India Report
Digital Education

Remote Learning Initiatives Across India

June 2020

Department of School Education & Literacy
Ministry of Human Resource Development
Government of India

INDIA REPORT

DIGITAL EDUCATION

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प्रधान मंत्री
Prime Minister
MESSAGE

It is a pleasure to learn that a compilation titled 'India Report – Digital Education' has been prepared by Department of School Education & Literacy, Ministry of Human Resource Development. To document various remote learning initiatives through the use of digital technology across the country is a commendable initiative.

We are constantly working towards educational reforms aimed at making India a global knowledge superpower. Over the last few years, digital technology has played a pivotal role in helping transform the education sector and its positive impact is being felt by students, teachers and parents alike.

In the midst of an unprecedented global crisis, we Indians with a firm resolve, see this challenging time as an opportunity to find innovative ways to effectively deal with the arising challenges. We are continuously leveraging technology to come up with efficient solutions. Education sector exemplifies how technology is playing the role of a force multiplier as various e-learning initiatives have helped in imparting education to students throughout the country.

We are focused to ensure education for all that is qualitative. More than expanding education, our emphasis is on learning. The innovative ways of learning will inspire our young students and instill in them indomitable spirit, strong character and strength of mind to continue moving ahead with the learning against all odds.

May the 'India Report – Digital Education' encourage adoption of similar experiences and approaches for the larger benefit. My best wishes to the publication for all success.

(Narendra Modi)

New Delhi
आषाढ़ 22, शक संवत, 1942
13th July, 2020

रमेश पोखरियाल 'निशंक'
Ramesh Pokhriyal 'Nishank'

मंत्री
मानव संसाधन विकास
भारत सरकार
MINISTER
HUMAN RESOURCE DEVELOPMENT
GOVERNMENT OF INDIA

MESSAGE

I am pleased to present the INDIA REPORT- Digital Education prepared by the Department of School Education & Literacy, Ministry of Human Resource Development.

The Department has launched various digital initiatives like Diksha, Swayam Prabha Channel, Shiksha Vani, E-Pathshala, NROER. I am also thankful to each State and Union Territory for making the best use of Central schemes/resources along with their own in reaching the deprived section of the society.

These digital initiatives of the DoSE&L and State Governments has helped in building a bright future of approximately 25 crore students. The Covid-19 pandemic threw up a big challenge and the School education system has tried its best to adapt to the situation. The importance of e-learning has been understood even more clearly now and it is imperative that the adoption of technology continues with the learning needs of the students with equity for the long run. Living in lock down, theGovernment felt that education at any level should not be ignored and thus adopted online education to almost all students with equity with the infrastructure, finance and social standing present in the country.

The report will serve the purpose of cross-learning, adapting and adopting best practices across the country. Looking forward, we will continue to work hard with all of our education partners to help students learn, succeed and achieve their best.

(Ramesh Pokhriyal 'Nishank')

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SANJAY DHOTRE

राज्य मंत्री
संचार, मानव संसाधन विकास
एवं
इलेक्ट्रॉनिकी और सूचना प्रौद्योगिकी
भारत सरकार
Minister of State
for Communications, Human Resource Development
and Electronics and Information Technology
Government of India

सत्यमेव जयते

<u>**MESSAGE**</u>

It gives me immense pleasure to note that MHRD has produced 'The India Report on Digital Education'. This report is a collection of initiatives taken across the country by Education Departments of States and Union Territories. The widespread use of DIKSHA platform, TV, Radio etc. as a response to the lockdown has been documented for improving the system. Many innovative schemes have been implemented by the States/UTs. It is heartening to see that most States have made serious attempts to reach out to every child.

The Covid-19 pandemic is unprecedented and the response had to be quick, with the existing resources. The future lies in learning lessons from this exercise and each State will have to collaborate with others to replicate and enhance the experience for the student. While the education is moving towards blended learning through online and offline mode, it shall be the endeavour of all stakeholders in the field of education to ensure that no student is left behind, for want of affordability and accessibility of quality education.

I am sure that this book will help all in understanding the effectiveness of digital education, and also about challenges involved, and solutions offered. I congratulate and extend my best wishes to all Principals, Teachers, and Officials of State/Union T along with my team at MHRD for producing the 'INDIA Report on Digital Education', and also exhort all concerned to make best use of this information.

(Sanjay Dhotre)

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Digital India
Power To Empower

स्वच्छ भारत
एक कदम स्वच्छता की ओर

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अनीता करवल, भा.प्र.से
सचिव

Anita Karwal, IAS
Secretary

स्कूल शिक्षा और साक्षरता विभाग
मानव संसाधन विकास मंत्रालय
भारत सरकार
Department of School Education & Literacy
Ministry of Human Resource Development
Government of India

सत्यमेव जयते

MESSAGE

The first and foremost ingredient for warranting equity in education, is equal access to quality teaching and learning resources by learners and all other stakeholders. Each time a situation that is not under our control arises anywhere in the world, access to continued and qualitative learning becomes the crucial factor in school education, requiring immediate and appropriate response. While the covid-19 pandemic in the country did initially catch the school education system off-guard, resilience of the system kicked in early, and the system began to respond to the situation with speed and innovation. In fact, in this short period of little over 3 months (since the first lockdown in March, 2020) there have been multiple instances of pioneering work by States and UTs, across their geographical length and breadth, of reaching out to students, in a bid to continue their learning process. The challenges due to Covid-19 pandemic are humongous, and the time available to take these initiatives very less, thus existing digital resources had to be leveraged for helping students to supplement the education process. The India Report on Digital Education, 2020, that you hold in your hands, is an earnest attempt to capture and compile all such wonderful and inspiring initiatives taken by Education Departments of each of the States and Union Territories.

This work being done in States/UTs does not stop with this report; it continues with added vigour on the basis of lessons learnt, capacities build and systems updated dynamically. We sincerely hope that this report and the scale of work that it represents, would not only be instrumental in initiating discussions, replications, adaptations, and collaborations among the States/UTs in India, but would also provide several inspirational lessons to many other countries as well. We also hope that this documentation will help us identify the gaps in our system, differences between regions, 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.

And yes, though we are very clear that nothing can replace a teacher and the school, but it is indeed heartening to see how States/UTs have risen to the demands of the occasion to reach out to their school going population in utterly creative ways!

(Anita Karwal)

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Ministry of Human Resources Development (MHRD) INITIATIVES

To address the challenge of remote learning, MHRD has undertaken several initiatives to assist students, scholars, teachers and lifelong learners in their pursuit of education. These initiatives cover educational requirements, ranging from learners in schools to postgraduates. A comprehensive initiative called PM eVidya was announced on May 17, 2020, which aims to unify all efforts related to digital/online/on-air education to enable equitable multi-mode access to education. It is envisaged that it will benefit nearly 25 crore school-going children across the country. A summary of these initiatives is given below.

Digital Infrastructure - e-Learning

DIKSHA (Digital Infrastructure for Knowledge Sharing)

DIKSHA[1] is the national platform for school education available for all states and the central government for grades 1 to 12, and was launched in September 2017. DIKSHA can be accessed through a web-portal and mobile application. DIKSHA provides access to a large number of curriculum linked e-content through several use cases and solutions such as QR coded Energized Textbooks (ETBs), courses for teachers, quizzes and others. As of July 2020, it is estimated that over 60 crore ETBs are being printed this year in India by 35 states and Union Territories, with more than 30 crore content plays and 200 crore page hits already on DIKSHA.

As part of PM eVidya announced under the Atma Nirbhar Bharat programme, DIKSHA is the 'one nation; one digital platform' for school education in India. DIKSHA is being transformed into a platform for diverse and rich curriculum linked e-content requirements of learners and teachers for all states/UTs accessible across digital devices (laptop/mobile/desktop/tablets, TV and radio) in order to have coherence of access and learning experience.

At the same time, DIKSHA is designed to inherently support states/UTs to exercise autonomy, independence and choice to craft and run learning programs to suit their needs and achieve their goals, by using solutions, tools and data on the platform.

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. Further details of DIKSHA are provided later in this report.

Access through TV channels- Swayam Prabha TV Channels

Swayam Prabha DTH channels are meant to support and reach those who do not have access to the internet. 32 channels are devoted to telecast high quality educational programmes by the MHRD. Channels are earmarked for school education and higher education separately. Provision is made for telecast of live interactive sessions on these channels with experts from home 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. Coordination with States of India has been undertaken to share air time (4 hrs daily) of the 5 existing SWAYAM PRABHA channels to telecast their education related contents. Soon, the number of TV channels for school education will increase from 5 to 12 to transform into 'one class, one channel', that is, one channel each for all grades from 1 to 12. To ensure coherent access through multimodal delivery, the same content will be organised by chapter & topics on DIKSHA to ensure asynchronous usage by anyone, anytime, anywhere.

For open schools and pre-service education

Online MOOC courses relating to NIOS (grades 9 to 12 of open schooling) are uploaded on SWAYAM portal; around 92 courses have started and 1.5 crore students are enrolled. Students and teachers can access all the course modules - text, videos and assessment questions etc. through SWAYAM.

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[1]DIKSHA is an initiative of the National Council for Education Research and Training (NCERT), Ministry of Human Resources Development (MHRD), GoI.

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On Air

Radio broadcasting is being used for children in remote areas who are not online (especially for grades 1 to 5). The broadcasts focus on activity-based-learning. 289 Community Radio Stations have also been used to broadcast content for NIOS for grades 9 to 12. A Podcast called Shiksha Vani of the Central Board for Secondary Education (CBSE) is being effectively used by learners of grades 9 to12. Shiksha Vani contains over 430 pieces of audio content for all subjects of grades 1 to 12

For the differently-abled

One DTH channel is being operated specifically for hearing impaired students in sign language. For visually and hearing impaired students, study material has been developed in Digitally Accessible Information System (DAISY) and in sign language; both are available on NIOS website/ YouTube.

E-textbooks

The e-textbooks can be accessed using e-Pathshala web portal and mobile app (Android, iOS, Windows), by students, teachers, teacher educators and parents. More than 600 digital books including 377 e-textbooks (grades 1 to 12) and 3,500 pieces of audio and video content of NCERT are available in the public domain in various languages (Hindi, English, Sanskrit and Urdu).

National Repository of Open Educational Resources (NROER)

NROER is an open storehouse of e-content for students, teachers, teacher educators and parents. Nearly 17,500 pieces of e-content of NCERT and other collaborative partners are available for all grades for various school subjects. E-content is also available on NCERT's official YouTube channel.

Imagining & shaping digital education as long-term learning strategy

Future plans include the following:

- Developing digital classrooms as an instructional modality - Integration of use of technology with the education system.
- Inclusion of virtual vocational training, virtual labs & skill development courses.
- Multi-mode access to education using web portals, mobile apps, TV channels, radio, podcasts etc. with coherent user experience.
- Developing quality e-content in local languages.
- Developing framework for enhancing learning within and outside the classroom, and for assessments in the era of digital education.
- Framing of Online/Digital Education Guidelines addressing the digital divide.

E-Learning Priorities

Priority for providing complete access to anytime, anywhere e-content and e-infrastructure is for for all learners in schools; however, e-content is being developed as follows:

- Grades 9 to 12 with 6.3 crore children: Top priority
- Grades 6 to 8 with 6.4 crore children: Next priority
- Grades 1 to 5 with 12.0 crore children: Priority with focus on foundational literacy and numeracy

Efforts to activate digital platforms as vital instruments for learning

- Mechanisms developed to provide textbooks to all children at home.
- Online classes and e-learning to keep the learning process intact.
- Up-skilling teachers for leveraging e-learning resources.
- Use of mobiles to increase penetration and enable "anytime, anywhere" access.
- Re-aligning various interventions to manage the crisis, with specific emphasis on the learning process, safety & security of children

Alternative Academic Calendar

- A week-wise plan for grades 1 to 12 developed in three languages by NCERT.

- It consists of interesting activities and challenges related to topics/themes in the syllabus.

- It maps the topics/themes with the learning outcomes & facilitates teachers/parents to assess the progress in students' learning in a variety of ways.

- Links for e-resources have been provided for those learners who have access to the internet.

- Activities leading to learning, that can be undertaken with the help of resources commonly available at home, are also incorporated.

- It also consists of the option for teachers to guide learners to other reference sources such as dictionaries, atlas, news headlines, storybooks, etc.
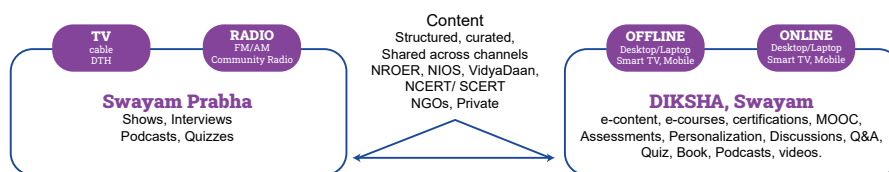
Diagram 1 - COHERENT LEARNING CONTINUUM

The need to ensure that equitable access to learning results in learning outcomes, and that the teaching and learning cycle, can continue in face of any disruption is essential. PM eVidya offers a framework for a learning continuum, so that the teaching and learning process is enabled beyond physical school boundaries for students across the country, including in under resourced communities and for learners with special needs and the differently abled.
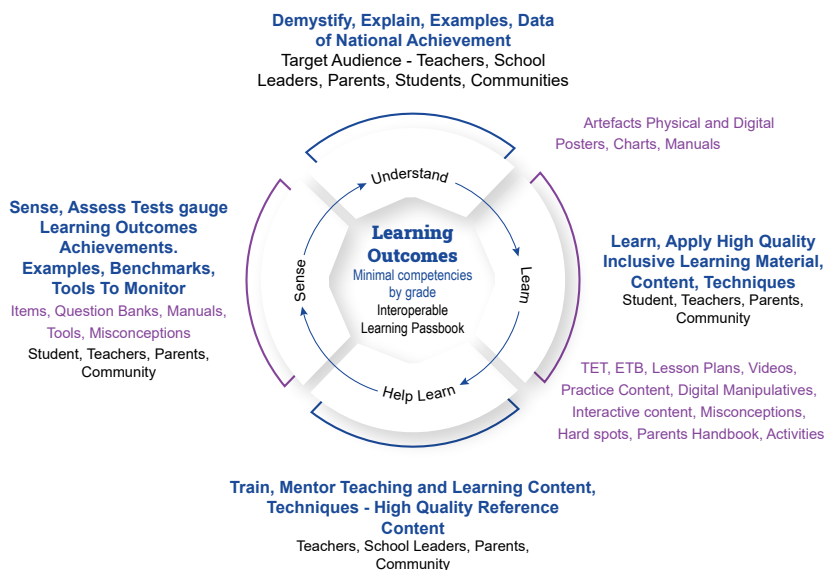

Diagram 2: LEARNING AND TEACHING CYCLE TO ACHIEVE LEARNING OUTCOMES

Overview of DIKSHA

DIKSHA (Digital Infrastructure for Knowledge Sharing) is a national platform for school education, an initiative of National Council DIKSHA was developed based on the core principles of open architecture, open access, open licensing with diversity, autonomy and choice as outlined in the Strategy and Approach Paper for the National Teacher Platform released by the former Hon' Minister for Human Resources Development Shri Prakash Javdekar in May, 2017. DIKSHA itself was launched by the Hon' Vice President of India Shri M Venkaiah Naidu on Sept 5th, 2017 and has since been adopted by 35 states/UT's across as well as CBSE and NCERT and by crores of learners and teachers.

DIKSHA is built on open source technology, made in India and made for India, which incorporates internet scale technologies and enables several use-cases and solutions for teaching and learning. DIKSHA is built using MIT licensed open source technology called Sunbird, which is a digital infrastructure for learning and is designed to support multiple languages and solutions. DIKSHA offers over a 100 micro services as building blocks for the development of platforms and solutions.

DIKSHA, is available for the use of all states and UTs of India. Each state/UT leverages the DIKSHA platform in its own way, as it has the freedom and choice to use the varied capabilities and solutions of the platform to design and run programs for their teachers and learners. DIKSHA policies and tools make it possible for the education ecosystem (educationist, experts, organisations, institutions - government, autonomous institutions, non-govt and private organisations) to participate, contribute and leverage a common platform to achieve learning goals at scale for the country.

DIKSHA can be accessed by learners and teachers across the country and currently supports 18 languages and the various curricula of NCERT, CBSE and SCERTs across India. The platform is being leveraged and developed for school education, foundational learning programs and to support inclusive learning for underserved and differently-abled communities of learners and teachers.

In the context of COVID-19 related disruption of schooling, DIKSHA makes it possible for all states/UT's to enable learning/ education at home through innovative state programs; hence leapfrogging the use of technology for the benefit of teachers and learners across India.

As part of the PM eVidya announcement made on May 17, 2020 by the Hon Minister for Human Resources Development Shri Dr. Ramesh Pokhriyal Nishank, DIKSHA is the 'one nation; one digital platform' for school education in India. The platform is available as school education digital infrastructure to enable equitable coherent access to continuous learning for the whole country, with a wide and evolving range of capabilities, solutions and use-cases available to be leveraged by states/UTs for the sake of teachers and learners, some of which are detailed below.

DIKSHA platform embodies, is designed and implemented on the basis of the following ten principles:[2]
1. Shared Infrastructure to reduce effort and resource duplication
2. Interoperability via Openness and Use of Open Standards
3. Enable Extensibility via Layerability and Modular Design
4. Allow Configurable Design with Plug-n-Play Capabilities
5. Build Diverse Solutions via Open Application Program Interfaces
6. Common Public Good via Open Source and Open Content Licensing Frameworks
7. Create Transparency and Accountability via Open Data
8. Distributed Access via multiple delivery channels - Anytime, Anywhere access through multi-mode and multi-device
9. Designed to Scale via Commodity Computing
10. Data Security and Privacy by Design respecting individual rights and organization/institutional boundaries

A. Key Characteristics of DIKSHA

1. Autonomy and Choice within a national framework -

Every state/UT and institutions such as NCERT and CBSE can choose to implement any use-case or program, choosing from the solutions available on DIKSHA. States/UT's have complete autonomy and access only to data related to their programs implemented leveraging the DIKSHA platform. No other state/UT or institution, organisation or centre can access this data without the relevant state/UTs active action in choosing to share the data. There are some programs which are implemented across the country because states/UTs have made this choice - energised textbook is one such example. Every state/UT and Central Institutions (CBSE, NCERT) have the independence to define their curriculum scope and bring e-content linked to their curriculum and in their local language onto the platform. State teachers contribute and curate open source digital e-content mapped to their curriculum needs. The platform is federated and enables decentralized choice for states/UTs using the platform.
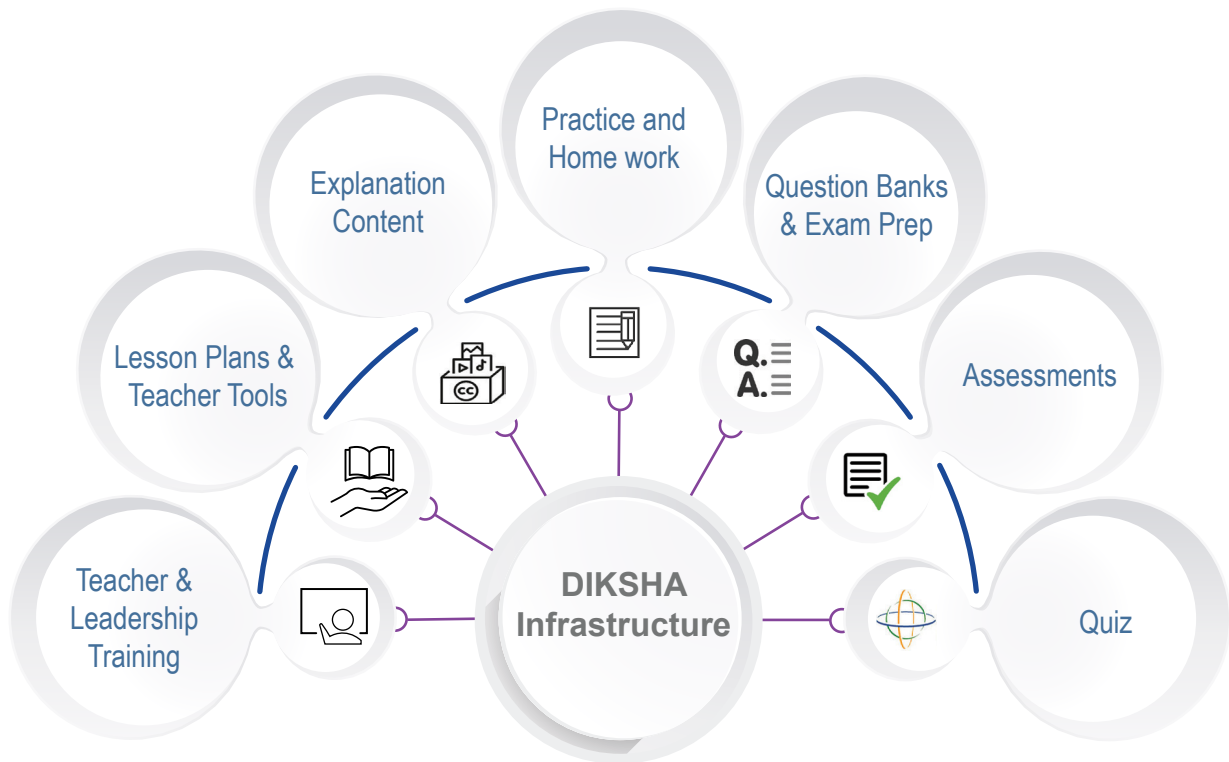

Diagram 3: ONE DIKSHA, MULTIPLE CENTRAL AND STATE SOLUTIONS AND PROGRAMMES

2. Online-Offline and varied types of devices -

DIKSHA works in both offline and online modes, where continuous connectivity is not necessary to use DIKSHA. It can be accessed by learners and teachers through multiple devices using either web portal or mobile application. Once e-content is downloaded onto a device, connectivity is not needed to play/access the downloaded e-content. E-content can be accessed and used through multiple types of devices - mobile phones, tablets, laptops and desktop computers as well as projectors, smartboards and smart televisions. In addition, DIKSHA can also be accessed in low or no internet areas through an offline desktop solution.

