers, parents and students attended during the live session while 45,000 views were reported by the second day of the seminar.

Initiatives in the current session include:

Enrolment drive - In the new education session, an enrolment drive was launched digitally with the help of civil society groups and community organisations under which many schools created their link on social media platforms. Students could automatically enrol themselves merely by clicking on the links. After enrolment, a message was sent to parents through the WhatsApp groups to make available mobiles for learning continuation.

Review of learning content – JCERT constituted a team to review the content of the previous year which identified gaps in response new learning content is being prepared

New WhatsApp groups – With the new academic session students were promoted to the next class or passed out of school. As such new WhatsApp groups were formed.

Teacher Professional Development through DIKSHA App:

The DIKSHA platform offers teachers, students and parents engaging learning material relevant to the state learning and professional development needs. Teachers get the opportunity to access learning aids like lesson plans, worksheets and activities, to create enjoyable classroom experiences. Students understand concepts, revise lessons and do practice exercises. There is mapping of open access, free content developed by partners/ agencies/ available on DIKSHA Network of 3000+ BRP/CRP and 100,000+ teachers for daily sharing of content.

By the current year, 1.10 lakh teachers have been registered on the platform for whom 15-day courses on teacher professional development have been launched. Teachers are completing these courses and getting certified digitally.

Initiative for Career Counseling of Students:

JEPC launched a career portal - jhcareer.com - With the support of UNICEF in the previous year for grade 9 -12 children. The portal provides information on 546 career options with more than 2500 career pathways. It talks about starting, mid-point and peak salary for each profession, courses needed, loans/schemes available, personality traits that correlate with a career, time and investment needed. The career portal is gender-sensitive and ensures equal representation of men and women in success stories linked to different career fields. It has updated information on both vocational and academic streams.

During the lockdown, webinars/ promotional drives to encourage students to connect with this portal were undertaken by JEPC. 4.5 lakh students studying in classes 9 to 12 are registered on this portal. The portal provides simple language information on 546 career fields, including both vocational and academic fields. There is accurate and updated information about scholarship schemes, government assistance, training centres related to every field. There are also success stories related to every field so that children do not think that they can achieve success only in government jobs or medical engineering. There are manifold opportunities in business, arts, retail management, web content writing, creative writing, tourism etc that children can take advantage of with relevant information.

Many interactive sessions on career were conducted on YouTube and Zoom app for career planning, exam preparedness and career portal promotion. Webinars on career planning and exam preparedness were also conducted.

Capacity Building of SMCs and Community Outreach:

The major interventions were:
- Interpersonal communication
- Social mobilization
- Use of mass media, outdoor media and social media
- Capacity development
- Partnerships

(a) Wall Paintings in Middle and High Schools:

- In order to spread awareness about COVID and its prevention, the government in association with UNICEF prepared rules for wall paintings that need to be displayed in middle and high schools. These wall paintings:
- Caution people about the need for social distancing and the need to wear masks to have safe schools.
- These paintings were made by the schools with first preference to SMC members for carrying out the work.
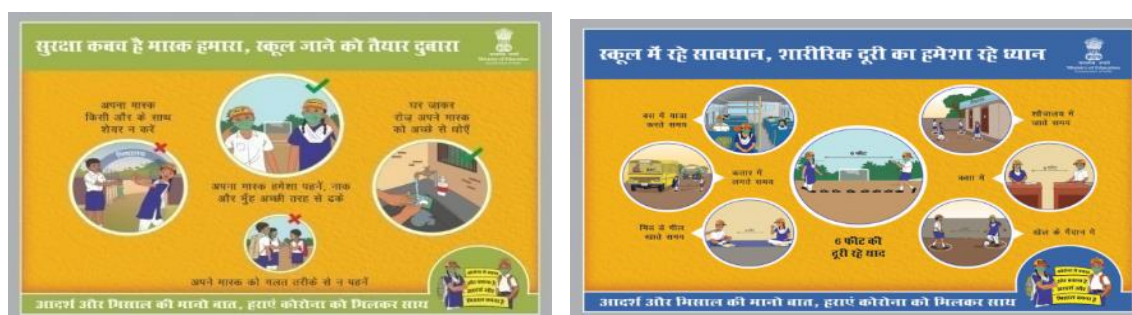
(b) PALASH programme of Radio transmission for COVID awareness in local languages:

JEPC started a Radio Programme named PALASH or People's Awareness, Learning and Sharing programme under which radio programmes are being transmitted through Prasar Bharti and Akashwani Ranchi. The transmission time is from 12:45 to 1:00 PM and Akashvani Ranchi, Chaibasa, Jamshedpur, Hazaribagh, Daltonganj, Patna/Bhagalpur radio stations are involved:

The transmission is focused on the following topics:
- Protection and prevention against COVID
- Common Behaviour during COVID
- Role of parents to ensure the provision of educational content during COVID
- Role of community to mainstream the out of school children, migrant children and drop out children

The radio programme is being transmitted in the following languages:

Radio Station	Language
AIR Ranchi	Hindi, Kurukh, Mundari and Kharia
AIR Jamshedpur	Hindi and Ho
AIR Hazaribagh	Hindi and Santhali
AIR Daltonganj	Hindi
AIR Chaibasa	Hindi and Ho
AIR Bhagalpur	Hindi and Santhali

(c) Capacity Building of SMCs:

Capacity Building of SMCs was conducted by electronic means across the state in February and March 2021. The process involved:

- **Preparation of Training Materials:** UNICEF had prepared a series of videos for SMC orientation of which 5 animated videos were selected for training. This was followed by liaisons with districts that submitted a plan of training in association with NGOs to facilitate the training. Follow up was done with districts to ensure reporting of relevant details to JEPC.

- **The rollout of Training:** Following the plan of action submitted by districts they were instructed to begin the training of SMCs. The video materials of the SMC training were disseminated to districts that were asked to use their resources and show the videos on external screens.

- **Monitoring of Training:** Districts were asked to instruct school teachers/headteachers/BRP/CRP to fill the details of the orientation on a google form that would capture the main details of the orientation. Online Meetings were held with districts to communicate their progress as per the google form findings.

Training Impact:

Widespread coverage - A total of 34342 SMCs were covered out of 35447 in two months. Nearly 97% of SMC were covered.
The aid of NGOs - NGOs covered 7.73% of all training by supporting training in 2654 SMCs. They provided training resource persons or conducted orientations for district trainers in which modalities of presenting the information and ensuring participation of trainees was explained to them. In most cases, NGO resource persons also monitored the training and ensured its success.

High level of interest - Until now training was a routine affair with little participation and a relatively low level of interest by community members but the new training methodology that used electronic means was extremely popular. The audio visual method sparked the interest of the community and SMC members who sat for the entire training and participated actively in the group discussions. Almost all participants commented that they had never experienced such training ever.

Innovative initiatives - Many innovations took place. In Giridih the district hired vans and sent them with projectors to remote villages so that the movies could be shown to the community members. In other districts the CRP/BRP hired not only LCD/TVs but also inverters and batteries to display the videos in areas without electricity.

(d) Establishment of a Steering Committee:

In the previous year, a decision had been taken to appoint a state-level steering committee as a policy advisory body on School Management Committees. The idea was to involve NGO representatives and state-level officials in the committee. The role of the Steering Committee members is to act as mentors for the BRP/CRP who constitute the SMC module trainers in the district and blocks. It will also act as a feedback mechanism and convey issues from the field to the state. The role of the Steering Committee is to act in an advisory role and assist in planning and conceptualization of policies for SMCs by the state.

The committee was constituted in the previous year and it played a major role in reviewing the training materials and working with state officials to monitor the SMC training in the current year.

Efforts for Inclusive Education:

The lockdown did not terminate the reach out efforts for children with special needs for whom several initiatives were undertaken:

Resource Teachers reached out to students with Special Needs via WhatsApp groups to keep them engaged in the teaching-learning process and encouraged them to study at home in this pandemic time. Each of 290 Resource Teachers (Special Educators and Therapists) placed at Block Resource Centres had formed a WhatsApp group with 6 to 8 CWSNs members so that children could use the lock-down period gainfully. The objective was to share school-related educational information. Through it, the state sent e-papers, e-books, audiobooks developed by NCERT, comics, home assignments, YouTube links and many more learning activities. A total of 2,200 CWSNs are connected with this initiative.

Inclusive education was conducted online with extra-curricular activities (music, dance, painting etc) on the occasion of World Disability Day i.e., December 3rd, 2020 among all types of CWSNs in Jharkhand.

A series of webinars were conducted from December 16 to 22, 2020 in collaboration with UNICEF. A total of 11 episodes of webinars were conducted and professionals from the national level were invited to deliver the lectures. Districts level training was also conducted to orient about Inclusive Education, Recent Trends in IE to all the stakeholders of the School authorities.

Samarthanam Trust and JEPC conducted a webinar on 08.12.2020 on "Effect of COVID-19 on the education of Divyang Children - Challenges and solution". Apart from all professionals of Samarthanam trust, all state officials of Inclusive Education of JEPC and professionals of districts participated in this webinar.

A brief training on Inclusive Education was given to 38 newly appointed Regional Education Officers on Tuesday, February 16, 2021.
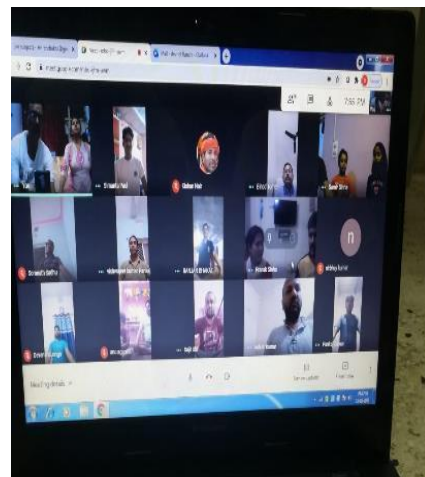
Initiatives for Vocational Education:

The major steps are undertaken during the lockdown included:

- More than 40% of enrolled students were covered through virtual classes
- Online student assessments were conducted by 60% of Trainers using different apps and Google forms
- Door to door campaign and distribution of printed materials by Trainers to reach more students
- Content for Healthcare, Media and Automotive is being prepared and shared in Google forms
- VTs are taking Mohalla classes around villages and schools after the lockdown was eased
- A Model Making Competition was organised for all Vocational Students
- An online practical assessment was also conducted from 1 – 15 April before the current lockdown in 388 schools under vocational education.

Liaison with Civil Society Groups:

JEPC liaised with civil society groups whose initiatives are given below:

QUEST Alliance

District wise introductory webinar: Quest alliance started working in 5 districts of Jharkhand, since the school visits were not possible last month an introductory webinar across 5 districts was organized by Quest where all the Wardens, School teachers and District officials were invited. During the meeting detailed discussion was conducted around the COVID situation, the Importance of SEL (Socio-Emotional Learning) and why it is so important in the current lockdown to engage with children and conduct sessions around SEL. Quest also shared about the importance of engaging through Digisath and online platforms.

A strategy was shared with all the officials and wardens where it was decided that the Quest team will start supporting teachers in enrolling the students and conducting sessions with children on key SEL & SHWP topics and their feedback and suggestions were noted.

It was also shared that the IVRS will be started and messages would be broadcasted regularly. The team also informed on upcoming parents' webinars as well as the Children's webinar where maximum participation of parents is to be ensured and their active participation is expected.

Parent's webinar: A webinar with parents was organized in April and May in 5 intervention Districts – Dumka, Giridh, Chatra, Palamu & East Singhbum along with Deoghar. The objective of the webinar was to motivate the parents in ensuring children attend online classes and sessions conducted as well as the importance of Social-emotional learning.

Reaching Parents through IVRS: QUEST Alliance Team, also reached out to parents and children through IVRS. We started with 2860 parents in April and broadcasted messages related to the importance of online education during COVID and how Quest is going to support the children through Social and Emotional Learning programmes. Five voice messages were broadcasted in April 2021. The total number of recipients to whom the voice messages were scheduled was 2860. We have collected more phone numbers of the parents reaching 6080 by now across the 5 districts. Messages have been broadcasted to these 6080 numbers from 1st of April till the latest 15th of May, 2021.

School-level webinar: School wise webinars were conducted in which the Quest team had one to one orientation and planning meetings with the wardens and teachers. The objective and the Idea was to understand - "How could we reach maximum children online?" and "How to have one day in a week for conducting sessions with children around Social and emotional learning". The first session conducted with children was on "SEL par Shikshak ki Bhumika" in 60 intervention schools across 5 districts to date. Once the first session with teachers is completed across 60 schools then the children webinar would begin. QUEST Alliance is planning to start the Children's webinar from the first of June, 2021 onwards.

Devnet:

Devnet contributed to the digital and home-based learning program by supporting DigiSATH in the blocks of Chakulia and Dhalbhumgarh in the district of East Singhbhum and organizing zoom classes for students by local teachers. Further SMC training was supported in 15 schools in the district. To provide relief during the lockdown around 500 poor people were provided rations, masks as well as sanitary pads for women and children. Also, thermometers were provided to Anganwadi Sahayikas to enable them to test the health of people. Lastly, yoga camps were organized daily to promote healthy living.

Sampark:

- Sampark Foundation conducted webinars in 8 districts – Dumka, Koderma, Hazaribagh, Ranchi Palamu, East Singhbhum, Sahibganj and Pakur- in which 9527 teachers were trained in English and Maths pedagogy for primary grade teaching. The foundation also provided 6668 English kits to teachers of classes 1 to 3.
- Further, as a partner of JEPC, the workbooks for the academic year 2021-22 were also supported in terms of content, design and draft support for the 8 program districts.
- The foundation also facilitated the SMC training in selected schools in the program districts.

KLC:

- Kashvi Learning Centre promotes secondary education and holistic life skills among adolescent girls in rural Jharkhand.
- It was set up to ensure that school dropout girls and women receive education irrespective of age, income level and location. In the Covid situation, Kashvi allowed them to complete their secondary education through NIOS while simultaneously developing necessary life skills. Kashvi has set up 23 centres in the blocks of Ratu, Burmu, Kanke, Ormanjhi and Namkum in Ranchi Dist., Jharkhand. These centres are mostly within the block and panchayats and each has about 40 girls.

Bharti Foundation:

Satya Bharti conducted a skill fest for the improvement of skills like writing, drawing, creative thinking, critical thinking, etc. The process of execution is through online mode with the utilisation of digital tools like WhatsApp, Google Forms, etc.

Plan India:

Plan India works in 3 districts – Khunti, Hazaribagh and West Singhbhum. In these districts, it has supported the education of 1154 girl children who were given scholarships for further studies.

Further, about 2600 children were provided follow up support in DigiSATH through 54 community level young educators who assisted these children educationally.

Dream a Dream -Dream a Dream supported Refresher Training of DRGs in Jharkhand and training on Social Emotional Learning, Children Adversity and Role of teacher in Social Emotional Learning were facilitated. The facilitation of this training was done in coordination with Teacher Development Program team members and JCERT, Jharkhand provided the opportunity to get involved in the facilitation.

Under the Sampoorna Project, Dream a Dream compiled a Children Activity Booklet, in which online engagement of children has been ensured and an approach of social-emotional learning was integrated with all these activities. The objective of these activities is to ensure children feel comfortable during the pandemic period and their mental and physical health are taken care of while conducting these activities among them.

Dream a Dream also initiated to contextualize School Health and Wellness Curriculum and capacity building sessions with a selected number of teachers in Jharkhand is being planned to be held in coming months.
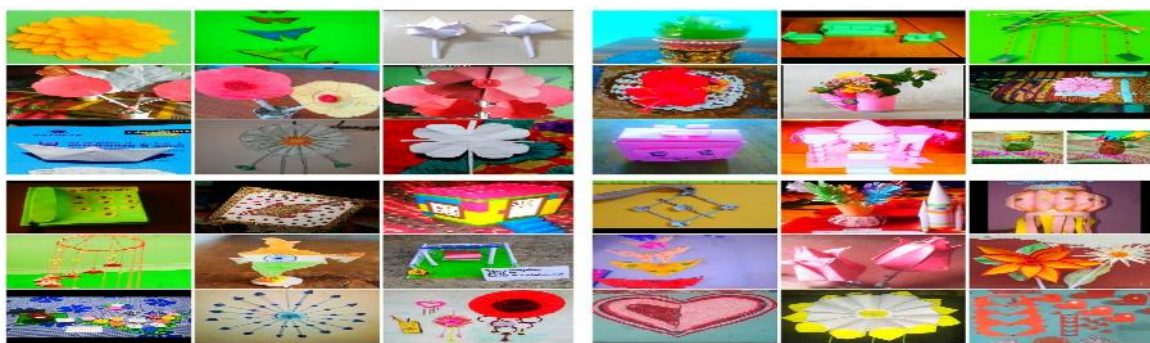
16. KARNATAKA

Karnataka has unique programmes for the introduction of ICT in classrooms and Digital innovative programmes for students. The ICT programme is an integrated technology-based programme, comprising Computer Assisted Learning Programme (CALC) under SSA, and Technology Assisted Learning Programme (TALP), which comprises EDUSAT, Radio programmes and IT@Schools.

Computer Assisted Learning Programme CALC was introduced in Karnataka in 2004-2005, in 600 Government Primary schools across the state. As this programme became absolute, emphasis was given to secondary schools under the TALP (Technology Assisted Learning Programme) for Secondary schools. The list below provides a bird's eye view of the procurement of AIOs for schools where Computer Labs are set up. These labs have a thin client-server, 10 AIOs, a laptop and a projector.

Total number of Secondary schools	Year	Number Schools in which computer labs were provided	Laptop	Projector	Computer Lab
4687	2016-17	1000	1000	400	1000
	2017-18	750	750	365	
	2018-19	750	750	511	
	2019-20	718	718	718	718
	2020-21	242	242	242	633
	TOTAL	3460	3460	2236	2351

Note: The Government of Karnataka in its budget statement for the year 2021-22 has announced to provide Computers Labs to remaining schools under TALP Programme.

Training of Teachers:

Under this programme, Karnataka has provided Induction Training and refresher courses to almost all the teachers. A Module for such training has also been developed by DSERT. In the year 2020-21, 12000 teachers training was targeted. Out of which 11479 teachers have obtained training
To date around 37833 teachers have been provided with the 10-day refresher course and 9629 teachers have been provided with Refresher Course.

Covid-19 pandemic resulted in an unprecedented use of technology resources in all fields. In the school education sector, this resulted in a massive increase in the use of online conferencing tools, learning management systems etc.

Various trainings were held in the online mode for Nalikali, SDMC members, EMTIP MRPs, vocational education, TALP and SISLEP (training for HMs). The training was provided by TALP trained teachers, community members and vocational training instructors.

Alternative learning Programme /Vidyagama program:

Based on the survey data regarding the details of available tools and gadgets with the students, and online education guidelines which were prepared by the department led us to the implementation of Vidyagama, a new initiative for students of Government Schools across the state.

Makkala Vani/YouTube channel:

Looking at the intensity of the spread of the virus and sensing the restlessness and boredom of the children who were stuck at home due to the pandemic, the Department took an innovative measure of starting a **Youtube channel called Makkala Vani (Children's Voice).**

This YouTube channel was created to engage those children who had access to the internet at home. The videos were photographed at the DSERT studio and were presented by Government school teachers. The teachers were encouraged to make their videos and send it to the Makkalavani team who vetted the same.

The best videos were streamed online. Makkalavani YouTube channel received a good response from both students and parents. The team made 50 videos and one video was released every day for 50 days.

Samveda – Classes on Doordarshan Chandana Channel:

The delay in starting schools during the pandemic, initiated the Department of Education to broadcast classes on Radio and Doordarshan Chandana channel. Subject-wise lessons for various grades from 5-10 were broadcasted on the Chandana channel and radio lessons for classes 1-4 were streamed. The classes received a good response as it was accessible for many government school children.

All the lessons broadcasted were also uploaded in the Makkala Vani YouTube channel and on DIKSHA Portal so that it can be accessed/downloaded easily for further reference. These programmes were mainly based on the Alternate Academic Calendar and the truncated syllabus developed during 2020- 21.

DIKSHA:

E-Content Development: E-content for Classes 4-10 is developed for all subjects in Kannada and the English medium. At present, there are 22000+ e-resources available on the portal.

DIKSHA: 34 Nodal officers, one each per DIET were nominated as E-content Nodal Officers. They identified subject-wise content creators and Content Reviewers at the district level who coordinated with the State team in content creation, content curation, and review of the created e-content. Nodal officers monitored the teachers regarding the usage of e-content in their classroom transactions.

ETB: The nodal officers are made responsible to initiate all teachers to use resources available in DIKSHA Portal as well as in Energized Textbooks. Energized Textbooks (ETB) were developed by imposing Chapter-wise QR Codes in the textbooks. Relevant e-content in DIKSHA Portal is linked to these QR Codes to enhance the teaching-learning process.

- Total Number of textbooks including NaliKali cards for Class 1-3: 471
- No. of ETBs uploaded in DIKSHA till 2020-21: 85
- Proposed duration of ETBs for 2021-22: 125

Class Wise, Subject Wise e-content on DIKSHA:

Class	Kannada	I Lang Eng	II Lang Eng	Hindi	Sanskrit	Urdu	Maths	Science	S.S	EVS	Total
1	-	-	-	-	-	-	146	-	-	6	152
2	-	-	-	-	-	-	111	-	-	5	116
3	6	-	2	-	-	-	117	-	-	8	133
4	124	-	113	-	-	-	374	-	-	304	915
5	244	-	212	-	-	-	404	-	-	258	1118
6	321	-	260	123	-	-	516	485	303	485	2493
7	260	-	431	92	-	-	992	963	663	963	4364
8	472	16	420	224	15	20	861	868	1026	868	4790
9	461	15	480	334	17	17	637	460	475	460	3356
10	450	19	613	348	25	20	1126	850	1003	850	5304
Total	2338	50	2531	1121	57	57	5284	3626	3470	4196	22473

The state plans to develop videos using sign language along with developing e-content and ETBs. The state is also planning to provide smart classrooms in another 1000 primary schools.

17. KERALA

KERALA

'First Bell'-Digital Classes:

The unexpected and unprecedented situation that arose in the wake of the COVID-19 pandemic created a challenge for people across the world in all aspects of life, including the education system. Children were forced to stay at home to keep COVID 19 protocol. To support the children emotionally, academically and also to ensure they persist in the path of learning, Kerala state started the telecast of video lessons named 'First Bell' on 1 June 2020, despite the adverse conditions of the COVID 19 pandemic.
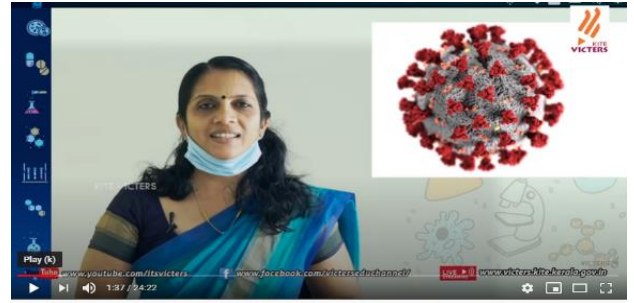
VICTERS, the edutainment channel of Govt. of Kerala, broadcasted digital classes intending to keep children engaged with academic activities thus enabling them to overcome stress, strain and anxiety, if any, due to the pandemic situation and also align with the process of learning through an entirely new model. This is in no way an alternative to the formal classes, but a temporary process to meet the emotional and educational needs of the children during the pandemic situation. The process covered all subjects from classes 1 to 12.

Videos for broadcasting were prepared as a joint venture by the SCERT, Samagra Shiksha Kerala, KITE (Kerala Infrastructure for Technology in Education), SIET (State Institute of Educational Technology), Higher secondary and Vocational higher secondary wings of DGE (Director of General Education). Before airing, the classes were being scrutinized and approved by SCERT.

Sessions of 30-minutes were prepared for each class. For classes 11 & 12, the sessions were for 1 hour. Classes were telecasted every week from Monday to Friday. Usual broadcasting time was from 8 am to 5 pm and re telecast was done during nights and weekends. Along with the streaming on VICTERS Channel, the classes were made available on YouTube and Facebook. The reach was around 43 lakh students which comprise the whole student community of the state.

The most exciting experience in this regard was the efforts undertaken by the community to address the digital divide. A study conducted by Samagra Shiksha revealed that 2.6 lakhs of children in the state did not have any access to digital equipment.

Various levels of community engagement were put into action immediately. Televisions, laptops, mobile phones, network connections and tablets were delivered to the homes of needy children from several sources. Public sector organisations, people's representatives, organisations of teachers and employees, NGOs, parents, alumni, organizations of youth and students etc., supported this mammoth effort for bridging the digital divide. In areas where these could not be initiated, Samagra Shiksha Kerala started Common Learning Centers. In tribal populated areas, facilities for viewing digital sessions were provided in Ooru Vidya Kendras, another initiative of Samagra Shiksha, thus ensuring every child in the ambit of the programme.

'White Board' - for the Differently-abled:

'White Board' was a novel digital initiative of Samagra Shiksha Kerala, exclusively for CWSN. Digital classes provided through VICTERS for general learners were inadequate for the differently-abled. Hence Samagra Shiksha, Kerala, initiated an attempt to provide adapted digital classes through YouTube channels. Separate video classes were produced for each category. Hearing Impairment, Visual impairment, Cerebral Palsy, Autism Spectrum Disorder, Intellectual Disability, and Specific Learning Disability were the categories considered. In the secondary section, classes were prepared for children with Intellectual Disability. 'White board' has a separate YouTube channel for this purpose.

Technical training was given for selected Special Educators on shooting, editing, and recording of videos. Later, scripting and content development was done with the collaboration of teachers and Special educators. Adapted video classes were produced for every single lesson, considering the challenges of the learners.
Each video consists of three parts: directions to the parents, transaction of the content, and finally, a task to do. Class level social media groups of CWSN were formed in every BRC. These class-level groups were again sub-grouped into category-wise groups. Special educators download the videos from YouTube, and these videos are delivered to each category sub-group. Considering the individual need of each learner, the special educators provide additional instructions and support to them.

'Thenkoodu' -Mobile App. for the Differently-abled:

To continue the learning of children with special needs during the lockdown period, SCERT conceptualized a mobile application named 'Thenkoodu'.

A pool of playful activities aiming at the development of specific skills of students was created by conducting online workshops involving the special school teachers. These activities, along with easy instructions, guidelines and tools for evaluation were designed in the App.

Training in Sharada Braille writer (Sameeksha):

Sharada Braille Writer is a software developed for the benefit of the visually impaired; it is a simple text editor which uses six key approaches to produce text.
This software made available on a free software platform is a great model of reverse contribution from the world of visual impairment to the society and a wonderful contribution on the part of SCERT, Kerala towards the cause of the challenged students.

'MudrikaPatam'-Training in Indian Sign Language:

For children with a severe hearing disability, there is a need to use the possibilities of sign language. The problems of using different sign languages aggravated during the pandemic period. The classes telecasted through VICTERS channel didn't cater to the needs of children with special schools.