Diagram 4 : DIKSHA CAN BE USED ACROSS DIVERSE INTERFACES

3. **Diversity of content -**

DIKSHA's technology architecture provides for a variety of content types suitable for teachers and students and their diverse teaching and learning needs. Examples of supported content types include videos that help teachers explain and learner's learn, videos that clarify concepts; practice content for learners (e.g quizzes/questions); assessment content that help assess the learning for the benefit of teachers and students (e.g question bank and assessment tools); sample question papers for exam preparation; interactive content for immersive experience to enhance learning; creative and critical thinking questions; lesson plans; micro-courses; curiosity questions for use in the class; among others. DIKSHA supports a variety of types and formats of interactive content including HTML, ECML, videos, H5P, PDFs, MP4 and other formats.

- NCERT has on-boarded e-content from portals like National Repository of Open Educational Resources (NROER) and e-Pathshala on DIKSHA, thereby making access easier for all stakeholders.

- The process of migrating e-content of the National Institute for Open Schooling (NIOS) to DIKSHA is also being initiated which will bring in a range of inclusive content as well.

ASSESSMENT
ECML
CRITICAL AND CREATIVE THINKING QUESTIONS
EPUB
CURIOSITY QUESTIONS
VIDEO & AUDIO CLIPS
QUIZ
VIDEO
LEARNING GOALS
INTERACTIVE GAMES & ACTIVITIES
COURSES
H5P
READING MATERIAL
CONCEPT MAP
EXPERIENTIAL LEARNING VIDEOS/ CONTENT
VR
PRACTICE QUESTIONS
WORKSHEETS
PRESENTATION
MP4
PDF
IMAGES
SIMULATION EXERCISES
HIGHER ORDER THINKING SKILL QUESTIONS

Diagram 5: DIVERSE CONTENT - TYPES AND FORMATS

4. Data provides the ability to see and empower -

DIKSHA is built ground-up to record data of usage that is extensive, structured and actionable. User actions on the DIKSHA mobile app and the DIKSHA web portal emit comprehensive and anonymised data which can be beneficial to content developers, state/ UT teachers and administrators to plan their programs and interventions. The platform follows privacy by design, data protection principles and has a consent-based architecture that protects the rights of individuals using the platform. Usage data gives multiple stakeholders the 'ability to see' across the entire lifecycle of learning. The availability and actionability of data is a critical part of enabling the learning, teaching and managing the administrative and governance aspects of education as systemic set of cyclical processes. Extensive, aggregated data of usage is available to states/ UTs, for continuous analysis of usage patterns, content consumption patterns, thus enabling iterations and fast improvement, experimentation and innovation cycles at the state/UT level.

Diagram 6: DATA FROM DIKSHA PROVIDES THE ABILITY TO SEE AND EMPOWER RELEVANT STAKEHOLDERS

5. Local Language Content and an Open Licensing framework -

DIKSHA currently has content in 18 languages. The content in local language is developed or curated by teachers and school leaders of the respective states/UTs, through appropriate authorities and accountability structures. Content on DIKSHA relates to grades 1-12 and the platform follows the Creative Commons open license framework to support the creation and distribution of open educational resources and in order to enable wider reach and re-use of good e-content.

6. Frameworks -

Framework capability on platform allows every tenant on the platform to create one or more of their own curriculum frameworks linked to classroom learning or teacher professional development. Frameworks may include grades 1- 12 school education, early learning, foundational learning, inclusive education, teacher training and several others. Framework helps with organization and categorization of content on the platform and serves for easy discovery of content by users. Framework allows efficient tagging of each content on the platform to relevant grade, medium, topic, learning outcomes or learning objectives. Framework greatly helps content to be tagged to energized textbooks, during course creation among other uses. Efficient framework infrastructure enables personalized learning by leveraging artificial intelligence and machine learning algorithms. Learning analytics of achievement (by learning outcome or learning objectives) is enabled by framework capability on the platform.

B. Solutions on DIKSHA: Diverse, flexible and evolving

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. DIKSHA can be accessed through the DIKSHA web portal[3] and DIKSHA mobile application.[4]

Diagram 7: SOLUTIONS ON DIKSHA - DIVERSE, FLEXIBLE AND EVOLVING

1. **Energised Textbooks -** Physical Textbooks to Phygital Textbooks

Imagine textbooks which enable just-in-time access to unlimited interactive digital content to meet curriculum needs. The Energised Textbook solution allows educational boards to achieve that by enabling just-in-time access to digital content through QR codes printed in textbooks; be it curriculum textbooks used by students or Teacher Edition Textbooks (TET) for teachers.

Using this solution, educational boards can provide students, teachers and parents access to different kinds of curriculum-linked, specially-curated and highly-relevant learning and teaching digital content explanation videos, practice worksheets, sample tests, quizzes, courses, lesson plans, learning outcomes, pedagogy material, misconceptions and others.
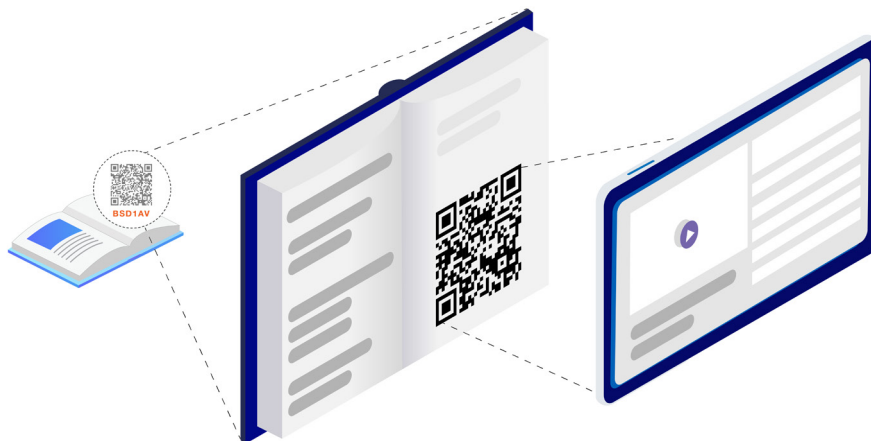

Diagram 8: DIKSHA BRIDGES PHYSICAL AND DIGITAL WORLDS

The users will be able to access digital content for every chapter by scanning QR codes printed in the textbooks by the educational boards. The QR code can be scanned using the mobile phone camera or by using the DIAL code associated with QR code. The solution enables a student to for instance truly visualize a heart or understand what really is a tornado by watching a video instantly, by scanning a QR code in the textbook. Teachers across the nation can have instant access to pedagogical best practices for each chapter when they want and where they want. The Energized Textbook solution enables 18 crore+ students and 70 lakh+ teachers to leverage technology in the same way as a select few have been able to do so far.

As mentioned before, both curriculum textbooks and Teacher Edition Textbooks (TET) can be energized using the solution. The solution can also be used by states/UTs and education boards to provide access to curated digital content for parents, field coordinators supporting educational activities, even if a physical textbook does not exist. The solution includes a dashboard of digital content usage reports that can be used by states/UTs and educational boards to understand content needs and continuously improve digital content quality.

- 35 state/UT's education departments, CBSE and NCERT are using Energized Textbook solution

- Total 60 crore copies of 1,900 Energized Curriculum Textbooks are printed and distributed across the nation

- Over 90,000   pieces   of digital content are curated and accessible via QR codes in these Energized Textbooks

2. **Online Courses for teachers and students (with Digital Credentials) -** Skill building - anytime, anywhere

Online courses allow roll out of structured learning programs targeted to build or enhance specific knowledge and skills for learners. Online courses enable learners to learn the skill at a place of convenience and at their own pace without having to leave their preferred premises. An online course can contain learning material using a mix of videos, interactive content, practice questions and reading material as well as an assessment to evaluate learning. The users can be recognized for completing the course, by providing digital credentials which are digitally verifiable and can be shared by users with anyone.

The solution allows for detailed monitoring of course enrollment, completion rates for states/UTs and education boards. This

enables states/UTs and education boards to effectively manage the rollout of large scale training and skilling programs.

The solution is being used by the Central and State government to roll out online teacher training and professional development programs, addressing some of the challenges of in-person training models like - the need to be away from school, the potential dilution of instructions, the limitation of training scope and teachers covered. Education institutes are able to combine recorded sessions of experts, practitioners' perspective as well as videos of skill application in the actual classroom to make the online course effective for teachers. Multiple courses can be rolled out to address different needs, including broader skills and pedagogical skills and tools required for specific grades and subjects. Teachers can take courses relevant for them as and when required throughout the academic year; and share their skill building accomplishments with their friends and colleagues using digital credentials received on course completion.

The courses can also be leveraged to enable structuring learning for students to complement school-based learning.

- **NISHTHA,** a national teachers training program, targeted for 42 lakh teachers is being rolled out on DIKSHA by NCERT using online courses
- During the lockdown period, 15 states have prepared to roll out Online Teacher Training programs on DIKSHA e.g. Madhya Pradesh, Uttar Pradesh, Rajasthan, Haryana, Gujarat, Delhi, CBSE. Between April to June 2020 total enrollments by teachers for courses has been 60 lakh of which 43 lakh completed courses from across 7 states and CBSE.
- Govt of India's **iGot program** uses DIKSHA for COVID-19 training of doctors, nurses, ASHA workers, NCC, NSS, NYKS volunteers. Between April and June, 2020, over 17 lakh individual trainings have been completed and certified.

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3. **Question Bank Tool -** Practice, Sense and Improve

DIKSHA platform enables creation and curation of curriculum linked questions of various types, including multiple choice questions (MCQ), fill in the blanks (FTB), match the following (MTF) and subjective questions, along with correct answers and solutions. The questions are used for creating practice worksheets and tests for Energized Textbooks, assessments for Online Courses and for Quiz.

For interactive questions like MCQ and FTB, the solution can give feedback to the user on their choice of answer. The questions can be linked to learning outcomes and usage data can be used by national and state governments to identify which learning outcomes are not achieved across states and nationally. It will help the government to plan targeted programs for teachers and students to reduce learning gaps systematically. By tagging questions to various attributes of Frameworks on the platform and by leveraging AI and ML, the platform could be leveraged to deliver personalized learning environments, using the question bank capabilities. These tools have been used extensively by CBSE and certain states.

4. **Content Sourcing Tool -** Engage, Contribute and Curate with Ecosystem

The tool allows curriculum-linked content sourcing and curation for various solutions, be it Energized Textbooks, Online Courses or Quizzes. The digital content sourced can be of diverse variety including explanation videos, questions of various types, sample tests, learning outcomes, lesson plans, misconceptions, and other pedagogy material. It supports content of various types and formats including MP4, HTML, ECML, PDF, H5P and ePub. The solution will be enhanced to enable translation of digital content from one language to another.

The tool supports multiple models for content sourcing - sourcing from a pre-selected set of individuals or organizations, crowdsourcing contributions from masses - both organizations and individuals, and re-using digital content already published on the platform. The solution has appropriate actionable reports to help manage a large set of contributors, reviewers for curation and track overall progress of content sourcing program.

The Centre and States/UTs can leverage content sourcing tools to engage the ecosystem of their teachers, different government institutes, community of organizations and individuals at large. Teachers across the country use different teaching techniques to

help their students to learn effectively. The tool enables unlimited possibilities for the centre and states to tap into the combined intelligence and experience of their teacher ecosystem to source content and enable access to best content for ALL students and teachers across the nation.

> **VidyaDaan**[5] is a national program of DIKSHA for states/UTs to seek and for educationists, subject experts, schools, government and non-government organisations, individuals to donate/contribute open license e-learning resources for school education, to ensure continuity of quality learning. States/UTs can have their own unique frameworks and taxonomy for inviting contributions for all grades and across different languages. Since launch in April2020, VidyaDaan has received tens of thousands of digital content contributions and several states have initiated digital content sourcing projects using this capability.

5. Content Authoring Tool - Create interactive content

Apart from content sourcing tools, DIKSHA also has a content authoring tool which allows teachers or users, designated by centre or state departments, to create interactive digital content. The tool provides a curation process so that the concerned department can ensure that only good quality content is published in DIKSHA.

6. Quiz - Making Learning Fun:

DIKSHA allows central and state governments to enable learning in a fun way using the Quiz solution. The quiz can be a national/ state level competition or just a fun activity for the learner. The user can be recognized for Quiz participation and/or winning the Quiz using digital credentials which are digitally verifiable. This can be a very effective way to engage students, enhance their learning and application of their knowledge in a fun way relevant to curriculum and even otherwise. The Quiz can be conducted in multiple Indian languages on various themes.

> **Case studies**
> - Law Ministry in collaboration with NCERT launched the Constitution Quiz for students to participate from across India on 14th April, 2020.
> - A national level Yoga quiz was launched by the Hon' Minister for HRD on 21st June, 2020

7. Content Consumption Tools - Multi-device and multi-modal user access:

All Users - be it teachers, students, parents or others, can find and play/access their curriculum linked digital content, published by centre, states/UTs or education boards, using any device - mobile, laptop or desktop in online or offline mode. DIKSHA can be accessed using DIKSHA mobile app or DIKSHA web portal[6]. DIKSHA enables multiple modes of access for users - as a guest user, or with a registered account on DIKSHA or using their state system login, if enabled by the state. Guest user mode enables easy access for a large set of first time internet users. All users are able to define their preferences which are used by the platform to personalize their experience. For registered accounts, the solution allows creation of multiple users and easy access to digital credentials received by the user in DIKSHA. Creation of multiple users in the same account allows children to share devices for their learning needs

8. Data Tools - Ability to See and Act

DIKSHA platform provides actionable reports and access to aggregated usage data for states/UTs to use so that they can monitor progress of state programs and take necessary actions to drive the programs. This ability is enabled for all DIKSHA solutions be it Energized Textbooks, Online Courses, Quiz and others.

9. Chatbot Tools

Leveraging an open source chatbot framework, 'TARA', an interactive Chatbot engages DIKSHA users in multiple ways - navigating users to their content, training, delivering news and announcements, and clarifying doubts about DIKSHA. Future use-cases include - get answers for curriculum related questions, practice or take a quiz. TARA uses artificial intelligence and machine learning technologies to enable human-like chat interactions.

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[6] https://diksha.gov.in/

10. Digital Credentials - Digitally shareable and verifiable by anyone & anytime

The DIKSHA platform has enabled the capability to issue digital credentials to an user on completion of a course or a quiz. The user can share digital credentials with anyone and are digitally verifiable. As solution needs evolve, the solution can be enhanced to enable centre and state government to issue digital credentials for various purposes like best teacher awards given by states and centre and others. This is being used extensively for teacher training across states, and for credentialing course completion of COVID warriors on iGOT.

C. DIKSHA use-cases - Current and Future:

DIKSHA was put to use extensively during the recent ongoing COVID-19 related school lockdown and learning from home scenario for students. There have been remarkable innovative ideas and programs being explored because of a few key aspects of the platform that make it relevant and suitable for adoption in the current times.

- Designed as a **shared space** using open standards available for use by teachers, learners, educationists, academics, administrators, governments, NGOs and educational functionaries;
- Its scale with rapid adoption by several states/UTs in India over the last three years and consequently, an exemplar repository of **open educational resources.**

The DIKSHA platform is available for diverse use-cases and scenarios and these innovations and experiments are being actively pursued across states/UTs in India in the form of their programs:

Learn at Home

In order to enable equitable access to learning, almost all states have launched learning from home programs in one form or other by urging students and teachers to engage with learning tools available on the platform. 6 states have already launched "learning from home" programs leveraging the DIKSHA platform and propagating learning activities while at home by communicating with teachers and parents through popular media. In addition Gujarat, Assam & Tamil Nadu, have taken their programs a notch higher by enabling Coherent Access Thinking, essentially making digital content streamed on television also available on DIKSHA to enable both, synchronous and asynchronous learning. All states/UTs are leveraging such data emitted by DIKSHA, to drive targeted actions across districts by grades and subjects.

3 broad options being used for continuous learning

BROADCAST

TV
RADIO

TV : DD and Swayamprabha
Radio : Popular FM and AM channels

LIVE CLASSES

VIDEO
CONFERENCING
TOOLS

Teacher to student interactions with some
provision for students to interact

ASYNCHRONOUS

DIKSHA

Digital content (explanation videos,
practice questions, etc) hosted on
platforms like DIKSHA

Diagram 9: COHERENT ACCESS - SYNCHRONOUS AND ASYNCHRONOUS

Online Teacher Training

States have used the DIKSHA platform to ensure continuity of teacher training at home in a situation where in-person training was not possible. States provided teachers a series of short courses on a weekly basis linked to specific training objectives. Data is available to training heads and course administrators on how many teachers are completing courses with insight into the types of courses that teachers need and require.

Training of frontline workers

DIKSHA platform was extensively used by Ministry of AYUSH, Ministry of Health and Family Welfare and Ministry of Sports and Youth affairs to train doctors, nurses, ASHA workers, NCC, NSS, NYKS volunteers regarding a range of areas related to taking

care of COVID-19 patients and ensuring community health. States have further translated the digital content from Hindi/English to local languages and have since been using it to train their own health staff. Department of Personnel Training's Integrated Government Online Training (iGOT) modules by Ministry of AYUSH, Ministry of Health and Family Welfare and Ministry of Sports and Youth affairs are hosted on DIKSHA. Between April - June, 2020 over 17 lakh individual trainings have been completed and certified.

Extended Schooling

While DIKSHA may have been used thus far as supplementary to school education and as an aid to teachers for teaching and students for learning, given the impact of the pandemic on school education, DIKSHA is becoming a platform for enabling learning and extended schooling. With extended schooling solution (which can be enabled as courses linked to Energised Textbooks and curriculum available on the DIKSHA), DIKSHA makes it possible for any learner to:

- Learn by taking structured courses at their own pace or as per a schedule published by relevant authorities/mentors. Courses here are related to curriculum content and are linked to prescribed textbooks. Content here includes explanation videos, practice content, assessments and material for extended learning.

- Teachers and mentors help learners by assigning activities to individual students, groups of students, and track progress of the group's completion of activities thus enabling teachers and parents to engage with learners remotely.

- State Boards can create and assign directed micro-courses and guide learning journeys and monitor progress of teachers and mentors.

- Each course completion by a student becomes a micro-credential enabling students to develop their own digital learning passbook.

- State/School would be able to assess the progress and implement measures to bring students left behind by conducting special courses for their benefit.

D. DIKSHA Status as of July 2020

DIKSHA at a glance
- Launched on September 5, 2017 by Hon Vice President of India
- PM e-Vidya announced in May 2020 with DIKSHA as "one nation, one digital platform"
- Key programs are teaching and learning energised textbook, Exam preparation, Continuity in learning through coherent access, Teacher professional development and Content sourcing through VidyaDaan
- 60+ crores textbooks energised connecting physical books to digital content
- 18+ languages supported currently
- 200 crore page hits and 60 lakh course completions since COVID-19 lockdown
- 10+ unique solutions currently and evolving to support learners, teachers and administrators
- 35 states + CBSE + NCERT on board with Sikkim as the last NE state being onboarded

NCERT has conducted two workshops with all states/UTs that are DIKSHA. These workshops have helped highlight the progress that States/UTs have made so far and share best practices adopted by them on digital learning.

NCERT has uploaded over 4,500 pieces of content on DIKSHA inclusive of video content, interactive resources, audio content and also content for Children with Special Needs. 200+ NCERT books have been QR coded with content tagged to it from DIKSHA. NCERT is also working on translation and development of high-quality content which can be delivered across all channels, including TV, to ensure coherent access of content. In addition to this, NISHTHA training modules are also being brought on to DIKSHA, which can subsequently be used by all States and UTs.

CBSE has uploaded over 12000 pieces of content in chapter-wise, subject-wise and class-wise format for grades 1 to 12. The content includes explanation videos, slides, concept maps, question banks, multiple choice questions (MCQs) among others for learners and lesson plans, focus spots, experiential learning content, learning outcomes for teachers. CBSE has also been uploading Five Questions A Week (5QAW) in Science, Mathematics and Language Literacy since January 2020, to promote critical and creative thinking practises amongst students of grades 6 to 10.

Learnings from states that have adopted DIKSHA substantially and are constantly innovating using multiple capabilities and solutions available on DIKSHA

Uttar Pradesh has leveraged DIKSHA to ensure continuity of learning of students and training of teachers from home through high quality curated digital content. The state is working with several partner organizations along with a dedicated content cell towards content enrichment and improvement and they are promoting learning at home via the PRERNA program. The state is also putting its efforts into bringing 50 lakh+ families onboard DIKSHA via its mass outreach programs. Its teachers have completed 15+ online training programmes conducted by the state through DIKSHA. The state has plans of digitizing their entire teacher training activities using DIKSHA for all 5.5 lakh teachers through 200+ courses and will be launching this program by Teacher's Day on 5th September, 2020.

Madhya Pradesh has leveraged DIKSHA to conduct its statewide teacher training program, CM Rise, with the aim to make digital learning as a part of continuous professional development of teachers while providing training on learning outcomes and pedagogical competencies. Their online courses have received a lot of positive feedback, largely due to the four key interventions –

- Long-term strategic view
- Learning framework- 'Light but Right'
- Replicating the best of physical training
- Carefully planned and executed rollout

Gujarat has leveraged DIKSHA for its teacher professional development programs and rolled out 11 courses for teachers of primary and upper primary grades; more courses are being launched for pre-school and secondary education teachers. The state has provided joyful digital content to students and parents who are at home to ensure continuity of learning from home. The state is also broadcasting learning programs for children on TV to ensure learning at home and putting the same on DIKSHA as well, to enable coherent access of digital content.

Maharashtra - Due to the unavailability of physical textbooks and absence of student-teacher interaction, the state wanted to ensure students do not stop learning during the lockdown period. Thus, the state used digital communication channels such as WhatsApp, Facebook and Twitter to broadcast curriculum based curated contents on DIKSHA daily. The state has been witnessing 4 to 5 lakh hits per day on DIKSHA. Maharashtra has also initiated study groups for children and many professional private organisations are also partnering with the state for content enrichment.

Assam has made significant steps towards its outreach program for DIKSHA. The Hon'ble Education Minister of the state has promoted DIKSHA as "one nation, one digital platform" and the state has witnessed over 9.6 lakh content plays over the last three months. Video classes are also being conducted on Swayam Prabha channel which will subsequently be uploaded on DIKSHA, to enable coherent access of digital content.

Tamil Nadu has introduced various innovative practices on DIKSHA including in-classroom digital assessment. The content outreach program in the state has led to an increase in content consumption on DIKSHA which has benefitted many teachers & students. Usage of DIKSHA has become a part of regular teaching & learning in many schools in Tamil Nadu and is also integrated with the class schedule. Tamil Nadu will soon be launching content programs to help students to learn while schools are closed using Kalvi TV and DIKSHA, enabling coherent access. Tamil Nadu has also been a pioneer in the content creation model that it follows, which details out the type of content to be created for each chapter of a textbook including explanation content, practice & assessment questions. It has also set up very good content team, structure & processes:
  1. In-house centralized content creation - DIKSHA cell constituted in Chennai, elaborate team available for content creation

2. Remote content creation by engaging DIETs and teachers through a structured process
3. Engaging the industry experts/agencies

Learnings from states that have launched programs using a few capabilities of DIKSHA

Delhi is energizing the textbooks under the Entrepreneurship Mindset curriculum and Happiness curriculum. A 30-member team has been set up exclusively for DIKSHA. On 3rd July, Delhi launched its own LEAD program leveraging DIKSHA and plans to ensure teacher training on DIKSHA in the coming months.

Rajasthan has leveraged DIKSHA to start its state-wide teacher training program, CM Rise, with the aim to make digital learning as a part of continuous professional development. Lakhs of teachers have registered for these courses.

Andhra Pradesh introduced the exam prep program that provided assessments along with explanation videos for grade 10 students. It also distributed PDF files with DIKSHA links for students to get easy access to digital content. Teacher training programs were initiated with over 15,000 teachers enrolled with a completion rate of 70%. The state has leveraged DIKSHA innovatively, but the interventions have been restricted to certain grades. With considerable support in the coming months, the state could leverage DIKSHA more efficiently.

Kerala has put a structured content creation team in place and has made efforts to translate videos in English and Malayalam to other languages such as Tamil and Kannada to cater to the needs of students of other mediums.

Jammu & Kashmir has taken significant measures to energize their textbooks since the launch of DIKSHA in 2018. They use the offline capabilities to ensure learning in areas with limited access to the internet.

Haryana has prepared remedial digital content for grades 1-8. The remedial content is being uploaded and would be made available on DIKSHA soon. A team of 55 trainers and 195 creators has been set up and 25 in-house reviewers in the SCERT have been identified. The complete team has been trained on DIKSHA in order to enhance the scope for all subjects of grade 1-10. Haryana will also soon be launching online teacher training programs on DIKSHA.

Odisha has plans to launch various teacher training programs on DIKSHA especially on Numerical Competency of teachers for grades 1-5 and Training of Physical Education Teachers in the state.

States that have initiated programs using capabilities and solutions on DIKSHA

Arunachal Pradesh, Himachal, Meghalaya, Nagaland, Punjab, Ladakh, Telangana and Tripura have all initiated work on DIKSHA. School closure has energised these States to leverage DIKSHA for online training of teachers & for launching programs to ensure continuity in learning of students.

In conclusion, DIKSHA has been one of the most popular applications in school education. DIKSHA, as the **"one nation, one digital platform"** as a part of the PM eVidya initiative for school education is rapidly evolving with inputs, contributions, innovations from states/UTs across the country. It has a country wide reach and consistent usage in a short span of three years, with a tremendous potential to become a valuable national resource for teachers and learners in the years ahead.

INITIATIVES BY CBSE

CBSE has been taking digital initiatives at various levels of education. The Board has been exhorting its schools to setup at least one classroom for each classroom equipped with technology to enable usage of digital instruction materials in the classroom so that students are given adequate exposure to digital materials. Schools are encouraged to use ICT enabled teaching and progressively move to enabling each classroom with technology for usage of digital materials in the classroom. Recently CBSE advised schools to use digital education as suggested in the Alternative Calendar published by NCERT. The Board itself has switched over to digital mode in its daily functioning using e-office platform of the Government of India and organization of all of its meeting digitally. Following are some recent initiatives:

A. Resources

1. Launch of "Vidya-Daan", a program to enable teaching and learning for classes I to XII
CBSE conceptualized "Vidya-Daan", a program based on crowd sourcing of content from teachers and meant to synergize countrywide developments by providing schools and teachers from the Metro cities to the smallest villages with good quality e-content that can be used by them anytime, anywhere at no cost. The aim of this program is to empower each school, teacher, and student by providing an ease of learning. CBSE had pioneered phase-1 of VidyaDaan by pooling various types of e-learning content for classes VI-X with the help of contributions from different affiliated schools and developed a repository of 10,000+ e-learning content pieces. The work regarding remaining classes is going on. Total Content Played between 23rd March and 8th April is more than 6 Million.Hon'ble HRM has launched VidyaDaan 2.0 program today i.e. 22nd April for inviting e-learning Content contributions.

2. CCT Practice Test
The CBSE Creative and Critical Thinking (CCT) Weekly Practice Program to enhance higher order cognitive competencies of learners and to generate curiosity by connecting learning with real life situations. It was launched on 08.02.2020.
Set of 5 questions are shared every week for students of classes 7th-10th on Reading Literacy (English and Hindi), Mathematical Literacy and Scientific Literacy with the aim to provide a good opportunity to build critical thinking skills amongst students. These items are also be used by teachers to initiate discussions and engage learners in self-learning explorations.

The CCT questions and solutions can be accessed online on DIKSHA mobile application/Web browser and can also be downloaded as a pdf.

3. Digital textbooks-All CBSE textbooks, resource books are available in digital form at the CBSE website. Anyone can use these resources free of cost.

4. Digital Manuals and Handbooks
CBSE has brought out more than 14 manuals on different aspects and different stakeholders. All these manuals are available on CBSE website.
* Handbook on Experiential Learning
* Art Integration
* Integrating Artificial Intelligence across Subjects
* Artificial Intelligence Facilitator Manual
* Manual for Teachers on Joyful Teaching and Learning   of Mathematics
* Handbook on Hubs of Learning
* School Quality Assessment and Assurance (SQAA)
* The Compendium of Courses after +2
* Manual on Outcome Based Inspection for Affiliation
* Handbook on Eco-Clubs and Water Conservation
* Handbook on Cyber Safety
* Handbook for Principals
* Handbook on 21st Century Skills
* Self-Learning Material for newly affiliated schools

5. CBSE-Shiksha Vani

The Board has prepared its own Podcast platform entitled- 'CBSE-Shiksha Vani'. CBSE-Shiksha Vani is available on Play Store for Android users by which members can effortlessly receive the audio/video information files on their cell phones almost instantaneously as and when uploaded by the Board.

This podcast disseminates crucial information related to the Board's activities in a timely, educative, lucid and seamless manner.

More than 400 Podcasts on grade wise content and training manuals have been uploaded on CBSE Shiksha Vani.

6. Provision of information and organization of activities through Website

CBSE Academics and Training units manage a very easy to access and vibrant website which constantly provides latest information about Boards academic and training initiatives such as circulars, syllabus, Sample Question papers, various other academic resources. Training unit has a national registration portal for all trainings across India. Nearly one lakh teachers are trained during the lockdown period.

B. Capacity Building of Teachers

Online Training Sessions: Online sessions of one hour duration vide circular no. 31, 5th May 2020 were introduced. More than 2 lacks teachers have participated so far in the training sessions conducted by 16 CBSE-Centre of Excellence (CoE) and Training Unit of the Board.

Online Training Modules through Diksha app: Board has launched following online training modules on DIKSHA app vide Circular no. 39 dated 3rd June 2020:
a. Pedagogy of Environmental Studies
b. Health and well-being in Schools
c. Pedagogy of Language
d. Learning Outcomes and Pedagogy
e. Pedagogy of Mathematics

C. Student Enrichment Activities

All enrichment activities in CBSE are processed through digital mode. The following are some examples:

1. Online Conduct of Heritage India Quiz

CBSE conducts CBSE Heritage India Quiz every year to inform the growing generation of students the inter-link between their culture and heritage and the need for sustainable socio-economic development alongside modernization. This year it will be conducted entirely through online mode.

2. Online CBSE Storytelling Competition

Central Board of Secondary Education announced the first CBSE Storytelling Competition for the students of classes 3rd to 12th of all CBSE affiliated schools to promote creativity and critical thinking among students, enhance analysis and evaluation skills and develop communication skills. The competition will be conducted through online mode

3. Online Āryabhaṭa Ganit Challenge

To promote interest and proficiency among students through joyful assessment, a Ganit Challenge has been conducted by CBSE. The Computer Based Test mainly focuses on the extent to which children are able to apply mathematics to their daily life. The feedback from the performance of the test help the Board to handhold the schools and children in application of mathematics in daily life. The challenge is conducted at two levels in which all students from class VIII to X can appear.

4. Expression Series

Schools are advised to encourage their students to participate in Paragraph/ Story/ Essay/ Article competition organized by the Central Board of Secondary Education (CBSE) in India for classes 1 to 12 to sensitize students about various important issues. This is all done through online. Each participant (of the best entry from school) gets an online certificate of participation at his/her registered e-mail ID after the successful submission of entry on the App. 3 best entries of each category get a Certificate of Merit.

ICT scheme under Samagra Shiksha of the Ministry

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 all round socio-economic development of the nation and global competitiveness and to devise, catalyse, support and sustain ICT and ICT enabled activities and processes in order 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 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 sustainable basis.

- From April, 2018, ICT@Schools scheme of RMSA along with CAL programme under SSA and ICT interventions under Teacher Education component has been subsumed as ICT in School Education component of scheme of Samagra Shiksha, covering Govt. Schools having classes from VI to XII.
- There is a provision Non- Recurring amount of Rs. 6.4 lakh and Recurring amount of Rs. 2.4 lakh per school (recurring cost for 5 year after implementation) for establishing ICT labs in school.

The following chapters elaborate upon the various steps, both online and offline, taken by States/UTs to facilitate remote learning for students.

SUMMARY OF STATES/UTS

	Activities	Andaman & Nicobar Islands	Andhra Pradesh	Arunachal Pradesh	Assam	Bihar	Chhattisgarh	Dadra & Nagar Haveli + Daman & Diu	Delhi	Goa	Gujarat	Haryana	Himachal Pradesh	Jammu & Kashmir	Jharkhand	Karnataka	Kerala	Ladakh
1	Digital Classroom	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
3	Online Admission		Y			Y	Y		Y		Y		Y			Y	Y	
4	E-content repository	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5	E-Books	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6	Offline books Text Books	Y	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y		Y	
7	Interactive Resources Online		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	Educational TV			Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y	
9	Educational Radio channel			Y	Y						Y		Y	Y		Y	Y	
10	WebTV Channels	Y	Y			Y	Y	Y			Y	Y	Y		Y	Y	Y	
11	E-Learning Portal		Y			Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y
12	Computer Based Learning	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
13	Mobile Application		Y		Y	Y	Y				Y		Y	Y	Y	Y		Y
14	Civil Society Partnership					Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	
15	Digital Initiatives for Competitive Exams						Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	
16	Other Initiatives	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	Digital Classroom			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
3	Online Admission			Y			Y	Y	Y				Y	Y	Y				
4	E-content repository	Y	Y	Y	Y		Y		Y				Y	Y	Y	Y	Y	Y	Y
5	E-Books	Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6	Offline books Text Books	Y		Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
7	Interactive Resources Online	Y	Y	Y	Y		Y		Y		Y	Y		Y	Y		Y	Y	Y
8	Educational TV			Y	Y	Y	Y	Y	Y		Y	Y		Y	Y	Y	Y	Y	
9	Educational Radio channel	Y	Y	Y	Y		Y	Y			Y	Y	Y				Y	Y	
10	WebTV Channels		Y	Y			Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	
11	E-Learning Portal	Y		Y	Y		Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	Y
12	Computer Based Learning	Y		Y	Y		Y		Y	Y		Y		Y	Y		Y	Y	Y
13	Mobile Application		Y	Y			Y		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y
14	Civil Society Partnership						Y		Y	Y		Y	Y	Y	Y		Y	Y	
15	Digital Initiatives for Competitive Exams			Y		Y	Y					Y		Y			Y		
16	Other Initiatives			Y	Y		Y	Y	Y	Y	Y	Y			Y			Y	Y

1 Andaman & Nicobar Islands

As per the direction of the Ministry of HRD and CBSE, to mitigate the anxiety of the students and other stakeholders, Department of Education, Andaman & Nicobar Administration has taken many initiatives during the prevailing extraordinary circumstances during the period of COVID-19. The Department of Education, Andaman and Nicobar Islands had taken proactive steps to ensure that the school children do not lose any opportunity of learning due to the closure of schools during this pandemic. In order to facilitate the students with learning activity during the lock-down period the Directorate of Education had initiated alternative methods to provide learning contents to the students of Class II to XII at their home through local Doordarshan Channel, Cable Network and All India Radio, Port Blair.

1.1
Doordarshan Local Broadcast

This is a joint initiative by the Department of Education in collaboration with the Doordarshan, Port Blair to start the broadcast of pre-recorded tele-classes for the students of Class X and XII throughout the Islands from 20th April, 2020. The key highlights of this tele-classes is as follows:

- One hour slot daily (5.15 pm to 6.15 pm) except on Saturdays and Sundays. Later the time was changed as 4 pm to 5.15 pm.

- Covered the subjects for Class X and XII only.

- English, Maths, Science and Social Science for Class X were taught.

- 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 Power-point presentation and other digital tools.

- Telecast covered the length and breadth of the Andaman and Nicobar Islands.

1.2
Tele-Classes on Local Cable TV Network

The Department of Education had also taken steps to telecast the 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 started from 16th April onwards. The details are as follows:

- Initially 02 hours slot (10 am to 12 Noon) was provided in the channel for the telecast of content, which was later increased to 03 hours (10 am to 01 pm).

- Repeat telecast of the same contents is shown in the evening.

- Covered the contents for Class VIII to XII.

- Recording of classes made on HD Quality video using good quality camera and professional videographers.

- Teachers use various teaching aids including PowerPoint presentation and other digital tools.

- Reach of this telecast is the entire South Andaman District. The copy of the classes is made available to other places also.

- Major subjects from every class are covered by making a balanced telecast schedule.

- Students are provided with Phone numbers and email ID to ask queries regarding the topics being taught.

1.3
Alternative learning through Radio Classes

An alternative learning method was started for the Primary and Upper Primary classes (Class II to VII) through the audio classes on All India Radio, Port Blair. Initially only Class V to VII were covered in this programme but later other Primary Classes (II to IV) were also added. The details of this is mentioned below:

- The broadcast of radio classes for Class V to VII started from 21st April, 2020, later Class II to IV was also added from 11th May, 2020.

- One hour slot (9 am to 10 am) every day except Sundays is provided to the broadcast of classes.

- Initially relayed only on AM 684 KHz., and later was also broadcasted through the local FM channel 100.9 MHz, which covered the entire South Andaman district.

- All the major subjects like English, Hindi, EVS, Social and Science are covered by the teachers.

- Special efforts are made by the teachers to develop the contents for the easy and better understanding of students in Primary Classes.

- Doubt clearing session on every Saturday.

- Special feature "Kitabon Se Parey Ki Rochak Duniya" which covers various topics like GK, Scientific facts, Moral Education, Computer knowledge etc. has been introduced every once a week on Saturdays.

1.4
Providing Digital Learning contents Online

1.4.1 - Online videos on YouTube Channel

- The videos recorded for the tele-classes are also uploaded on the YouTube channel "AN Education Dept Andaman".

- The students who have missed any classes on Television or want to see the classes again will have an opportunity to view such videos online sitting at their home.

- More than 50 videos 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.

- WhatsApp groups are formed by teachers for students.
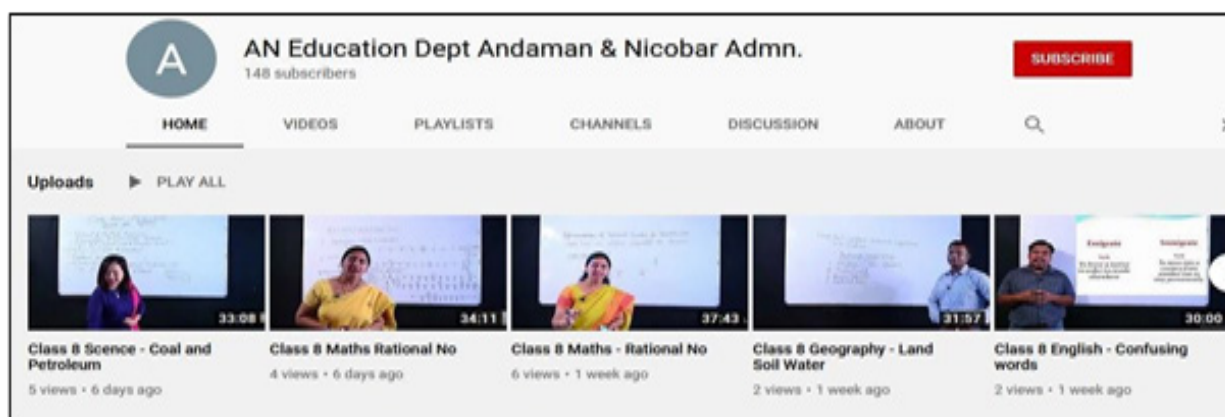
1.4.2 - Repository of Digital content

- Considering the demand by Parents for video and audio content, the Department has made a repository of the said content and provides the same to the needy students and parents through Common Service Centres (CSCs).