SCERT, Kerala took the initiative to give training in ISL for teaching and non-teaching staff members in special schools through video lessons to bring uniformity in the usage of sign languages.

'Shruthipatam' -Audio library:

Reading is one of the biggest problems faced by the visually challenged. 'Shruthipatam' is an audio library to resolve to a certain extent the reading problems of visually challenged teachers and students. The programme started with the slogan 'Sahapatikkoru Kaithangu' (a helping hand to the classmate'). As part of the programme audio recording of the extended reading materials suggested in the textbooks were done by the student community itself.

'Mazhavilppoovu' -Digital Classes in Tribal Dialects:

All the tribal learners are brought under an online learning platform through another innovative initiative called' Mazhavilppoovu' (The flower of Rainbow). In this programme, tribal learners were provided classes in their dialects. Video lessons on seven tribal languages such as Paniya, Adiya, Oorali, Kurumba, Kurichya, etc. were prepared. Through this Samagra Shiksha, Kerala could realize equity and access to learning even in the time of the pandemic.

DIKSHA:

During the academic Year 2019-20, only 108 textbooks were created in DIKSHA for grades 9 and 10. But based on the success of the DIKSHA programme, in the current academic year (2020-2021) SCERT has placed approximately 5000 QR codes in 244 more textbooks from classes 8 to 12.

Uploading of resources was done centrally by the SCERT team. But, this year due to the pandemic SCERT could not conduct the state level workshops and manage the process. So the process was carried out by the teachers at their houses, hence there was no visibility to the content creation status and SCERT faced difficulty to manage the content creation and uploading process. To address these issues VidyaDaan platform has been leveraged. This helped in managing the decentralized content review, content uploading and linking process. About 800 content in 136 textbooks has been uploaded to DIKSHA through VidyaDaan.

Teacher Transformation Programme (Six months Certificate Course for Teachers):

The government of Kerala launched a new initiative for transforming teachers in service through a digital mode named teacher transformation programme (six months certificate course). The main objective of the programme is to strengthen the teaching and creative resource building capacities of teachers and resource persons of the General Education Department.

A digital platform named http/moodle.scert.gov.in/ was developed for conducting the course. Face to face interactions, seminars, webinars, tryouts, discussions, projects, development of various works of literature etc. is part of the programme. The DIET faculty members were selected as the mentors of the teacher empowerment programme. The prescribed assignments were submitted to these mentors by the participants. The submission, evaluation and mentoring process were monitored and scaffold by DIET Principals at the district level and State Co-ordinator (SCERT faculty) at the state level.

'Digifit'-Digital Teacher Empowerment Programme:

'Digifit' programme was initiated by the Samagra Shiksha Keralam Kozhikode district team in collaboration with DIET Kozhikode. This programme is mainly intended to enhance the knowledge, ability and skill of teachers to handle digital equipment which essentially is a prerequisite in handling digital classes and providing support to students through digital media.

Through this teacher empowerment programme, DIET and Samagra Shiksha provided training to teachers in digital content development, modality of transaction of that content digitally, familiarising various software and applications. This training programme enhances the confidence and ability of teachers to use devices and also develops digital content in a creative way that attracts the student community.

Hello English:

Hello English is one of the prestigious quality-oriented programmes initiated by Samagra Shiksha over the past four years. It has created much-added enthusiasm and fun in the learning of English among primary school children. This year, as the schools remain closed, Samagra Shiksha prepared a series of Digital interactive learning materials for elementary learners. The materials were sent to learners as PDF pages. Videos of teacher directions, animated cartoons, narrations, audios of stories and songs etc. were embedded on each page. Each page has three major areas- A video containing directions of the teacher, a Video for the discourse level input and an activity related to the theme given.

The activities were aimed at fostering the language performance and creativity of the learner. The pages are made available to learners through class level social media groups of schools. After watching the input content, the learners upload their activities in video, audio, or picture form to the groups. When all learners post their products, the teachers give feedback to the learners. Children who don't have mobile phones or network connections get the materials from Local Resource Centers and Online Learning Centers. The educational volunteers there, provide technical support to learners for preparing the activities suggested.

Sasthrapatham:

'Sasthrapatham' is a programme rolled out by Samagra Shiksha, Kerala to kindle the Higher Secondary students' interest in Science, Humanities and Business studies. In the context of COVID 19, Sasthrapatham was conducted online. The programme covered the entire secondary and higher secondary students of the state.

Initially recorded classes of experts were uploaded to school-level social media groups created for the purpose. Followed by this, online interactive sessions were conducted at BRC and District levels. After the BRC level sessions, seminars were conducted on assigned themes and areas. The preparation and presentation of the seminars were mended by experts. Five best seminar papers selected from each BRC were presented in the district level sessions. Separate district level seminars were conducted for Science, Humanities and Business studies. From these, 10 papers were selected for the state-level online sessions conducted in January.

Ek Bharath Shresht Bharath:

The cultural Twinning Programme conducted online between Kerala and Himachal Pradesh under the auspices of Samagra Shiksha of the two states was a meaningful attempt to imbibe the feel of Ek Bharath. The online cultural exchange programme was conducted in multiple phases.

Exchange of cultural features, performances of state-specific art forms, introducing one's state and its features, sharing of each other's life and culture, etc. were some of the activities carried out as part of the

programme. Ek Bharath Shresht Bharath was undoubtedly a novel initiative to nurture the sense of oneness and patriotism among children.

'Rasakkoottu'-Radio programme:

'Rasakkoottu' (The recipe for pleasure) was an entertainment-focused radio programme for primary school level learners which comprised stories, interactions, songs, poems and skits. It was broadcasted on all Thursdays through Akashvani and its FM stations. Each episode broadcasted a ten-minute programme. Information on science, literature and the state's culture was also given through programmes. The time of the telecast was informed through advertisements and teasers before the broadcast. Later these programmes were made available on YouTube also. The links of the YouTube were sent to learners through their class level WhatsApp groups.

18. LADAKH

Tablet Distribution:

Pre-load Tablet with educational content has been procured for free distribution to 12300 students of all Govt. schools (6th to 12th classes) of UT of Ladakh. Aimed to provide a digital device to mitigate the adverse effect of COVID 19 related disruptions and a hybrid solution to make- up for the losses due to the absence of physical classes. It is also aimed to supplement the traditional mode of learning and bridge the gaps in structural inequalities in students residing in different areas of UT of Ladakh. The tablet's contents are video lectures, e-books (NCERT and JKBOSE), various learning Apps and virtual meeting apps.

1000 Tablets have been distributed to the students in the 1st phase of distribution to the inaccessible school's students and distribution will be completed within a month. A total of 12300 tablets have been distributed.

ICT/Smart classrooms for HS/HSS:

Smart Classrooms/ICT Labs have been sanctioned for 82 Govt. High School and 36 Higher Secondary Schools in UT of Ladakh. The schools with ICT Labs/Smart classrooms will facilitate the learning of subjects with the aid of Information and Communication Technology (ICT). Interactive Broad with Content Management System for class 9th to 12th (NCERT- base) with all digital technologies has been added in ICT labs. The procurement of hardware has been completed and will be installed in June 2021

Telecast of TV Lectures on DD Kashir:

TV Classes (Video Lectures) of 642 lectures for 10th and 12th classes (Science Stream) telecasted from DD Kashir/DD Kendra Leh for 2-hour slots daily. Video lecturer/e-content developed by School Education Department, UT of Ladakh. Teachers/Master and Lecturers were engaged in the development of content.

Audio Lectures on All India Radio Leh/Kargil:

Audio Tutorials of 627 lectures for 10th to 12th Classes (All Stream) aired from All India Radio Kargil and Leh for 2 hours daily respectively. Audio Lectures were recorded by the Teachers/Master and Lecturers of the School Education Department UT of Ladakh.

DSEL Online Education Apps:

School Education Department, UT of Ladakh developed Android Mobile Apps (DSEL Online Education) for online education during COVID 19 pandemic lockdown. The Apps contain class wise Tab with subject wise page. The app was developed for the students of 1st to 8th classes for all subjects in the 1st version. Later, it was upgraded to 12th class for all subjects of around 390 lectures.

A dedicated website (www.dselmyhomeschool.org): A dedicated website (www.dselmyhomeschool.org) has been developed for the students who use Desktop/PC for online education. The lectures developed for Mobile Apps are also uploaded on the portal regularly. The Website has class-wise Menu and subject wise pages for the students of 1st to 12th classes for all subjects of around 390 lectures.

Online Teacher Training:

- NCERT conducted 6 days of Online KRP training with 5 trainees engaged actively.
- UT Conducted 05 days Online IMPACT Training at Zonal Level with 360 trainees participated.
- 05 days of online DRISHTI Training in collaboration with Kaivalya Educational foundation with 620 trainees attended.
- 05 days online DRISHTI (Cascade) Training in collaboration with Kaivalya Educational foundation at Zonal level with 4000 trainees participated.
- Online 18 Modules of NISHTA on DIKSHA with 4000 trainees attended.

19. LAKSHADWEEP

In Lakshadweep, summer vacations are usually from 1st April to 31st May and schools reopen during 1st June of the year. In 2020, the annual examinations were completed before 15th March for all the classes, hence the lockdown didn't impact the same.

Schools were closed for summer vacation earlier during the lockdown imposed in March 2020 due to COVID-19 that was extended up to the end of June. As not even a single case of COVID 19 was reported in Lakshadweep, all the teachers of secondary and senior secondary classes were asked to report for school during July itself, and gradually all teachers were asked to report to schools.

A Teacher Aided learner Empowerment and Nurturing Programme (TALENP) was implemented in all the islands to ensure the engagement of learners in the learning process to ensure continuity of learning.
Due to slow network connectivity in the islands, online classes have a lot of hurdles. Lakshadweep follows two streams for school education: the Kerala syllabus and CBSE.
The Kerala Board has broadcasted online classes of all chapters from 1 to 12 through the KITE Victers channel and directed all the students to follow the same through Television, ensuring that it was accessible to all. Lakshadweep islands being small in geographical size, the learners were easily reachable.

The following initiatives were adopted for their engagement:

- Learning Outcomes based worksheets were prepared by teachers in all the islands through cluster meetings; these worksheets were handed over to parents on specified dates and through parents, it was shared to students.
- Teachers in small groups visited the households by observing all SOP in place and checked and guided the learners in completing the tasks
- Video lessons and notes downloaded from SCERT Kerala's website and DIKSHA portal by teachers were shared with all students of class XI and XII to their tablets which were provided by the MPLAD scheme in the previous year to all senior secondary students of Lakshadweep.
- Some talented teachers with the guidance of the department started a YouTube channel named **share class** and the videos based on various chapters, classes and subjects were shared through this between islands and reached the students in all islands.
- Class wise WhatsApp groups were created in all the schools and notes were shared through it. Audio and video classes were also shared, and students' queries were addressed by teachers on a regular mode.
- Using group SMS, parents were invited to schools to collect notes and attend discussions regularly to clear the doubts of students.
- Lakshadweep Radio Pathshala programme aired through All India Radio Kavaratti from 10.30 to 12 noon from classes 10th, 11th and 12th two subjects per day. Two classes for 30 minutes duration followed by 15 minutes discussion through the phone was organized on all days till September first week.

- Classes partially started to function from 21st September 2020 onwards for classes 6 to 12th on alternate days/sessions.
- Partial functioning of the class started for students of class 1 to 5 from November onwards with proper SOP and home-based assessments have been conducted for all classes except classes having board examination.

20. MADHYA PRADESH

In response to the COVID-19 induced lockdown in the state last year, the Department of School Education, MP launched its flagship program Hamara Ghar Hamara Vidyalay last year, under which several key digital initiatives were launched. The objective of these programs was to ensure continuity of learning for the students joyfully and engagingly from the safety of their homes.

WhatsApp based DigiLEP program:

The WhatsApp based DigiLEP program was launched on April 8, under which a network of more than 50,000 WhatsApp groups reaching from the state to the parents was created. Through these groups, more than 21L parents across grades 1-12 are connected to WhatsApp.
Curated grade-specific digital learning material was sent out through WhatsApp daily. This content was in the form of short YouTube playlists focusing on the learning objective of the day.

Impact: The state was able to achieve a maximum reach of 7L daily views across Gr 1-12. Additionally, the teachers also leveraged these groups to stay in regular contact with the students – for example by asking them to share their homework over WhatsApp and giving feedback on it.

Stories from the field

Teachers leading from front!

District: Seoni

Block: Kurai

Case: The teacher prepared a flow chart to connect students of his class on an online platform, inspired by a VC held at JSK level. He contacted the students' parents and siblings to facilitate this online class.

Impact:
➢ Provided students a platform to clear their doubts with the teacher
➢ Allowed teachers to give live feedback to the students as well as their parents on their class work

TV classes for Gr 6-12:

The state also launched TV classes on DD MP for students of Gr 9-12 from May 2020, covering 1 hr each for Gr 9-11 and 2 hrs for Gr12. This was followed by the launch of TV classes for Gr 6-8 in December 2020.

Radio School for Grades 1-8:

MP launched radio schools for all classes from April 1, in which one-hour slot from 11-noon was dedicated to academic inputs and half hour slot from 5-5.30 in the evening was dedicated to co-curricular activities.

WhatsApp based Assessments:

To supplement learning through HGHV and to assess the learning improvement among students, MP launched a WhatsApp based assessment tool in partnership with ConveGenius. Through this tool, students can take weekly quizzes based on the topics covered in HGHV on WhatsApp itself. These quizzes have been launched for Hindi and English for Gr1-8 and English, Hindi and Maths for Gr 9-10.

In addition, the system also identifies the weak spots emerging from the quiz and suggest remedial videos to students to address these gaps.

The state was also able to successfully integrate the system with the Samagra IDs of the students, giving it the capability to provide customized learning reports for each child to the teacher and to make the registration process for the user easier.

Impact: On average, around 13L students completed quizzes every week, with average performance being 75.25% in Hindi, 72.75% in Maths and 44.27% in English.

Stories from the field — 2

Parental Engagement in student learning

District: Balaghat

Block: Waraseoni

Case: Parents actively engaged in the learning process of their children by watching content with them.

Story:
- With the launch of digital content, parents have become more involved in their children's education
- This in turn motivated the students to continue learning with rigour

Digital orientation and support for Parents and Teachers:

Multiple online Shaikshik Samvaads were organized for the teachers to orient them on the strategy for learning and to support them in their execution at the state and the block level. These platforms provided teachers with a peer interaction platform and increased their readiness for the successful operationalization of the HGHV program.

In addition, the SED leadership also conducted orientation sessions for the parents via DD MP and AIR.

For parental engagement, the state also launched 'Top Parent App' - focusing on Foundational Literacy and numeracy and targeting parents of students from Grades 1 – 3. The app aimed to build parents' skills as educators by providing simple solutions via videos & games & recommending easy, cost-free digital solutions.

Online activities for CWSN:

Online training and orientation sessions were conducted for parents of CWSN students in association with the NGO Sightsavers at both state and district levels. In the state level session, representation was invited from 50 parents of

CWSN children from each district. In the sessions, discussions were held with parents to identify the problems that CWSN students face and take their inputs on the solutions.

Additionally, the state also held orientation sessions for block-level MRCs (Mobile Resource Consultants for Special Education) who assisted the CWSN students through phone calls/home visits in their at-home learning.

Online Parent-Teacher Meetings:

In the second week of Dec '20 and Feb '21 (i.e., post revision test and half-yearly examinations), parents of Gr 9-12 students were requested to attend parent-teacher meetings (PTMs) at the school level to discuss results and obtain child-specific feedback on improving academic performance from class/subject teachers. Given the spread of COVID-19, the decision to conduct the PTM was decentralized i.e., Principals chose whether **PTMs would be conducted in online mode** (i.e., via WhatsApp group calls, Zoom, Cisco Webex etc.), offline mode (i.e., on school premises while adhering to COVID safety guidelines), or both.

Principals and teachers were instructed to not only provide academic guidance to students/parents but to also share useful information on curbing the spread of COVID-19 (as per the guidelines issued by the central government).
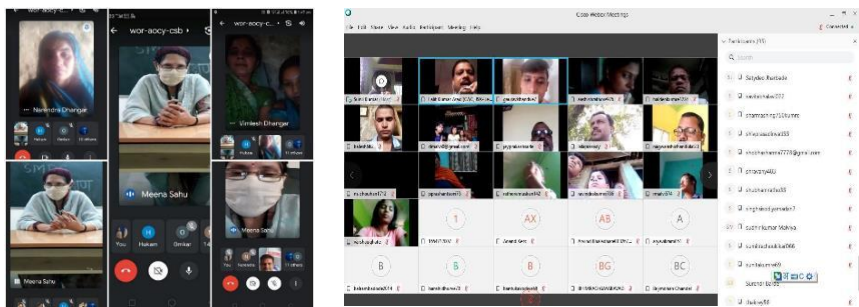
CM Rise Teacher Professional Development:

The **CM Rise Teacher Professional Development** programme aims to maintain the continuity of teacher training and professional development, based on their needs and realities. The NGO Peepul is supporting the School Education Department on the programme strategy and implementation.

Keeping in mind the realities and schedules of the teachers in Madhya Pradesh, the training modules have been kept simple and bite-sized while being comprehensive and contextual, and have developed in collaboration between Peepul and the state experts. Teachers also receive digitally verified certificates on completion of courses. Each course is divided into three parts: (i) Pre-work (ii) Course session and (iii) Post work - for ease of learning, and to provide a structured experience to teachers.

Apart from the 18 courses developed, the CM Rise Digital Teacher Training has also supported an additional 18 modules of NISHTHA (NCERT's training - National Initiative for School Head' Teachers' Holistic Advancement).

Impact:

- The programme has shown a consistent uptake amongst teachers and has demonstrated excellence in the digital training and education arena.
- ~**295,000 government school teachers across Madhya Pradesh** have enrolled in the digital teaching courses, with **95%+ course completion rates**
- 18 CM Rise courses have delivered **4 million+ cumulative learning hours**, with a **4.5 million+ cumulative course completions**
- There have also been an additional 12 million hours and 4.5 million course completions of NISHTHA modules
- State-wide **YouTube Live training** conducted, related to the digital courses, have had **70,000-100,000 live viewers,** and 250,000-300,000 total views

Digital monitoring of program implementation:

An app-based module titled 'Shiksha Setu' has been developed on the existing 'M-Shiksha Mitr' app for teachers under 'Hamara Ghar Hamara Vidyalay' program. Through this module, teachers & HMs have to self-report their involvement

and the progress of their learners on every single aspect of the HGHV program through a series of daily, weekly and monthly questions.

In addition, another monitoring mechanism - for division, district, block, cluster officials have been developed on the 'Shala Darpan' school monitoring app, in which each official will be responsible for observing and reporting the fulfilment of responsibilities under HGHV program by the official directly below them — i.e. division officials will monitor district officials, district officials will monitor block officials etc.

21. MAHARASHTRA

Introduction:

Our country and the world at large has been battling with the ongoing pandemic for almost one year now. As the unlock phase slowly unfolded cautiously businesses, tourism and other work streams attempted to return to normalcy; but the schools remained closed. With the increasing developments in technology, it is imperative to leverage the solutions that technology brings for education.

The State Education Department of Maharashtra has continued its efforts to provide multiple avenues and platforms for teachers and students across the state to continue learning in some of the other forms. Based on the experience of implementing digital learning initiatives from April 2020, the state has been conscious of keeping a mix of internet-dependent and independent learning initiatives to tackle the issue of the digital divide. SCERT has also leveraged the other prominent non-state actors and NGOs in Maharashtra and beyond to lead these initiatives to drive a collective effort in reaching out to the maximum number of students, both online and offline.

Following are the initiatives implemented in the state post-April 2020 - February 2021.

Abhyasmala Campaign leveraging DIKSHA platform:

SCERT, Maharashtra in collaboration with Leadership for Equity started the Abhyasmala initiative to provide students with academic as well as co-curricular content. DIKSHA core teams (content and outreach) are established at the state level who coordinate the work of Abhyasmala. A WhatsApp message containing links of digital content was shared by the SCERT director with students through officers and teacher networks every day. The initiative was started in April 2020 and was implemented continuously for 209 days. Post-June 2020, the content shared through AbhyasMala was focused on academic learning during the weekdays and co-curricular learning on weekends. During festivals like Ganeshotsava and Diwali, the content shared was relevant to activities and information for these festivals. The program management and content management support to SCERT was provided by Leadership For Equity (LFE) Pune.

- 13th April to 26th April: Academic content for AY 2019-20
- 27th April to 14th June: Co-curricular, activity-based content, content for 10th standard students, content for students appearing for 5th and 8th standard scholarship examination.
- 15th June onwards: Academic content for AY 2020-21

Around **29500** academic and co-curricular content pieces are available on DIKSHA-Maharashtra through the contribution of teachers and content partner organisations. Since Abhyasmala started, the content on DIKSHA has been played **2.18 crore** times in Maharashtra.
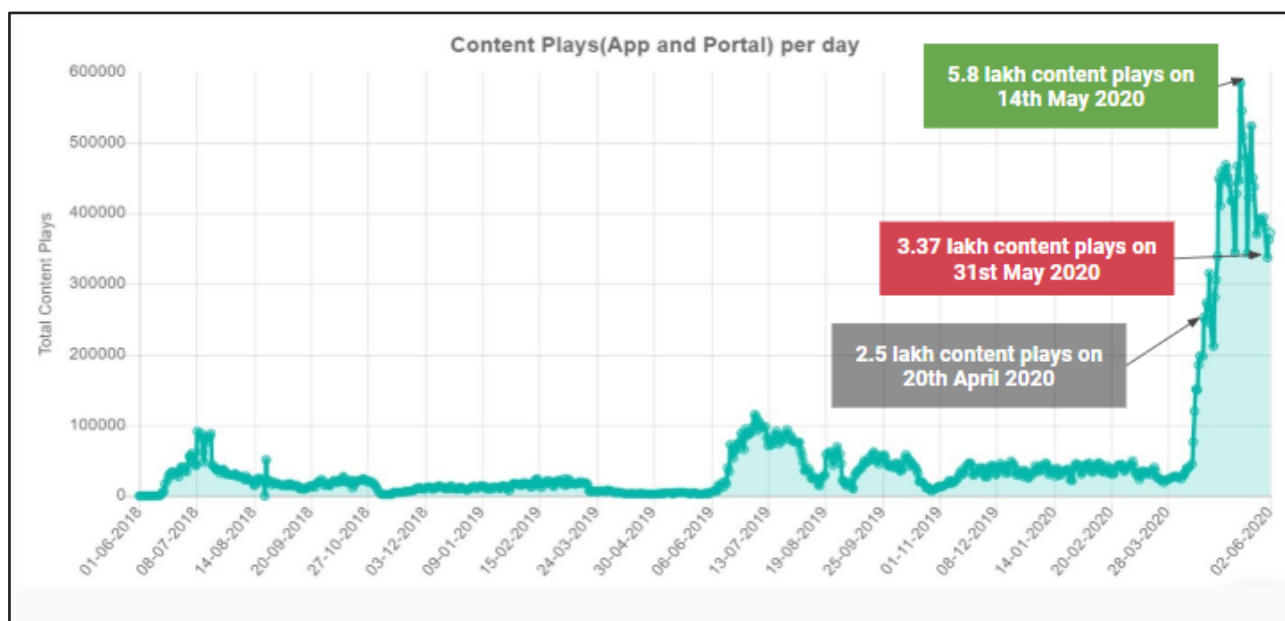
Academic Learning Calendar:

An academic learning calendar has been prepared by the State Council of Educational Research and Training, Maharashtra for students of grades I to X. The calendar has concept-wise links of digital content as well as activities that can be done at home after reading each chapter of the textbook. It has been prepared for all subjects of grades I to X.

The academic calendar also acts as a guide for teachers to share learning resources and conduct learning activities with students. It has been distributed to students, teachers and parents in the form of smart pdfs, as well as through WhatsApp groups. The daily study and educational calendar from June 2020 to April 2021 have been made available on the website of the State Council of Educational Research and Training www.maa.ac.in.

शैक्षणिक दिनदर्शिका
(इयत्ता तिसरी)
जून ते ऑगस्ट २०२०
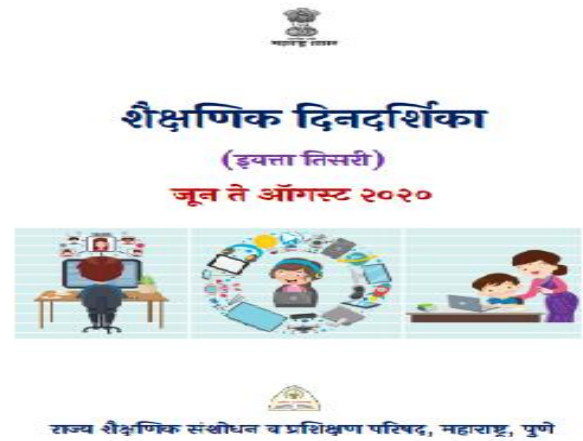
राज्य शैक्षणिक संशोधन व प्रशिक्षण परिषद, महाराष्ट्र, पुणे

Programme for nursery and pre-primary school students:

Description: Starting April 2020, SCERT has started a one hour TV programme for nursery and pre-primary school students named 'Gali Sim' on the DD Sahyadri channel. It's an educational children's television series that focuses on inculcating moral values in students by combining live-action, sketch humour, animation and puppetry. The programme aims to reach 10 million students across the state who are in the age group of 3-8 years.

Maharashtra v/s Other States

7,299,343 (46.5%)   8,383,667 (53.5%)
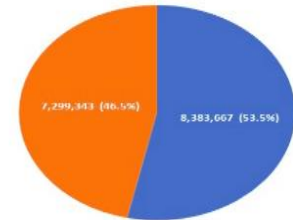
This is from May 1st to May 16

Missed Call Do Kahaani Suno & Goshticha Shaniwar:

To develop the language of the primary school's students of grades 1 to 8 in the state as well as to nurture the reading culture, the twelve-week reading program namely goshticha shaniwar was started on Saturday, October 2, 2020, at the hands of the Hon'ble Additional Chief Secretary.

The event was jointly organized by the State Council for Educational Research and Training, UNICEF and Partnership First Book Story viewer.

Under this program, district Coordinators have been selected from all the districts, and every Thursday, the cluster head reviews how many books are availed to, the number of children and number of stories read, delivering storybooks (Marathi, Urdu, English) and providing links to all District Coordinators every Friday, delivering this link to teachers and children through WhatsApp every Saturday. 'Give Miss Call' to make available storybooks in Marathi, Hindi and English languages. This is how the program was implemented.

In this program, all the children were given books according to their level, e.g., 1-2, 3- 4, 5- 6, 7-8. Activities based on these things were also given to the children, and the children were expected to solve these activities.