- Digital content is being stored in the State Data Centre servers and made available to the public through CSCs.

- Planning to develop a Digital Library of the e-content in coordination with the State Institute of Education.

2 ANDHRA PRADESH

The Department of School Education of Andhra Pradesh has undertaken several initiatives to mitigate the impact of Covid-19 on school education, with the objective of providing access to good quality educational content for students from the comfort of their homes. Schools have been closed since long due to Covid-19, hence, it has become necessary that children should be provided the opportunity to read, write and learn, while staying in their homes.

Keeping in view teachers' capacity for quality transactions in class rooms, online platforms, online YouTube channel, online training through different platforms were planned and implemented effectively.

The initiatives are as follows

- T.V Lessons
- Radio Lessons
- YouTube Channel for SCERT
- Webinar Based ICT Training
- Abhyasa APP for teachers and students.
- E-Content at finger tips for students
- Bridge course to primary school students through T.V
- Toll free Call centre to students for clearing their doubts
- Toll Free Video call centre for students for understanding critical topics
- Creation of WhatsApp Groups for sending 10th class model paper
- Facebook live training program.

2.1
T.V Lessons

Vidyamrutham is a video lessons programme broadcasted through Doordarshan for class X Students, with the objective of providing subject related knowledge to students and recapping of the concepts in all subjects. This Programme was scheduled from April 8th 2020 to May 30th 2020.

2.2
Radio Lessons

VidyaKalasham is a radio Programme broadcasted through All India Radio for class X Students with the objective of providing subject related knowledge to students and recapping the important concepts in all subjects. This programme was scheduled from 22nd April 2020 to 30th May 2020 in 7 FM Stations of All India Radio across the State.

2.3
YouTube Channel and Facebook page for SCERT

A YouTube channel was created and all the webinar videos and E-content were categorized and uploaded for students and teachers. All live videos are streamed with OBS software.

2.4
Webinar Based ICT Training

SCERT Andhra Pradesh came up with the novel idea of providing an interactive forum for nationwide experts with teachers, through Webinars, on many interesting topics like search engines, CC-Rules (Creative Commons), image and video repositories, image editing softwares like Photoshop, FOSS (Free and open source soft-ware) tools, Video making techniques. These were viewed daily by 50,000 tech-savvy teachers who also gave feedback on the same page.

Webinar and Abhyasa APP based English trainings

By combining the webinars and Abhyasa APP, online training is given to teachers in areas such as - new curriculum, pedagogy techniques, spoken English etc. Daily one lakh teachers are watching the webinars, and interacting through chat boxes. The same video is made available in Abhyasa App and also in YouTube. Daily assessments are given in Abhyasa APP, and monitoring is being done with the help of dashboards available in the APP.

2.6

E-Content at finger tips for students

The School Education Department created clickable PDFs, where if a student clicks on any topic, related e-Content will open instantly on the mobile or tab etc. As a result of that, the daily usage of DIKSHA platform increased from average of 2500 to 100000. Students including private students are using this service.

AP-DIKSHA
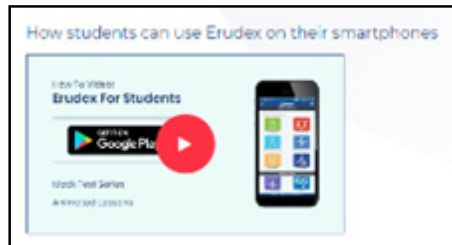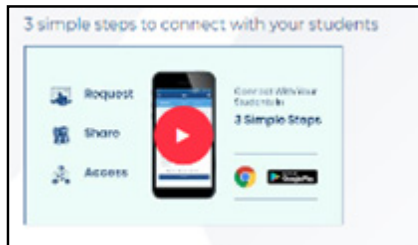
2.7

Bridge course to primary students through T.V

Vidya Varadhi is a program designed for primary classes (1st to 5th) consisting of two levels – 1 & 2. This is a bridge course to improve fundamental literacy and numeracy. For this course material is specially designed and distributed to the students. A T.V program through Doordarshan is broadcasted for the students to guide them on foundational literacy/numeracy related to bridge course. Class 6-7 and class 8-9 students are given three months of orientation lessons with introductory concepts through T.V lessons. Total 3 hours of live classes are delivered through Doordarshan.

2.8

Toll free Call centre to students for clearing their doubts

The School Education Department developed a toll-free call centre (with number - 1800 123 123 124). Any student from any corner of Andhra Pradesh can call on this toll free number; IVRS will lead the student to the required teacher. Students can ask queries on any subject related matter and get clarifications from an expert teacher. This tele-education centre works for the duration of school timings. For this initiative, 200 teachers were pooled and trained on addressing the doubts of the students. A clickable PDF is also created and sent across to teachers and students wherein, a student can click on the number in the pdf and it will directly make a

free call to the teacher i.e. student need not to type the full number to call.

Creation of WhatsApp Groups for sending 10th class model paper

Further, 2543 WhatsApp groups were created at District, Sub District, Mandal and school level comprising Teachers and Students of class X for Sending important model practice question papers to students synchronizing with the programmes on TV and Radio. The previous day the question paper is sent in the WhatsApp Group and next day the resource person discusses the same in Doordarshan vidyamrutham programme. After seeing video lessons students are posting their doubts in the WhatsApp groups from their homes and teachers are clarifying the doubts. This is very useful for students, as technology enables interactive lessons and feedback.

3 ARUNACHAL PRADESH

During the current lockdown in wake of COVID 19, the School Education Department of Arunachal Pradesh has proactively taken up the task of ensuring that children do not lose out on any opportunity to learn and to continue their academic progress by providing access to tech-enabled learning sources. It has been envisaged to integrate digital learning with classroom teaching in the post COVID period by introducing well-planned interventions addressing critical elements of the learning ecosystem for students, parents and teachers.

Following are the initiatives taken:

3.1
Radio School

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

3.2
Online Classes Programme on TV Channels

Online classes have been started for Class 9 to 12 students on the following TV channels in consultation with Kendriya Vidyalayas.

Further, the Department of Education, Arunachal Pradesh has also started Online classes programme which is being telecasted in the TV Channels of Tata Sky Channel No. 1995 DD, Free Dish DTH Channel No. 11, Dish TV Channel No. 1514, Videocon d2h Channel No 846 and at various local cable operators between Monday to Saturday .
The details of the classes are given below:

Class 6 - Time 9.30 am to 10.10 am
Class 7 - Time 10.10 am to 10.50 am
Class 8 - Time 10.50 am to 11.30 am

DTH Services	Channel No.
Swayam Prabha	27 & 28
Airtel TV	437 &438
Videocon D2H	475 & 476
TATA Sky	756 (pop up window)
DISH TV	946, 947, 949, 951

3.3
Live Classes through EDUSAT

In this initiative, selected teachers shall take live classes of students through a network of EDUSAT. For this, EDUSAT network is being strengthened and a state-of-the-art studio is being created at the Directorate of Education

3.4
Other digital platforms

WhatsApp groups/webinars/Google meet is being used by lecturers to be in touch with their students directly. It is being used in some places but many places don't have signals due to connectivity issues.

4 ASSAM

In view of the urgent need of continuing education through alternative pathways, different initiatives have been taken for filling up learning gaps during the lockdown period of COVID-19. A brief on initiatives is given below:

4.1
Gyan Brikshya - Live Digital Classroom (Tele Education Classes)

Live Tele Education classes for Class I to Class X are being broadcasted every day from 8.30 am to 7.30 pm on Mathematics, Science, and English by expert teachers from Studio set-up at SPD Office. The classes are telecasted by two local cable TV channel broadcasters, ACC and GTPL. The classes are also broadcasted on Jio TV.
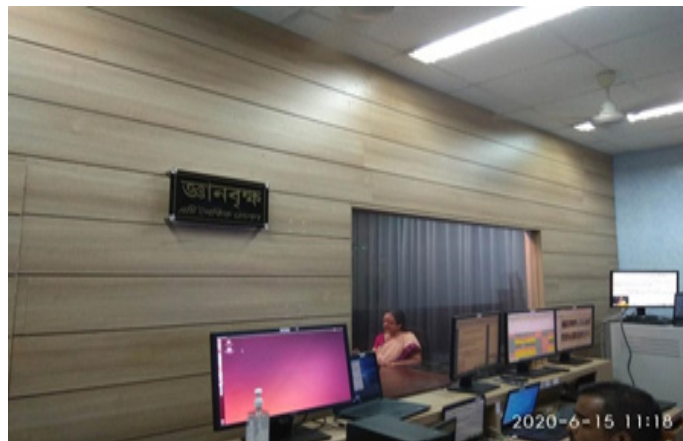
4.2
Biswa Vidya- Radio Learning Programme

Radio Learning Program 'Biswa Vidya' is being broadcasted through AIR, Guwahati and Dibrugarh. The program is being broadcasted from 6th April/20 for Elementary classes on English, Assamese, Social Science and EVS for three days in a week on Monday, Wednesday and Friday from 5.45 p.m. to 6.00 p.m.

4.3
Tele Classes through Doordarshan, Assam

Telecasting Tele Classes through Doordarshan, Assam is being telecasted with effect of 13th April/20 for class IX and X on Science and Mathematics for four days in a week on Monday, Tuesday, Thursday and Friday from 10.00 a.m. to 11.15 a.m.
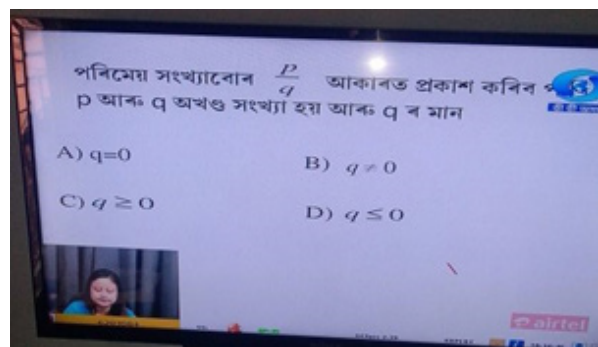
4.4
YouTube channel

Biswa Vidya Assam YouTube Channel is created for students of class VI to X. E-content for Science, Mathematics and English Vocabulary and Grammar are available. Students can easily view these e- content and can download for future reference.
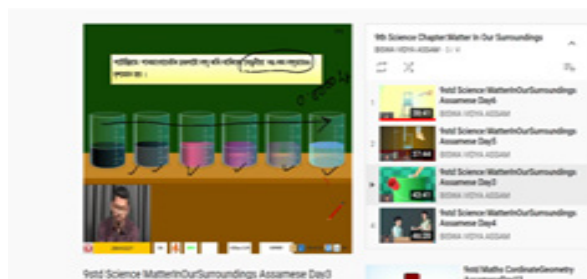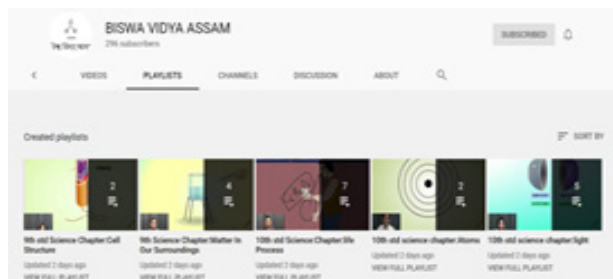
4.5
WhatsApp Group

WhatsApp Groups are formed (class wise/subject wise wherever possible) with parents/guardians by Heads of the Institutions/ teachers of the schools. Learning support including homework etc. through WhatsApp is being provided by teachers. Teachers have developed short videos on academic areas and shared the same on WhatsApp so that students can learn through these videos.

Impact: Increased parent's involvement in their childrens' learning progress, awareness among community, good relationship among Teachers & students, lower possibility of dropout children

4.6
Digital initiatives for Career Guidance

Government of Assam has launched Career Guidance Portal for the students of Class IX to XII, so that students will be able to get the information of different career paths and the institution/colleges from the portal https://assamcareerportal.in/

4.7
Mobile Application

Android mobile application is developed where e-content of class VI to X for Science,

Mathematics and English Vocabulary and Grammar will be present. Android Application will be free of cost and it will be available at Google **Play Store.** Name of the App is 'BiswaVidyaAssam' App is very user friendly and user interface enables smooth navigation.

AS-DIKSHA

5 BIHAR

During the lockdown and uncertainty over reopening of schools, an online learning programme/ initiative namely **'Mera Doordarshan - Mera Vidyalaya'** has played a significant role to continue the learning process of students across the State. Also "Vidyavahini Bihar App" has been developed and e-textbooks of class I-XII have been uploaded on it. e-contents and other digital learning materials developed by the State are also available on the Mobile App "Mera Mobile Mera Vidyalaya", official website www.bepcssa.in and YouTube channel of BEPC. These initiatives are supporting the students of class I to XII. State has been carrying out offline and online academic activities and imparting textbook lessons to students as well.

Some of the digital initiatives of School Division

5.1
Unnayan Bihar

Unnayan Bihar is a holistic learning project providing quality education in schools through interactive video lectures, supplementing the efforts of school teachers, improving the learning outcomes of the students and increasing enrolment and attendance.

"Unnayan Bihar" program started across the state in 5646 secondary/higher secondary schools during 2019-20. The program was launched on 5th September 2019 by the Hon'ble Chief Minister of Bihar Mr. Nitish Kumar. Unnayan Bihar is a multi-platform model which runs online as well as offline.

Offline Model:

In the offline model, following steps are followed for running the Unnayan Class:

1. **Concept Video:** Students are being taught through the animated concept videos which have been developed on the basis of Bihar Board textbook syllabus.
2. **Daily Test:** Once the concept is being taught to the students, a short MCQ based test is being taken based on the concept which is being taught.
3. **Peer Assessment:** Once the test has been conducted, students are asked to exchange their answer copy among themselves and the answers are being assessed by the students themselves. Peer Assessment helps students to better their understanding of the topic in a non-threatening environment.
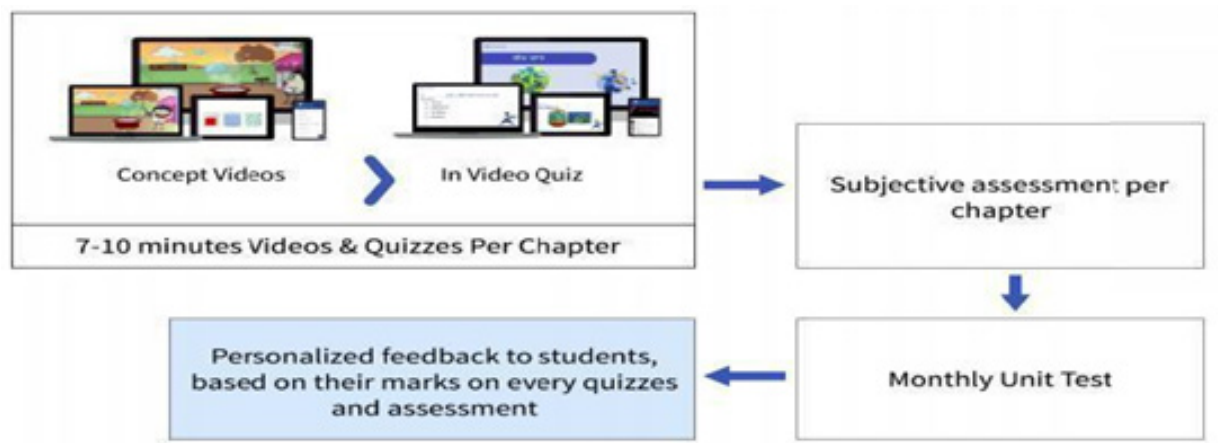
4. **Answer Discussion:** After the test gets assessed, teachers discuss the correct answers with the students and if any student doesn't understand the content, the teacher explains that part again to the students with the help of the video.
5. **Weekly Test:** On every 6th day of the school schedule, a weekly test is conducted based on the topics taught in the week. Tests are done on the OMR sheet and those OMR sheets are uploaded by the teachers on the reporting portal where it gets assessed using Artificial Intelligence and the weak spots of the students are identified.

Online Model:

In the Online model, students can download "Unnayan App: Mera Mobile Mera Vidyalaya" from Google Play Store and access the e-content as well as they can ask their doubts on the mobile platform and get their answer from Global Expert.

Reporting of the Program

For reporting of the program, teachers are asked to report on a daily basis using the Unnayan Teacher App which has been developed. Teachers can select the topics taught along with the photograph of the class and attendance of the day. For the weekly test, OMR sheet has to be scanned on the App for each student and the evaluation is being done using Artificial Intelligence on the App itself.

Monitoring of the program:

For monitoring of the program, a dashboard has been created where the detail of each school district-wise and block-wise is available; whatever reports the teachers update on their app, it can be seen on the dashboard realtime.
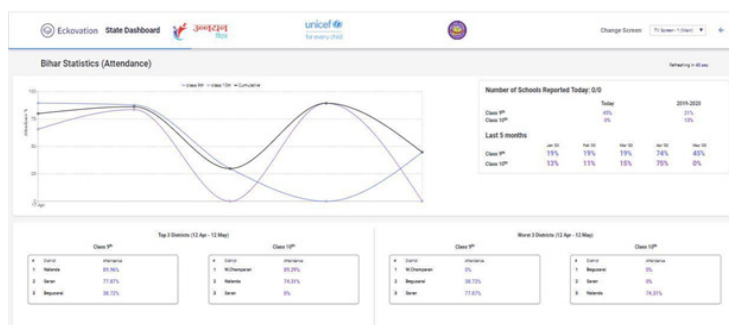
A State Project Monitoring Unit (SPMU) has been formed which works dedicatedly on the monitoring of the program. SPMU cell has also been formed at BEPC under the Quality Department where SPMU team members are placed.

Unnayan App: Mera Mobile Mera Vidyalaya

1. "Unnayan App: Mera Mobile Mera Vidyalaya" can be downloaded from Google Play Store.
2. Students can access the e-content for class VI to XII on the app.
3. Students can ask their doubt as well on the mobile platform and get their answer from the respective Subject Expert.
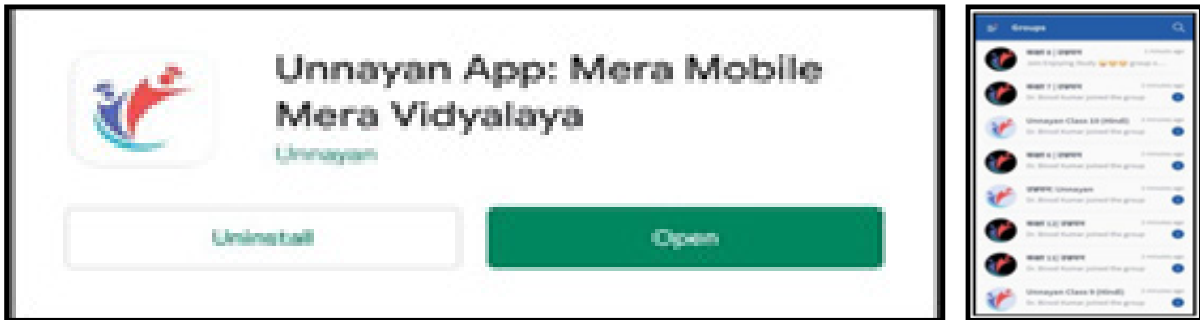
5.2 Vidyavahini Bihar App

The Education Department, Govt. of Bihar launched the 'Vidyavahini Bihar App' on which all the textbooks of Class I to XII have been uploaded and can be downloaded chapter wise.

5.3 Mera Doordarshan Mera Vidyalaya

During lockdown, classes for the students of class I to XII is being run on DD Bihar and 5 hours slot has been allotted by Doordarshan to BEPC.Classes are run on TV in the same manner as it used to run in Schools like stories from Bapu ki Pati and Ek tha Mohan is being telecast like morning assembly, Safe Saturday program is being run on Saturdays and Art integrated learning is being telecasted on Sundays.

5.4 TV Channel

- Doordarshan Bihar has allotted 5hours time slot (one hour each for Class I-II, Class III to V, Class VI to VIII, Class IX and Class XI-XII) for digital learning.
- The Department of Education, Bihar has already started the telecast of e-content for class IX-X students from 20.04.2020, for class VI-VIII along with class XI-XII from 04.05.2020 and for class I-II along with class III-V from 01.06.2020 through DD Bihar.

Weekly routine is as follows:

Time slots	Class	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9:02 am to 10 am	6th -8th	Subject wise e-content according to Monthly planner					Safe Saturday	Art Integrated Learning
10:05 am to 11am	11th -12th	Subject wise e-content according to Monthly planner					Lakshya (Starting from 6thJune)	Aadha Full
11:05 am to 12 noon	9th -10th	Subject wise e-content according to Monthly planner		Experiments based on the syllabus			School TV	Scrappy News / Motivational videos
3:05 am to 4 pm	1st -2nd	Subject wise e-content according to Monthly planner					Stories	Art Integrated Learning
4:05 pm to 5 pm	3rd -5th	Subject wise e-content according to Monthly planner					Safe Saturday	Art Integrated Learning

Partnership with Civil Society

Bihar for continuation of Education during COVID -19, a comprehensive response plan was developed. UNICEF provided technical support in developing the plan. The plan includes the following aspects:

1. Developed guidelines for Risk reduction communication, shared through the communication channels.

2. Conducted capacity building – orientation to all DEO/DPO and education officials both state level and district level

3. Orientation of teachers completed through online platforms

4. Continuation of education through Unnayan App: Mera Mobile Mera Vidyala for classes 8-12 a mobile application created to support students learning. This application has inbuilt artificial intelligence which tracks individual student learning. Assessments are inbuilt into the system where in student learning is assessed. Students can raise questions and get them answered by teachers as well as experts. UNICEF provides technical support in content development and monitoring.

5. A Program on Doordarshan has been developed and MOU signed with DD-Bihar for broadcasting the classes for 1 to 12 in five slots from the second week of April 2020. Morning 9am to 12noon and 3pm – 5pm. These classes are

comprehensive in nature, both academic and life skills, safety and security both personal and online safety lessons are provided to children. The academic calendar of Bihar is followed. UNICEF provides support in content development for all the episodes.

6. A discussion is initiated with All India Radio to reach out to children who have no access to TV or mobile. Technical content is being developed by UNICEF together with the Bihar Education Project Council. Plans are on to start the classes soon. Audio contents are developed for a graded reading program.

7. Educational contents from various NGOs working in the field of School Education, such as - Pratham, Centre Square Foundation, Pratham Books and others have been taken and being used in continuity of learning programs.

5.5
Social Media Based Learning

Several groups are formed via WhatsApp and Facebook, which carry out online classes for the students of Class 6 to 8 from April 13. Facebook live program is also a part of providing live classes to the students which has more than 25,000 members.

5.6
Digital Education Portal

Bihar Education Project Council has also created a digital learning platform which is used to telecast the episodes of all the classes. http://www.bepcssa.in/en/digital-learning.php

The portal provides e-based material and live telecast for classes:

1. Primary Classes (1-5)

2. Upper Primary Classes (6-8)

3. Secondary Classes (9 & 10)

4. Senior Secondary Classes (11 & 12)

5.7
Web based learning

Bihar Education Project Council has initiated the YouTube channel to share the digital content for teachers & students, which can be visited using the link given below:

https://www.youtube.com/channel/UCk-LGy9rQLi6t_A3UXw2GTQ
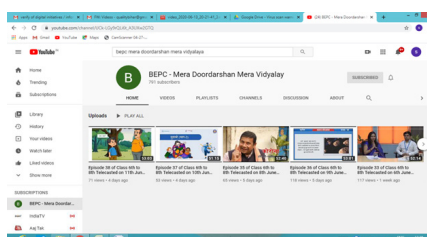
Bihar Easy School Tracking (BEST) – A Mobile Application for Real Time Monitoring of Schools

BEST Application is a mobile app which is developed with the help of digital technology. The app enables real-time monitoring of elementary as well as secondary schools of the State of Bihar. The education officers from CRC to State level could monitor the schools under their jurisdiction through this very App. All the stakeholders related to education could also monitor schools through the App. The App is available on Google Play Store. This Mobile App is first of its kind in the State. The real time monitoring of schools will be a deciding factor in bringing improvement in work culture, capability and running of schools.

To accomplish this goal the system has two main parts:-

1. Android Application : For data reporting
2. Website : For monitoring and viewing reports

Mobile Application Features

•   OTP based application.

•   Role/Designation based user that enables users to concentrate only on their work region

•   Easy login, and easy password and username recovery.

•   View and edit user profile; user can change the work region.

•   School Observation; authorized user is allowed to enter HM/Teacher and Student attendance.

•   Besides, there are also some indicators/questions related to school operation and sanitation which the user will answer based on his/her school visit.

•   GPS enabled reporting, User location is captured at time of data reporting, which ensures true reporting.

•   There is a distance lock and the user can monitor school only if he/she is within 0.5 km of school periphery.

•   Offline Functionality - In case of remote areas where internet availability is an issue. This application can work without internet connectivity. And it will upload the real time data when the internet is available.

•   It is bilingual (i.e. Hindi & English) App.

•   Notification – Application can save the messages which have been sent to him in the application. This notification could be a reminder of the task assigned to the user.

Welcome Screen

Dashboard

- Profile

- Observation

- Download school

- Notifications

- Upload

Attendance Reporting

Observation

Answers of questions related to schools will be entered after inspecting /monitoring school.

Website Features

- Though website (www.bepcbest.com) can be viewed by any visitors, only authorised user can login and generate the report and perform other admin activities

- Website content is completely customised and can be changed by logged in admin users.

- Dashboard – shows the school GPS locations on a map with various indicator values.

- User Management – Admin can authorize the new registered user. He/she will be able to delete and recover any user.

- Assignment – Admin will assign the task to the user (Govt. officials), regarding when and how many school observations they need to perform.

- Reports – Logged-in user is allowed to generate report based on HM/Teacher and Student attendance and the reports related to indicators i.e. Quality of MDM, Time Table, Assessment of Learners, School Cleanliness, Availability of Boys & Girls Toilets and Its functionality Etc.

- Notification – Logged-in admin is allowed to send notification/ messages to any registered users.

Implementation of App – At a Glance

- **Launching –** App launched by Hon'ble Education Minister, Govt. of Bihar on 17.03.2018.

- **Training –** All DEOs, DPOs, District MIS I/c, one BEO and one CRCC from each district participated in the training workshop organised at Patna. Districts organised training for all BEOs, BRPs and CRCCs at Block Level.

- **Status of Monitoring**

    - **Elementary Schools -** Monitoring of elementary schools was started from 09th July, 2018. In the Academic Year 2019-20, as on 31st March, 2020, 42483 elementary schools have been monitored by education officers from state to CRC level. The online monitoring of elementary schools has played a significant role in bringing improvement in work culture, capability and running of schools. This monitoring has registered enhanced teacher attendance and student attendance.

    - **Secondary Schools -** Encouraged by the result of monitoring of elementary schools through BEST App, the State has taken a decision to expand the periphery of monitoring upto secondary & senior secondary schools. Required changes have been made to the App. After testing on pilot basis, actual monitoring has been started from Academic Year 2019-20. So far, 272 secondary/sr. secondary schools have been monitored.

- **Reports** – Reports on all indicators/information gathered through the app can be seen on the website.

- **URL**: www.bepcbest.com

BR-DIKSHA

6 CHANDIGARH

All the inhabited sectors in UT Chandigarh are covered by school education as per habitation norms. Chandigarh has a good network of 114 Govt. schools, 7 Govt.-Aided schools, 74 recognized private schools, and 7 Central Govt. schools including Kendriya Vidyalaya /Navodaya Vidyalaya Samiti/ schools run by the Air Force in their area. Barring a few, all schools are composite in nature covering grades I to X/XII.

Digital Education Initiative taken by Chandigarh:

6.1
Project Phoenix

- It is based on technology to assess the Learning Outcomes and covers the students from class 1 to 8.
- Subject Assessed : All Subjects
- This program is accessible via both Mobile App & Web Portal
- Teachers, Heads of School and Monitoring Teams monitor and track the progress of learners
- Helps to identify the gaps and weak students who are given remediation.

PHOENIX APP RECORD ENTERED BY TEACHERS AND VERIFICATION BY SCHOOL HEAD

6.2
E-Teaching Learning

- Subject Teacher groups are formed for all subjects at Elementary, Secondary &Sr. Secondary level.
- It is based on use of available digital resources to teachers at home/school for creating E content.
- Accessible to all Teachers, Students of respective classes.
- Teachers, Head of School and Monitoring Teams track the attendance of students and progress.
- Evaluation of the Teaching Learning chapter wise is done by online Google form.

6.3
Online Teaching in Schools:

- Students are regularly accessed by teachers for each subject once in a week as per common time table through WhatsApp, Google classrooms, videos and SMS etc.

- Videos of self recorded lessons and link of other online study material are being shared with students by the teachers.

- Schedule of live telecast of programs on Kishore Manch channel of Swayam Prabha is also being shared daily with students.

- Regular assignments are also being given to the students online which is then completed by the students and shared back in the same mode with the teachers. These assignments are then evaluated by the teachers and shared back with the students. The doubt if any are clarified by the teachers through digital mode.
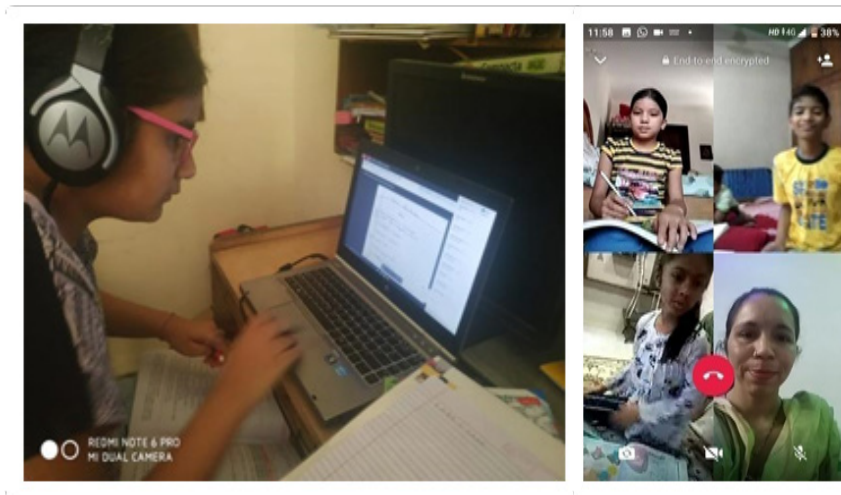
WhatsApp Groups have been formed (Class wise/Subject wise) with teachers of the school and students for learning support and Homework. Teachers are developing short subject specific videos and are sharing the same through the WhatApp. This helps the teachers to remain connected with the students to avoid family stress and fill in the void of sharing.

Initiative to improve Mathematical Skill in Collaboration with Khan Academy

- To Make fundamentals clear and understandable to students of all levels, a Pilot Project was launched in collaboration with Khan Academy covering 09 Govt. Schools and approx. 3000 students of upper primary classes in first go.

- Training the Heads, teachers to register the students and Access the content developed by them from time to time. (next scheduled for 30th June 2020)

- Feedback and support to teachers, Principals and Administration through WhatsApp groups, Google meet webinar's

The project has been extended to 15 more Govt. Schools (June 2020), by covering approx. 7000 students. Presently they have a total of 24 (9+15) schools and 10, 000

(3000+7000) students from Upper Primary Classes of Government schools.

6.5

Collaboration with ARPAN – Joy of Giving (NGO- INFOSYS)

ARPAN is an NGO working in Education domain since 8 years in Chandigarh region with the objective to reduce the education gap among kids from economically weaker backgrounds. In collaboration with the Education Department of Chandigarh, Arpan started - Paathshala project to eradicate the education gap in the kids of class 3rd to 5th in 5 Govt. schools:

Demo class with the teachers & students by ARPAN (Infosys) NGO:

6.6

Online Teaching for Out of School Children (OoSC) under Special Training Centres (STCS)

During lockdown period all the teachers of STC are connected through WhatsApp with students for teaching learning. Teachers also sharing their progress report and discuss their problems and counsel them. TLM and worksheets prepared by teachers as per their lesson plan and shared with the students. Home Assignments are given to the children through telephone and WhatsApp. Links of NCERT's educational channels are also shared by teachers with students.

Online Teaching to Children with Special Needs (CWSN)

During the period of lockdown and closure of schools due to COVID-19 Children with Special Needs are being taken care of for educational needs by Resource Teachers (Special Education). Resource Teachers are making use of online educational material, worksheets available in different Apps to reach out to Children with Disabilities through WhatsApp groups. They are taking feedback from parents through phone calls or through WhatsApp. Resource Teachers are also catering to the psychological needs of CWSN during lockdown. They undertake counseling through phone calls and even guide parents on various sports training to keep their physical energy channelized.

6.8

Use of DIKSHA Portal

- It is based on technology assisted teaching and covers the students from class 6 to 10.

- Subject taught: Maths, Science, Social Science

- This program is accessible via both Mobile App & Website

- Teachers, Heads of School and Monitoring Teams monitors and tracks the progress of learners

CH-DIKSHA

6.9

Use of Online Evaluation

Online MCQ based tests for Class IX & X (Mathematics) and class XII (Physics) have been conducted by Department of School Education, Chandigarh. Approx. 15000 students appeared for these tests.
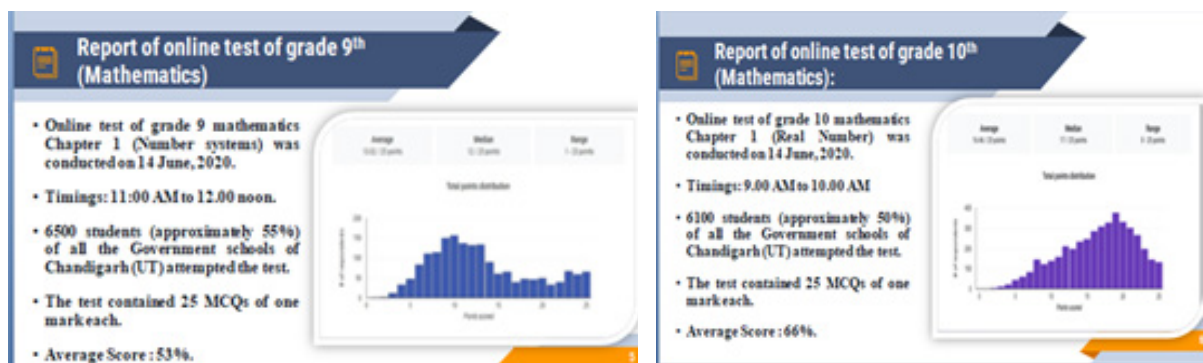
6.10
E-Pathshala

- It is based on technology assisted teaching and covers the students from class 6 to 12.
- Subject taught: Maths, Science, Social Science upto class 10 , And different streams (commerce, Science & Arts) for Sr. Secondary Classes
- This program is accessible via both Mobile App & Website
- Teachers, Heads of School and Monitoring Teams monitors and tracks the progress of learners.

6.11
Kishore Manch

- It is based on technology assisted teaching and covers the students from class 9 to 12.
- Subject taught: Maths, Science, Social Science upto class 10 , And different streams (commerce, Science & Arts) for Sr. Secondary Classes
- This program is accessible via television.
- Teachers, Heads of School and Monitoring Teams monitors and tracks the progress of learners
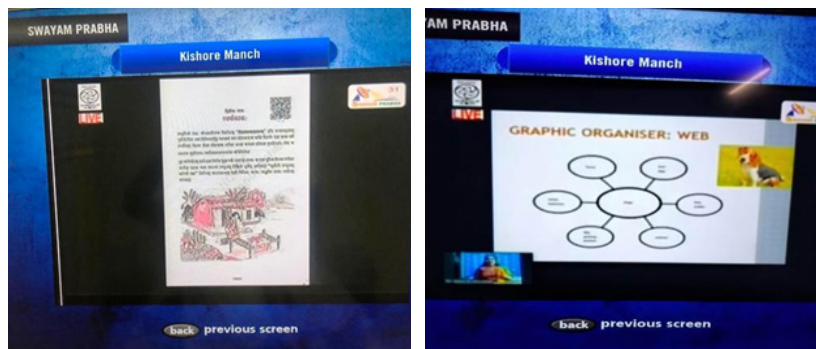
6.12
200 Smart Classrooms through Extra marks (09 Govt. Schools and Khan Academy)

- It is based on technology assisted teaching and covers the students- class 6 to10 (Extramarks) and class 6 to 8 (Khan Academy - only Maths)
- Subject taught: Extra marks- All subjects from class 6 to 10 and Khan Academy - Maths
  In this program, Extra marks is device inbuilt and Khan Academy is web based, Teachers, Heads of School and Monitoring Teams monitors and tracks the progress of learners

ICT Infrastructure

ICT infrastructure has been made available in:

• 12 Govt. Schools are SMART SCHOOLs, out of which 09 Govt. Schools have 200 smart classrooms in collaboration with M/s. Extramarks Pvt. Ltd.

• 40 Govt. Sr. Secondary, 53 Govt. High Schools and 11 middle schools have computer labs.

• Most Senior Secondary and Secondary schools have multimedia projectors.

• Video Wall Setup in 03 Govt. Senior Secondary Schools
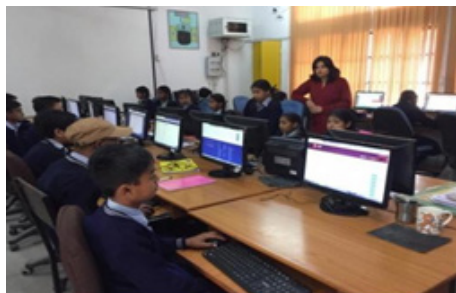
Digital Initiatives in Some Private Schools

SCHOOL-1:

During this time of COVID-19 when the new normal is all technology based, The school has kept themselves abreast with the technology. Their Virtual Classroom is a digital replica of the traditional classroom. The teachers teach the students face to face via internet enabled technology platforms like MS teams and Cisco WebEx.

Their Best Practices Involve:

• Digital Interactive Classes

• Creative and Critical Thinking modules for all subjects to enhance creativity

• Sharing modules with Hubs of Learning and other schools every week

• Conducting Assessment of Speaking Listening activities online

• Reading Challenge through Story Weaving ,Story Reading, On the spot Sentence Correction ,Cartoon Strips and Dialogue Writing etc

• Sending students' articles for Newspapers and posting their creative work on School's Website

• Online subject modules, Podcasts and Interactive Presentations sent through school portal

• Online assessment through Google forms and ongoing activities and correction by teachers.

• Regular Interactive sessions of teachers with Principal.

- Yoga ,Art Music and Dance is woven in our curriculum even during online classes

- Life Skills classes is yet another active class with bubbly faces enjoying and enhancing their skills

- Teachers also are enhancing their teaching learning skills by participating in various capacity building webinars

SCHOOL-2:

"Technology at school aids its students to enjoy the learning process and stakeholders to stay connected."

- Regular online polls are conducted at school through School Pad before putting hands into any new initiative in order to take parents' opinion and line of thoughts.

- Online SPOC/Chat Sessions: SPOC (Sole Point of Contact) and Chat sessions render a productive time to the parents in order to have fruitful conversation with them encircling students' performance in every aspect. The whole idea behind conducting these online sessions is to review and examine students' performance and help parents with any hassles or query.

7 CHHATTISGARH

The Department of School Education, Government of Chhattisgarh has been making strides in EdTech since a long time. The release of the platform – 'PadhaiTunharduvaar' (Education at your doorstep) is a post-covid initiative. The objective of this platform 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 the opportunity to read, write and learn, while staying in their homes. The School Education department of 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 a mix of content like LIVE Classes, offline video lectures, simulations, animations, worksheets, podcasts etc.

Chhattisgarh has been a very proactive state with respect to implementing Technology as it provides a level playing field to all its beneficiaries. To ensure access, equity and quality of teaching and learning, the department has implemented several digital initiatives. In this report we look at some of these initiatives and how it has helped the students and teachers.

Some of the flagship EdTech initiatives launched by the state are as below:

- PadhaiTunharDuvaar (PTD)
- DIKSHA
- DiGiDuniya (ICT at Schools

Scan to see the full
Documnetary

पढ़ई तुंहर दुआर

cgschool.in

स्कूल शिक्षा विभाग, छत्तीसगढ़ शासन

7.1

PADHAI TUNHAR DUVAAR (Education at your doorstep)

Video documentary link: http://tiny.cc/g6htqz

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 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 through a mix of content like LIVE Classes, offline video lectures, simulations, animations, worksheets, podcasts etc.
Some of the program highlights are as below:

1. Virtual Schools: The department has worked on creating around 45000+ virtual schools, where the teachers of the same school engage with their students and provide them teaching and learning material on a daily basis. In addition to this, the teachers also guide the students in solving the homework which is uploaded on the portal. In this way, children are also being given homework for home study.