Education through JIO TV and JIO Saavn:

In collaboration with JIO, SCERT has started 12 educational channels named "Dnyanganga" for 3rd to 12th std. students. The lectures of expert teachers have been arranged through all these channels. These lectures also can be viewed on the JIO mobile app. The average views of lectures for 10th to 12th std are 44,000 students and for 3rd to 9th std is 55,000 students.

Mahawani radio channel has been run by SCERT on JIO Saavn. The educational programme called "We learn English" was broadcast on it.

Virtual Professional development forums started as a response to the COVID 19 crisis with the intent to ensure a continuous learning platform for field officers across Maharashtra. The platform enabled administrative & academic officers and teachers across the state to interact with eminent personalities across education, business, sports, theatre, politics, and much more directly. The platform has sessions in workshop and webinar mode to accommodate many officers across the state. Some targeted VPDFs were also conducted with different DIET's to enhance the knowledge of officers on program design and evaluation. It was completely online and the ZooM/WebEx application was used to deliver these training sessions. From April 2020 to August 2020, these sessions reached out to more than 2000+ officers across the State.

Google classroom training:

Google Classroom training is being imparted to all teachers online with the help of Google for Education through the State Council for Educational Research and Training, Maharashtra, Pune, so that students and teachers can interact even during the Corona Outbreak. Initially, a total of 1 lakh 37 thousand teachers in the state had registered for this training, out of which 40 thousand teachers are being imparted online training in the first phase.

Under this, free G Suite Id is being provided to the teachers which can be used for the betterment of student learning and overall interactive learning can be continued. A free "Digital Tools for Education" training was organized through YouTube on 22nd to 23rd December 2021 from 10.00 am to 12.30 am for all the teachers in the state.

Friendship with Science and Mathematics:

State Council for Educational Research and Training to direct students and teachers in the State of Maharashtra to conduct various experiments and works from materials readily available in their area, to make replicas and demonstrate them, to encourage them to do these activities in the classroom, Maharashtra, Pune and the Indian Institute of Science Education and Research (IISER), Pune conducted online workshops for science and mathematics teachers every Saturday from October 2020 to January 2021 based on innovative experiments and practices called "Maitri Karuya Vigyan Ganitashi"

Online Guidance & Counselling portal:

From 22nd May 2020, the State Council for Educational Research and Training, Maharashtra, Pune has created a great career portal with the help of UNICEF to provide information about various academic and vocational courses, scholarships, entrance exams to the students of class 9th to 12th. About 555 careers, about 21,000 colleges/institutions, about 1150 different admissions processes and 1200 different types of scholarships have been made available to the students on this great career portal. Students of class 9th to 12th in the state can go to the website https://mahacareerportal.com and get the simple ID given by the school. And using password 123456, the MahaCareer portal can be used to get career information.

Broadcasting "Dnyanganga" programme on Doordarshan:

SCERT, Maharashtra has executed a TV programme called "Dnyanganga" for 9th to 12th std. students during the period of 25th October 2020 to 29th January 2021 on the DD Sahaydri channel. This programme has been run daily from Monday to Saturday 7.30 am to 12.30 pm. All subjects have been covered in these online sessions. Expert teachers from each subject delivered their lectures for all students in the state.

Broadcasting of programme 'A Special English Hour' on Doordarshan:

State Council of Educational Research and Training, Maharashtra in collaboration with an NGO called Pehley Akshar started a special programme on English "A Special English Hour" for std.1st to 8th students from 4 January 2021 every Monday to Thursday from 3.30 pm to 4.30 pm and from 5.00 to 6.00 pm.

Training Programme on Child safety and security:

The 3 days training programme was arranged by Equity and IT Department of SCERT for master trainers and balrakshak in the state. About 1,84,000 teachers attended this session.

Pre-test and post-tests were taken and certificates were issued. Child safety, out of school students, migration issues, cyber safety and security, guidance and counselling for students, parents and SMC role topics were covered.

Virtual PD: Online Shikshak Vyavasayik Vikas Manch:

Attempts were being made at various levels through teachers and supervisory bodies to ensure that the education of the children continues even in the situation arising out of Covid-19. The 'Online Shikshak Vikas Manch' platform was jointly launched by the State Council for Educational Research and Training, Maharashtra, Pune and Leadership for Equity in Sept. 2020. It was held in the presence of Varshatai Gaikwad, Minister, School Education Department, State of Maharashtra. Under this initiative, 12 sessions were conducted and 200 m / webs were conducted through an online platform (CISCO WebEx). Teachers, headmasters and supervisory officers from selected 12 districts of the state participated.

SWADHYAY (Student WhatsApp based Digital Home Assessment Yojna):

SCERT, Maharashtra in collaboration with Leadership for Equity (LFE) and ConveGenius initiated the SWADHYAY program to help students practice and evaluate their learning while at home. Through this, quizzes have been made available at home on the students' phones of all grades from 1st to 10th standard and using it, teachers, students, and parents can get regular information about the current learning status of the students. The program has quizzes in Maths, language and Science subjects for students in Marathi, Semi- English, and Urdu medium schools.

Currently, over 41 lakh students have enrolled in the program till date.

The technology is designed on a WhatsApp bot where students get questions with MCQs. Post answering the set of questions for individual subjects, the students are provided with their score, an answer key, and remedial content links. The answer key is helpful for the students to evaluate their errors. The remedial content links are content pieces linked to the LO which the students need to revise. These content pieces are hosted on the DIKSHA platform for the state. The state is looking at this program as a tool to enable teachers and the system to aid in increasing the literacy and numeracy levels in the state.

Conducting Cyber Security Sessions for 6th to 12th-grade students:

State Council for Educational Research and Training, Maharashtra, Pune and Rotary Club of Poona West jointly organized a Cyber Security Session for the students of 6th to 10th standard on 9th January 2021 from 4.00 pm to 5.00 pm. A total of 13,000 students have directly benefited from this session and more than 120,000 students have watched the session through YouTube.

Training for changed syllabus of 12th grade:

The online training for teachers on the State Board's revised syllabus of 12th standard was conducted simultaneously through YouTube for all the higher secondary teachers in the state. The training was conducted from 29 October 2020 to 4 November 2020. About 65 subjects of 8 mediums have been delivered through YouTube live sessions. HSC Board has planned for the expertise and SCERT has given technical support.

Online Tasika through expert teachers for 11th-grade students:

Due to the outbreak of the COVID pandemic and the pending result of the Maratha reservation, the admission process for Class XI was also postponed.

Online Tasikas were organized for 11th standard students through expert students from all three branches (Art, Commerce & Science) and YouTube, Live was done. According to the online live program organized through YouTube Live, branch wise and subject wise guidance were being given from 2nd November 2020 to 30th December 2020 from 7:40 am to 11:40 am.

Teacher Talk Series:

Teacher talk- The selection of teachers and officials from the supervisory system in the state was done through UNICEF and SCERT. A meeting was held for empowerment through Online Zoom taken from 12 to 1 p.m. The program was aired on YouTube. A total of 7 sessions were conducted inviting 3 participants in each session. Each session of the Teacher talk series was attended by about 3,000 teachers and supervisory officials.

Children's day celebration week:

On the occasion of the birthday of the country's first Prime Minister Jawaharlal Nehru, School Education and Sports Children's Day Week was celebrated from 8th November to 14th November. Speeches, essay writing, letter writing etc. competitions were organized online. An online children's meeting was organized. A total of 1,84,000 students actively participated in this programme.
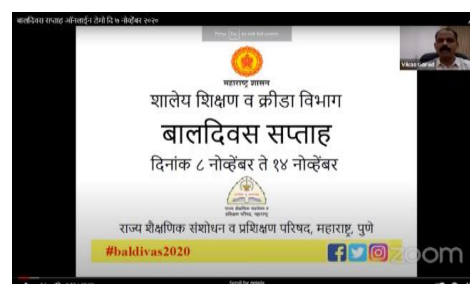
Doubt solving and guidance sessions in an online format for 10th & 12th class students:

Daily sessions were broadcasted on SCERT's YouTube Channel from 1st February 2021 from 4.00-5.00 pm to provide online examination guidance for 10th and 12th class students as well as resolve students' queries and necessary supplementary guidance on the subject being broadcast.
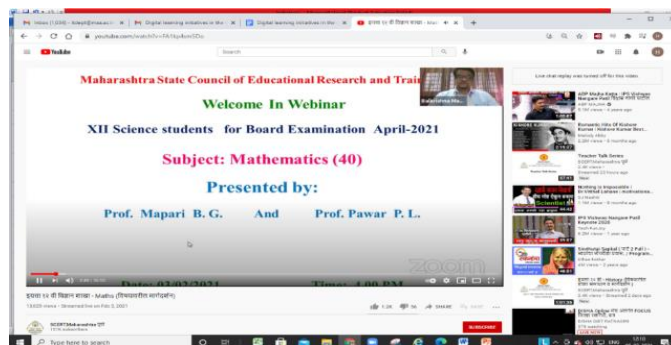
Dashboard For monitoring student access to online and offline resources:
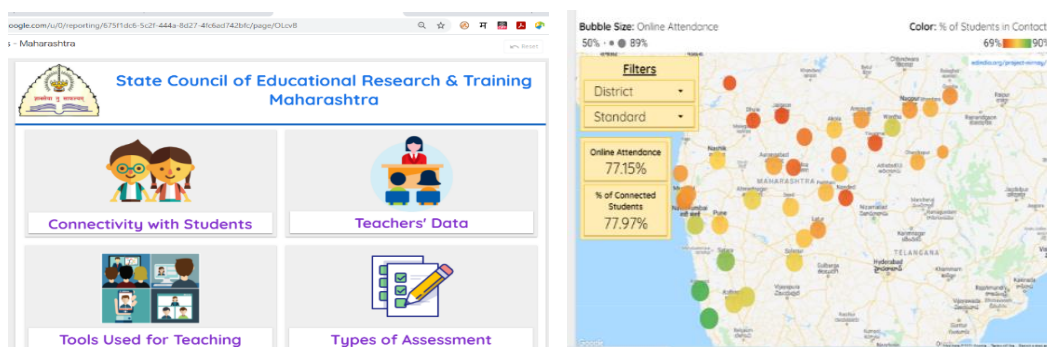
SCERT collected the data from several teachers across the State to track and monitor the progress of online and offline learning usage across Maharashtra. The data that was provided directly by the teachers was used by SCERT to create a LIVE dashboard to monitor the status of learning across the State, including student access, attendance.

Vidhyarthi Mitra:

The Equity Department of State council for educational research and training has developed supplementary material for Age-Appropriate students. As per RTE – 2009 Act four, Equity Department has developed 'Vidyarthi Mitra' – Std. 1 to 4 Marathi, Hindi, English and Mathematics, 'Vidyarthi Mitra' Std. 5 to 8 Marathi, Hindi, English and Mathematics. Department has also developed teachers guideline books for Age-Appropriate students.

There were 13,784 Out of Schools students in the 2019-20 academic year. Those students were admitted to regular school as per Age-appropriate rules. The Equity Department has conducted online training for these teachers, who were teaching these students with the help of supplementary material and teachers guideline books. Two days training programme was arranged by the Equity Department of SCERT for teachers. About 4,038 teachers attended this session. Pre-test and post-test have been taken and certificates were allotted.

Question Bank for 10th and 12th std. students:

Taking into focus the importance of 10th and 12th std. exams, SCERT has provided a set of question banks for each subject and each stream of 10th and 12th std. These question banks are available on the SCERT website from February 2021 in Marathi, English and Urdu medium. All minority subjects like French, Chinese, German, Russian etc. are available. About 94000 students have downloaded these question banks for self-study and practice.

22. MANIPUR

The COVID-19 pandemic is the defining global health crisis of our time and one of the greatest challenges we are facing currently. The pandemic is much more than a health crisis. It is also a socio-economic crisis unprecedented in recent history. Considering its widespread, it has the potential to create devastating social, economic and political effects that will leave deep and long-standing scars.

The COVID-19 pandemic has already had profound impacts on education due to the closure of schools at all levels almost everywhere. Department of School Education and Samagra Shiksha, Manipur has undertaken various initiatives during Covid-19, some of which have become a success story while some are on their path to fruition.

Some of the initiatives and achievements are highlighted below:

Jio TV Channel:

Manipur's first-ever dedicated educational TV Channel called "Lairik" was launched under the platform of Jio TV to provide benefits to both the Teachers and Students. Through the channel, students can watch the content easily on a mobile phone instead of depending on a TV unit. (Smartphones or even a Jio Phone is capable of showcasing Jio TV). Lairik channel will be visible across India.

The channel is managed by the Department of Education, Manipur. Lairik, which means book, can show programmes in the local language as well as English. Live programmes like classroom sessions can also be integrated within it. The channel can be watched anywhere in the country. Jio TV is providing the platform to the Manipur government for running the educational channel free of cost.

Radio Class:

Samagra Shiksha, Manipur in collaboration with All India Radio has initiated the production of an educational programme based drama called RADIO CLASS (in All India Radio, Imphal). The main objective of the programme is to provide distance learning to the students of Class VI to XII through radio broadcasting, to enable the learners to receive low-cost teaching and attempt to reach out to the needy students who do not have access to the internet.

Further, at the end of every episode students are allowed to join the Question and Answer round. The winner is awarded a cash prize of Rs. 200 – Rs. 500 respectively. This competition indeed motivated our young students to participate in RADIO CLASS. Thus the Department, in coordination with AIR, conducts classes in the form of play.

E-Learning:

Because of the unpredicted crises, the world over due to the spread of Novel Coronavirus/ COVID-19 and the Nationwide Lockdown, Manipur school students lost a lot of instructional days due to the closure of schools. To mitigate this loss and to keep the students abreast with their syllabi in such trying times, and considering the urgent need to adopt Digital/ e-learning platforms as one of the alternative means of learning, Samagra Shiksha, Manipur in collaboration with the Department of Education (Schools), Manipur has initiated the preparation class-specific e-context for such e-learning platforms. The content is available on YouTube (@Department of Education Schools Manipur) and Facebook (@ Department of Education Schools Manipur).

Lairik App/ Lairik website:

Adaptation of e-platforms in the sector of education by the Government department had been late. However, steps towards a giant shift have now been taken in the School Education sector in Manipur to realise the possibilities and opportunities that can be explored in using e-platform for education. All training and workshops are now being documented in either booklet or digital form for future reference and training purposes.

A Mobile app called "LAIRIK" is available in the Play Store for all the students. All digital e-content is available in it. This is an initiative taken by Samagra Shiksha Manipur to provide access to knowledge and education to the students of classes 1 to 12.

Manipur Education Department has also launched an e-learning website for students studying in classes 1 to 12. The e-learning website is only for students studying in schools affiliated with the Manipur Board and Council of Higher Education. The website has 85 bi-lingual audiovisual classes namely lairik.net and laireek.net. Both the domains have been occupied by the government to avoid piracy. As remarked by the Education Minister of Manipur, "The launch of the website and Mobile app marks the new chapter in the history of education in Manipur as students can go through the lessons for easier self-learning."

The website will have audio-visual e-content for all the 200+ subjects (from Class 1 – 12) with compulsory subjects first. The project on completion will produce 2000 hours of digital audio-visual e-content.

YouTube Channel:

More than 1000 videos of e-content are available on the Department of Education – School YouTube Channel and Facebook page. This channel has been subscribed by more than 30,000 subscribers and 137,700 viewers.
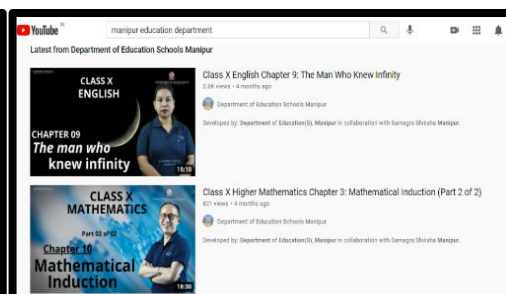
Notes and Solutions:

The reach of the educational videos is limited for student groups residing in the remotest parts of the State, mainly due to their being from the most financially deprived families. Access to technology is still a distant dream for such underprivileged families. There is also an issue of poor net connectivity in most of the rural and hilly areas.

The Education Department (Schools) has also taken up the responsibility of preparing textual notes and solutions for Pre-primary to XII classes. The prepared notes are uploaded on the website of BSEM and www.lairik.net after proper review by an expert team. The task of preparation of Notes/ Summaries/ Solutions to the Questions commenced from 27th May 2020. The department is hopeful that this venture will help reduce a little bit of the burden on our young students in this area. Apart from uploading in the dedicated websites, these notes and solutions so prepared are intended for distribution to all the school students of all districts of Manipur through the ZEOs. During this process, nearly 150 numbers of teachers of various categories have been involved.

For clarity, and to facilitate early completion of the task assigned seven teams were formed each headed by a team leader. The notes and solutions so prepared were further reviewed by a separate group of teachers for bringing about a balanced work output.

School Syllabi

Reduced Syllabus of School Education: Prevailing COVID-19 lockdown and closure of all institutions, most of the States/UTs' syllabus of schools and colleges are being reduced. Manipur SCERT has been advised to reduce the syllabus for classes I to IX for the academic session 2020-21 by the State Government.

Accordingly, Manipur SCERT has developed 2 sets of the reduced syllabus, one for 60 days and another for 90 days, considering the expected availability of instructional days after the reopening of schools in the State.

One set of the reduced syllabus may be adopted subject to feasibility and availability of instructional days in the post lockdown. Process of the reduced syllabus (course of study) for classes I to V and VI to IX will be implemented after the re-opening of schools in the Post COVID -19 Lockdown.

Basis of reduction and squeezing of Syllabus:
- Learning Outcomes
- Selection of important basic topics/teaching points and Minimum Level of Learning
- Selection of teaching points linkage with the successive classes.
- Estimated/expected availability of instructional days in schools (60 days and 90 days)

As per the existing Curriculum and syllabus, the instructional days are 200 for classes I to V and 220 days for classes VI to VIII. Herewith, these instructional days are reduced.

The assessment and evaluation procedures will be:
- 60 Instructional Days: Total marks 50, (Formative test 20 marks, Summative test 30 marks).
- 90 Instructional Days: Total mark 100, (Formative test 40 marks, Summative test 60 marks)

Classes I to Classes V

No. of days available out of 200 instructional days	% of days available (approx.)	% of selected content	% of reduced content	Evaluation scheme
60 days	30%	44 %	56%	50 marks
90 days	45%	60%	40%	100 marks

REVISED AND REDUCED SYLLABUS FOR ACADEMIC YEAR 2020

(Class VI to IX) (60 Instructional Days)

DIRECTORATE OF SCERT GOVERNMENT OF MANIPUR

REVISED AND REDUCED SYLLABUS FOR ACADEMIC YEAR 2020

(Class VI to IX) (90 Instructional Days)

DIRECTORATE OF SCERT GOVERNMENT OF MANIPUR
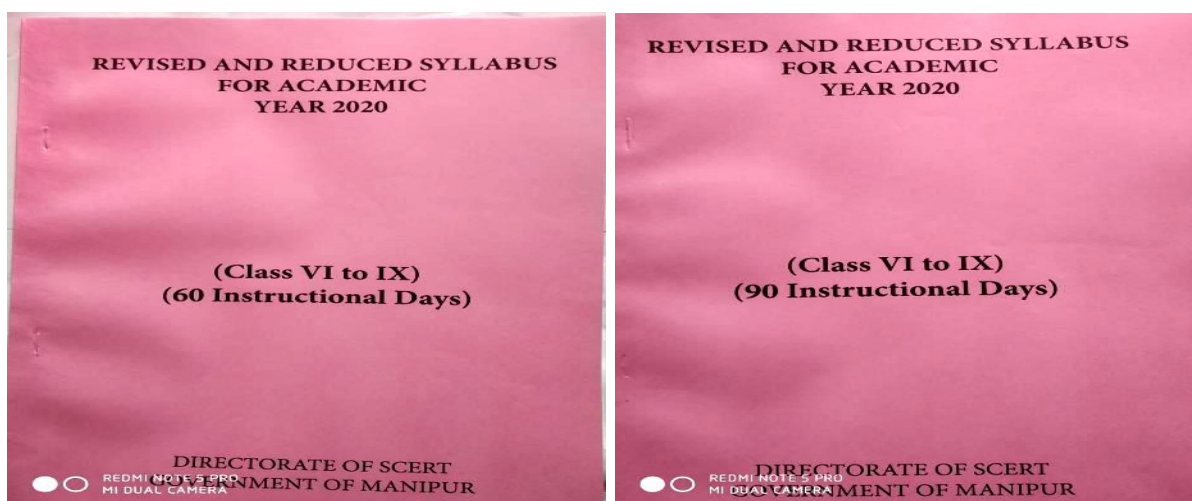
23. MEGHALAYA

In pursuance of the previous lockdown initiatives resulting from the closure of schools, the Department of Education is comparatively equipped in ensuring that learning continues even when schools are closed with the help of its initiatives and activities.

E-Learning Portal:

A free social initiative, and a start-up, is an online learning portal for classes KG- X, which is an initiative of CR Projects and the Department of Education, Government of Meghalaya, to ensure continuity in students' studies even as they are faced with an inability to carry out normal learning activities in a school/ classroom environment. CR School is a portal that gives and allows access for schools, teachers, and students. Registration with CR School is free for everyone to encourage the participation of schools from all over Meghalaya. CR School can be easily accessed on a desktop, laptop, tablet, and even a smartphone.

CR Projects:

The Government of Meghalaya is continuing the collaboration with CR projects for classes KG to X, to ensure continuity in students' studies even as they are faced with an inability to carry out normal learning activities in a school/ classroom environment.

DIKSHA Meghalaya:

The State of Meghalaya on-boarded the implementation of DIKSHA in the state during the year 2020. With the Directorate of Educational Research and Training as the Nodal Agency for implementing the programme, the planning for institutional structure, formation of committees such as the Project Management Unit, Content curation committee, Technical committee etc., was started during 2018-19. Finally, DIKSHA was launched in the state by the Hon'ble Minister-in-charge Education on the 23rd January 2020.

Being at the forefront of digital initiatives in the education sector, Meghalaya also recognized the role of good digital content in enhancing teaching and improving learning outcomes. The state, therefore, initiated to development of Energized Textbooks with QR codes for Classes 1 to 10 to make the content available for these grades through the DIKSHA learning platform. The state believes that the interactive audio-visual content, assessments and animations will make learning engaging for children thereby helping them understand concepts better. It is also expected to reduce the pressure on teachers by providing them with a range of curated content linked to the curriculum that they can use while preparing for classes.

The Directorate of Educational Research and Training, the Nodal Agency under the Department of Education for implementing

DIKSHA also conducted training sessions during COVID 19 pandemic to train state government teachers to create content and make it accessible online for consumption.

The state is also embarking on a journey to create and curate quality content by trained state government teacher educators and teachers that can be leveraged by all states through the DIKSHA platform.

Another effort made by the state is on Information Education and Communication (IEC). A strategic plan is prepared on how to use the online content effectively and to ensure that all its teachers are aware of how to make the best use of the energized textbooks (ETBs) and the available online content.

The Way Forward:

During the AY 2021-22, the state of Meghalaya plans to expand the scope of ETBs through all grades and translate content in local languages for elementary classes, engage more teachers for the creation of content, consumption workshops and identify DIKSHA champions for the state. New programmes proposed for AY 2022 include exam preparation programs for classes 10, 11 and 12, Grade readiness programs, digitization of D.El Ed Curriculum and FLN programmes. Meghalaya DIKSHA will also soon host additional features, with the primary focus on teacher's professional development as teachers are considered the most important.

Outreach & Communication

- DIKSHA content being broadcasted on AIR and DDK
- Posters on "how to use DIKSHA" are being distributed to all elementary and secondary school
- Top contributors of DIKSHA are felicitated by the Hon'ble Minister of Education on Teachers' Day 2020.

COVID-19 Response Strategy: MLEAD:

- A platform for teachers to network and share resources
- Continuous Learning Plan (CLP) for all schools
- Teacher training on online mode
- Hotline for students to talk to counsellors

The Meghalaya Guidelines on Digital Education for Technology Infusion in Schools:

The Meghalaya Guidelines on Digital Education for Technology Infusion (to be referred to in the rest of the document as MGDE) is based on the overarching goals of ICT in education, reflected in the Meghalaya State Education Policy of 2018, section 9. A framework on digital citizenship for students, teachers, teacher educators and administrators that recognizes the critical role that technologies play in learning for today's students will be put in place. (MSEP 2018)

The Education Department will adopt (a) "technology infusion" approach to integrate technology in education as much as possible and integrate (b) digital citizenship i.e. the responsible, legal, and ethical use of technology in education.

Technology Infusion in Schools is for:

- School Management
- Teachers
- Students and Learning Experience
- Parents
- Reaching the Unreached

Figure 1: Sorting Bottles

24. MIZORAM

The prevailing pandemic situation has disabled physical schooling for quite a long time and the School Education Department has taken different pre-emptive measures to ensure that education is not disrupted for children at different levels of schools. On the initiative of the Hon'ble Minister of School Education and under the guidance of the Secretary, School Education, students and teachers are engaged in different activities chalked out by the Department. There are two Directorates and one Examination Board under the Department – The directorate of School Education, the Directorate of SCERT and the Mizoram Board of School Education (MBSE) and these three bodies are diligently working towards the delivery of education in schools from Pre-primary to Higher Secondary Schools.

Educational lessons through TV channels:

The two directorates collaborate in the production of educational videos for broadcast on TV and were introduced on 13th April 2020. A Memorandum of Understanding (MoU) was signed by the Department and the Television networks to ensure that education reaches every nook and corner of the State during the pandemic. The Educational lessons for Elementary and Secondary School students are broadcast on Doordarshan Aizawl Kendra at 3:05 pm and two major local cable television networks, Zonet and LPS at 2:00 pm and 4:00 pm respectively, from Monday to

Saturday. Different time slots are allotted for maximum coverage and viewership by students, parents and teachers. A WhatsApp Group of the core team for the creation of Tutorial lessons on TV is also created for easy sharing of ideas and other matters related to the production of educational lessons.