Once a student completes homework, he/she can take a photo and simply tap a button to upload it on the portal and the teacher reviews it using the annotation tools available on the portal and sends it back to the students. In this way, students now focus on their studies to overcome their weaknesses in subjects while staying at home.
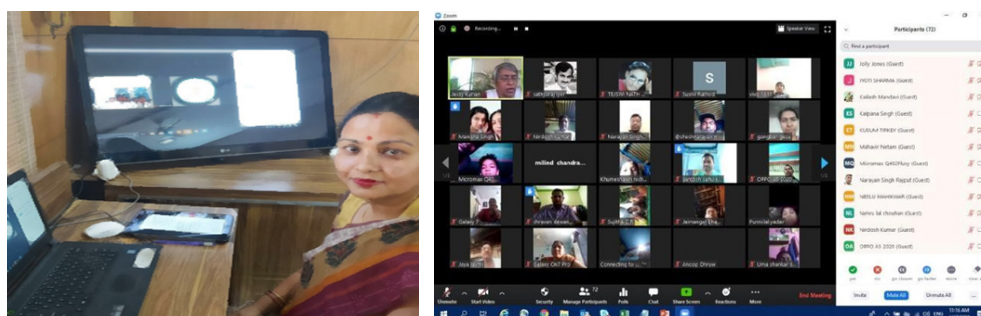
2. **Audio bridge classrooms:** In many rural areas, internet connectivity and smartphones availability is still a challenge. In order to make online learning a level playing field, the department has taken proactive steps to ensure that the students are also able to connect via feature phones or landline, without the need for any Smartphone or internet. The students can now attend the LIVE classes and raise doubts. The audio video content is also broadcasted LIVE on the official YouTube Channel name **(PTD Chhattisgarh)** so that students from other Hindi/English speaking States can also view and learn from the classes being held.

3. **Crowd sourcing of e-content:** The department of School Education has taken serious steps on crowd sourcing of content from teachers, NGOs and other content development firms at zero cost. The idea is to provide a mixed variety of joyful learning material to our students. Once the content is uploaded, they are very carefully reviewed by the experts and only after the approval; the content is visible to the students. As on date, the portal has garnered more than 18,500 crowdsourced audio video content, in addition to this, it also has 1000+ image-based activity sheets, course material, audio (MP3) based content. In addition to this, more than 1500+ hours of LIVE lectures have been delivered in 13,000+ sessions through the portal which has been attended by approximately 12,00,000+ participants from class 1-12. These features have helped the teachers and students to connect from their homes without the need for traveling outside for various subjects ranging from class 1-12.

4. **Raise hand (Ask questions):** The portal also has a feature where the students can post their questions/doubts pertaining to the subject they are learning. These are then assigned to respective teachers and an answer is sent to the student within 24-48 hours. An SMS notification is also sent out to the student and teacher whenever a question is raised or answered. Regular monitoring is also being carried out by the state to ensure no question goes unanswered. This way, all doubts pertaining to studies and personal guidance is remotely being supported by the teachers. All the content is also being mapped to the Learning Outcomes and a helpline number has been provided on the portal **www.cgschool.in** for any technical support.

Jugaad Studio: To promote low cost, high quality content, the teachers are setting up a Jugaad Studio in their schools and homes. The first prototype of the Jugaad Studio was launched at DIET and CTE in 2020. Through proper planning, teachers are invited on a daily basis and recording is made with the help of the technical team. A YouTube Channel is also set up where all the videos are available for teachers with respect to technical support. To set up a Jugaad Studio, a teacher needs to have any smartphone, earphone/collar mic & a mobile tripod. Some knowledge on building a ppt serves as an added advantage. In order to promote the usage of FOSS (Free and Open source tools), training videos are made and uploaded on our official YouTube channel and Portal.

5. **Motor iskool:** To provide a face to face learning program, the department is also mulling over developing a mobile, motor iskool, wherein selected teachers will take the responsibility of traveling to remote locations across the state and conduct classes for kids in their own settlement areas. Mobile connectivity and device availability are still a large challenge for a lot of students, hence this type of makeshift arrangement will help the students immensely. The essential duty of a teacher will be to teach a concept, conduct activities in group, assign homework to students and ensure that the homework is evaluated and given to the students on the spot. The teacher will also use **loudspeakers** and his smartphone for playing relevant content for the students.

6. **Special Set up for Outreach and communication:** The department of School Education has also set up a State media cell based out of SCERT that looks after outreach and communication activities for key EdTech initiatives of the state. Through regular feedback, the department is also working on promoting usage of the platform across the state.
Recently the state organized a Pan-state campaign **'Guru Tujhe Salaam'**. The objective of this program is to inculcate a sense of gratitude and thankfulness towards the teachers for their serious commitment and dedication Pre and post-CoVID period expressing their fond memories of their teachers using 'Aha moment'. This activity is widely carried out across 2000+ clusters in Chhattisgarh.

7. **Loudspeaker School:** In many parts of the rural Chhattisgarh, community involvement is very high when it comes to education. In a lot of villages, where connectivity is a major challenge, the teachers have collaborated with local community/panchayat for getting loudspeakers and relaying audio lessons. When the rhymes or story starts playing on the loudspeaker, the student find it extremely irresistible and go in a group and sit to listen to the items being played. This way, instead of playing movie songs, the community is encouraging to play educational audio recordings such that students can be benefitted.

8. **Online Training Programs:** 8.Chhattisgarh has collaborated with more than 22 NGOs in providing various types of training to teachers. The capacity building programs are mainly aimed at improving the skillsets of teachers and enabling them with the latest tools and techniques for improving their classroom instructional delivery. Many Nonprofit organizations like Million Spark Foundation, TheTeacher App, Language Learning Foundation etc. have also created customized online learning modules for the teachers in Chhattisgarh that are easily available via their android apps.

9. **Social media for supporting PLCs:** In order to boost a collaborative learning, the teachers have voluntarily set up professional learning communities. These PLCs are open to anybody and anybody can exchange good practices that can be implemented to improve the efficacy of teaching pedagogies. In order to break the barrier of geographical restrictions, these PLCs are also making optimum utilization of social media to reach out to wider teacher community groups across the state and the nation. Currently there are more than 5,400 active PLCs in the state. On an average there are 80-100 teachers connected to each PLC.

Scan to view the full video documentary.

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11. **Monthly discussion paper:** In order to provide a unified platform for teachers to exchange ideas, thoughts, conduct survey and share creative inputs, the state has also been proactive in making a monthly discussion paper called 'Charcha Patra'. The charcha Patra is published every month centrally from the state using zero budget. The charcha Patra is by the teachers and for the teachers. The sample charcha Patra can be viewed on this link: http://www.ssachhattisgarh.gov.in/pedagogy.php

12. **Gamified Assessment solution:** The department has collaborated with NIC to create many gamified assessment solutions. It is commonly observed that students tend to spend a lot of time on mobile games. The idea was to apply the same the gamification theory for learning. For this, the a set of 1,00,000 question bank was created. Each question was tagged to NCERT defined Learning Outcomes and then they were rendered into small games. Online Cricket was taken chosen as the first game, where students can choose various avatars and challenge other students for a match. When the game starts, a toss is made and the batsman or fielder is decided. Depending upon this, random questions are thrown on the batsman and he/she has to answer the objective type question in a pre-decided timeframe. If the answer is correct the ball goes for a six, if it is wrong, the batsman is declared out. The right answer with explanation is given at the end of the question. This way, the runs are scored and students find it very interesting to play and score runs. But the real intent is that students understand and learn through assessments. Similarly, the department is working with NIC in releasing a game called KBC- Kaun Banega Champion, in the similar fashion of the famous Quiz show- Kaun Banega Crorepati.

13. **Multimedia Textbooks:** SCERT has developed Multimedia Textbooks, the idea behind this was to bring textbooks to life. In MMT, a textbook speaks for real through TTS engine and there are tons of experiments which are shot in professional studio of SCERT. Students can now watch experiments come to life, which are normally given in textual/pictorial format in the textbooks.

14. **Edusat:** SCERT has set up 330 Edusat center across the state where ICT based learning is delivered. These centers are connected to satellites and direct to classroom lectures are made. These Edusat centers are not only used by students, but also by teachers for many capacity building and skill development programs.

15. **Safe internet practices:** As the learning goes online, the department has taken serious measures to ensure there are safe learning environment for students and teachers. Many times, teachers and students social bullying and it becomes a very difficult situation since such miscreants are mostly unknown and non-treatable. Preventive solution is the best way to combat such elements. Also, many times students get lost on their way to browsing. For this, the department has created lots of 'Do you know' and 'Safety first' videos where teachers, students and parents have been taught to use safe practices while using internet. All of these instructional videos are available of the state YouTube channel: PTD Chhattisgarh.

7.2

DIKSHA (Digital Infrastructure for Knowledge sharing)

Video documentary link: http://tiny.cc/c2htqz

The objective of this initiative is to provide access to high quality connect created by teachers with the help of a QR coded energized on a textbook. The Department of School Education launched the DISKHA initiative in early 2018 with the printing of 4300+ QR codes planted in 67 titles of textbooks for classes 1 up to 10.

A student basically scans the QR code and gets immediate access to the content without the need to spend

time in browsing content as the entire content is contextually placed well within the textbooks. In addition to this, there are also practice assessment questions that are available at the end of the chapter, which the students can use to test their knowledge and improve their knowledge gaps.
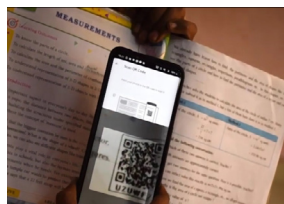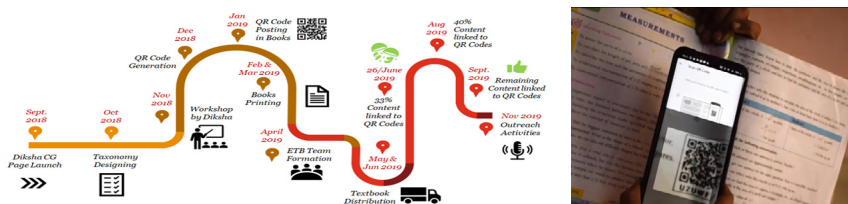
Below are some vital stats with respect to content usage and consumption.

| 10.6 Lakhs+ Content | 28.3 Lakhs+ Total |
| 52 Lakhs+ No. of | 2.3 lacks + hours of |
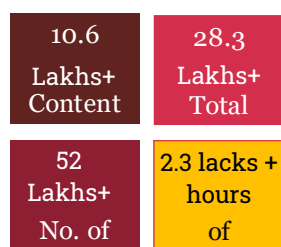
Overall consumption details of DIKSHA in Chhattisgarh
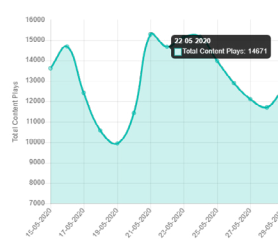
Total content plays on DIKSHA in Chhattisgarh

CG-DIKSHA

In order to promote the widespread usage of DIKSHA, SCERT has conducted many campaigns at ATL and BTL level which has resulted in wider adoption of DIKSHA in Chhattisgarh.

7.3

DiGiDuniya(ICT at schools)

The objective of these initiatives is to set up Digital Classrooms and Computer Labs for creating a meaningful digital experience by the integration and active adoption of technology tools in classroom practice for an improved teaching learning approach, teacher effectiveness and ultimately student performance in the classroom. This is helping to generate an active interest among students towards learning, foster learning with understanding, and build knowledge, competencies, attitudes, values and skills relevant in the functional world of work. Under this project 4330 government-run schools from all the 27 districts and more than 10, 00,000 students are being benefited.

7.4

Highlights of this initiative are as below:

1. 4330 schools have been covered under the ICT at Schools scheme.

2. 10,00,000+ students across all 27 districts in CG will be directly benefited by this intervention

3. Providing digital experience with new technology solutions for learning, to help in improving performance and impart skills to become future ready for competitive exams and employability.

4. 1246 Schools will have ICT labs where students will have access to personalized adaptive learning and assessments.

5. Content for class 1-12, also available in regional languages.

6. A dedicated mobile app for accessing the high-quality content outside the classroom is being built.

7. All content has been mapped to Chhattisgarh's State board and NCERT prescribed Learning Outcomes.

8. All teachers are also being trained for using ICT toolkits and developing e-content.

9. Real time data of performance of students from the periodic analytics assessment for monitoring and evaluation has been provisioned.

10. All schools with ICT Labs are being provided with technical support staff for assistance and training.

11. All the content from DIKSHA, MultiMedia Text and other e-repository is also being made available for students and teachers.

In this way, the School Education Department has been making strides in improving the education landscape in the state for a holistic teaching and learning digital environment.

8 Dadra and Nagar Haveli & Daman and Diu

8.1
Survey

A student wise medium wise survey has been conducted of the students studying in primary, upper primary, secondary and higher secondary government schools of Dadra & Nagar Haveli, Daman and Diu to decide the modes of remote learning. In the UT, the education is being imparted through four mediums i.e. Gujarati, English, Marathi and Hindi. According to survey report, out of 73148 students studying in Government schools (excluding class I, IX and X), a total of 38,713 students (52.9%) of various mediums have smart phone. Out of 38713, around 33,991 have TV connections as well. There are around 8475 students (11.58%) who don't have a smart phone but have a TV connection.

8.2
E-portal

A simplified portal named "Adhyayan" has been developed for students studying in elementary, secondary and higher secondary sections of government schools to impart learning. There is a module on assessment based on MCQs as well in the portal. The portal is yet to be rolled out. Also, an online app is in the process of development wherein, the contents can be accessed by the students offline after the app is downloaded. For the time being, the WhatsApp groups have also been created with the students by the concerned teachers for the purpose of imparting education.

Another, a simplified portal named "E-gyanMitra" has also been developed for students studying in elementary, secondary and higher secondary sections of government schools to impart learning. There is a module on assessment based on MCQs as well in the portal. The students are using the portal. The key features of the portal are:

- The videos that are being uploaded are being locally made and are aligned to the academic syllabus of that particular class.

- The school wise, teacher wise and student wise logins have been created where in the subject teacher can monitor the number of videos being seen by the students and can hence, persuade the students to see all the content that is being provided through the portal.

- The students cannot move to next video unless and until he/she has completed the assessment related to the previous video.

- The link of the portal and the login ids are being provided to the students through classwise whatsapp groups.

- Also, an online app is in process of development wherein, the contents can be accessed by the students offline after the app is downloaded.

8.3
Content preparation for e-learning

Content preparation for e-learnng- The idea is to disseminate standard wise common content in form of videos, PPT etcin four different mediums (Hindi, English, Gujarati, Marathi) across the government schools in the three districts of the UT. Thus, the videos are being prepared as per the academic calendar by the teachers, which shall be verified and uploaded on the portal and later in the app. The already available material from DIKSHA portal, e-content (provided by TATA Class) in form of animation videos that was being used in our smart classrooms before COVID shall also be used.

Figure –Snapshot of Video prepared by teachers from UT of Daman & Diu

8.4

Broadcasting on Television

The learning content will also be broadcasted on widely seen local channel through local cable operators. The VANDE GUJARAT channels are already quite popular among the students in the UT. Also, the awareness is being created among the students and the parents to encourage the use of the channels being broadcasted by NCERT.

8.5

Learning through Workbook

The teachers have prepared the workbooks as per the academic calendar for students studying in classes I to V in Government schools. These workbooks will have worksheets pertaining to few chapters. They carry solved examples as well to guide the students. Apart from textbooks, notebooks and stationery, these workbooks will be distributed to the parents from time to time. For the remaining students, the questions will be provided from the syllabus that will be covered through e-portal and Television for practicing.

The UT of Dadra & Nagar Haveli along with Daman & Diu was observing four initiatives in order to impart digital education before the lockdown amidst Covid-19. These programs cater to students from Class 1 to Class 12 through different mediums. Details are mentioned below:
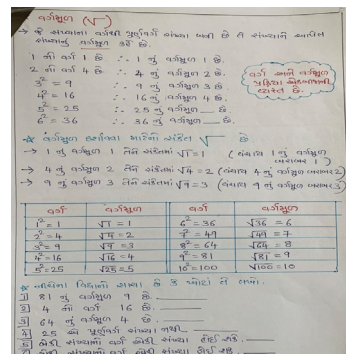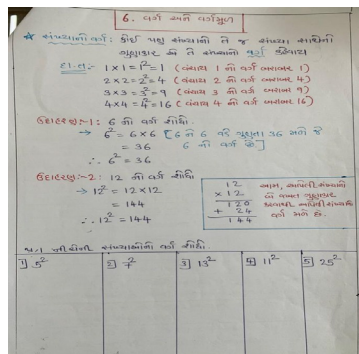
Figure - Workbook–cum-Worksheet prepared by Teachers for Class VI-VIII

8.6

Other Initiatives

Digital Classroom

These classrooms helped empower students from lower income backgrounds to access technology. The students were given 21st century learning tools with meaningful access to technology.
E-content was provided in three languages (Gujarati, English & Hindi) for eleven subjects for classes 1 to 12. The contents are copyright of TATA Classes.

Vande Gujarat

Television being the medium to provide conceptual understanding for three subjects (Maths, Science & Social Science) for classes 6-12, this program is popular among students.

GSHSEB Gandhinagar (YouTube Channel)

The aim of the channel is to provide better conceptual understanding among students from class 9 to 12th. The channel is very helpful for students during lockdown. The channel caters contents for four subjects i.e. Maths, Science, Social Science and English.

Concept Classes

For students of classes 1 to 8, these concept classes are for four subjects i.e. Maths, Science, Social Science and English.

E-Notes

For classes from VI to XII, the notes are being prepared by the teachers separately for separate mediums for better understanding of the chapters. These notes will be shared by the teachers as pdf files on Whatsapp groups. For the students who don't have access to the smart phone, the same shall be distributed in hard copy.

9 Delhi

It is the beginning of a new academic session and the academic days are getting lost due to suspension of classes in schools. In order to minimize the academic loss to the students of government schools, the Directorate of Education has made comprehensive plans involving all stakeholders, namely students, parents, teachers, Heads of Schools, Teacher Trainers and administrators, to resume teaching-learning activities for the students of Govt. schools of the Directorate of Education through digital and online tools and also to handhold the students through this difficult period:

For students of KG to Class VIII (5.74 lakh students Approx)

- Daily subject agnostic generic activities (in three cohorts ie KG to 2nd, 3rd to 5th and 6th to 8th).

- Happiness activities (KG to 8th).

- Online Happiness Class for family daily at 4 pm conducted by teachers of DoE

- Mission Buniyaad Activities (class 3rd to 8th).

For students of classes IV to XII

- Live online classes are being conducted for students who appeared in class XI Exam (1.65 lakh approx) and are waiting their results and almost 1.33lakh willing students have enrolled for such classes .(more than 35 thousand are attending live session as on date)

- For students of class 9th, current & previous session (4.5 lakh student approx.) online classes would be starting in June in partnership with Khan Academy.

- Students of classes 9th to 12th are attending online Entrepreneurship Mindset Activities.

- Class 10th and 12th students (those who have appeared for the board exam this year) are attending online English and Personality Development Class.

9.1
School Education

- Online and SMS/IVR supported learning from home for children of Delhi Government schools - commenced on 2nd April and formally concluded on 31st May (last activity on 4th June 2020)

- "Parenting in the time of Corona" launched by Shri. Arvind Kejriwal, Chief Minister of Delhi on 4th April 2020 giving a call of "Every home a school, every parent a teacher".

- 5 programmes to support the learning of children across all classes of Delhi Government schools

- Live online classes: class 11

- Everyday English and personality development: classes 10 & 12

- Online Maths classes: class 9

- Digital Entrepreneurship Mindset class: classes 9 to 12

- Happiness, Mission Buniyaad and general activities through parents: KG to class 8

- "Online Happiness Class for family": 15 sessions for parents and children together viewed on an average by 40,000 families

- About 9 lakh students and parents of Delhi Government reached.