Educational YouTube Channel:

Videos of tutorial classes are uploaded in the official YouTube channel of Directorate of SCERT https://www.youtube.com/channel/UC4rCYqo5ur0pb5OllNBcCAA and Directorate of School Education https://www.youtube.com/channel/UCPRpPH8HUGyprMY29yJfvg to ensure easy access to tutorial classes.
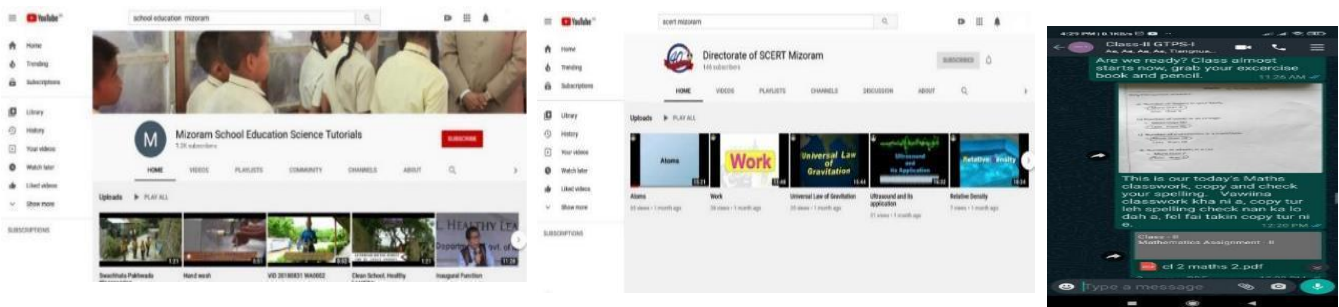
Online Classes in Schools:

Even though schools have not reopened for the 2021 – 2022 session, many schools have started online classes. All the District Educational Officers and Sub- Divisional Officers created WhatsApp groups to disseminate necessary information to school heads and teachers. Most schools have created class-wise WhatsApp groups to give out information to students and share study materials and activities, give out and receive assignments. It was also verbally reported that some students who do not have access to smartphones even go to the extent of borrowing their neighbours' smartphones to submit their assignments. It is also learnt from several parents that they have newly bought smartphones for their children's online classes.

Online Classes for B.Ed. (Special Education):

The SCERT Mizoram offers B.Ed. (Special Education) course since 2017 and there are 120 students at present studying Visual Impairment and Hearing Impairment specialities. During the academic year of 2020 – 2021, sessions were conducted online through video and study materials were shared through WhatsApp groups during the lockdown period in 2020. Odd Semester Examination for 3rd Semester students was conducted in blended mode during December 2020 and January 2021.

At present, classes are held online for 2nd Semester students, 4th Semester students are given assignments and are learning from home.

Online Classes at DIETs:

Faculties of DIETs continue to teach through the internet even today in the 2021 – 22 sessions. Online classes are being conducted regularly and study materials are shared in WhatsApp groups despite poor connectivity in many areas. Four faculties are engaged every day for the classes on all working days. It is reported that interaction is far more alive on WhatsApp groups than the normal classroom sessions, as many students can share their ideas by way of texting rather than speaking up in the class. Some of the DIET buildings and hostels were used as community quarantine centres and many faculty members of DIETs in different districts are assigned to take care of these centres.
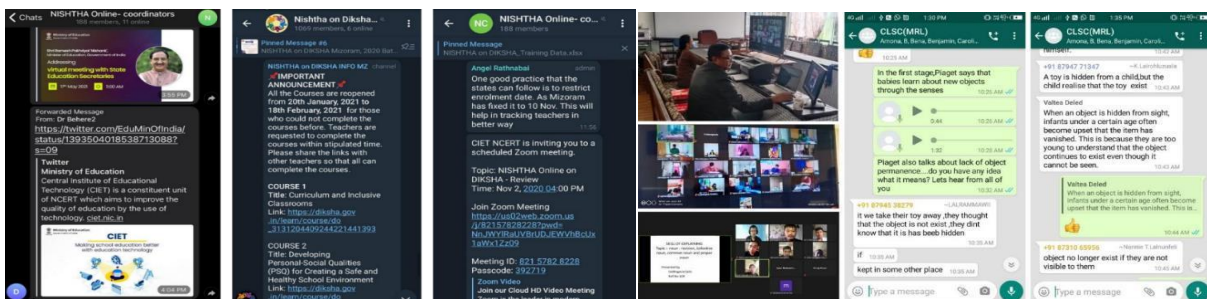
NISHTHA on DIKSHA:

Mizoram launched the NISHTHA training programme on the DIKSHA portal on 15th October 2020 which concluded on 15th January 2021 in 6 batches. **2607** Heads and Teachers completed the training from a target of **2250** Heads and Teachers. Single Point of Contact was identified from the State Resource Group Members for each module and their contact details are shared with participants in the course for academic support. Different WhatsApp groups were also created for troubleshooting in terms of technical issues and other related problems on the DIKSHA portal. A telegram group was also created consisting of members from NRG, SRG and participants.

Content Creation for DIKSHA Mizoram:

The landing page for DIKSHA Mizoram was launched on 24th September 2020. Till date, 316 contents have been created, curated and uploaded on the DIKSHA Mizoram portal. These contents are accessible through QR codes printed textbooks of Mizo (first language), Hindi (third language) and EVS (Mizo medium version).
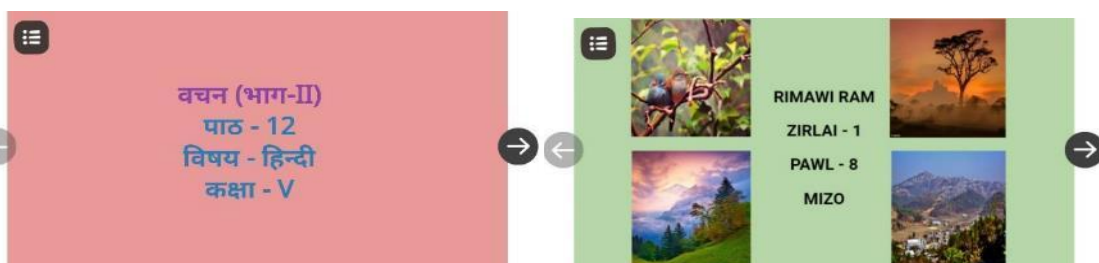
Alternative Academic Calendar for Elementary Schools:

A 4-week Alternative Academic Calendar for elementary schools was published as an online publication on 13th July 2020 to engage students with fun learning opportunities at home with the help of parents under the supervision of teachers. The alternative academic calendar is based on the curriculum of elementary schools and is filled with fun activities to help them learn at home. Each activity is designed to align with learning outcomes identified for their

respective classes in the target subjects. Three types of such calendars consisting of 12 weeks of joyful learning materials at home were developed and compiled in a book form and were distributed to schools by Samagra Shiksha. Copies of these Alternative Academic Calendars are available on the website of the Directorate of SCERT https://scert.mizoram.gov.in/

Schools have not yet reopened for the academic session of 2021 – 22 and the Alternative Academic Calendar prepared in 2020 – 21 is to be used in schools for the time being.

Bridge Course for Elementary Schools:
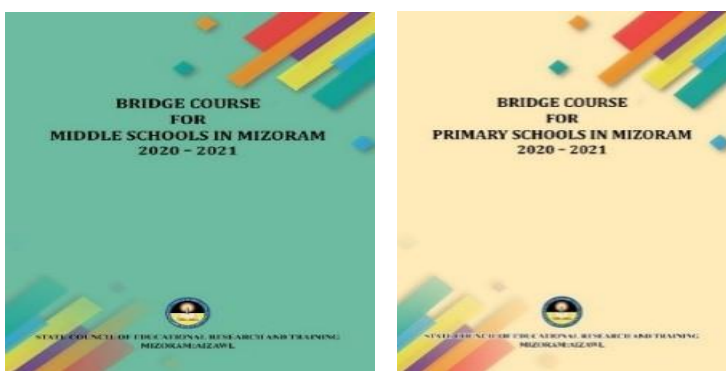
Bridge Course for elementary schools was developed to bridge the gap of learning at home when students were not able to attend schools physically to contain the spread of COVID-19. The Course is a compact version of the content in the textbooks of all elementary classes to help students in achieving learning outcomes for a smooth transition to the next class despite a severely limited schooling period of the academic session of 2020 – 2021. The books were distributed to schools by Samagra Shiksha. Copies of these books are available on the website of the Directorate of SCERT https://scert.mizoram.gov.in/

Week-wise Plan for Secondary Schools:

A Week-wise Plan consisting of 5 weeks of prescribed topics of study aligned with Learning Outcomes was prepared for Secondary school students and used from 12th July 2020.

Three such plans are prepared and are disseminated online through WhatsApp groups of District Education Officers in all 11 Districts. The Plan is now being revised for use in 2021 – 22 academic sessions.

Online School Health and Wellness Programme:

Capacity Building Programmes in 3 Districts (Mamit, Champhai and Siaha) was conducted during March 2021 for School Health and Wellness Ambassadors (Heads and Teachers of High Schools) in online mode in collaboration with MoHFW under the aegis of Ayushman Bharat.

Certificate in Early English Language Teaching:

The first batch of 6-month Certificate Course in English Language Teaching (ELT) was launched in November 2019 and normal face to face mode classes was severely affected by the onslaught of the COVID pandemic. The Course is initially designed for in-service teachers teaching English at the elementary level. It aims to create a pool of professionals equipped with the skills in teaching the English language. The Course was finally completed in blended mode on 30th March 2020. Assignments and projects were done in online mode, necessary instructions for assignments and project works were shared through a WhatsApp group created for participants of the Course.
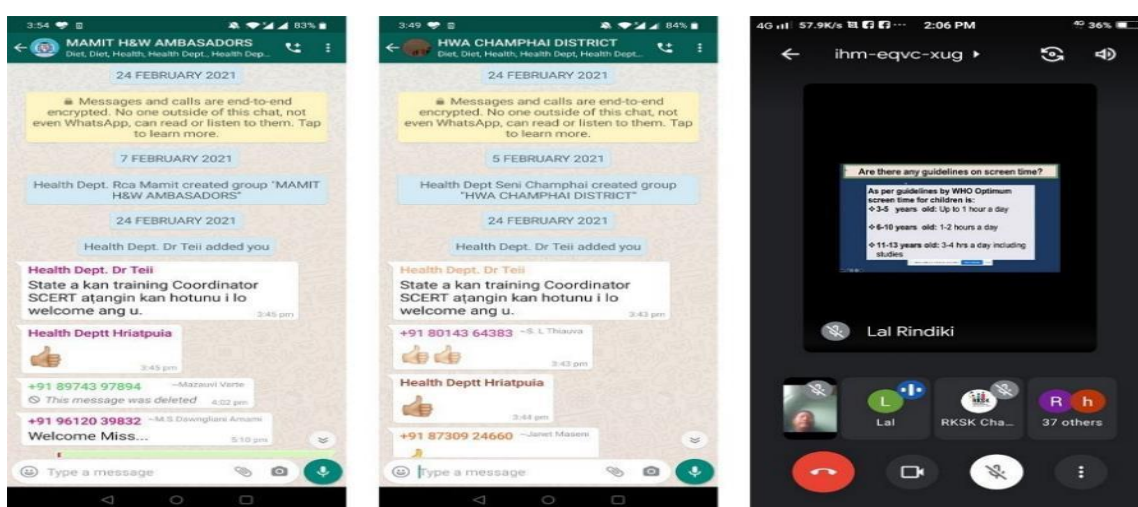
Objectives of the course are:

- To produce a cadre of specialized teachers of English.
- To offer quality teacher enrichment to teachers at all levels.
- To help in the production of supplementary materials for teaching English in the classroom.
- To help bring about innovations in the English classrooms.
- Teacher preparation for necessary skills to teach English as a skill subject

Certificate in Early Childhood Care and Education:

The first batch of 6- month Certificate Course in Early Childhood Care and Education (ECCE) was initiated online on 1st May 2020. Teachers enrolled for the Course were given online pre-tests to determine their level of knowledge in ECCE and were completed in blended mode on 30th March 2021.

Objectives of the course are:

- To provide knowledge on the growth, development and learning process of children from birth to 8 years and to help teachers develop an understanding of various concerns and issues related to quality ECCE.

- To create awareness and build competency in various teaching-learning strategies.
- To develop the skills of conducting ECCE play activities and developing teaching-learning materials.
- To inculcate sensitivity towards the needs of children including children with special needs and early identification.
- To understand the development of children from birth to 8 years, identify common childhood illnesses and their preventive measures.

YouTube Channel of School Leadership Academy Mizoram in regional language:
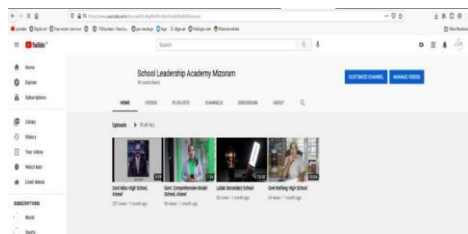
This channel contains videos of activities carried out by the School Leadership Academy Mizoram. Activities are documented and uploaded on the channel for wider sharing of good practices by Heads of Schools which can be replicated.

Digital library:

The library in SCERT is equipped with digital software for easy access to different resource materials for researchers, teachers, students and anyone else seeking information on topics available in the digital section of the library.
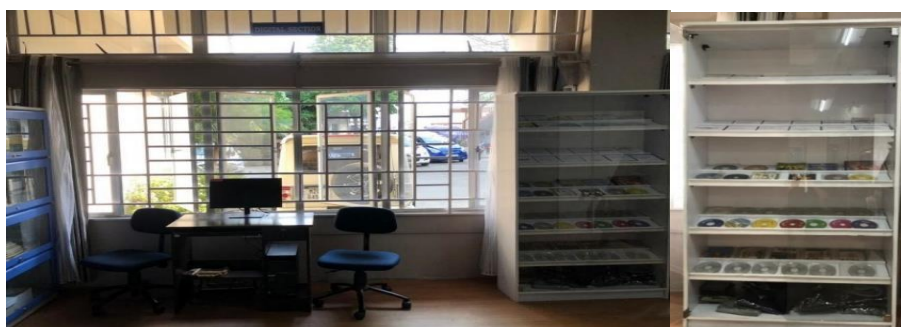
Participation of Mizoram students in National level Online Essay competition:

58 students from Mizoram participated in the Online Essay competition jointly organised by NCERT, MyGov.in and MoE for students of Class 9 – 12 during 3rd – 23rd August 2020 on the theme **"Atma Nirbhar**

Bharat – Swatantra Bharat" (Self Reliant India – Independent India):

Out of these entries, 10 best essays were submitted to NCERT by the SCERT, Mizoram. The top 30 essays were then selected by NCERT and 9 out of 10 entries from Mizoram are selected among the top 30.

The following students are the position holders:

Sl. No	Name	School	Class	Position
1	V L Rawnkimi	Kendriya Vidyalaya Sangathan, Mizoram	10	5
2	Chitransh Raj Singh	Kendriya Vidyalaya, Aizawl	9	17
3	Carmelia Lalhmangaihi	Synod Higher Secondary School	9	21
4	M. Ngurzela Sailo	Kendriya Vidyalaya, Aizawl	10	22
5	Tristan Namaram	Kendriya Vidyalaya, Aizawl	11	23
6	Remalle Beaulah Grace	Kendriya Vidhyalaya School, Mizoram	11	24
7	Lalremruati	Govt. KM H/S, Mizoram	10	26
8	Nayan Das	Kendriya Vidyalaya, Aizawl	11	27
9	Rina Chakma	Jawahar Novodaya Vidyalaya, Champhai	12	29

Celebration of India's 75 years of Independence:

As a part of the celebration of 75 years of India's independence, a 1- hour presentation on the theme **"My Vision for India"** was organized by students of B.Ed. (Special Education) of the SCERT on 26th March 2021. Video of the presentation is uploaded on the official website of the Directorate of SCERT and the official YouTube Channel.

Essay writing competition for D.El.Ed students of 8 DIETs in Mizoram were held on 31st March 2021 as a part of the celebration of 75 years of India's Independence. The competition was held to create awareness and sensitivity amongst students of the challenges, sacrifices made by freedom fighters and events leading to independence, their vision for the future and how each person can contribute to nation-building. 67 students participated in the competition and the list of best entries is available at the official website of the Directorate of SCERT Mizoram.

Intervention for students in the Aspirational District of Mamit during 2020 – 2021:

Online Slogan Writing Competition for Middle School Students on the themes:

The competition was initiated to sensitize and create awareness among students on these matters –prevention of child abuse and how to prevent bullying in schools. The themes selected for the competition were Waste Management and Deforestation.

Content Creation in Science and Mathematics for Higher Secondary School Students:

Hard spots from the two subjects were identified by the SCERT in collaboration with the Higher Secondary School Lecturers Association of Mizoram (HISSLAM). Supplementary learning materials in Science and Mathematics were developed in video format for students of Higher Secondary Schools. Videos are to be multiplied and distributed to schools and are also uploaded on the educational YouTube channel of the SCERT.

Class XII Biology - Biotechnology Principles and Processes
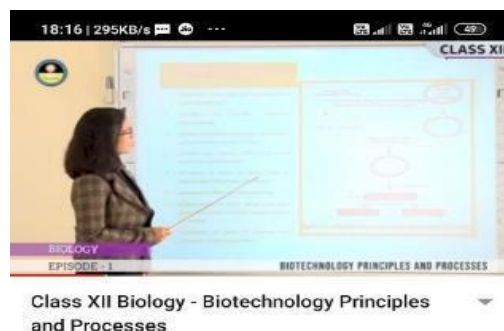
Online Meeting of Officers of School Education with Hon'ble Minister of School Education:

A video meeting of officers of the School Education Department was held on 19 May, 2021to discuss matters related to the delivery of education in the prevailing second wave of the pandemic.

It was reported that many schools have started online classes but there are some schools where it is not feasible to have online classes. It was decided in the meeting that Alternative Calendar for Elementary schools prepared by SCERT be used and Week Wise Plan prepared by the Mizoram Board of School Education (MBSE) for the time being. The Meeting was also informed that the MBSE is in the process of evaluating papers of High School Leaving Certificate (HSLC) and Higher Secondary School Leaving Certificate (HSSLC) and it is in the concluding stages of finalization. Arrangements are also made for students who could not complete their examinations because of COVID-19 infection. The Meeting was attended by the Hon'ble Minister of School Education; the Special Secretary of School Education; Chairman, MBSE; Director, School Education, Director, SCERT; officers of the School Education Secretariat; officers of Directorate of School Education, Directorate of SCERT, MBSE and Samagra Shiksha Mizoram.

25. NAGALAND

Introduction:

The COVID-19 Lockdown forced the majority of the school children to be occupied with entertainment programmes on TV and mobiles for the whole day. As this may cause psychological depressions in children, the Department of School Education, Nagaland started exploring ways and means to keep the children engaged in the continuous process of education during the lockdown period. In the meantime, the Ministry of Education suggested States consider telecasting educational programmes through Doordarshan broadcast. Motivated by the initiative of MoE, the department has developed the idea of Tele Education further and launched the innovative Online Digital Education Programme in the State. The department has introduced many other innovative practices along with the Online Digital Education Programme for improving the quality of education being imparted and strengthening the functioning of Govt. Schools in the State.

Tele/Radio Online Education:

The department has selected nearly 50 best teachers residing in and around Kohima for delivering lessons through digital media and a temporary video recording studio was set up at the Directorate of School Education. A private production unit was commissioned to make the videos and few Directorate officials guided the teachers in the task of delivering lessons in the studio and coordinated shooting of the episodes well ahead of the proposed date of telecast.

A Memorandum of Understanding was signed between the Department of School Education, Doordarshan Kendra and All India Radio for the daily broadcast of the recorded lessons in the 3 hours per day time slots. The Radio broadcast of lessons through All India Radio, as well as Telecast of lessons through Doordarshan, commenced from 1st May 2020. Initially, the broadcast was done for students of classes 8 to 12 and subsequently was extended for students of classes 5 to 7 from June 2020.

To ensure maximum coverage for the DD and AIR broadcast across the State including the remote areas, all the District Education Officers, Sub Divisional Education Officers and School Heads were directed to work in association with the District Administration in each district and make necessary arrangements for students who do not have TV facilities at home to view/listen the broadcast at a common place like Village Hall, School Auditorium etc. The broadcast schedule was made in such a way that children could follow the norms of social distancing while viewing the broadcast from public places.

Efficient Utilization of Social Media:

As the digital social media platforms have more influence on people, all the videos telecasted through Doordarshan are also shared with the public through the YouTube channel of the department, 'DoSE Nagaland', the Facebook Page 'School Education, Nagaland' and also through Jio TV. As of now, the YouTube channel of the department has more than 31,000 subscribers and the Facebook page has more than 16,700 followers. The Online Digital Education Programme of the Department has earned the appreciation of people from different walks of life and thousands of students from other States have also subscribed to the department's YouTube channel.

Inclusive Education:

The State has incorporated using Sign Language Interpretation in the video lessons being telecasted from July 2020 for the benefit of Children with Special Needs. Nagaland is the First State in India to include Sign Language Interpretation in the video lessons for school children.

Supplementary Study Materials:

The department ensured that schools prepared notes and exercise materials for the lessons being broadcasted and circulated to all students. The department also made Pen Drives of the entire telecast and distributed to interested parents, teachers and private schools at a nominal charge and the same were distributed free of cost to the Government Schools in the State.

Online Evaluation Portal:

Evaluation is an integral part of education and is very much essential for guiding students towards development. As the conventional tools of evaluation could not be used during this period of crisis, the department has developed the Online Students Evaluation Portal 'https://dosenl.in'. The portal is developed in such a way that it could be easily accessed through any Mobile/Laptop/PC and would work efficiently even with 2G internet connections.

On the specified date and time of evaluation, students will have to login to the portal and give responses to 20 numbers of objective type multiple choice questions by clicking against the correct options within the given time limit. The page will be made active only during the specified time and will become inactive after the scheduled time.

The result analysis of the 'Online Tests' was made available to all stakeholders so that they could employ appropriate remedial measures. Best performing students were rewarded so that it will serve as a motivation for all others. The main objective of conducting the online test was to encourage students to keep them engaged with the processes of continuous learning and the marks scored in these tests were not considered for any purpose of formal evaluation.

Conduct of Online Survey of School Heads & Parents:

The Department has conducted two Online Surveys using the Online Evaluation Portal. The first was conducted among the Head of Institutions of Govt. High Schools and Higher Secondary Schools to find out the extent to which the Online Education has reached among students so that remedial measures and further planning could be done for improving the reach and benefit of the Programme. The second Online Survey was conducted among parents of all students in the State seeking their opinion on matters related to the reopening of schools after the lifting of lockdown.

Continuous Learning & Online School Monitoring:

Especially for the students from the remote areas to access Online Education, the department has initiated steps to ensure that the process of Continuous Learning is sustained in all Govt. Schools throughout the State during the lockdown period. A special cell named, 'The Continuous Learning & Monitoring Cell' under the Chairmanship of the Principal Director, School Education was constituted on 18th July 2020 and the Cell has been entrusted with the task of working out a suitable action plan for carrying out appropriate teaching-learning activities during the lockdown period. The cell will also monitor the teaching-learning activities being carried out during the lockdown period.

The Department has developed a School Monitoring Software to monitor the entire teaching-learning activities carried out in all Govt. Schools across the State and made functional from 13th August 2020. The 'Continuous Learning & Monitoring Cell' oversees the implementation of the project.

Teacher's APP:

The present education system has made it mandatory that teachers use online education tools for carrying out their day to day teaching-learning activities. Therefore, keeping teachers updated with the latest developments in the field of education is very much essential. The Teacher's App launched by the department on 23rd September 2020 will help teachers connect to the required online education resources with ease.

The Teacher's APP will serve as a direct communication channel between the Directorate, District Level Officers and Teachers. Every Teacher & Head of the Institution will be mapped through the APP and this will lead to the improvement of the quality of services at different levels in the department.

One of the important aspects of the Teacher's Diary introduced by the department at the beginning of the year 2020 is that it demands regular monitoring and supervision from the controlling officers at school and inspecting officers at district and directorate levels. Unfortunately, a section of Teachers and School Heads do not stay in their place posting and this issue needs to be addressed by the use of technology. The Teacher's APP will address this issue effectively as Teachers will have to upload pages of Teacher's Diary where School Heads append their signatures with the date. The uploaded pages with GPS Tracking (showing Date, Time & Location) of the Teacher's Diary will be automatically forwarded to District level officers & Directorate.

Teachers' Online Transfer Portal:

Transfer and posting of teachers in schools is a regular practice being carried out by the department due to promotions and retirements caused every year. Teachers also seek transfer on their own due to personal reasons. To ensure the smooth functioning of schools, these transfers need to be done well ahead of the commencement of the academic year. Adopting a transparent process in this exercise would do justice to all stakeholders such as teachers, schools and the department. Moreover, as per NEP 2020, it is mandatory to carry out teacher's transfers through an online computerized system that ensures transparency.

The department has launched the Teachers' Online Transfer Portal on 23rd September 2020 which can be accessed by the teachers using their Registered Mobile Number. The portal displays their present employment details and cadre vacancy position available throughout the State. Interested teachers can apply for transfer to their preferred places of posting. The department will process all the applications received during the given period and issue bulk Transfer Orders.

Using DIKSHA for Online Education through 'Coherent Access':

As the DIKSHA platform could be effectively utilized for carrying out the Online Education Programme being conducted by the Department of School Education, the department in association with the DIKSHA Project Management Unit(PMU) has commenced working on the 'Coherent Access' Project. A six-member Technical Team was constituted for this purpose and the team worked in close association with the DIKSHA PMU. Important video lessons were broadcasted for the benefit of students appearing for the HSLC, HSSLC and Class 11 Promotion Examinations through the DIKSHA platform.

Launching of "India 4.0 - Dr APJ" Project in Nagaland:

The Department of School Education, Nagaland in association with M/s iB Hubs, Hyderabad is implementing a project named "India 4.0 - Dr APJ" under which a total of 15,000 children from the State of Nagaland belonging to economically backward families studying in classes 5th to 10th will be given FREE 4.0 EDUCATION by M/s iB Hubs up to the age of 21 years. The first batch of the programme commenced on 15th October 2020 and nearly 3000 students are pursuing the course.

Conclusion:

Despite the difficulties being faced during the COVID -19 lockdown, the Department of School Education, Nagaland with a small team of dedicated officers has invalidated the prejudice of a section of people of the State that students and parents of Nagaland are not yet ready for adapting the latest trends in the education system. The department has made the remarkable achievement of making the services of a few of the best teachers from the State Capital available to all sections of students across the State. This initiative has opened the avenue of sharing of knowledge between students from rural and urban areas in the State in the coming days. It is worth mentioning that Nagaland is the 14th State in India to launch the Tele/Online Education Programme during the COVID-19 Lockdown and the First Indian State to introduce the Online Evaluation Programme for students from the Primary level onwards.

26. ODISHA

The schools have been closed in the State since 17th March 2020 for the safety of students due to the pandemic situation arising out of COVID-19. The government of Odisha has adopted various strategies to reach out to students to facilitate their learning. The Headmasters have assessed the class-wise and child wise availability of different forms of digital devices and uploaded school wise, class wise status in a link created on the OSEPA portal. Accordingly, steps have been taken to impart education to students having digital devices with internet connectivity, students with limited connectivity in partial online mode, and students with no device in offline mode.

Distribution Textbooks at Doorstep:

As a first initiative, all textbooks have been distributed to all the students of Grades 1 to 8 at their doorstep by teachers during April-May 2020. Besides, the textbooks for Secondary and Higher Secondary students were made available for purchase. Further, all textbooks of Grades 1 to 10 have been converted to energized textbooks providing QR codes to each chapter and uploaded to DIKSHA Portal as well as the OSEPA website. The Textbooks of Higher Secondary grades were also made available online.