9.2
Live online classes: students of class 11

- Launched on 6th April and concluded on 30th May, 2020 in partnership with Career Launcher

- Live online classes conducted by 54 teachers of Delhi Government in 11 subjects

- 14 sessions of 90 minutes each conducted for every subject

- 85% students of Std 11 of Delhi Government registered for live online classes

- Maximum attendance ranged from English, the highest at 60,500 children and Biology the lowest at 11,200.

- 105 hours of live online classes conducted for each of the three streams- Science, Commerce and Arts. In school, during the corresponding period, 94.5 hours of teaching in the classroom could have been conducted.

  Online class provided 10.5 extra hours of teaching learning to students

Everyday English and personality development: students of classes 10 and 12

- Launched on 4th May and concluding on 2nd June 2020 in partnership with British Council and Macmillan Education

- Upto 83,545 children accessed the content on two themes- Everyday English and Personality Development

- Most popular activities among children were Sunday grammar games & worksheets, Sports and hobbies activities, Making Friends and Media literacy

- Between first and second assessment, conducted at an interval of 10 days, the proportion of students scoring more than 70% increased from 29% to 41%.

Online Maths classes: students of class 9

- Launched on 27th April and concluded on 29th May in partnership with Khan Academy

- 90 minutes of class spread over three days a week for new and old cohorts of class 9 students.

- Topics on foundational maths for new batch and 4 topics of practice for old batch

- About 1.75 lakh students which is 36% of the total enrollment, accessed all the lessons

- 56 teachers managed the Helpline to support the children in accessing the content

- 1015 teachers participated in an online training by Khan Academy to guide the students of their respective schools

Digital Entrepreneurship Mindset class: students of classes 9 to 12

- Launched on 16thApril by the EMC team of Delhi Government and concluding on 4th June 2020

- Extensive use of Social Media (Facebook, Instagram, Twitter), WhatsApp, YouTube and SMS to reach out to the students

- 10 activities for students on 5 themes- creativity, self awareness, managing fear, dream big and decision making shared

- Two live interactions with accomplished entrepreneurs organized, two more scheduled for 3rd and 10th June 2020

- About 45,000 students participated in conducting the activities

Happiness, Mission Buniyaad & activities through parents- students of KG to class 8

- General activities through SMS to 5.7 lakh parents of classes KG to 8 launched on 2nd April and concluded on 30th May.

- 52 general activities shared on the themes including health and hygiene, art and craft, COVID awareness.

- Happiness class related stories and activities through IVR via missed call to 5.7 lakh parents of classes KG to 8 launched on 12th April and concluded on 30th May 2020.

- Total 25 stories/activities shared with parents on every alternate days

- Mission Buniyaad activities and stories to promote reading, writing and numeracy through IVR via missed call to 5.2 lakh parents of classes 3 to 8 launched on 13th April and concluded on 31st May 2020.

- Total 25 stories/activities shared with parents on every alternate days

- All the SMS/IVR for primary grades children also shared with about 4 lakh parents of Municipal Corporation schools in Delhi starting from 4th May 2020.

9.7
Teachers Education

1. Online Capacity Building Programme (OCBP)

SCERT, Delhi introduced an Online Capacity Building Programme (OCBP) to connect and equip the teachers posted at different locations in Delhi. The aim of OCBP is to provide specific topic based pedagogical support to its teachers and build their capacity in effective classroom transaction. The trainings are mapped as per the annual academic calendar of schools. The programmes have been prepared by faculty of SCERT and Mentor teachers with technical support from Million Spark foundation by focusing on In-class resources (How to plan & teach my next class?). The training is provided through the web www.chalklit.in & App "Chalklit". (Available on android & IoS platforms). This online capacity building programme enhances the sharing between the teacher and teacher; teacher and teacher educator. This programme is available 24*7 to the teachers and they can do the training at their own place, at their own pace without disturbing their routine work. This online platform also provides the teacher community to connect their peers online for help raise their concerns and get solutions from within the community. From 2016-2020, approx. 1,22,863 teachers are trained and awarded certificates through online mode. During the COVID-19 epidemic lockdown period, SCERT Delhi has organized two Online Capacity Building Programme for teachers on the topics "Eliminating Corporal Punishment" and "Entrepreneurship Mindset Curriculum Orientation". In both the online training programs approx. 55,058 teachers are trained and awarded certificates.

2. SCERT and DIETS have also organized webinars on different topics for students and faculty members.

• SCERT, Delhi is organizing a Lecture Series- 'Learning Never Stop (LNS)'on various topics in the field of School Education and Teacher Education. The main purpose of this lecture series is Capacity Building/Learning Enhancement of students, teachers and would be teachers during COVID-19 epidemic situation.

• SCERT, Delhi organizes In-service Teachers Training Programme. For this academic year (2020-21), due to COVID-19 epidemic situation, SCERT, Delhi is going to organize the said training programme through online mode. For smooth conduction of said training programme, SCERT, Delhi has developed a mobile application i.e. DELHI SCERT INSET which can be downloaded from google play store. The said INSET training will be streamed on facebook and youtube.

Welcome to SCERT Delhi INSET Mobile Application
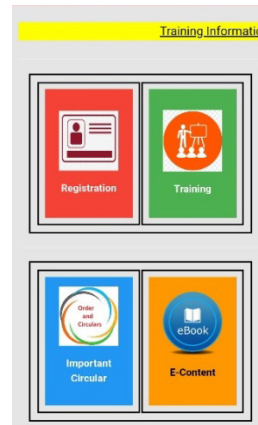
DL-DIKSHA

10 Goa

E-content and Repository

Through DIKSHA portal, students studying in schools affiliated to Goa Board can access e-textbooks, video lessons, interactive materials and other educational content like practice sheets and worksheets relevant to their regular curriculum.

The VidyaDaan Portal for the state of Goa has been launched to encourage teachers and institutions to create different types of content such as explanation videos, teaching videos, practice questions, competency-based items, lesson plans etc. as per the guidelines provided for the purpose and upload the same. The content thus uploaded will pass through a quality control mechanism before making the same available to students and teachers.

The state has constituted the editorial panel consisting of several teachers of the primary classes, faculty members from DIET and faculty from TISS Mumbai. Presently, all subjects of various mediums at Primary stage are covered. In the coming days, all classes up to 12th in all subjects will be included. To ensure that the content is created regularly for the state, several schools have been designated as content creators for specific subjects. Their orientation about the platform has been done through an online meeting.

GA-DIKSHA

Initiative of the State to help students prepare for entrance examinations

With the postponement of Goa CET, JEE, and NEET examinations to the third week of July this year due to the nationwide lockdown in the wake of COVID-19, students in the State have more time to prepare for these examinations. The State government has found an innovative way to help its students with their preparations without attending lectures physically.

For this purpose, the Directorate of Education has partnered with Embibe, an Artificial Intelligence (AI)-powered online platform for learning, practicing, and testing, for students in the State. This partnership began with the administering of a diagnostic test on Embibe's Personalized Adaptive Learning platform for Grade 10 students across Goa in the month of January 2020. Through this test, approximately 22,000 students from government as well as government-aided schools received feedback on their unique areas for improvement, empowering them and their teachers to focus on these areas and improve their board examinations scores. In the month of April the students were given the facility of mock tests for math and science subjects because the board examinations couldn't be held on time due to lockdown.

It has been observed that the platform helped students from government schools to increase their overall average score by 74%, while their perfect attempts increased by 57%. At the same time, it was found that students' wasted attempts and over-time attempts went down by 49% and 65%, respectively.

The partnership has now been extended to engineering and medical aspirants across the State, who do not have access to their classes during the ongoing lockdown. For the preparation of the competitive exams, the students were given access to online lectures and mock tests on the platform. This helped them to brush up their weak concepts and gave them the simulation of actual exams.
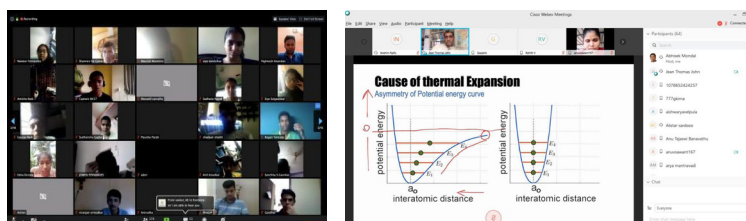
Online Training Programs for Primary, Secondary and Hr. Sec School Teachers

The Directorate of Education, SCERT and Goa Samagra Shiksha, in association with Adhyayan Foundation, Tata Trusts and Tata Institute of Social Sciences (TISS), Mumbai organized 4 days on-line training program on "Effective Planning for Achievement of Learning Outcomes" for all the Primary, Secondary and Higher Secondary school teachers of the State. In total more than 11,000 teachers were trained in various online teaching learning platforms, online open educational resources and assessment mechanisms.

The objectives of the program are as follows:

1. To enable school leaders and teachers to engage with virtual platforms and pedagogical processes they enable, for learners to learn synchronously and asynchronously from the material available online.
2. To enable teachers to plan their academic year, taking into account the number of teaching days, summative assessments, events and activities.
3. To enable teachers to plan the Units and Lessons based on the choice of Open Education Resources available and the mode of delivery of information.
4. To enable school leaders and teachers to track the learning of the students to ensure that learning outcomes are improving.

The program was conducted in three phases:

1. Initially, 406 Master Trainers comprising teachers and Heads of Schools (from Primary, Secondary & Hr. Secondary), faculty from DIET and BRCC were trained on-line by the experts from TISS and Adhyayan Foundation.
2. Subsequently, these Master Trainers trained the fellow teachers online for a period of 4 days with synchronous and asynchronous mode in three phases.
3. The first phase training was held from 13th to 16th May 2020, second phase from 20th to 23rd & 25th May 2020, and third phase training was held from 3rd to 6th June & 8th June 2020 covering 11,319 teachers from Primary to Higher Secondary Schools.
4. Now teachers have started online classes for higher classes by using the skills provided during the meeting.

Online Training Programs for Special Educators

The state is planning online training for resource room life skills teachers and special educators in the state to be held in the month of June 2020. The training curriculum has been devised in consultation with external partners wherein the special educators dealing with children with intellectual and behavioural disabilities will be trained to use technology to transact their instructions and they will also be trained in a number of assistive technologies.

11 Gujarat

Gujarat Primary & Secondary Education Department has taken various digital initiatives for a long time. The idea behind the initiatives is to connect teachers and students by providing quality educational content from the comfort of their homes. School Education department of Gujarat Government has started e-platform, mobile application for CWSN, Live Classes through TV & radio, offline video lectures, simulations, digital classrooms, Samarth 2.0, Facebook workplace and workchat, VanchanAbhiyan etc.

11.1 Major Initiatives To Move- From Schooling To Learning

1. Command and Control Centre (CCC)

Inaugurated in June 2019, CCC focused on ensuring

- 100% enrolment
- Improving regular attendance of students and teachers
- Real time online monitoring of CRCs, BRCs and other officials
- Detailed analysis of weekly tests and the semester exams
- Generating actionable insights for multiple stakeholders

More than 3 Lakh calls to schools, CRCs, BRCs, TPEOs and other key stakeholders were made from CCC to provide support in the academic year 2019-20.

2. School Monitoring App

- Replacement of paper-based school monitoring
- A scheduler for CRCs and BRCs to plan the School Visits
- App enables real time reporting
- Ease of accessing school data at a block, cluster and individual levels for all the stakeholders

3. Periodic Assessment Tests

- Weekly Unit Tests for each subject for Primary, Secondary and Higher Secondary Government School Students
- Question Papers are developed in view of Centralized Timetable and learning outcomes
- Question Papers are sent online to all Schools across the State
- Centralized Data Entry of all students for each subject is done every week.
- Over 10 Crore Tests conducted in 2019-20
- Regular Remedial measures are being planned and implemented based on the results of this test

4. Smart Classroom Initiative Phase II - 12,000 Classrooms

Gyankunj 2.0

Dr Sekhar Bonu
DG, NITI Aayog

Shri Anil Mukim
Chief Secretary, Gujarat

MHRD Team

Shri PK Mohapatra
Principal Secretary, Education, Orissa
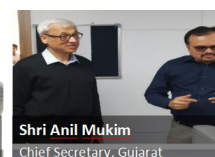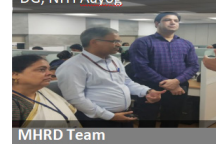
Visitors at CCC

Gyankunj 2.0

- Gyankunj is a school digitalization program to enhance classroom interactivity and teaching-learning process

- In the 1st Phase of implementation 3,173 Classrooms spread across 1600 Schools were covered

- The Statistical Bureau evaluated and assessed the program and recommended that the program is effective from student, teachers and parents' perspective.

- State has expanded the program to more 12,000 classrooms in Phase II

- To ensure maximum utilization of facility, phase II implementation is done in ALL classes of Grades – 6,7 and 8 in 3,176 Schools having more than 150 Students

5. Samarth 2.0 - Online Professional Development of Teachersin collaboration with IIM Ahmedabad

- SAMARTH-2 was formally launched on August 16,2019 and phase-2 comprised participation of more than 1,52,966 teachers teaching in standards 1 to 8 of Government primary schools of Gujarat.

- This capacity building of teachers was done online and had topics on Pragna perspective, Gujarati, Hindi, English, Environment Science, Social Science, Science, Maths, Evaluation and Remedial Education, Children Creativity, Use of ICT in Education in schools and inclusive education for children with special needs.

- Programme included 182 topics and 278 case studies

- The design and development of the technology based platform was supported by IIMA

6. App to Track the Progress of CwSN

- GPS based App to monitor school, classroom, resource room and Home visit

- Helps to track the progress of different schemes of CwSN and Individualised Education Plan (IEP)

- 33 IE-CwSN Dist. Coordinators, 2095 SEs & ~1 lakh CwSN are connected through this app
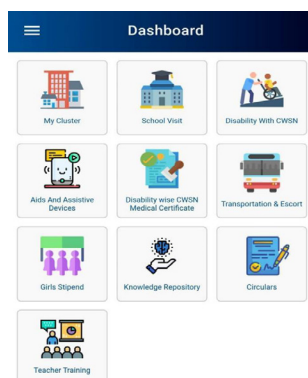
Building an online community of Teachers

Facebook Workplace & Workchat

- All 2.5 lakh teachers, CRCs, BRCs, TPEOs, DPEOs and State level Officials of the Education Department have been provided with Facebook Work Chat Mobile based Videoconferencing facility to directly connect and interact with Hon. CM, Hon EM, Secretary and other HoDs time to time

- And through Facebook Workplace Teachers share the innovation and best practices on a daily basis with 2,000+ Posts every day.

- After studying state's Technology Based interventions in Education, Facebook has extended this facility Pro bono to state.

- Facebook showcased this initiative as a Case Study in Davos 2020

7. Centralised Summative Examination & Online Data entry of Results for Grades 3 to 8

- GCERT conducted a Centralised Semester Examination in November 2019 in all schools in the State
- 100% of the answer sheets were checked by the teachers from other schools
- Centralized data entry was done for all 43 Lakh (4.3 Million) Students for all subjects
- Almost 50 crore unique data was entered, compiled and analysed for each examination
- An Online Platform was developed by SSA to collect and analyse test results
- Analysis for every District, Taluka and Cluster is now available for further analysis and planning of any new interventions

8.Reading Campaign for Oral Reading Fluency- Vanchan Abhiyan

- To improve the reading and comprehension levels among students of grades 3 to 8, a 100-day long **Reading Campaign** ('Vanchan Abhiyan') has been initiated
- Grade-wise compilation of activities for reading - **'Bhashadeep',** has been created and provided to each student
- **Specially designed audio and video literature have also been created and provided to schools**
- A pre-test is conducted for all the students in grades 3 to 8 to test their current reading ability.
- A post-test will be conducted to check the effectiveness of the campaign
- Research will be conducted to benchmark the Oral Reading Fluency (ORF) and Oral Reading Fluency with Comprehension for Gujarati language

9. Centralised Online Attendance System

- Daily Online Attendance System was launched in November 2018 to track the attendance of all the students and teachers across the state
- This system has been implemented in all the Primary, Secondary & Higher Secondary – Government, Grant-in-aid and Self Financed Schools in the State
- Almost 100% compliance in student attendance submission through CCC against about 65% average attendance submission in the beginning.
- Due to continuous follow ups and support through CCC, 70% students studying in grades I-VIII marked more than 80% attendance in December 2019 while this number was just 43% in December 2018.
- 85% of teachers have registered more than 80% attendance in December 2019 against 76% in December 2018
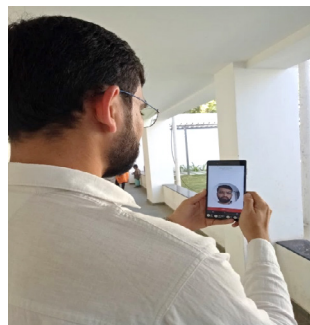
10. School Administrative Software

- School Head Teachers are engaged in various non-teaching activities like – Payroll management; Managing Service Book of Teachers; Updating School Infrastructure details
- Considering their non-teaching workload, Head Teachers are allowed to take 18 period per week while other teachers have to take 45 period per week

- Department has developed and launched an integrated web application and platform for schools with the aforesaid functionalities to reduce the workload of Head Teachers significantly

- Head Teachers will now put in an average of 15 Hours extra academic work every week thereby, **estimated 25,000 Head Teachers adding more than 1.25 Crore (12.5 Million) additional Man Hours per Year of academic work**
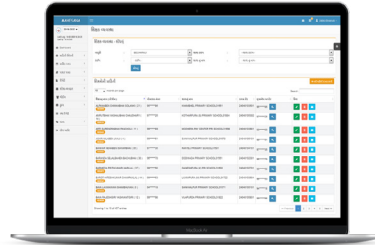
11. Career Counselling Portal

- Portal provides Career information to students of class 9-12 in Gujarati, Hindi & English languages

- Through Portal awareness is created for job-oriented course

- 2600+ Schools along with their teachers & more than 1.4 Lakh students from Class 9th to 12th are able to access Information of 500+ careers, 19000+ colleges, 1150+ entrance exams, & 1050+ scholarships
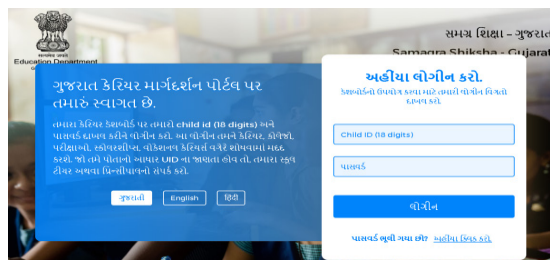
12. QR Coded Energised Textbooks

- Energised Textbook (ETB) is a feature aimed at providing access to digital content for various topics in physical textbooks

- State had piloted the idea in 2019-20 with Maths & Science textbook carrying QR Codes for Grades 6,7,8

- From the academic year 2020-21, Grades 3-8, all the textbooks and for Grade 10 - Maths & Science textbooks will be made available with QR Codes

- By scanning the QR code available for every chapter, students and teachers can access the audio-visual content through Diksha app

GJ-DIKSHA

12. Science of Learning Institute

- An MOU has been signed by the State for the commencement of Science of Learning Institute

- SOL will carry out educational research on student misconceptions and skill-based learning gaps

- Science of Learning Portal is being set up for Teachers to access the research data and the remedial items

- Trainings & Workshops will be conducted for teachers to deliver insights emerging from the research
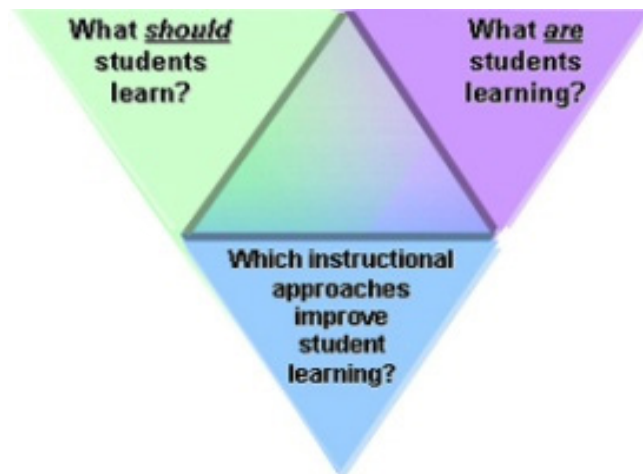
14. Online Courses for Teacher Professional Development

- GCERT has launched online courses for head teachers, teachers, BRCs, CRCs and trainees on Diksha.