Distribution of LEP Books:

To bridge the learning gaps, LEP books **UJJWAL** for Grade 3 to 5, **UTHAN** for Grade 6 to 8 and **UTKARSH** for Grade 9 have been prepared and distributed to students at their doorstep to facilitate learning at home. The Foundational Numeracy book developed with the support of the Akshara Foundation for students of Grade 1 and 2 has also been provided in addition to prescribed textbooks.

Odisha Shiksha Sanjog (Learning Through WhatsApp):

Odisha Shiksha Sanjog, a digital learning programme through WhatsApp groups has been implemented to engage students in teaching-learning activity by sharing digital content and to facilitate their home-based learning.

- The class/subject teachers have created individual WhatsApp groups with students of different classes both at secondary as well as elementary level for sharing study materials. The students of classes II to X participated in the programme. The DEO, DPC, BEO, ABEO, BRCC, CRCC, HMs, teachers and students are included in different groups.
- The e-contents like written explanations, video explanations, audio clips, video clips, etc. collected from different digital platforms and also developed by teachers have been shared in the class-wise WhatsApp group constituted for the programme.
- The worksheets based on expected learning outcomes are shared with the students after posting the learning materials.
- The subject teachers also remain online to clarify the doubts raised by the students in the concerned WhatsApp group.
- The Answer key is posted in the evening for self-assessment or assessment with help of parents.
- The students have been asked to record all given worksheets with their answers in their notebooks for physical verification by teachers after reopening the school.

- The timetable has been prepared at the district level for posting learning content in different subjects for the programme.
- The teachers also interacted with parents and encouraged them to guide students for home-based learning and facilitate peer learning particularly for students having no smartphone.
- About 34% of students could be connected through this platform.

Radio Pathshala:

The educational programme Radio Pathshala was broadcasted simultaneously from all Stations of All India Radio and Vividh Bharati Cuttack for students of Grade 1 to 8. The chapter-wise audio lessons were developed by experienced teachers and recorded at Biju Patnaik Film and Television Institute, Cuttack. The programme was broadcast for 2 hours a day from Monday to Friday, i.e. one-hour original content and one-hour repeat content. The students having radio/feature phones could listen to the programme. The said audio lessons were also uploaded to DIKSHA Portal and Digital Repository of OSEPA for the convenience of learners.

It has been heartening to observe incidents of committed and resilient students in remote villages sitting around a radio available in any household/community/ school and listening to the programmes.

Huge spike in DIKSHA content plays after addition of Radio Pathashala content in end-Sep 2020

Shiksha Darpan (Telecast of video lessons on T.V.):

Video lessons were developed subject wise and chapter wise for students of Grade-9, 10 and 12. The said e-content were telecasted under Educational Programme 'Shiksha Darpan" (from Monday to Friday) in Doordarshan Odia for 3 hours a day. The students having no TV at home are encouraged to watch the educational programme with peers /TV

available in the community maintaining social distance. The episodes are also made available on the DIKSHA platform, OSEPA website and YouTube platform for easy access and convenience of learners. The telecast for Grade 10 students started with EDUSAT content available with ORSAC from 20th April 2020 for two hours a day. Thereafter fresh e-content was recorded in all subjects for Grade 9, 10 and 12 and the telecast continued up to April 2021.

Madhu APP:

Being inspired by the 5T mantras of Odisha's Hon'ble Chief Minister, the Ganjam district developed a syllabi-based e-learning App in Odia language called Madhu App to provide mother tongue-based virtual classroom experience for self-learning and self-assessment of learning outcomes. The initiative was launched by the Chief Minister of Odisha on 3rd December 2019. Madhu App played a key role in facilitating the continuous learning of students during the lockdown. It helped children clarify doubts at their own pace of learning and also helped parents to guide their children's learning at home.

Digital Knowledge Sharing (DIKSHA):

The digital content developed through different sources from Class-I to X has been linked with QR codes in the DIKSHA portal. The use of the DIKSHA platform has been increased to a great extent during the pandemic. The e-content from DIKSHA is also used in Odisha Shiksha Sanjog. The audio and video lessons broadcasted and telecasted on Radio and TV are also made available in DIKSHA. The Hon'ble Minister, School & Mass Education, Odisha also created awareness on DIKSHA through media to popularise among teachers, students and parents. The following graph shows the coverage of content in the DIKSHA platform during 2019-20 from different sources.

Class Wise Content Cover Status (1 to 8) till today					Class Wise Content Cover Status (1 to 8) as on 20/02/20				
Class	Total Content	Content Cover	Content Not Cover	Percentagae of Content Cover	Class	Total Content	Content Cove	Content Not Cover	Percentagae of Content Cover
1	28	28	0	100	1	28	28	0	100
2	36	36	0	100	2	36	7	29	19
3	68	68	0	100	3	68	30	38	44
4	59	59	0	100	4	59	11	48	19
5	72	72	0	100	5	72	16	56	22
6	87	86	1	99	6	87	16	71	18
7	86	82	4	95	7	86	9	77	10
8	106	90	16	85	8	106	0	106	0
Total	542	521	21	96	Total	542	117	425	22

Content Link Status Comparison Between Before Luckdwon & After Luckdown

Content not linked, 21, 4%

Total Content Linked 521, 96%

QR CODE LINK STATTUS

Total Content Linked, 117

Content Not Linked, 425

GRADE / CLASS	TOTAL	RADIO PATHASHALA	EDUSAT - ORSAC	ICAP (MATHEMATICS)	LEARNING OUTCOME (LO)	VIDYADAAN	IOCL (VERTEX)	E-SUVIDYA	INTERACTIVE
Grand Total	5827	191	250	518	339	2374	139	124	1892
Class 1	208	31		75	28				74
Class 2	152	29		53	36	26			8
Class 3	338	52		63	42	151		2	28
Class 4	300	9		30	40	149		4	68
Class 5	286	15		11	72	153			35
Class 6	548	20		92	66	320	43		7
Class 7	465	19		49	42	277	73	5	
Class 8	528	16		20	13	449	23	7	
Class 9	1794		8	49		699		105	933
Class 10	1208		242	76		150		1	739

E-class through Microsoft Teams/ Zoom/ Google Meet Platforms:

Online classes were conducted for students wherever possible through different virtual platforms.

E-Vidyalaya App:

The e-content developed for ICT@Schools for class-IX and X have been uploaded in the E-vidyalaya App for easy access of students.

Community/Home-based teaching-learning programme:

The community-based teaching-learning programme was adopted in different parts of the State to reach out to students not connected through online mode. The district and block education officials developed strategies depending on the local condition to reach out to students at their doorstep and facilitate home-based learning. The programme Shiksha Shikshar (Khordha), Shiksha Setu (Bargarh), Shiksha Sanklapa (Jajpur), Shiksha Sanjibani (Bhadrak), Mo Shiksha Sathi and Ashara Pathe (Sundargarh), etc. are examples of area-specific learning initiatives during the COVID period.

Regular telephone calls to parents/students:

The teachers were guiding home-based learning by making regular phone calls to students and their parents. This was particularly helping students having a base phone.

Reduction of Syllabus:

The syllabus of grades 1 to 12 was reduced by 30% by respective State authorities, i.e. SCERT, BSE and CHSE and distributed to students and made available on respective websites and OSEPA website for information of students, parents and teachers.

Alternative Academic Calendar:

Following the NCERT Guidelines, and as per the local need, an alternative academic calendar was developed and shared through WhatsApp groups and the OSEPA website for information and guidance of all concerned to facilitate learning.

Mentoring by Teachers to Class-X students at Doorstep:

After the improvement in the COVID situation, the State Govt opened schools for Grades 9 to 12 in a phased manner. A calendar was prepared to complete the reduced syllabus of Grade 10 students in 100 days including Sundays to prepare them for the Board examination. One teacher was given the responsibility of mentoring 10 students daily to encourage, counsel, contact parents, subject teachers, make home visits, etc. to facilitate their learning. The State level Nodal officers assigned to each district visited schools of respective districts including on Sundays for monitoring the teaching-learning progress and maintenance of COVID protocols for the safety of students. The Principal Secretary himself also visited schools of many districts to see the classroom transaction. Practice tests were also conducted by the Board of Secondary Education, which was attended by a large number of students.

Pariksha Darpan:

The Board of Secondary Education developed a handbook for grade 10 students containing a Question and Answer bank named Pariksha Darpan, to guide them for home-based learning and prepare them for the Board exam. This was distributed free of cost by the State Government to all students reading in both Government and Private schools.

Capacity Building of Teachers:

Training on Online and Remote learning by IBM STEM for Girls: Teaching through virtual mode was a big challenge for teachers with the outbreak of pandemic as they were not acquainted with various digital learning platforms. OSEPA planned for the training of master trainers for training on 'online and remote learning' with the support of IBM who are working on STEM for Girls programme in the State. 200 teachers from 100 Centre of Excellence schools, two Teacher Educators from each of 30 DIETs and 30 Principals from 30 higher secondary schools, one from each district, were imparted 5 days training on how to use different digital platforms and reach out to students. The Hon'ble Minister, School & Mass Education Department inaugurated the training in virtual mode on 4th August 2020. These teams after being trained imparted training to their colleges and supported the teachers in their respective block/district.

Training on video-making for 1.7 lakh teachers: To facilitate WhatsApp based learning programmes 'Odisha Shiksha Sanjog' and Vidyadaan Programme of DIKSHA, 170303 teachers were trained on how to create Educational videos through Smart Phones. The training was imparted through the Chaklit platform with the support of the Million Sparks Foundation.

Understanding the mental health and wellbeing of self and students is very crucial during a pandemic due to lockdown/ shut down, etc. In addition to NISHTHA training, 1.40 lakh teachers of State trained through the Chaklit platform on mental health and wellbeing to build up their capacity to properly handle students during COVID-19 pandemic situations.

Mid-Day meal (Food Security Allowance) was made available to all eligible school children as admissible during the closure of schools due to COVID-19. The parents received MDM rice and the IFA tablets were also distributed to students at their doorstep.

Digital Learning Initiatives for the Children with Special Needs (CWSN) during COVID 19 pandemic:

During Covid 19 pandemic, Children with Special Needs are learning at home using the DIKSHA App, Madhu E-learning App, Radio Pathasala, TV programme, Sikshaa Surabhi, Audio version of Parikshya Darpan, Shiksha Sanjog, OSEPA YouTube channel used by all students through digital mode.

Sikshya Surabhi Community Radio Programme for CWSN:

Shikshya Surabhi, a community radio programme designed to provide inclusive education to children with special needs especially for visually impaired students has been launched in July 2020 in collaboration with the Radio Surabhi Community Radio programme.

The radio programme comprises 100 episodes providing subject and topic wise adapted audio learning materials for the children with special needs of classes I to V. Sikshya Surabhi episodes cover Maths, English and other subjects and have been prepared by subject teachers. This Radio programme is broadcasted 4 days a week, with a repeat telecast through 19 community radio stations, which has been very effective for the children with special needs during the closure of schools due to the Covid 19 Pandemic. The audio Mp3 files of all episodes are shared with the parents of CWSN in remote areas through Whatsapp Group through the Block Resource Teachers, Inclusive Education Volunteers, School Teachers working at Block, G.P and School level.

Audio Version of Parikhya Darpan for class X CWSN:

The Audio Version of Parikhya Darpan, the Practice Test Papers for class X students appearing in the HSC Exam was developed in collaboration with the District Education Office, Khordha for the visually impaired and other Children with Special Needs (CWSN). The YouTube link has been shared to all the CWSN as well as general students through WhatsApp, Facebook and YouTube through the Block Resource Teachers, IE Volunteers and school teachers to remote areas. The audio formats are also distributed to all the visually impaired

students through pen drive. This initiative has been very helpful for the CWSN for preparation of the HSC exam at the home level during the closure of schools due to the COVID 19 Pandemic.
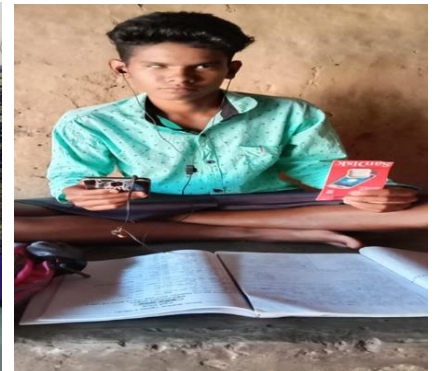
Statewide Parent Teacher Meetings:

The Statewide Parent Teacher Meetings were conducted for Class 10 students in all High Schools across the State on 13th February 2021. The meeting was organised in a well-planned manner with the following key objectives:

- To orient the parents about 100 days academic plan
- To ensure the availability of Parikhya Darpan
- To inform the parents about safety precautions regarding COVID-19
- To orient, parents to be able to make school safety and development plans.
- To prepare their students for the upcoming Annual Examination given the COVID-19 situation
- These Parent Teacher Meetings were attended by Hon'ble Minister, Principal Secretary, Directors, District Nodal Officers, Collectors and educational field functionaries.

27. PUDUCHERRY

The Puducherry Department of School Education has taken many innovative initiatives to strengthen and build upon existing infrastructure and cater to the needs of the students and build the capacity of the teachers. The efforts of the Puducherry SPD were also appreciated by the Hon'ble Shiksha Mantri, for enabling sustained and continuous, undisrupted education of students, and for efforts under schemes like "Shiksha mei Shunya Nivesh Navachar"

The following digital initiatives have been taken by Puducherry to alleviate the problem of remote learning for students:

Community Radio:

UT of Puducherry is exploring the feasibility of setting up Community Radio stations in 2 or 3 locations to cater to the educational needs of students.

DTH TV Channel:

UT of Puducherry is exploring the feasibility of launching a dedicated education channel for the benefit of students.

Partnership with Civil Society:

State Project Office, Samagra Shiksha and Directorate of School Education, Puducherry is collaborating with Learning with Vodafone (Pratham Education Foundation), Sri Aurobindo Society, Azim Premji Foundation and Atal Incubation Centre, Pondicherry Engineering College to encourage the role of civil society in taking up Digital Education.

Vetri Nichayam:

In order to address the needs of Class X students going for examinations, **Vetri Nichayam (Success Guaranteed),** a programme was initiated through local cable TV. This involved a one hour recorded session followed by a one hour Question & Answers session.

Virtual Control Room and telecasting classes through local TV channel:

Dedicated subject wise WhatsApp numbers were created for doubts clarification to X std students. They can send their doubts through voice calls or video recordings. Tamil, English, Mathematics, Physics, Biology and Social Science subjects were covered. This received an overwhelming response from the students.

To facilitate online classes for Teachers:

The department, in association with the Atal Incubation Centre, Pondicherry Engineering College, conducted a webinar for teachers, on how to conduct online classes for students. Around 3,660 teachers attended the webinar. This equipped teachers to conduct online classes.
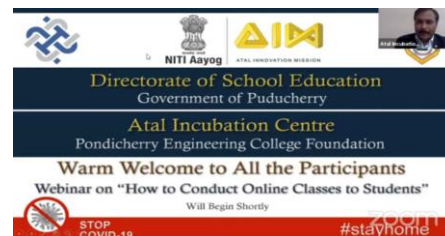
Online Textbooks:

The UT of Puducherry follows the textbooks of CBSE for classes 1 to 5. It follows the textbooks of Tamil Nadu, Kerala and Andhra Pradesh for classes 6 to 12. Online textbooks are available on their respective websites.

Digital Repository:

A team has been formed to create a digital repository of e-content.

YouTube:

A YouTube channel for the Directorate of School Education has been created to upload the recorded classes & webinars.
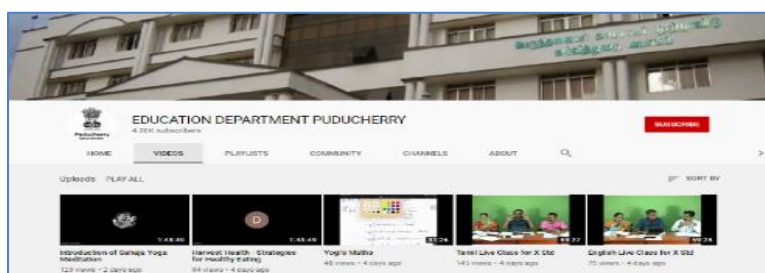
Conduct of Online Classes for Secondary & Higher Secondary Students:

Several schools have started to conduct online classes at their level.
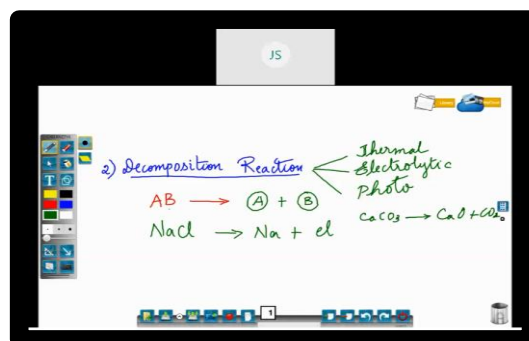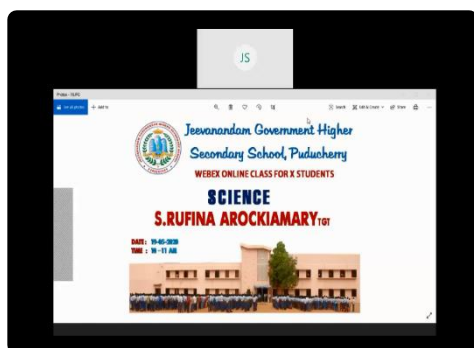
Capacity Building of Teachers through Webinars:

To fortify new professional inertia and for scaffolding new learning to teachers, a series of webinars have been conducted for improving the capacity building of all Heads of Schools and Teachers in various topics as shown below.

From 6th April 2020 to 5th November 2020, a total of **79 webinars** were conducted. It has been planned to continue the same. Some of the webinar themes are as follows:

Establishment of Studio in the Directorate:

Higher Secondary Subjects are recorded in the studio with subject experts and these are relayed in the YouTube Channel of DSE and Local Channel. There are nearly 167 videos that have been uploaded to the YouTube channel.

Overcoming Educational Barriers in GPS Nonankuppam - A Success Story:

During this COVID-19 pandemic lockdown, Mrs Subashini (PST-GPS, Nonankuppam) took steps to create awareness among her school childrens' surroundings. She decided to meet the children in small groups in the area where they live. She shared that it may partially compensate for the school children who were not attending classroom learning. She scheduled this from May 29th, 2020 (to ongoing). A small meeting was held with students and parents at a coconut grove on Nonankuppam Lotus Pond Road. She made a discussion on safety measures such as personal interaction, wearing a face mask, and cleaning hands with a sanitiser. Students were given storybooks to enhance their reading habits. One of the parents volunteered to make sure the children read those books within that week.

She met the children again over the weekend and shared the stories they read with the other children. Activities such as children's songs, rhymes, short stories were given and also done by children. It was decided to continue this children's meeting as it was confirmed that the schools would not open in June 2020.

In the next few weeks, there were three places in the Nonankuppam Lotus pond area (reserved people area), Riverside area (interior of Nonankuppam) and River Sand area (Tamil Nadu area). Street (Roadside) where classroom activities were implemented. Children between the ages of 5 and 14 participated in each meeting. At first only government school students were interested and attended. Later on, some private school students also came and joined in the next meetings. Some of the parents helped out immediately with these activities. A volunteer provided face masks to all children for free as child safety is paramount.

She conducted small activities to ensure that the children had read the storybooks or not. She gave them activities such as retelling of the stories they read, talking about the favourite characters, discussing the stories, writing the story sequences on board, drawing the story by making a picture sequence, dramatizing the story as a group etc. A story circle was formed and they role-played the characters and also composed songs for the play themselves. The students were further supported through donations by kind Samaritans and NGOs who provided books for this street class activity, storybooks, drawing, colouring and writing materials, etc.

Activities like making clay figurines and spray painting fascinated the students and exposed their imagination. Conversations with children were an important component in such activities. This long pandemic lockdown has put pressure and depression on them. Through those conversations, Mrs Subashini came to know that the long, unprecedented homestay has affected them a lot, through domestic poverty and domestic violence. Girls in particular talked a lot about these once they got an outlet.

The first two weeks she discussed safety measures. Following the next few weeks, the students had themselves written and pasted security posters on the coconut tree. They also began to state the safety rules for them. These street classroom activities continue two days a week as well as three days a week. These field activities were conducted not only in person but also through online meetings with children. Through a teacher volunteer group called Vanavil, she and her friends created a Whatsapp group for government school students to interact with and also gave training to children with some key personalities online. Consequently, exercises like drama, storytelling, drawing and colouring were given practice. Primary School Teachers Mr Nathan, Mr Satish, Trained graduate teacher Mrs Lalita and Mrs Subashini formed this Vanavil WhatsApp team and held 10 online lessons so far on every Sunday evening for an hour. She has concluded that Children may respond to stress in different ways and we have to create opportunities for children to play and relax. She is currently continuing to teach bow-song (Villu pattu) to the children.

28. PUNJAB

In the present scenario due to Covid-19, digital/online education becomes a necessary platform for students to continue their studies. There are various innovative initiatives undertaken by the Department of school education Punjab in order to:
1) Respond to the crisis.
2) Build a more resilient education system in the long run.

The Department's focus was to ensure that Learning and engagement continue for all students during discontinuity. Enabling teachers to stay motivated as well as develop the capacity to engage students remotely. Also, during this time the roles of instructional leaders were reimagined to strengthen teacher support. There were various initiates like Virtual PTM, connecting to Panchayats, communities to mobilise resources and support to create a stronger connection between parents and teachers, as well as leveraging the community to mobilise resources and support.

Under the Digital/Online initiative, the Department of School Education, Punjab is already providing Online Education to the students by various modes like Mobile App(s), YouTube Channel (named "Edusat Punjab") Radio, E-books, WhatsApp and various DTH/Cable TV Channels.

Ghar bethe Sikhiya Program:

i) **TV Slots-**
- Subject-wise Video Lessons are being telecasted on DD Punjabi **(7 hours Daily) for the classes Primary, 9th-12th classes till January 2021**
- **SwayamPrabha/PM eVidya channel** (for 4 hours daily) for classes **6th, 7th, 8th and 12th till January 2021.**

ii) Video lessons from class Primary to 12th were started again on DD Punjabi w.e.f 5th May 2021 as school were closed.

SLOT L## / SLOT L# Telecast Time	Telecast Time	CLASS5 / CLASS	D01 Wednesda	D02 Thursday	D03 Friday	D04 Saturday	D05 Sunday	D06 Monday	D07 Tuesday
L01	9:00AM - 09:27AM	Primary	1st-5th	1st-5th	1st-5th	1st-5th	Holiday	1st-5th	1st-5th
L02	9:30AM - 09:57AM	Primary	1st-5th	1st-5th	1st-5th	1st-5th	Holiday	1st-5th	1st-5th
L03	10:11AM - 10:38AM	Primary	1st-5th	1st-5th	1st-5th	1st-5th	Holiday	1st-5th	1st-5th
L04	10:40AM - 11:07AM	Secondary	Math 06th	Math 06th	SSt 06th	Science 06th	Holiday	English 06th	English 06th
L05	11:10AM - 11:37AM	Secondary	Math 07th	Math 07th	SSt 07th	Science 07th	Holiday	Hindi 06th	Punjabi 06th
L06	11:40AM - 12:07PM	Secondary	Math 08th	Math 08th	Punjabi 08th	Hindi 07th	Holiday	English 07th	Punjabi 07th
L07	12:10PM - 12:37PM	Secondary	SSt 08th	SSt 08th	Science 08th	Science 08th	Holiday	English 08th	English 08th
L08	12:40PM - 12:59PM & 1:11PM - 1:19PM	Secondary	Hindi 08th	Math 09th	Math 09th	Science 09th	Holiday	Science 09th	SSt 09th
L09	1:20PM - 1:47PM	Secondary	English 09th	English 09th	Hindi 09th	Welcome Life	Holiday	Punjabi 09th	Punjabi 10th
L10	1:50PM - 2:17PM	Secondary	Math 10th	Math 10th	Science 10th	Science 10th	Holiday	English 10th	English 10th
L11	2:20PM - 2:47PM	Secondary	SSt 10th	SSt 10th	Hindi 10th	Math 11th	Holiday	Punjabi 11th	English 11th
L12	2:50PM - 3:00PM & 3:05PM - 3:22PM	Secondary	Sci-Phy 11th	Sci-Chem 11th	Sci-Bio 11th	Sci-Phy 12th	Holiday	Sci-Chem 12th	Sci-Bio 12th
L13	3:25PM - 3:52PM	Secondary	Math 12th	English 12th	English 12th	Navian Pairran	Holiday	Welcome Life	Punjabi 12th
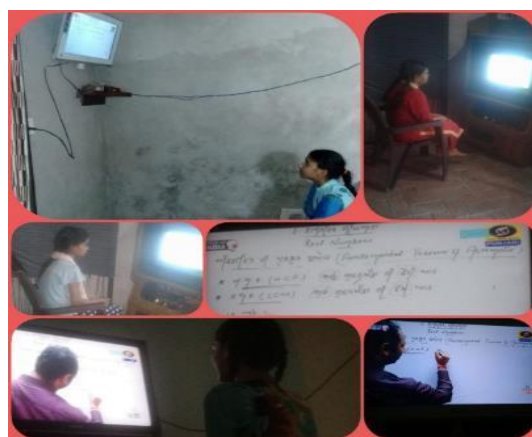
Harmonizing Learning:

Structuring of content dissemination. Three key processes were adopted to make the content streamlined and coherent, and are owned by different teams:

- **State Resource Team:** Creation of TV lessons
- **Digital Sikhiya Team:** Creation of supporting resources like audio-visual content, quizzes, activities, and assignments
- **Digital Sikhiya Sahayak Team:** Review of and feedback on TV lessons as well as other resources being created.
- An important part of the process is continuous feedback from stakeholders on the content and resources being shared. This review is aided by a review form on **Darpan — an app that is used state-wide to capture and make sense of various kinds of data,** all the way from support being given to teachers, to challenges faced by parents, to review of content.

% of TV lessons in which innovative teaching methods were used
S. St.

August	72%
September	59%
October	64%
November	100%

% of PPTs in which real-life examples were used
Science

August	84%
September	92%
October	64%
November	100%

Radio Programs:

Radio lectures were broadcasted daily for one hour (Five subjects English, Punjabi, Hindi, Social studies and Science) on FM Patiala 100.2.

Social Media usage:

In today's time where most of us are connected to social media and spend some time of ours while engaging with the same. To reach out maximum students through various mediums, the Department of school education Punjab is using Facebook and YouTube to disseminate information, learning material.

(Words of the day, Udaan on GK program and other learning resources, TV schedule, Daily slide (Timetable)
Subject wise Daily Slides of each Grade (Primary and Upper primary)

Virtual classes:

Teachers have been regularly ensuring to engage with maximum students through various online platforms.

Project-based - Experiential learning:

Weekly projects activities of all subjects are being assigned to students which can be easily prepared at home. These activities are being prepared interactively on an online platform.

Punjab Educare App:

In order to take care of all educational needs of students and teachers, the Department has launched an app that has all the content available for students and teachers with just one click.

Rating: 5 (Overall Rating 4.5 out of 5)

App download: - 15,20,855, App and Web User: - 21,11,039

Total Page Views: - 16,51,40,940

Other states use: - Uttar Pradesh, Rajasthan, Haryana, Himachal Pradesh, Delhi, Uttarakhand, J&K etc.

Main Point Regarding App:

- User-friendly, easily accessible and very easily navigated.
- No user and password, Small in size
- Teacher/Students/Parents Using the App
- It helps the students and teachers to go through the content at any time.
- An additional tool for teachers and students, they can have hassle-free access to the syllabus, textbooks in PDF form, video lectures, worksheets, assignments, quizzes, etc. through the app.
- Study material is available catering to the needs of students from pre-primary to 12th, Material of other campaigns by the state like "aj the shabad","uddan sheets" are available for students to enhance their knowledge.
- Covering PSEB and NCERT syllabus and the same is updated daily.

Online learning through Khan Academy:

In the present scenario where online education needs to go hand in hand with school teaching, School Education Department Punjab has taken the initiative of providing its students with access to a free online education portal through khan academy. Our department has contributed to getting the content for classes 6 to 10 translated in Punjabi for the convenience of our students.

The program was started in December 2019 with 203 Schools and as of August 2020, a total of 2,00,911 students from 1185 schools across 22 districts are benefiting from the program. Teachers can assign and view their progress in real-time, the department is currently working on developing the Punjabi version of the platform in collaboration with Khan Academy India.
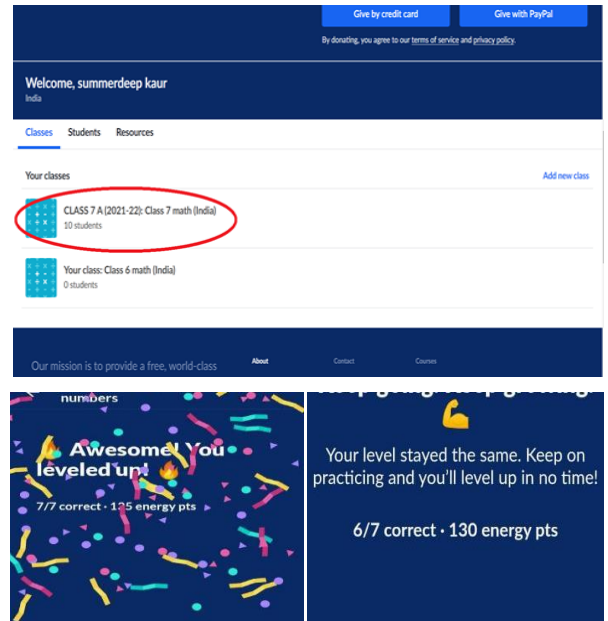
Capacity building program-Teachers:

Under "**capacity building program for teachers'** ' various webinars, online training conducted at State, Districts and block level. Online training was given to a total **of 1,10,149** Teachers from Primary to Upper primary on IT tools for the online teaching-learning process.

i)   Usage of various tools for online Quizzes
ii)   How to make Video Lectures while using innovative processes
iii) How to use Podcast in the teaching-learning process
iv) How to prepare Forms for data analysis.
v)   How to conduct webinars and online classes.
vi) How to set up a virtual Classroom.

Special Teachers	Inclusive Education Resource Teachers-375. 8 Days Multi category training **Module - disability.**
Block and cluster mentors	Block mentors, Cluster Master Trainers and Centre head teachers (from Primary to Upper primary)**(Total:1600)** were given Online Training on IT Tools for online teaching learning.
State resource group	All District Mentors, Assistant district coordinators, DEO's, Dy.DEO's, Principal DIETS, BPEOs, Head Masters and State resource persons
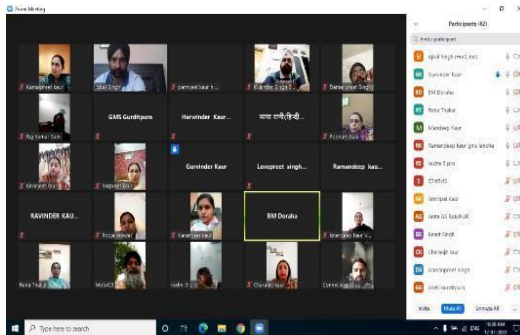
Capacity program on DIKSHA:

NISHTHA: All 18 Modules were released and done by teachers of Punjab. These courses were created and modified by a team of Resource persons as per the context of Punjab state.
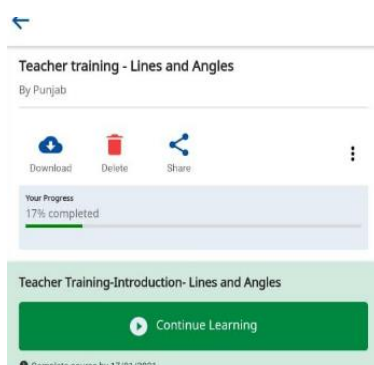
Teacher orientation program Punjab – DIKSHA:

ICT modules were created on DIKSHA and shared with all teachers to enhance their skills on Technical tools. Modules were created on various topics like a virtual classroom, Animation in Lessons, Effective ways to engage with students etc. There were a total of 12 modules on the same.
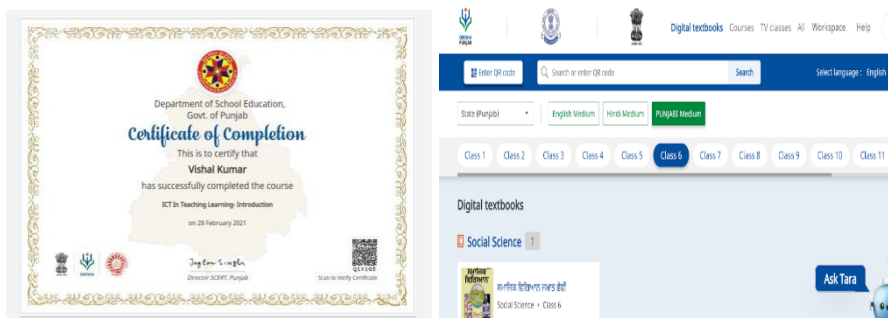
Energised books: All textbooks have QR codes which will help the students to watch content digitally.
E-content on DIKSHA: To facilitate the students, the e-content for all classes is uploaded on the DIKSHA portal.
Vidyadaan:

- The number of members contributed content to the portal on Teacher resource, explanation content, learning resource, practice question sets.
- The total number of Project's opened under the program were 12 and 2404 number of content was contributed.

Mobile Phone:

For imparting online education, more than **1.75 Lac Mobile phones are distributed (in 2020-21)** by the State Government, to the students studying in 12th class in Govt. schools and appx **2.14 Lac more smartphones have been proposed to distribute in the current year 2021.**

EDUSAT (ROTs):

After the opening of the school in Jan 2021, special Video lectures have been telecasted for the **newly-introduced subject** by the department named WELCOME LIFE (**to instil moral values among students**). Apart from this special videos programs on **Examination pattern/tips** has been telecast online through EDUSAT Network of Punjab in Jan-Feb, 2021.

Smart classroom and ICT Labs:

To strengthen Digital Education, the Department has enhanced the IT infrastructure in various government schools providing them 56707 smart classrooms, digital devices (2675 laptops to CRC/BRC, 2625 tablets to primary schools and 877 tablets to Senior Secondary Schools) and 2238 new computer labs.

29. RAJASTHAN

With the continuing shutdown of schools due to COVID-19, Rajasthan has continued using digital tools to connect students to teachers and ensure continuity of education. Existing means of reaching students were strengthened and new initiatives were undertaken to ensure no child is left behind. Details of these initiatives are below.

Aao Ghar Mein Seekhein:

To build upon the SMILE (Social Media Interface for Learning Engagement) initiative started in April-May and ensure more reach and greater effectiveness, the Aao Ghar Mein Seekhein campaign was envisaged. This campaign is being driven across the state, with multiple initiatives to ensure most aspects of the teaching-learning process are made available to students through a blend of digital and traditional methods.

Under this campaign, the following key initiatives are taking place:

- SMILE program- Social Media Interface for Learning Engagement
- E-Kaksha – video content for grades 6-12
- Weekly WhatsApp based quiz
- Homework for students
- Digital Monitoring
- Shala Darpan Student Tracking Module
- Project SMILE (Social Media Interface for Learning Engagement)
- Project SMILE (Social Media Interface for Learning Engagement) had been launched in April-May to ensure continuous learning for students and teachers from home, with the following features:
- Students and teachers receive daily video content via WhatsApp. The department has curated a repository of video content for competencies across grades 1 to 12
- For each topic, a module of 4 to 5 videos has been curated with 30-40 minutes of content using free and publicly available resources
- This content is reviewed by a team of subject matter experts from SCERT

Under the Aao Ghar Me Seekhein campaign, through strong communication and diligent monitoring, an average of 3.5 lakh students are watching the content daily and the highest viewership was 4.56 lakh students.

Going ahead, SMILE content is to continue to be a source of learning content for students as only grades 9-12 have returned to school. SMILE digital content in the future can be a tool to complement the in-school teaching being conducted.

e-Kaksha:

- To build a repository of content that is created by teachers is standardized and of high quality, Rajasthan has partnered with technical agencies and CSR partners to create "e-Kaksha", a bank of digitized videos of teachers teaching relevant content for students of classes 6 to 12.
- YouTube portal to provide digital videos for complete syllabus of RBSE from class 6th to 12th
- Every chapter is divided into sub-parts for the ease of students. Detailed explanations on every topic with important points are highlighted.
- These videos are reaching students via the SMILE WhatsApp channel every day along with homework for grades 6 to 8.

Next steps:

- Going ahead, e-Kaksha videos will be made available at all schools so that they can be used to support in-class learning or to help students when there may be cases of teacher unavailability. Students will be able to watch these videos in school, using computer labs, projectors, or any other ICT infrastructure available in the school.
- In parallel, these videos will continue to be sent via the SMILE WhatsApp channel to support students.

- Based on content being taught during the week through SMILE and e-Kaksha, weekly assessments are being conducted for students of all classes using WhatsApp.
- Every Saturday, assessments are being sent to students in the form of a WhatsApp Quiz based on the videos they have received throughout the week to check for understanding.
- Currently approx. 5 Lakh students are taking part in the quiz every week.

Homework for Students:

- Along with daily e-content, students of grades 1 to 8 are given homework based on the content to practice at home.
- Links with exercises for homework are shared as a part of the SMILE message through the WhatsApp channel.
- Students complete the homework, take images of the completed homework and send it to their teacher through WhatsApp groups created for the class.
- The teachers correct the homework and send it back to the respective students, along with maintaining records of the completed homework to prepare a "portfolio" for each student. This portfolio will also be considered for evaluation of each student's progress through this academic year.
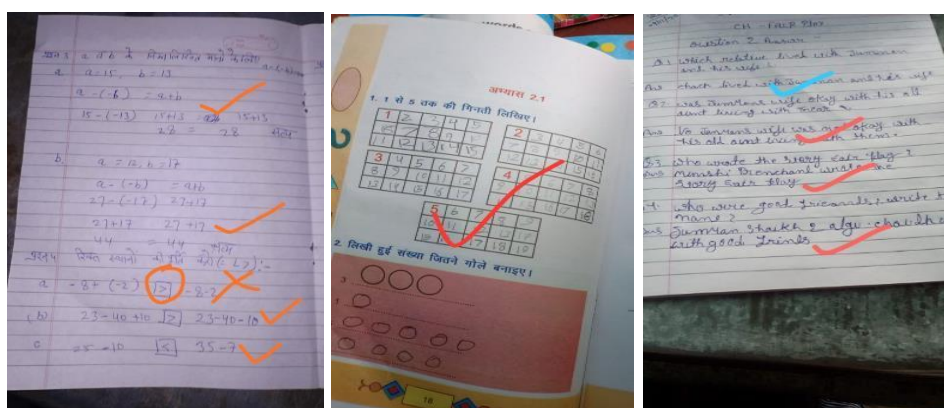
Digital Monitoring:

A monitoring cell has been set up by the Directorate, to ensure all of the initiatives under Aao Ghar Me Seekhein are tracked and that teachers and students are diligently using the resources being made available. Key functions performed by the monitoring cell include:

- Data analysis to identify districts, blocks and schools for identification of poor performance and thus for targeted monitoring and corrective action.
- Regular VCs with field officers at the state, district and block level.
- Regular reports to the field with data for each initiative.

Shala Darpan Student Tracking Module:

- The student tracking module was launched by the directorate on 24th December 2020:
- Through this module, the state can track student workbook usage & teacher-student weekly connections over phone calls at the district, block, or school level.
- The module records the medium of access to learning content and homework for each student to understand digital connectivity and engagement for each student of Rajasthan.

Teacher calling to maintain connections with students:

- Even though schools are closed and students are at home, their learning cannot stop. Therefore, schools are working hard to ensure that the textbooks, workbooks, e-content and homework reach students. To ensure each student gets continuous support from their teachers, the department has instructed teachers to support students remotely through teacher calls.
- Every student is called at least twice a week and, in each call, teachers help students make a learning plan for the week.
- Students are guided on using workbooks and calendars while clearing their doubts and checking on their homework from the previous weeks.
- Approx. 60% of teachers were connecting with students through calls weekly.
- This form has now been closed and is replaced by a student-tracking module on Shala Darpan, launched on 24-Dec 2020.
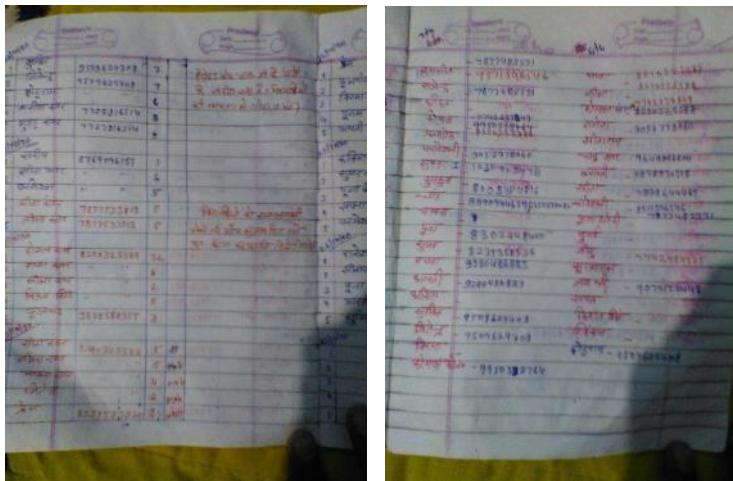
Online Capacity Building of Teachers:

- Rajasthan conducted online training of teachers from grade 1 to 12 on DIKSHA and Unilearn platform to provide specific topic based pedagogical support to its teachers and build their capacity in effective classroom transactions.
- Each course provides a certificate after completion.
- Teacher participation and course Progress is continuously monitored, and the field officers are updated on the progress to ensure better participation.
- Digital training to continue even after complete school reopening due to strong positive feedback from teachers.

Update on Initiatives started before June (for details, please refer to the June issue):

- Hawamahal messages continued to be sent every Saturday.
- Shikshadarshan and Shikshavaani initiatives were paused given the increased reach of the Aao Ghar Me Seekhein campaign, however, they may be restarted for dissemination of e-Kaksha content.

- Kala Utsav sessions continue to be held to promote student engagement with arts, crafts, and culture.
- The Rajiv Gandhi Career Portal remains active and secondary students receive guidance on their career planning.

30. SIKKIM

Online & Digital Education initiatives:

1. Sikkim Edutech App has been launched with the improvised version which is enabled with the provision of two-way interactive live video classes and online examination.

2. Online training for science teachers is provided every Saturday in collaboration with the Joy of Learning Foundation.

3. 32-inch Smart Android TVs were distributed to students of class 8 to 11 to enable them to view Channel Swayam Prabha with Airtel or Tata sky connection with free subscription for 1 month and also 3 months free subscription for Vedantu channel.

4. MoU has been signed with ConveGenius approach which is CSR funded. It is an academic evaluation process of students that can be done through WhatsApp.

5. To reach out to students in the No Network Area, the Department is in dialogue with an NGO called, 17000 Feet Foundation to provide Education through Digital Media like Tablets.

31. TAMIL NADU

Overview:

The Department of School Education, Tamil Nadu with 1.25 Cr plus students, 5.5 Lakhs teachers and 56 thousand schools stands one among the voluminous departments in the country. During the pandemic, when the reopening of schools is found to be a distant reality, breaking or pausing the ongoing classroom transactional process is unacceptable. To overcome the situation, the Department of School Education has reacted swiftly and leveraged the entire ICT infrastructure it has developed over the years. Hence, the students were provided with timely classroom instructions through Kalvi Tholaikatchi (a dedicated educational TV for the state), Tamil Nadu Teachers Platform (TNTP), E-Learning and DIKSHA platforms.

Objective:

To ensure seamless learning among students during the pandemic, SCERT has taken many Educational Initiatives to reach the students of all quarters and ensured seamless learning like that of the pre-COVID period.

Students who have the access to TV and the Internet are reached through:

- Video Lessons through Hi-Tech Lab
- Video Lessons through Kalvi TV
- Video Bridge Courses
- Video Work Books

Students who don't have the access to TV and the Internet are reached through:

- Audio Lessons for class 10 and 12 in All India Radio

Tamil Nadu Government is pioneering the use of digital technology to improve governance, empower teachers and enhance resource utilization leading to excellent student outcomes. In this direction, efforts have been made to promote digital learning so that the students, as well as teachers, can continue to improve their learning and teaching skills respectively by making the best use of the available digital platforms.

Presently, all schools are closed as a precautionary measure to contain the spread of COVID-19. Students are also now confined to their homes for safety reasons and they have little or no access to structured learning material for learning, practice and remediation during this period.

When students, especially younger ones are confined to the home for a long duration of time without regular schooling in a situation similar to the summer break, there is a significant risk of regression in academic proficiency to happen for a large number of students during this period. Without access to learning content, practice and suitable remediation, a significant learning gap may be observed when the students return to school at the end of the lockdown crisis. This could potentially have a measurable negative impact on student academic performance across students of all age groups in the upcoming academic year. The amount of time needed for teachers to bridge the gap to the grade of students may also significantly affect the progress of dissemination of academic content planned for the academic year.

With these aspects in mind, the School Education Department of the Government of Tamil Nadu has launched several initiatives supporting the students and teachers during the lockdown. These initiatives are focused on continuously engaging teachers and students by creating multimodal learning opportunities.

The list of major e-learning initiatives provided by the School Education Department in response to the current crisis is as follows.

Initiatives Undertaken to Mitigate the Learning Loss during COVID – 19 Pandemic:

Some of the modes used to reach the students were Kalvi TV, YouTube Channel, Laptop and Radio. Students who had no access to Kalvi TV, YouTube Channel, Laptop, Radio, etc., were provided with Textbooks. SCERT has undertaken the following activities for the benefit of children.

Digital Initiative for Creation of Video lessons:

It is the responsibility of the School Education Department to provide children with many alternate ways of "learning at home" through interesting content packages. In this context, the State Council of Educational Research and Training, in coordination with DIETs, developed video lessons for classes 2 to 12 for all subjects in both Tamil medium and English medium involving resourceful teachers across Tamil Nadu following the Government SOP guidelines.

The State Council of Educational Research and Training developed 7434 video lessons (30 minutes duration) based on the content of the textbooks of classes 2 to 12 through all the District Institutes of Education and Training. They are telecasted through Kalvi TV, and the Government approved 11 private television channels and 4 DTH services.

Development of Prioritized Syllabus for remote learning:

An expert committee has been constituted to advise the State Government to come up with alternate strategies to mitigate the learning loss due to the Covid-19 lockdown. The Expert Committee recommended prioritizing the syllabus for classes 1 to 12 for the current year to reduce the burden of the teachers as well as the students during this pandemic situation. Based on the recommendations, SCERT developed a prioritised content for all classes involving SCERT and DIET faculty members and teachers through online mode which could be completed in the truncated academic year. The Prioritized content was developed in such a way that students would not miss any Learning Outcome prescribed for each class.

Bridge Course Materials:

To minimize the learning loss, a Bridge course material for each class has been developed incorporating the basic concepts based on learning outcomes for classes 2 to 9 and given to all students in the year 2020 – 21. Even though the Bridge Course materials are distributed to the children, teachers' intervention has to be ensured. Keeping this in mind, video lessons for classes 2 to 9 based on the Bridge course material have been prepared and they are telecasted through Kalvi TV. The schedule has been prepared and given to all schools. Students are asked to do the assessment part of each lesson given in the bridge course after listening to the video lessons for better comprehension.

WorkBook:

In the academic year 2020 – 2021, students were unable to be involved in the face-to-face learning processes. To practice what they have learned through Kalvi TV, workbooks based on the learning outcomes have been developed for the students of classes 1 to 9. The workbooks have been developed in such a way that students can practice on the workbooks from their homes. To enhance their practice, video content for classes 2 to 9 based on the workbook have been prepared and the video content is telecasted through Kalvi TV. The Video classes have facilitated students to understand each unit and do the activities in the workbooks on their own and handed over to the subject teachers through alternate modes like WhatsApp and other social networking sites.
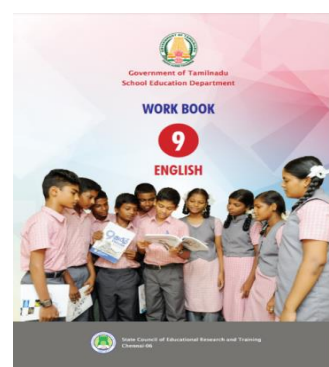
Kalvi Tholaikatchi (Television Channel for Students):

Kalvi Tholaikatchi is an exclusive education channel that streams programs related to state curriculum for teachers and students to access seamlessly. It encourages student learning beyond classroom hours and in the comfort of their homes. During the lockdown, to support the secondary students in their exam preparation, programs for 9th and 10th standard students were aired every half an hour every day. SMS communication was also sent to all the students regarding the programs so that they are informed about the program schedule.

(i) TV channels:

It can be viewed in the following cable networks within the State.
- TACTV - Channel 200 and TCCL - Channel 200
- VK DIGITAL (POLIMER) - Channel 55 and AKSHAYA CABLE - Channel 17

(ii). 'Veetupalli' an Initiative through Kalvi Tholaikaatchi (Devices loaded with content):

Kalvi Thollaikatchi transmitted educational e-content for all subjects of classes 2 to 11 to make it a 24X7 Channel. To ensure the learning and safety of the students, for the first time in the country, through *Veetupalli,* 'school at home project', classroom environment has been taken to the homes of all our students for classes 12, the video lessons are uploaded in their cost-free laptops, which enable them to learn on their own. For classes 2 to 10, the lessons were prepared and telecasted from morning 8.00 a.m to 7.00 p.m during weekdays.

Later, it was scaled up to 11th standard and the video lessons were telecast from 5.30 am to 8.00 am and the same was re-telecasted from 7.00 pm to 10.00 pm.

YouTube channels:

(i). Kalvi Tholaikaatchi:

To overcome the difficulties of those who have missed the previous day's Kalvi TV's telecast programmes, it has been made possible to view the videos through Kalvi TV official YouTube channel. The content of Kalvi TV's official channel is also accessible through the YouTube channel. (https://www.youtube.com/channel/UCTMjO0AVI__8bnjTiK3JyPw).

The timetable and the other required information have been made available on the Kalvi Tholaikaatchi website (www.kalvitholaikaatchi.com). Along with Kalvi TV, 11 other private channels, Government cable channel, Airtel DTH, Sun DTH and TATA SKY DTH were the few other transmitters who volunteered for the telecast of the Kalvi TV programmes. In a short period, all these arrangements have resulted in gaining a large spectrum of responses from 1,30,000 subscribers and 1.2 million viewers for the YouTube channel.

(ii). TNSCERT:

TN SCERT YouTube channel hosts around 3390+ videos that cover a wide range of topics related to education. From science practical videos to teaching video lessons, the SCERT channel has vibrant resources which can be accessed by teachers and students for continuous learning. TN SCERT videos can be accessed through the YouTube channel whose link is added here.
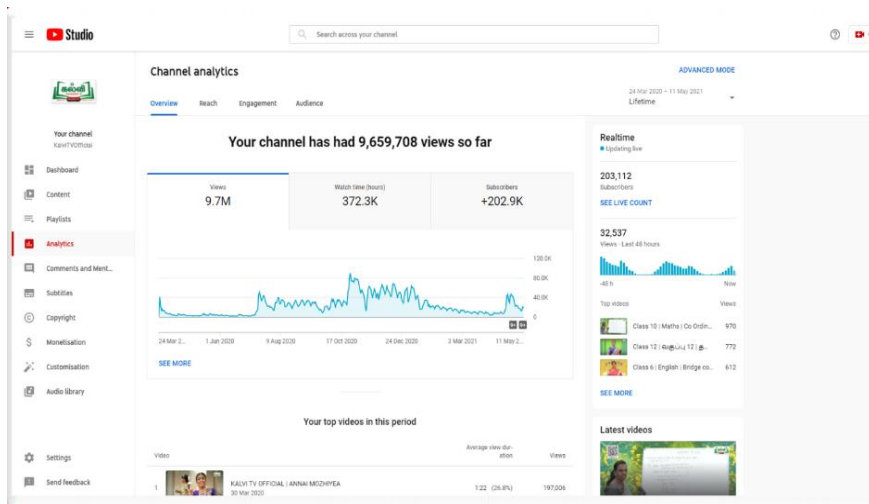
Usage of Sign Language:

To make e-classroom inclusive, integrating sign language with the video content was another unique feature tried out for students of classes 9 and 10.

## DIKSHA - Digital Infrastructure for Knowledge Sharing:

Digital Infrastructure for Knowledge Sharing (DIKSHA) is an initiative of MoE to create a National Teachers Platform (NTP) through the National Council for Teacher Education (NCTE). Energised Textbooks were created for classes 1 to 12 and uploaded in the DIKSHA portal. 15,000 QR codes were fixed. Hot spots are visualised and animated into digital videos and linked with QR codes. It enhances the learning process of students.

Tamil Nadu is one of the leading states in the effective usage of the DIKSHA portal. Energised Work Book was provided for classes 1 to 9 during April to practice what the students learnt through Kalvi TV and other sources at home. The QR codes in the Work Book are linked to digital content. The above graph shows the usage of QR codes given in the WorkBooks.
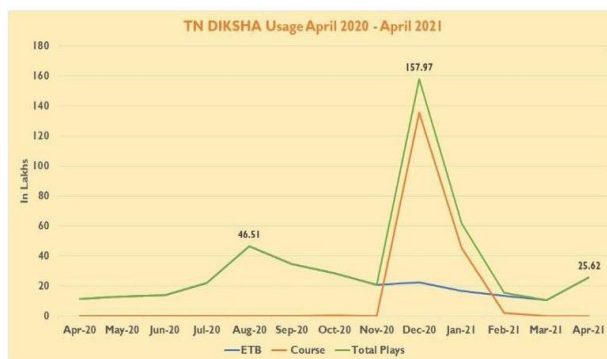
(i). TN-DIKSHA for Students & Teachers:

All Textbooks are energized with QR codes which provide enriching learning content on TN-DIKSHA enabling students to enjoy and enhance their learning. On this platform, more than 14,000 resources for classes I to XII (Tamil & English medium), over 400 Science experiments, and over 1000 other videos related to the curriculum have been made available.
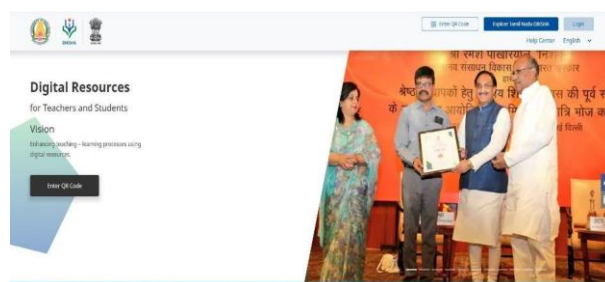
(ii). WhatsApp Network:

A lesson a Day initiative was also launched through which a link with the content related to a chapter of a subject is shared with students through a cascading WhatsApp network every day. This enables students to revise smaller chunks of content every day consistently. This is bound to the students who don't have laptops also to stay in touch without missing out on what their peers are learning every day.

(iii). QR codes on textbooks:

The content can also be viewed through QR codes on Textbooks (ETB's)

Vidya Daan:

VidyaDaan is a program calling on individuals, institutions, and organizations across the country or within a State to contribute e-learning resources against a curriculum to ensure that quality learning continues for learners across India. 3 projects are launched and 45 books are open for contribution. 125 contributions have been received and approved.

Radio Lessons:

To reach the students hailing from families where there are no internet and Television facilities, 1011 radio lessons (15 minutes duration) have been prepared by SCERT and Samagra Shiksha in the first phase and they were broadcasted through 10 stations of All India Radio (Chennai, Coimbatore, Madurai, Trichy, Puducherry, Tirunelveli, Ooty, Dharmapuri, Karaikal and Nagercoil) on Monday to Friday from 5 PM – 6 PM. The monthly schedule of this has been given to all schools by the School Education Department. The students of classes 10 and 12 were benefitted.

Extension Programmes on TV:

Apart from curriculum-based content, the students were exposed to view programmes such as *Uillathanaiyathu Uyarvu*, *Azhagiyal,* documentary videos on important historical events, informative short films and preparation for National level competitive examinations which were telecasted to benefit students.

Initial Level Learning Online Assessment:

As schools were reopened after 7 months of lockdown, the students were found to be at different learning levels. To help the teachers plan their academic classes, SCERT developed assessment tools for classes 9 to 12 to assess their initial learning level. The assessment tools were administered to the students of classes 9 to 12 through online mode using Hi-Tech Labs. The results were analysed school wise, class-wise, and subject wise and given to the teachers in order to plan their teaching according to the needs of their students.

The E-Learn platform for students:

Tamil Nadu e-learn Platform is a customized content repository for students to access and utilize digital resources to improve their learning outcomes.

It hosts more than 10,000 E-Learning Content, 390 Digital Textbooks and 2000+ aggregated YouTube videos in one place. The content is aligned with the updated curriculum and is made available class-wise, term-wise, medium-wise, subject-wise and chapter-wise.

The Tamil Nadu e-learn platform can be accessed through https://elearn.tnschools.gov.in/
Online Practice tests with detailed analysis are available for Government and Government Aided Students preparing for the NEET exam.

Tamil Nadu Teachers Platform (TNTP):

TNTP can be accessed through https://tntp.tnschools.gov.in/

Tamil Nadu Teachers Platform empowers teachers with training and support material to deliver high-quality engaging content in their classrooms. Each teacher is provided with an individual login to the portal.

It is a customized content repository exclusively for teachers of Tamil Nadu to upload, access and utilize digital resources to improve their classroom effectiveness.

TNTP hosts more than 10,000 E-Learning Content, 390 Digital Textbooks, 980+ Interactive Quizzes and 2000+ aggregated YouTube videos in one place. The content is aligned with the updated curriculum and is made available class-wise, term-wise, medium-wise, subject-wise and chapter-wise.

For teacher professional development, courses on Spoken English and new textbook training are made available.

Teachers are encouraged to build a repository of resources that can be shared and utilized by teachers across the State. All contributed content is curated by a team and the curated content is added to the repository. Teachers who contribute content to the repository are recognized through digital certificates sent to their emails.

Student Mental Wellbeing in Partnership with UNICEF:

Take it Easy Program:

Launched a program to support the mental wellbeing of students taking board exams this year amidst the crisis, in partnership with UNICEF. Students can give a missed call to 9266617888, a toll-free number. The students get a callback and can listen to short fun audio clips that help them understand how to cope with the myriad challenges they are going through during this crisis.

Safety & Security Online Course through DIKSHA:

The issue of School safety has become more complex moving beyond corporal punishment to bullying, physical violence, sexual, psychological and emotional violence. The scheme of Samagra Shiksha endeavours to provide every child access to education in an environment that is safe, protective and conducive to growth and development.

During the year 2020-21, due to the Pandemic situation all the Primary/Upper Primary/High/Higher secondary schools were sanitized with a total cost of Rs.185.595 lakh.

All the teachers including School Heads from 6,118 Government High/Higher Secondary Schools & 31001 Primary/Upper primary schools were given online training through TNTP & DIKSHA Portal on the following heads related to COVID- 19 and also given modules for the same with a financial outlay of Rs. 2795.68 lakhs.

Online Training for Post Graduate Teachers:

During the pandemic period when the schools were closed, to effectively use the time to upskill the teachers to the needs of the 21st century and enable them digitally, the following training programmes were conducted online for the teachers:

- Python online training programme was conducted for 2500 Post Graduate Computer teachers working in Government and Government Aided schools for effective teaching of Python Program for students.
- Online training on the Tally Program was given to 2100 Post Graduate Commerce Teachers.

- Online training for 6000 Physical Education teachers was given to improve foundation skills for various sports and games.
- Online training was given for 2100 Post Graduate Mathematics teachers on Applications of Mathematics.
- An in-service training programme for 345 Agri Instructors was organized virtually through Tamil Nadu Agricultural University in partnership with Tamil Nadu State Development Council and SCERT.

ICT - Teacher development programme on ICT facilities- Level 1 & 2:

Due to the prevailing COVID- 19, pandemic situation schools are shut down indefinitely. In response to the current situation, to ensure learning continues for children online teaching is the alternative method. Teachers have to develop online and offline learning materials. Teachers have to be facilitated to use technology. In realising the imminent need of knowledge and skill of using digital tools for the teachers as a state initiative 'teacher development programme on ICT facilities- Level 1 & 2' was provided in online mode to the willing Government school teachers in coordination with ICT experts from a reputed institution.

Hands-on experience on the use of ICT tools was provided rather than theoretical explanation. The program exposed teachers to various features that are available online (free tools) which would help reduce their content preparation time and increase the efficiency of teaching.

The competency gained by the teachers were:

- To create their PowerPoint presentations in English and Tamil for their subject with Images and videos.
- To create an online classroom, meet link for an online class, attendance, recordings etc.
- To use online whiteboards, to prepare the presentation and to type equations using online tools.
- To create and edit their videos of Online Classes and circulate among children.
- To conduct online exams with inbuilt automatic evaluation enabled setup and generate the reports online.
- New perspectives on teaching with the help of augmented reality and virtual reality to conduct virtual classes are even more interesting.

10500 teachers were benefited, and they were provided certificates. Positive feedback was received from the teachers.

Voice of a teacher (Testimony):

"
The first and foremost thing is to express my heartfelt gratitude to Samagra Shiksha, Tamil Nadu for giving this

golden opportunity to attend the 5-day ICT training. It provided innovative knowledge and ideas to conduct online classes. Online classes are boon to teachers and students to continue the journey of learning during this COVID - 19 pandemic situation. This training helped the teachers to be aware of handling online resources. It opened the door to learn more innovative ideas to handle online resources.

Using the various techniques taught during the training I conducted quiz competitions on NMMS Maths for students through video conferencing tools like Google Meet and Zoom. Students participated in enthusiasm.

I also conducted online Assessments through google forms. It was quite useful for me. The marks scored by the students were known immediately and it was useful for analyzing purposes.

I am expecting the advanced course of this training to enrich our ICT knowledge, which in turn will help us enlighten our students in using technology. Once again I express my heartfelt gratitude to Samagra Shiksha and the faculties of the Institution.
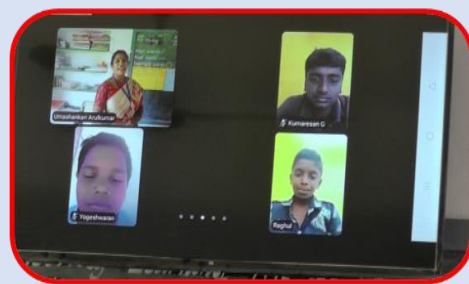
(N.Umashankari,
BT Asst, PUMS Mottalur,
Karimangalam Block,
Dharmapuri Block.)

(SMC/SMDC) - School Management Committee/School Management and Development Committee Online Course through DIKSHA:

Community Participation is one of the major aspects of the development of schools. In Samagra Shiksha, each school has a school management committee (SMC)/School Development Management Committee (SMDC). These committees play a very important role in the implementation and monitoring of the progress of schemes at the school level. The objective of the entire Committee is to establish a strong linkage between the school and community and to develop, sense of community ownership of schools and the schooling process.

SMC/SMDC members understand their various duties and responsibilities in school, RTE Act 2009, child rights, civil works and maintenance, preparation of School Development Plan and Social Audit Questionnaire, Swachh School, Awareness and precaution of COVID 19 etc. The training also dealt in detail on all aspects of education including social auditing.

Due to COVID-19, training was imparted to all the SMC/SMDC members through online mode. SMC training course is to involve communities to take an active role in the planning, implementing and monitoring of the development of the students and the school in this present scenario. For the year 2020-21, training was given to 6,50,610 members of SMC/SMDC from 37119 Government schools at the elementary and secondary levels.

Online Competitions conducted for students and teachers:

(i) Quiz competition for students:

The primary objective of the Quiz competition is to encourage students to look beyond their textual knowledge and establish a relationship between theory and application of the learnt concepts. During the year 2020-21, Quiz competitions for the students of Secondary and Higher Secondary levels were conducted separately online with a total outlay of Rs.55.374 lakh. All the 6173 High and Higher Secondary schools were instructed to conduct a quiz competition at the school level in both categories. 6173 secondary students and 3056 higher secondary students, who were selected from the school level competition attended the district level online quiz competition. In each category, the best 3 students at the district level and best 3 students at the education district level were awarded electronic gadgets like Tab, Android mobile and scientific calculator.

(ii) Youth and Eco Club competitions:

In Classes, I to XII to promote individual and interpersonal growth among children, co-scholastic and recreational activities like drama, debates, art etc. and activities to promote awareness and interest in the environment, biodiversity, climate and local ecology, nutritional health, sanitation and hygiene are carried out through Youth and Eco-club. This helps the students to pursue their interests and develop self-confidence as they explore their innate talents.

Due to the unprecedented pandemic situation, moreover gathering of students to conduct the different activities to be implemented under Youth and Eco club was avoided as per Standard Operating Procedure issued by Government. So, Youth and eco club activities were planned effectively to conduct through online mode. 5 students were selected from the middle, high and higher secondary schools and essay competitions to create awareness in the environment, biodiversity, climate and local ecology, nutritional health, sanitation and hygiene were conducted. Prizes were given at the cluster level. The winners were awarded worthy digital gadgets such as Tablet, Mobile and Scientific Calculator. The schools which have participated at the cluster level were ranked based on marks scored by the students and the school with the highest marks from each cluster was selected. They were ranked at the block level and accordingly, the top two schools were provided with a Smart classroom. The details of the participating students, as well as the prize winners, were updated in the EMIS Web portal.

(iii)Talent Search - School Level Competitions:

Talent Search Competitions were conducted to enhance the personality Development of the students for the year 2020-21. Due to the current COVID -19 pandemic situations, Competitions were conducted online. Students from IX, X, XI and XII standards participated in Oratorical and Essay Writing Competitions. The competitions were conducted in two levels. Primarily, two students were selected from each high and higher secondary school for each competition under each category by the Headmasters of each school and they participated in Educational District Level Competition. Five students were selected from each competition in each category for the next level and among them, two students were given prizes (Pen drive). The selected students were made to participate in District level competitions. Three students were selected under each category from each competition and The 1st Prize winners were awarded Tabs, the 2nd Prize winners with Android mobile phones and the 3rd with Scientific Calculators.

32. TELANGANA

The State Council of Educational Research & Training (SCERT) in its efforts to ensure the continuation of education among the students of Telangana during the present COVID-19 conditions has developed:

Energised Textbooks - DIKSHA, TELANGANA:

Under DIKSHA, during 2020-21 SCERT has started to energize 40 titles that include Non – Languages (Mathematics, Physical Science, Biological Science and Social Studies) and Languages (First Language Telugu, First Language Urdu, Second Language Hindi and English) textbooks of Class 6 to Class 10 of English and Telugu media.

As part of energizing the textbooks, SCERT has conducted subject-wise training sessions in virtual mode to teachers on usage of open software tools like kdenlive, Audacity, etc.

Development of e-content for the identified concepts is completed in all the titles and made live on the DIKSHA portal and made available for access by all from the academic year 2021-22.
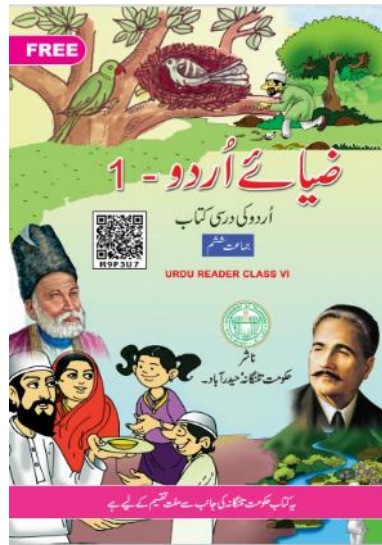
Live Phone-In Programme:

In the context of COVID 19 and virtual transactions with students of classes 8, 9 and 10, SCERT has launched a Live Phone-in programme on 26.09.2020 through TSAT. Since then the programme is being telecasted every Saturday (except on Second Saturdays and Public holidays) for clarifying the doubts of students and teachers regarding the content of digital lessons of non-language subjects (i.e. Mathematics, Physical Science, Biological Science and Social Studies) telecasted by SIET.

Orientation Programme:

SCERT conducted an orientation programme for students, teachers and stakeholders on the SSC Syllabus, Model papers and plan of action for tension/fearless examination in languages and non-language subjects through T-SAT in the first week of March'21. The same videos are also made available on SCERT official website.

Enrichment Material:

SCERT has designed enrichment material for class X students to enhance their understanding of key concepts in every unit (in different subjects) and practice questions for self-assessment. Abhyasa Deepika (Enrichment Material) was developed for Non-language subjects in Telugu, English and Urdu media and the same material was made available on SCERT official website & DIKSHA portal.
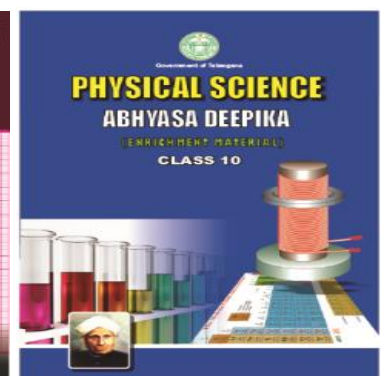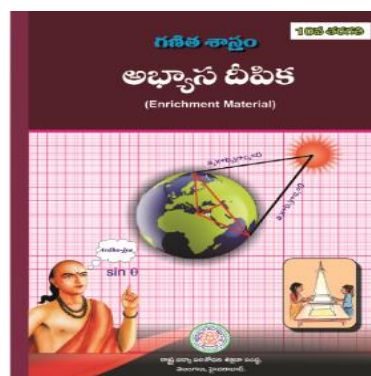
Phone-Based High-Frequency Telephonic Survey:

A daily phone-based telephonic survey was conducted through CRPs to take feedback from parents on access & usage. A survey was conducted over 6600 parents and students to understand various aspects of access, teacher and parent engagement related to remote learning. Analysis of the calls conducted revealed that over 91% of students have access to TV and more than 71% have access to smartphones.

Tic Tac Learn Videos:

10000+ Videos and 875+ Hrs of Content for Maths classes (I-X) and EVS & Science classes (III-X) of SCERT Curriculum are linked with the School Education Official website. All the Videos are Animated and of High quality. Videos are byte-sized (4-5 mins) & pedagogically sound.

At-Home Learning Solutions WhatsApp Chat Bot:

WhatsApp Bot No.8595524405 disseminated to students to access from smartphones for Weekly assessment of children to help, identify and address learning gaps. Worksheets designed for classes I to X for all subjects linked with WhatsApp Bot. Questions on two subjects per week can be practised by students on ChatBot. After practice, the answer key is sent. Based on students' answers, the chatbot sends relevant video links for further learning. Reporting (Live dashboard) is linked with a School Education Website for DEOs to track their district's usage and review with MEOs and Teachers. Helpline no. 011-40747485 is created for technical queries. Providing asynchronous access to high-quality content and teaching support through WhatsApp to the children is the critical part of this solution.

Video Lessons on Yoga:

SCERT in collaboration with the Government College of Physical Education, Hyderabad has developed 24 video lessons on yoga for school children as a part of the co-curricular subject for promoting health and wellbeing among the students.

ONLINE CERTIFICATE/TRAINING PROGRAMMES:

Certificate Course in Digital Teaching Techniques:

SCERT, Telangana in collaboration with ICT Academy, Chennai supported by DXC conducted a free online certificate course on "Digital Teaching Techniques" an exclusive 40 hours training programme through an online virtual instructor-led programme (VILT) to 794 Government School Teachers under the Rural Teachers empowerment programme.

The objective of this course is to facilitate and enable rural teachers to adapt their teaching style to meet the demands of this new digital world and to integrate digital and online technologies into teaching and help them choose ethically appropriate digital pedagogy to achieve excellence in the teaching-learning process. The training was conducted in three spells from March'21 to May'21 for 794 teachers.

SCERT in collaboration with Azim Premji University, co-developed a blended course on 'English Language Proficiency' and after conducting the first batch training in blended mode the course was transformed to entirely online mode because of lockdown due to COVID 19 pandemic. The training has been conducted in online mode in three spells and 1378 Secondary Grade Teachers have completed the training.

In the 2020-21 academic year, SCERT Telangana in collaboration with the Azim Premji University has initiated 9 weeks online ELEC course for the teachers working at the secondary level.
This course is aimed to build the English language capacity of the teachers working in secondary level schools. This will help the teachers to teach mathematics, science and social studies through English effectively.

SCERT in collaboration with Tata Institute of Social Sciences conducted training for State Resource Group of Languages and Non-language Teachers on 'Blended learning using ICT, Experiential Learning, Assessments and Sources for related OERs' in February'21 for 165 State resource group teachers.

ONLINE SEMINARS/ EXHIBITIONS/COMPETITIONS:

Mathematics Seminar for Teachers on 22nd December 2020 (virtual mode):

SCERT has invited papers from Teachers, Teacher Educators, other Field Functionaries of School Education on the theme **"Mathematics Education the way ahead in the context of NEP 2020"**. 65 papers were received and 19 papers were selected for presentations on the **'National Mathematics Day** on 22nd December 2020.

Science Seminar for Teachers on 27th February 2021 (virtual mode):

SCERT has invited papers from Teachers, Teacher Educators, and Other Field Functionaries of School Education on the theme *"SCIENCE EDUCATION FOR DEVELOPING INDIA"* for a virtual seminar that was organized on the occasion of National Science Day on 28th February 2021.

INSPIRE Awards 2020-21 online nominations:

For the year 2020-21 online nominations portal was open from 1st June 2020 to 15th October 2020. SCERT has organized e-meetings to Teachers, Mandal Level Officers and District Educational Officers in collaboration with NIF, Gujarat to improve the quality of the ideas/innovations/projects in 7 spells.
SCERT organized an online meeting with District Science Officers on 21-07-2020 and a Google meet with DEOs/ MEOs / DSOs / Sectoral Officers on 11-09-2020 to review the status of online nominations of INSPIRE Awards.

Total 24,061 nominations were made in the Covid-19 pandemic situation out of which 3,813 awards were sanctioned for the State of Telangana.

INSPIRE Awards - virtual exhibitions:

In the year 2019-20 total of 3472 awards were sanctioned for the state of Telangana. Online District Level Exhibitions and Project Competitions were organized in all the 33 districts in December 2020 and January 2021. Out of 3472 awards, 332 exhibits were selected to take part in the State Level Exhibitions and Project Competition. Out of 332 exhibits, in the State Level Exhibitions and Project Competition, 33 exhibits were selected to take part in the National Level Exhibitions and Project Competition. For these 33 students, SCERT and NIF are going to organize a mentoring workshop.

Rashtriya Avishkar Saptah 2020:

As per the guidelines of MHRD, GoI and NCERT, New Delhi, Rashtriya Avishkar saptah 2020 were conducted on the topic 'Water Audit and Calculation of Carbon Foot-Print' from 02.11.2020 to 07.11.2020 in which students of class 6-12, of 597 Mandals, 3 schools from each Mandal carried out the experiments under the supervision of guardian/parents/teachers and uploaded their findings in the Google form. An article on the implementation of RAS 2020 was also published in the EDUSURE, e-magazine of SCERT.

Jawaharlal Nehru National Science, Mathematics and Environment Exhibition for Children (JNNSMEE) for the year 2020-21 (Virtual mode):

As per the guidelines of NCERT, New Delhi, 'Jawaharlal Nehru National Science, Mathematics and Environment Exhibitions' on the theme **"Technology and Toys"** (District level) for Children (JNNSMEE) for the year 2020-21 (Virtual mode) were organized by the Department for the year 2020-21.

After completing District Level Exhibitions, the State Level Science, Mathematics and Environment Exhibition was organized through an e-platform on 9-4-2021. The total number of exhibits that took part in the exhibition is 165. Out of 165, 15 exhibits were nominated to the Jawaharlal Nehru National Science, Mathematics and Environment Exhibition for Children (JNNSMEE).

Poster Competition:

State Level Poster Competition was conducted to the High School students in virtual mode on the themes related to the COVID-19 pandemic. Documented the 1st, 2nd and 3rd prize posters received from districts for State Level Competition.

School Innovation Challenge:

To foster and penetrate the culture of design thinking and innovation, UNICEF India in collaboration with Telangana State Innovation Cell (TSIC), Govt. of Telangana initiated School Innovation Challenge for the Government High Schools across Telangana, for which Inqui-lab Foundation worked as the Knowledge Partner. In this competition, 7093 ideas were submitted by student teams, out of which 25 best ideas were selected for State Level Exhibition.

First Prize was given to D. Anitha, 9th Class (2020-21) student of ZPHS Mulkalapally, Yadadri-Bhuvanagiri District. The Second Prize was given to K. Rajesh, A. Abhishek, Ch. Venu, 10th Class (2020-21) students of ZPHS Dantalapally, Mahabubabad District. Third Prize was given to P. Harshit, K. Rudra 9th Class (2020-21) students of TSMS Bangariguda, Adilabad District.

School Leadership Academy:

As part of the initiative of the National Centre for School Leadership (NCSL), NIEPA, New Delhi, the School Leadership Academy came into existence in December 2018 in Telangana state, as one of the academic units in the SCERT. The programme continued to be in operation for the last two years during which the school heads were given rigorous training.

The teachers are now trained to take up additional responsibilities for the maintenance and sustenance of the school, whereas, the school head supervises the teacher's work by providing them with resources to complete the task in a given time frame.

Training:

At State Level:

SLA-SCERT has conducted training to School Heads through webinars that were telecasted live on SCERT YouTube Channel.

Some of the topics related to School Leadership are:

Attitude and Behavioural Change for School Leadership during the COVID-19 Pandemic on 12th May 2020 by Dr T. Vijay Kumar, Associate Professor, NERC, NIRD, Guwahati. The viewership exceeded 10K

School Leadership and Teachers Professional Development: on 21st May 2020 by Dr Subitha G.V. Menon, Asst. Professor, NCSL, NIEPA, New Delhi. The viewership has exceeded 26K.

COVID-19 a Pandemic and Role of School Leaders and Teachers: 4th June 2020 by Dr T. Subhashini, Consultant, SLA, SCERT-TS with more than 6000 viewership.

In the Districts:

Taking the cue from the SCERT, all 33 DEOs took initiative in organizing webinars at the district level for School Heads on School leadership and management and ICT. About 6880 School Heads participated in the above webinars. For organizing webinars at the district level, technical support was provided by the SLA-SCERT in choosing the topics, arranging the resource persons.

In coordination with SLA-SCERT, Samagra Shiksha has organized webinars for the Special officers of KGBVs at the State level for 6 days from 24th to 29th August 2020. Certain aspects of School Leadership were dealt with in the webinar. Mrs. Subitha Menon, Asst. Professor, NCSLNIEPA along with SRGs of SLA-SCERT were acted as Resource persons.

In Association with TISS under Clix:

In association with TISS, under the CLIx project, the SCERT has organised online sessions on ICT from April - December 2020 (7-days @ 2 hours per day) in different spells for School Heads covering thirteen districts i.e., Warangal Urban and Warangal rural, Mulugu, Jayshankar- Bhupalapally, Janagaon, Mahboobabad Rangareddy, Medichal, Vikarabad, Karimnagar, Sircilla, Peddapally to Jagityal districts. In this programme, 2108 Headmasters have participated in the programme.

Launch of Official YouTube Channel:

School Leadership Academy-SCERT Telangana official channel on YouTube was launched in December 2020 and videos of best school practices are being regularly uploaded. So far 5.58 K has subscribed.

Online Modules on School Leadership Development:

The modules for the online course on 'School Leadership and Development' in the Telugu version have been fine-tuned and submitted to the NCSL- NIEPA in November 2020.

Conduct of National Consultative Meet:

The National Consultative Meet on School leadership in virtual mode was organized on 10-02- 2021 in association with "Save the Children Foundation". The Meet was originally scheduled on 16-17th March 2020, due to the Covid-19 pandemic, hence it was organized virtually through the zoom platform. The meet was also streamed live on SCERT SLA YouTube official channel besides a live session on the Zoom platform. About 2000 School Heads watched the live proceedings.

INDIA TOY FAIR-2021:

SLA-SCERT took initiative in developing a virtual gallery for the SCERT Telangana in the "India Toy Fair" scheduled from 27th February - 2nd March 2021. 11 schools from 11 districts in the state have participated in the virtual "India Toy Fair".

Digital Education – COVID 19 Pandemic:

As per the instructions communicated by the Director of School Education, Telangana, Hyderabad regarding the Alternative Academic Plan for the Academic Year 2020-21 because of the Covid-19 pandemic, it was instructed to take necessary steps to develop digital lessons for the content in all medium of instruction.

Accordingly, the State Institute of Educational Technology (SIET) has taken up the development of digital lessons in a phased manner in all Medium of Instruction i.e., Telugu, English and Urdu and transmitting the same from 01.09.2020 in T-SAT and DDK Channels:

During the academic year 2020-21, as of 15.03.2021, the Institute has developed around 1126 digital lessons in different media of instruction and transmitted around 1760 digital lessons as of 15.03.2021 including already available digital lessons in Telugu Medium through T-SAT and DDK Channels for the benefit of school children in the Covid-19 pandemic period. It is planned to cover 70% of the syllabus as proposed by SCERT by the end of April 2021.

Digital Lessons transmitted through T-SAT Vidya and Nipuna Channels are being uploaded in the T-SAT app for the benefit of school children to view at their convenient time.

Activities have taken up in KGBVs during pandemic for retention, learning and empowerment of girls:

Online Teaching:

Online coaching via Zoom Webinars conducted for EAMCET aspirants. Out of 102 students, 49 students have secured seats in Engineering and 44 in B.Pharmacy Colleges.
WhatsApp Lessons- Micro-teaching Strategy - For class 10 and class 7 English medium, small videos of less than 5 minutes duration were prepared and posted on WhatsApp.
Foundational Literacy- Reading Challenge activity to make need assessment in reading skills, through voice messages.
Every day, girls of KGBVs post voice messages on WhatsApp reading a given paragraph aloud. Presently, a need assessment is in progress. Started in November 2020 and is currently on.

Capacity Building of SOs & CRTs working in KGBVs:

- School Leadership Programme conducted to empower Special Officers of KGBVs in partnership with NIEPA, New Delhi and SLA, SCERT, Telangana.
- Parental & Student Counseling Sessions: The special officers of KGBVs and CRTs keep in continuous touch with parents.
- In August 2020, as part of GCEC (Girl Child Empowerment Club) Orientation given to HMs and Special Officers of KGBVs.
- A programme for Cyber Security is also rolled out in convergence with Women Safety Wing, Telangana Police.

Teleservice by Special Educators:

- The state has taken an innovative initiative to provide Tele-service to parents of CwSN during the COVID-19 pandemic.
- Initially, all Special Educators (Inclusive Education Resource Persons) were trained virtually in September/October 2020.
- The training inputs include Balancing mental health, Strategies to work with families of CwSN, Behavioural Management, Emotional regulation, Remedial Teaching strategies.
- After training, Special Educators have provided teleservice to parents of CwSN who are under the School Readiness Programme and Home-Based Education.
- Child wise action plan adopted by the Special Educators to cover each child at least twice a week and guide parents on how to handle the children and follow up action to be taken for improving their skills.
- Totally 10528 children were benefited from this special initiative.
- Providing Assistive Devices-ALIMCO (Artificial Limbs Manufacturing Corporation of India)

33. TRIPURA

The digital educational initiatives are taken by the Education Department, Government of Tripura are hereunder:

Due to Covid-19 Pandemic situation, Schools of the State were closed since March 2020 and during the closing period Telecast of e-classes (Live & Recorded) through various local cable TV Channels and Uploaded Classroom videos in departmental YouTube Channel 'Tripura Shiksha Bandhu' (Class I to XII) with privately managed web portals.

https://www.youtube.com/channel/UCoOarQM2xtN4HxXjgwR7oYA
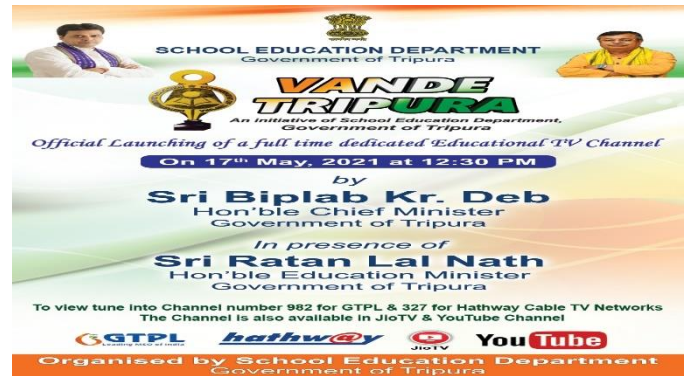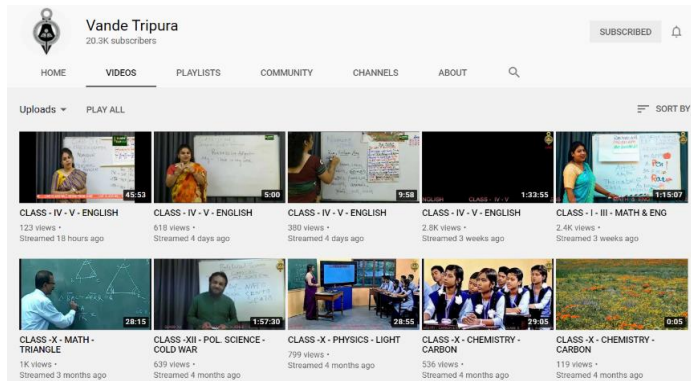
- WhatsApp & Telegram Group formation in Schools to deliver recorded classes, tasks & other instructions.
- A Call Centre was also launched to clear the doubts of the students and to provide psychological counselling.
- All the Text Book of Classes I-XII have been digitized and uploaded to the website of SCERT i.e www.scerttripura.org
- To learn Science & Mathematics of Class VI to VIII in DIKSHA App (By Scanning through QR Code) have been printed 01 QR code for every chapter,
- Educational programs on various subjects are also recorded and broadcasted through All India Radio, Agartala.
- Directorate of Elementary Education's Nutan Disha Cell conducted "Ekto Khelo Ekto Pado" an activity-based learning program on 25th June 2020 especially for Elementary Students of the State through Text SMS and WhatsApp Videos during the COVID-19 pandemic situation via Normal Phone (Keypad Phone) and Smartphone.
- The School Education Department, Government of Tripura has launched 'Vande Tripura', a 24×7 dedicated educational TV channel on 17th May 2021 for the students at Schools and Higher Educational Institutions and also broadcast educational programs. The channel is available in GPTL Cable Network, Srishti- Hathw@y Cable Network, Jio - TV and YouTube channel.

Activities of Ananya Das (CWSN)
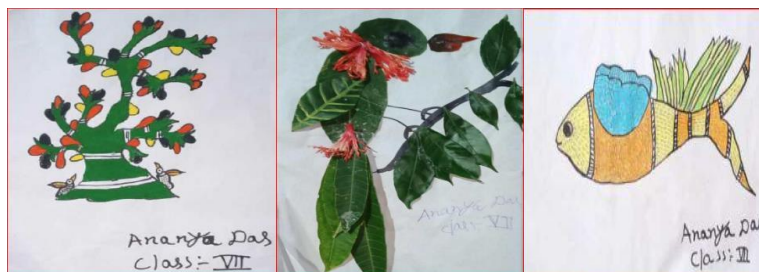
34. UTTAR PRADESH

The Department of Basic Shiksha has been increasing its digital learning capacity for more than two years. As a part of DIKSHA (An initiative driven by the Government of India), more than 5,000 digital content has been made available directly to students across the state, QR codes have been infused across textbooks to "energize" textbooks in UP and link every child to digital learning. Almost 1 crore content plays happened in 2019 and it is increasing every month.

Digital Initiatives taken by the Department of Basic Shiksha, Uttar Pradesh are:

e-Pathshala 1.0:

As schools were closed down due to the national lockdown, it became important that students be delivered content at their home. Hence a strategy for Mission Prerna ki e-Pathshala was prepared. Work happened on 2 parallel fronts i.e. Content and dissemination.

Content - There was not much content available mapped to Prerna Soochi earlier (learning outcomes). Hence an exercise to map out publicly available resources (largely videos) with Prerna Soochi was carried out. Various pieces of content that became available include –

- TicTacLearn - Maths and Science - Grades 6 to 10
- Gully Sim - Pre-primary focused
- ToonMasti - Several grades
- English Seekho - From UNICEF - Audio-based content

Dissemination - 3 channels were chosen for dissemination:

WhatsApp:

All teachers were ordered to create WhatsApp groups with their students. In 1-1.5 months, all 1.5 L schools (including Upper primary schools) had created at least one WhatsApp group with their students. The content was sent each morning on the 880 WhatsApp groups, thus ensuring that content reached HMs directly who could then forward it to their teachers for forwarding on parent groups.

Doordarshan:

A 4-hour slot per day was purchased by the Basic Shiksha department from Prasar Bharti. The time slot available was 9 am to 1 pm (30 mins slot for each of the 8 grades). Out of the available videos, whichever could be woven together in the form of 30-minute-long episodes (e.g. TicTacLearn) and whichever were already available in the form of episodes (e.g. Gully Sim Sim) was telecasted on Doordarshan.

Over time, a few learning happened - The content being disseminated through the 3 channels were not in sync with one another. With support from the DIKSHA team, a common calendar was created (called "coherent access"). The DIKSHA team then worked with partners (who had provided the content) to upload their content pieces on DIKSHA and then provide DIKSHA links to be sent as part of the daily WhatsApp messages.
The reach-through DD was found to be poor - TRP obtained from DD as well as independently through Sesame Workshop showed that only 1L views per day were happening across the state.

The reach-through WhatsApp groups were much better than DD (Approx. 20% of students were receiving content), however, the content not being in sync raised a doubt as to whether students were learning anything or not.

A lot of stream on e-Pathshala was lost within 3 months of implementation because it impacted only a small percentage of the total target population of Mission Prerna. Upon internal discussions, it was decided to re-look at e-Pathshala considering all the learning.

e-Pathshala 2.0:

In August end, it was decided to focus on WhatsApp based dissemination mapped completely with the learning outcomes and the calendar given in Aadharshila Kriyanvayan Sandarshika. Accordingly, the focus of content creation/curation also changed (i.e. new effort was required). It was decided to a piggy bank on content that is already available (print-rich etc. prepared as part of the academic material design) and gets new content from Rocket Learning (a separate pilot in 5 districts focused on improving student learning through parental engagement on WhatsApp groups). Hence **e-Pathshala 2.0** was launched in mid-September. Along with streamlining of the online content, a strand of offline access was included where teachers would call parents to schools and guide them on what to and how to teach students at home (and get them to solve workbooks mapped to the annual calendar). A week-by-week calendar/competency plan has been put in place under e-Pathshala 2.0 which gets disseminated through WhatsApp and offline methods at the school level.

A few weeks into e-Pathshala 2.0, a dipstick assessment of the impact was conducted directly with feedback from SRGs, ARPs, HMs and Teachers. Online + offline medium had reached ~40% students (22% online + 18% offline). All the material for e-Pathshala can be found here and can be accessed 24x7.
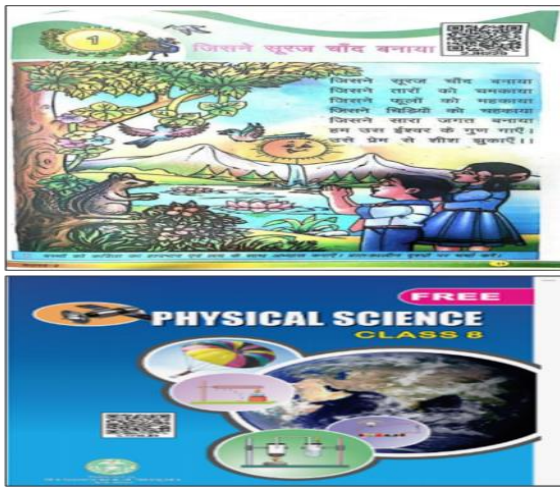

1	Daily content is shared by department to all 1.5L+ Whatsapp Groups – Class-wise & Subject-wise
2	Teachers fix a time everyday for the online classes with their students
3	Teachers provide daily assignment to students via WhatsApp
4	Teachers are regularly interacting with parents to keep them engaged

1	Energized textbooks (with QR codes) for all grades and subjects
2	5k+ videos uploaded and mapped to the chapter via QR codes
3	Majority content is in-house developed by teachers across UP
4	High Quality content has also been sourced through Pratham, Khan Academy & TicTacLearn
5	Outreach done through social and print media, and WhatsApp groups

35L+ QR code scans ; 20L+ Unique devices ; 1 Cr+ Content played ; 4L+ hours content play time

35. UTTARAKHAND

The state of Uttarakhand is predominantly hilly. There are issues of connectivity and availability of smartphones. Therefore, an intricate strategy was required to ensure teaching-learning during COVID times. The state adopted a multidimensional strategy to ensure the use of digital devices besides offline strategies.

For instance, the community was engaged to help the children by encouraging neighbours to share phones with children without access to digital devices. Keeping in view of internet access issues and accessibility, the digital devices of Doordarshan is one medium with reach across the state including remote areas. The State Government decided to initiate a relay of recorded lectures through Doordarshan so that all sections of students may learn at their homes.

Following are the details on digital education initiatives taken by Uttarakhand:

Continuous Learning Plan (CLP) for COVID time – (How to do, what to do and when to do):

Continuous Learning Plan (CLP) was developed and provided to schools to continue teaching-learning during the closure of schools due to COVID-19. It included teaching-learning and evaluation processes and strategies for students with access to digital devices, for students with limited access to digital devices, and students without access to digital devices. Teachers, DIETS, and officers were oriented online on the use of CLP. Teaching-learning was ensured through the following modes:

Online teaching and evaluation:

- Uttarakhand SCERT oriented DIETs on the use of online platforms for Teaching-learning and evaluation.
- Teachers formed WhatsApp groups with students of their class and provided worksheets, short concept based videos and audios to ensure learning by students at their homes. Teaching-learning was ensured as per the alternative calendar. The home assignment was provided and evaluated. Google form was also widely used for evaluation.
- Uttarakhand has 500 virtual labs; these labs were used for preparing meritorious 950 students across 95 blocks of Uttarakhand for NEET, JEE etc.
- A mobile app for evaluating and tracking the reading skills of classes 1 to 5 is in the final phase of design. It will analyze fluency of reading, difficulties in reading etc.
- Community radio was used in six districts of the state for enhancing language skills at the primary level; it covered different numbers of households at different times.
- It covered 830,392 households in total. All India radio Pauri, Almora and Dehradun covered total households 1,076,043.
- DMs were asked by the Secretary of School Education to facilitate TV-based teaching.
- Cable operators in some places aired teaching-learning programs through DIETS.
- PRAGYATA guidelines for online teaching were disseminated that included a teaching-learning strategy for all classes.
- Prakash, a handbook for teachers, parents and students on handling stress and keeping fit during COVID times was developed and provided to teachers. Teachers were oriented online.
- DIKSHA platform used by teachers. DIETs oriented teachers on the use of DIKSHA portal, on use of online resources, Google form etc. State uploaded 33 content pieces on the DIKSHA portal.
- Online evaluations of children were conducted through DIETs. Annual assessment at the Primary level was mostly online.
- Anandam is a program to inculcate/ improve moral values, creative skills, happiness skills and communication skills of students at the elementary level. Total 120 animated videos and posters on Anandam developed by teachers have been provided to students and teachers through various modes.
- Total 950 selected meritorious students of 95 blocks provided coaching by experts for JEE, NEET etc. under Mission for Excellence in Examination (MEE) through 500 virtual labs.
- Bridge courses were developed under Mission Koshish to counter learning loss due to COVID 19 pandemic. Total 20,000 teachers trained in the first week of April 2020 through virtual studio-based classes on implementation of Bridge courses.

Use of DIKSHA:

- Subject-based WhatsApp groups of DIET and Teachers were made to orient on DIKSHA. Teachers were oriented on using the DIKSHA platform.
- Total 150 content pieces were developed for DIKSHA out of which 60 were finally selected for uploading.

Exam revision videos:

- Videos have been developed on question papers of class 10th and 12th from 2018-20 to orient students on writing answers in Board exams.
- Teachers give model answers to each question of a particular subject of the concerned year.
- These videos are being uploaded on DIKSHA. More than 250 such videos have been prepared in different subjects. This is a unique initiative.

PM e- Vidya:

- Photographs of more than 10,000 students viewing the program in real-time were collected.
- Class wise Schedule of PM e-Vidya program was provided.

YouTube channel:

- SCERT Uttarakhand has a YouTube channel for viewing programs and uploads on choice.

Gyan Deep: Relay of Lectures through Doordarshan:

- At the state level, MoU was signed with Doordarshan authorities to relay recorded lectures on a payment basis. Initially, the relay was initiated for class 10 and 12th from 24th April 2020 continuously through Doordarshan in three slots (i.e. 1:00 Pm to 2:30 PM) each day.
- Relay is being made through DD Uttarakhand/UP Platform and is also available on DD Free Dish-41. Dish TV-229, Den-137, Airtel-400, Videocon-889, Tata Sky-1195, Hathway-483, City cable-671, Lucknow-237, Big TV-250, Net Vision-138.
- Relay has also been made available on the YouTube link of Doordarshan (https://www.youtube.com/channel/UCx55tefMzKkaA0uDmj9g2XA).
- As COVID conditions did not allow the opening of schools for the entire academic session 2020-21. Therefore relay was extended to 3 slots to 7 slots per day for class IX to XII and after 5th September 2020 for class VI to XIII.

Use of Virtual Classes:

- At the State level, there are 4 Centralized studios and 500 virtual classes are established in schools across the state.
- Regular lectures were relayed through virtual classes in the academic year 2019-20 from Nov. 2020 till mid-March 2020 when the COVID pandemic started. Virtual classes have supported students' learning especially in the schools where still subject teachers are to be posted.
- Besides teaching-learning Virtual studio/classes are used effectively during the COVID-19 Lockdown for -
  - Recording of lectures for the Gyandeep programme through in-house school teachers for Classes 6-12.
  - From Block to State level 300 Education Officers were oriented on revised syllabus and Academic Calendar 202021in the light of COVID-19.
  - Total 570 Principals were trained on online teaching, monitoring and COVID related issues.
  - Total 470 chief administrative officers and administrative officers were trained in financial and office management.
  - 127 Block level officers were trained on online monitoring and COVID related issues.
  - Interaction of Hon'ble Chief Minister & Education Minister with community members and parents on student learning, safety, health issues etc. during COVID-19 pandemic.
  - The School Education minister Uttarakhand took feedback and suggestions of district and block level officers on NEP 2020.
  - Secretary School Education interacted with all School Principals to review the preparation of the Board Examination conducted during the COVID pandemic.

Use of Educational Portal:

- State Education portal (e-portal) is created for a real-time database. However, to provide more opportunities to teachers and students to use and share teaching-learning material among themselves a link is provided on the portal.
- The teachers and students could access or upload learning material on this link.
- During the academic session, 2020-21 overall 83717 Mobile viewers and 10851 computer viewers have either viewed or uploaded digital content on the portal.

Support from NGO Partners:

- During COVID lockdown to ensure availability of learning content either online or offline to students as well as to teachers at their homes, support is taken from NGO partners.
- NGOs partners have provided their support by facilitating access to apps & software like Sampark Baithak App from Sampark Foundation, Gurushaala from IPE Global, Online library books from Room to Read etc.
- NGO partner Room to Read has extended their support in using available community radio (at present 10 community radio in 05 districts) across the state.
- Through community radio broadcast/podcast for early grade students, skill development programmes for girls etc. were relayed.
- Monitoring -- Regular Webinars organized by Director ART to monitor online and offline teaching through webinars and virtual labs.

Digital platform- Capacity building in COVId time online training:

- Total 20,000 teachers trained in the first week of April 2020 through 500 virtual labs across the state on the implementing Bridge courses.
- Total 18909 head teachers and assistant teachers were trained through 500 virtual labs on Anandam, a program to inculcate moral values, creative skills, happiness skills and communication skills.
- Total 47000 teachers were trained online on PM e- Vidya (dedicated TV channels for classes 1 to 12).
- 1638 L.T. science teachers, 1573 lecturer Chemistry/ Biology 1896 lecturer of Hindi/ English Trained through virtual classes.
- NISTHA initiative for training of teachers by GOI was completed for all 514 targeted teachers. Through the DIKSHA portal.
- More than 300 officers of the block, district and state level were oriented on the alternative calendar for teaching-learning which was used as a customized syllabus.
- 19565 senior secondary school teachers trained on ICT through the 500 Waklet online platforms.
- Total 119 DIET and SCERT faculties trained on using Waklet online platform.
- Online training to 1200 school Principals and 500 ministerial staff.
- DIETs were oriented on cyber security and virtual labs which will in turn orient teachers in their respective districts.
- webinar on NEP 2020 through DIETS and Directorate ART on all issues of NEP with the participation of NCERT, NUEPA, Garhwal and Kumaun University and other universities.
- More than 4000 teachers participated in online motivational training on 21st-century skills provided by experts from IIM, NCERT and Ex. IGNOU faculty. It is viewed by more than 6000 teachers on different channels.

Unique initiative- DIET Udham Singh Nagar as the centre of Excellence in IT:

DIETs have been made centres of excellence for a particular subject. DIET will act as an apex centre for the given subject and will help all DIETS in association with SCERT by designing and implementing quality programs. DIET Udham Singh Nagar is a centre of excellence in Information and Technology. It has done exemplary work in training and management of training through IT. It trained other DIETs on IT-based teaching Geogebra, and the use of technology in training needs analysis.

36. WEST BENGAL

The Department of School Education, Government of West Bengal has enormously ensured that learning continues even when schools are closed with the help of its digital initiatives and activities for the children who have access to digital devices as well as to those who do not have access to these digital devices.

Digital Education Initiatives are taken during COVID Pandemic:

Learning through Activity Tasks:

This has been introduced to continue the uninterrupted learning process amongst the elementary school students, of their long stay at home during the present pandemic COVID – 19 period in the Academic Year 2020 and 2021. As the students were not allowed to go outside their home and their schools which were completely closed down during the period. In the said circumstances, their learning process is being strengthened by providing Activity Tasks to the students through the guardians at the time of distribution of Mid-Day Meal from their respective schools. They were encouraged to carry out these tasks in a subject-based exercise book at their home. During their exercise, they can seek need-based help from their teachers on one hand and also from their parents & guardian. The excellent part of the activity task was to involve the entire community as a whole.

The Activity Tasks are being carried out in 5 mediums namely Bengali, English, Hindi, Urdu & Santhali. The Activity Tasks are prepared based on a series of learning & assessment pertaining to particular syllabus vis-à-vis the lesson developed by the expert teachers of respective subjects. Printed Activity Tasks are being distributed to the learners through parents & guardians during the distribution of food grains of MDM each month or through digital mediums like SMS/ WhatsApp or email etc. After carrying out the Activity Tasks by the learners, those are submitted to concerned schools with the help of their parents and guardians for evaluation & assessment by the concerned teachers. Activity Tasks are continuously being uploaded in the Banglar Shiksha portal on the regular basis. At present, there are 564 activity tasks from different subjects in different mediums of instruction for the students of classes 1 to 8 on the Banglar Shiksha Portal.

E-learning materials on Banglar Shiksha Portal:

E-learning material of all subjects for the student of Classes V to XII in audio-visual form, uploaded at banglarshiksha.gov.in (also accessible through YouTube) for continuity of the teaching-learning process in Bengali, Hindi & Santhali mediums.

All stakeholders including the school students can get access to strengthening the learning process through a user-friendly environment. 577 e- learning materials are covering different subjects of classes V to XII uploaded in the said portal.

During the last 10 months, about 3.03 Crores visitors visited the portal and went through the uploaded materials.

Banglar Shiksha Online Classroom:

This endeavour facilitated remote learning for the students of classes V to XII through a live telecast using two of the leading Bengali News channels – ABP Ananda and Zee-24 Ghanta. 237 virtual classes aired during that period.

The videography of those classroom sessions was also uploaded to the Banglar Shiksha Portal.

Audio-visual learning Video:

The audio-visual learning materials were developed for facilitating the learning process for the students covering different topics from subjects that are taught in classroom situations in a lively manner by the subject expert teachers. In this way, the students of classes V to XII could enhance their learning process with the help of those materials in an uninterrupted manner. 193 videos were also uploaded at the Banglar Shiksha Portal.

Model Question paper:

Model Question papers are developed for the students of Class V to XII on different subjects and topics based on curriculum/syllabus. These have been uploaded to the e-portal for the self-evaluation of all learners. The learners can exercise on Model Question papers and their learning level may be assessed by the teachers. In case of any difficulty

faced during the exercise of these Model Question papers, the learners can interact with the parents or with their concerned teachers through the digital medium.

Providing financial assistance to the students of Class-XII ("Taruner Swapna"):

During the COVID pandemic period when face to face classes were not held for a prolonged period, Class XII students were provided financial assistance at a rate of Rs. 10,000/- each through DBT for the procurement of Tablet PC/ Smartphone to continue studies in online mode. 8.5 lakh students studying in Class-XII benefitted through this scheme. Besides this, audio-visual materials of simulated classroom and lecture sessions have been provided through e-portal and those have also been shared with the students through social media.

Learning/doubt clearing through Tele Mode ("Banglar Siksha Durabhashe"):

Dedicated telephone lines using a toll-free number are allotted for this purpose. The students who have any doubt are asked to call at the said number and are connected to the available teacher to answer the call and clear the doubts as well to guide the student. To overcome the problem of overcrowding the channel at a particular time, class-wise, the subject wise timetable has also been prepared and communicated to the students through a process.

❖ This Teacher-on-call program supports students in Class IX & X thru basic telephony
❖ Based on 4 step IVR menu, student call lands into a teacher of his/her subject and chosen medium of instruction (within 75 sec on an average)
❖ Average duration of call: 398 Secs
❖ All 6 medium supported – Bengali, English, Hindu, Urdu, Nepali and Santhali
❖ Launch Date: 4th August, 2020
❖ Concurrent Capacity: 120 calls
❖ Teaching Resources Used at this point: 998
❖ Total Calls handled till date: 1,72,500
❖ Till date, it remains a unique service only offered by GoWB in Covid period, for students having basic telephony support only

Online Teachers Training:

Training of Primary and Secondary level teachers during lockdown period has been completed through webinar mode. The topics covered for Primary level training were Learning outcome based CCE, Integrated curriculum at lower grade(Class I & II), Bengali (First language), English (Second Language), Mathematics, Environmental Studies, Health & Physical Education, Safety & Security at School and Pre- Primary Curriculum and for Secondary Level Teachers Training it includes Learning outcome-based pedagogy on Bengali/ Hindi/Urdu/Nepali/Santhali (1st language), English (Second Language), Mathematics, Life-Science, Physical Science, History and Geography. 217517 (Primary: 156103/ Secondary: 61414) number of teachers were trained during the period of the COVID pandemic.

ACKNOWLEDGEMENTS