- Total of 11 courses were launched in May 2020

- Over 1.12 Lakh Enrolments are seen for these courses, till date

Initiatives Undertaken during COVID – 19

11.2

Study from Home

- The eight week-long teaching campaign through social media was started on March 28 for Government School Students from Class III-IX for English, Mathematics, Gujarati subjects

- Over 35 lakh students 60% got covered as a part of the campaign

- The weekly assignments were handed over to BRCs and CRCs who distributed this literature to all teachers every
Saturday through WhatsApp and email

- The teachers ensured that these assignments are delivered to parents through 3200 WhatsApp groups

- For the Parents who don't have the phone, the teachers ensured that assignments get delivered through the neighbours or even the village Sarpanch

11.3

TV Tutorials & Teachers Reach out to Individual Students

- To compensate for the lost teaching hours during the school's shutdown due to COVID-19, State arranged for live and recorded lessons through television channels

- A systematic schedule was planned in collaboration with 13 news channels and Vande Gujarat DTH channel, with an aim to offer adequate revision and practice to the students before the annual exams

- Also, for revision ahead of the annual exams, nearly 1.8 lakh teachers reached out to all individual students and hand over worksheets, all 51 weekly tests (periodical assessment tests) and their answer sheets conducted in the second semester to Class III to VIII students

11.4
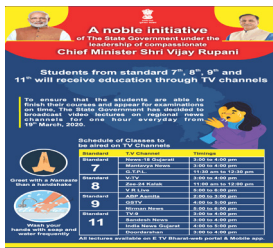
Socio-Psychological Support for Children

- 'Parivar no maalo-salamat ane humfaalo (family's nest-safe and warm)' programme was launched by GCERT on April 1 as a part of Socio-Psychological support to Children during the Pandemic

- As a part of the programme students were provided with daily education material including stories, songs, physical and mental activities, shared through WhatsApp

11.5

Virtual Classrooms

- Virtual Classrooms are being set up for the students of Grade 5 to 8

- Over 2 lakh licenses have been procured for the same

- Each teacher will teach a group of 30 students under their respective cluster in a virtual classroom session

- The teachers will reach out to parents and students and get them registered on the platform for attending the sessions

- A pilot has been conducted in two Districts of Anand and Patan.
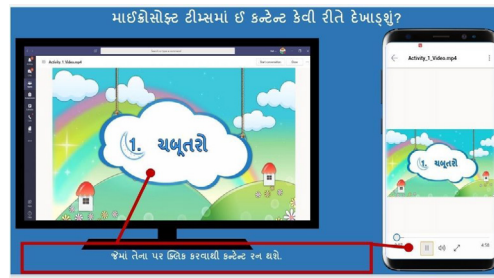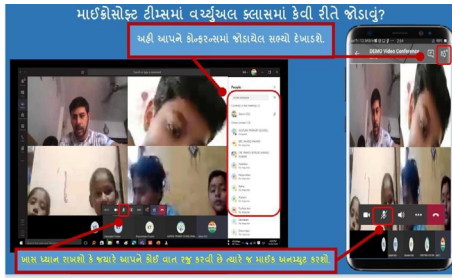
11.6 Video Content for CwSN

- Created 300 videos by 100 selected SEs

- IE-CwSN District Coordinators and Special Educators shared the videos with parents on Whatsapp groups

- A total of 15,009+ CwSN students have received the video content on Whatsapp

12 Haryana

Three S Mantra's by Hon'ble Chief Minister

- **S**tay at Home
- **S**chool at home
- **S**tudy at home
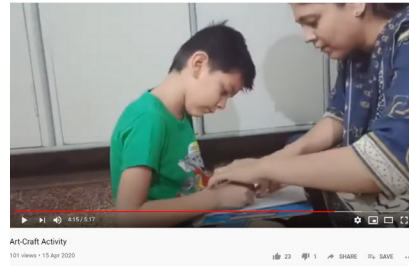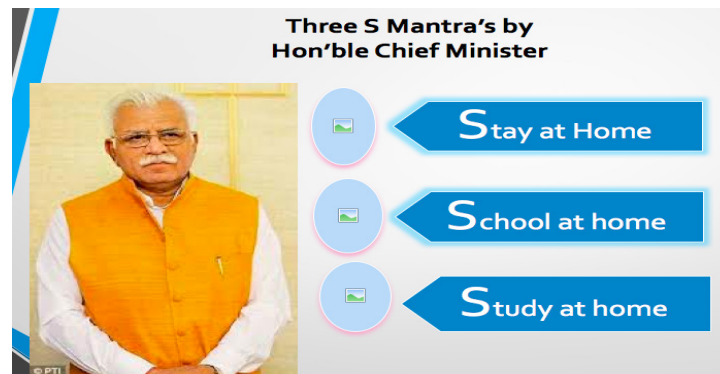
The Government of Haryana is encouraging e-learning so that students can utilize the Lockdown period for studies through 'Edusat' while staying at home. A general time table and schedule of studies have been prepared which will be available on the mentioned website. I again appeal to all to stay at home and follow the norms of Lockdown and Social Distancing

Mamohar Lal Khattar

Chief Minister Haryana

Four approaches are adopted for E-learning

- EDUSAT Broadcast on Television
- Video on demand through YouTube Channels
- Live Classes on Zoom WebEx Google Meet
- WhatsApp Group of Teachers, Students

12.1
Approaches adopted for E-Learning

A. Online Classes on Zoom, WebEx, Microsoft Team etc.
   (Many teachers of department are taking online classes daily on the above mentioned platforms)

B. WhatsApp group
   All the schools have created WhatsApp Groups of Students and content in form of audio, video and text is being sent to students. Students also send their homework back to teachers too.

C. Video on Demand by YouTube
   Utkarsh Society has initiated a Video on demand channel also. Students can watch videos of their choice there too.

D. Linkage of EDUSAT with Television (DTH, Cable TV and JIO TV)

HR-DIKSHA

Formal Launch of EDUSAT
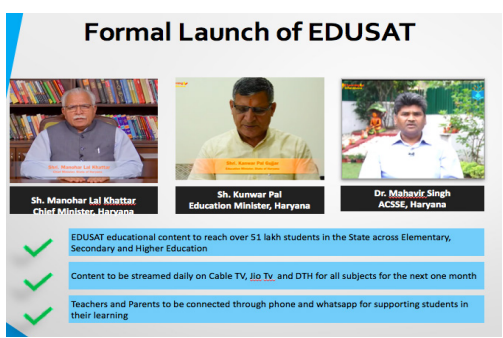
12.2
Action Plan Adopted

- Collaboration with 11 Local Cable Operators

- Four EDUSAT Channels have been dedicated to School Education for content telecast

- Daily Broadcasting timetable for 5 1/2 hours. The Telecast is repeated twice

- Telecast on JIO TV for any time access of learning content

- Subject expert committee prepares the broadcasting schedule as per scheme of study.

- Self-contained instructions to field functionaries have been issued along with FAQs

- Coverage of 90% students through TV

- Other modes of teaching have also been adopted

- Learning material has been arranged from various resources

- Shanka Samadhan Program has been started to address the queries and doubts of the students.

12.3
Target Group

Category	Govt.	Private	Total
Primary	8635	1244	9879
Middle	2371	3404	5775
High	1131	2049	3180
Sr. Secondary	2152	2983	5135
Grand Total	14289	9680	23969*

Classes	Govt.	Private	Total
Total 1-5	891,903	1,432,637	2,324,540
Total 6-8	549,313	822,350	1,371,663
Total 9-10	374,435	511,513	885,948
Total 11-12	244,821	314,811	559,632
Grand Total	2,060,472	3,081,311	5,141,783

Schools in Haryana   School Children in Haryana

To support student learning during the Covid lockdown, multiple initiatives have been launched in Haryana, the two major ones being (1) TV Learning Through EDUSAT, and (2) घर से पढ़ा Campaign via WhatsApp and SMS.

12.4
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 lockdown, EDUSAT is now being streamed through all Cable and DTH TV networks across Haryana direct to student homes.

> **e-Learning platform has been created for 51 lac students of classes -1-12 studying in all the schools across the State**
>
> - Three 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.

12.5

Ghar Se Padhao WhatsApp Campaign

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 to ensure active learning by students.

Central Messages are shared daily with teachers through teacher WhatsApp groups

A.   Academic videos & worksheets for core subjects - Hindi, Maths, Science, and EVS as per SCERT's month wise distribution of syllabus

B.   Simple academic exercises for Classes 1-8 to be shared via SMS to students without smartphone

Teachers create WhatsApp groups with their class to share daily activities and homework

A.   Teachers review students' work through follow up phone calls and messages

B.   Teachers call parents each week to check on progress

C.   Students maintain a dedicated notebook to record their activities at home

Infographics shared through campaign in Haryana

Participation in home learning by both teachers and students is being driven through State, District and Block level Campaigns

A.   Teachers, Students and Officers efforts are being recognised through certificates and in the press

B.   Weekly short online quizzes are held for Classes 5th – 12th on topics shared via WhatsApp in that week.

       •   Quizzes for Classes 5th – 8th focus on core subjects: Maths, Hindi, Science and EVS

       •   Quizzes for Classes 9th– 12th focus on Maths and Science

District and block level reviews are being held regularly and ePTMs are being conducted

Around 60% of teachers in the State have created WhatsApp groups with their students, connecting to over 10 lakh (50%) students in the State, with 4.5 lakh students completing homework every day. In the Secondary quiz (Classes 9th – 12th) conducted on 30th May, over 25% of enrolled students in those classes completed the Quiz.

12.6
E-Mega PTM

- Each class teacher assigned to call all the students of his or her class and talk to parents also.
- Each School Head assigned to call at least 3-5 parents from each class of his or her school
- ABRC/ BRP/ DIET Faculties monitor at least 15 parents and 5 teachers/school Heads of the clusters they assigned.
- BEOs Called at least 10 school Heads, 10 teachers and at least 10 parents

District Level officers were assigned to adopt one block each and call the concerned BEO, 5 school heads, 5 teachers and 10 parents. All Stakeholders updated report on Google Link that was provided for the purpose

12.7
Effective Communication and Grievance Redressal

- School level Committees
- Directorate level Committee
- Block level Committees
- Chief Minister/CM window
- District level Committee

All these platforms have been created to address the grievances of Students, Parents and community.

Quiz Competition

- COVID Quiz Competitions organize for students

- Question Banks prepared by the teachers and experts

- Online registration was done
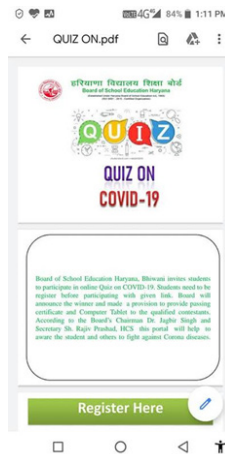
12.9

Various reforms regarding syllabus and Examination

- Result of Classes I to VIII have been declared keeping in mind the mental well being of the students.

- All the students in these classes have been promoted to next grade without examination.

- Similarly, the result for classes IX and XI has been declared for ensuring continuity in learning.

Textbook

- To facilitate self -learning and make learning relatable the Department has provided all the textbooks to the Students under the RTE Act.

- All textbooks have been provided to students from classes I to VIII at their doorsteps.

E-Admission Process

- To make the process of Admission easier various steps have been taken by the Department.

- Smooth transition has been assured for classes 5th and 8th.

- Paperless admissions

- No fees are being charged in classes I to VIII.

- The necessary requirement of School Leaving Certificate has been abolished

12.10

Steps to Check the Drop outs arising out of COVID-19 circumstances

- Due to the Coronavirus pandemic the migrant labourers are leaving the state and are moving to their native place.

- The teachers are in constant touch with parents and are counselling them to ensure their admission in their native places.

- The documents required will be provided to the parents.

- On return hassle free admission will be provided in the schools of the State.

Super 10

- Online coaching to the students of Super 100 Who have been selected on the basis of merit for providing free coaching for admission in reputed Engineering and Medical institutions.

- Tablets are also being provided to them for uninterrupted learning

- The coaching to all the students of SUPER 100 is being provided by Vikalpa and Allen Institutes.

- Dedicated Channels on EDUSAT are also providing coaching for competitive Examinations.

Monitoring of Teaching Learning process

- Responsibilities have been fixed for all the stakeholders.

- Each stakeholder calls at least 20 parents daily and seeks feedback regarding learning of students.

- All the feedback is being collected through google form.

- Data collected is analyzed on a daily basis at Head Quarter and sent to district officers to fill the gaps which are found.
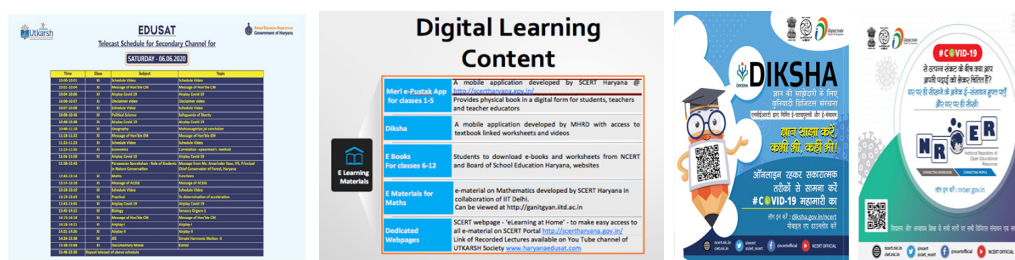
12.11
Digital Learning Links

- Teaching and Learning@home through DIKSHA Haryana Portal and App.

  https://diksha.gov.in/hr/

- e-books: ebooks for classes 1-5, 6-8 and 9-12 can be accessed from the following links:

  http://www.scertplanet.in/Meriepustak/ to access ebooks for classes 1-5.

  http://ncert.nic.in/ebooks.html to access e- books for classes 6-8.

  https://bseh.org.in/ebooks to access ebooks for classes 9-12.

- e-material on Mathematics can be viewed on following links:

  http://ganitgyan.iitd.ac.in/video/primary/ for classes 1-5

  http://ganitgyan.iitd.ac.in/video/6to12/ for classes 6-12

- Recorded Lectures on different topics can be viewed on youtube channel of UTKARSH Society:

  https://www.youtube.com/channel/UCUvhQ6iGAZhKrCO2UjmpLNw

- After visiting above url click on "Playlist" menu to see recorded lessens of your choice

12.12
Course of Action for further facilitation the students

- Two dedicated hours for Haryana on Swayam Prabha Channel of NCERT- starting w.e.f. 17.4.2020

- Access to Sampark Foundation, CCT, E-Pathshala, NORER apps, Jio TV etc

- Providing Virtual Classroom Facility to 500 Schools to deliver online lectures on CISCO's WebEx platform

- Extension of lectures on TV through National Channels in collaboration of Ministry of Information and Broadcasting, GOI

Partnership with Various Organizations for E-Learning Resources

- The Central Square Foundation
- Sampark Foundation Noida
- Rotary International
- Aprajita Foundation
- Humana People to People India
- Manav Rachna University
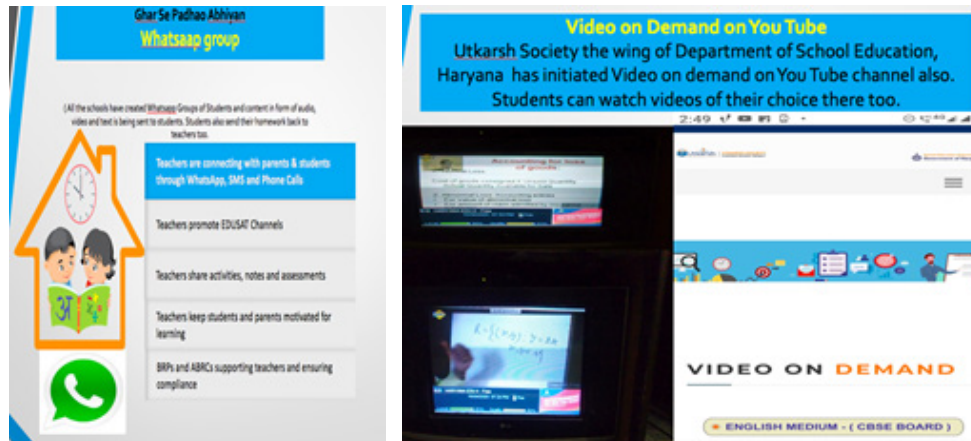
13 HIMACHAL PRADESH

The Department of Education and Samagra Shiksha have launched a home-based teacher facilitated self-study program during the lockdown period announced by the Govt. of Himachal Pradesh, to engage students in meaningful learning activities for 2 hours on a daily basis for classes 1-12.

13.1
Har Ghar Pathshala Campaign

The main motive of Har ghar Pathshala campaign is to engage students in learning activities during COVID-19 in Himachal Pradesh. In this situation Himachal Pradesh launched an e-learning programme to ensure continuity of students learning from home. The programme "Har Ghar Pathshala'' has been launched as an online mode of education.

Har Ghar Pathshala is a WhatsApp based initiative where the State Project office (Samagra Shiksha) disseminates the e-content to children through BRCCs and further by teachers. Students go through the content (videos) and solve the worksheets in their notebooks and send back the photograph of the solved worksheet to their teachers. Teachers in turn provide feedback to the children.

13.2
Objectives of Har Ghar Pathshala

1. To ensure students learning does not get hampered due to closure of schools in this pandemic.
2. Boosting emotional well being, immunity and fitness of students.
3. To ensure an inclusive learning environment for children with special needs.
4. Teachers constructively use this time to do online self-paced training through "Teacher APP".

13.3
Launch by State leaders and awareness through media

The Hon'ble Chief Minister Shri Jai Ram Thakur and the Hon'ble Education Minister Shri Suresh Bhardwaj launched the program on 9 April for classes 1-8, within 2 weeks of the lockdown being announced. On 16 April, online classes for 9-12 were also started.

Creation of e-content:
- E-content has been created by more than 100 SRGs class wise and subject wise and disseminated to the students on a daily basis.
- Content includes 1 to 2 videos and 1 worksheet for each subject.
- The content is available on official website i.e. http://www.edumis.hp.gov.in/
- Through WhatsApp groups Himachal Pradesh was able to connect with 70% students every day.
- More than 650 worksheets and 850 videos have been shared with students of classes 1 to 12 till date (mid-June, 2020).

To create readiness for learning among students, teacher's shared simple activity based assignments through WhatsApp in the first week of the lockdown, & later on, content specific videos & worksheets were being shared.

Dissemination of e-content: Three channels are being used-

- Dissemination of e-content through whatsApp groups.
- Dissemination of content through TV – 3 hours slot on DD Himachal, covering grades 10 and 12.
- In some hard area like Kaza the worksheets are being Xeroxed and are being provided to the students.

The content is being disseminated through whats App groups and more than 70% students are being reached every day. As per google analytics, 622,392 total users, with 3.5 crore page views on this website (nearly 1.2-1.4 lacs users coming daily).

13.4

Online inclusive Education for CWSN (Hum Kisi se Kam Nahi- Mera Ghar Meri Pathshala)

Children with special Needs (CWSN) are also embraced in the campaign of Har Ghar Pathshala to ensure an inclusive learning environment. Keeping in mind the special needs of differently abled students, WhatsApp groups of CWSN created by the District inclusive Education coordinator cater to the educational, psychological and physiological needs. This campaign has been named as "Hum Kisi se Kam Nahi- Mera Ghar Meri Pathshala''. The content is being shared through WhatsApp groups where special educator assigns home work for the children. The special educator provides guidance to the parents regarding home-teaching in this programme.

13.5

Campaign for pre-Primary (Karona, Thodi Masti, Thodi Padhai

The Government of Himachal Pradesh has initiated a very promising pre-primary program in more than 3700+ government schools, thereby benefiting 30,000+ children (age group 3-5). In the Covid-19 situation, these very young children were bereft of the joyful learning environment of pre-schools. Digital content is being disseminated to the parents of these young children through WhatsApp. The teachers interact with parents to keep them motivated. As the campaign name suggests- "Karona, Thodi Masti, Thodi Padhai '' is a perfect blend of joyful learning where children learn while playing through age appropriate video/audio content learning activities.

13.6

Sampark Didi App

- The main objective of this program is learning Enhancement and it covers Class-2 and Class-3.
- This program focuses on English.
- This program is accessible via Mobile App and the link is https://bit.ly/2vlzxkn.
- This App can be accessible via both online & offline and it contains Explanation Videos.

13.7

Vocational Education

- The department has taken the initiative to conduct online classes for vocational students and hence VTPs are ascertaining the approaches to commence online classes for vocational students.
- State has commenced the idea of online classes in the first week of April 2020 and the progress of classes is being constantly monitored and reviewed through DCOs and VTPs.
- As on date we have been successfully conducting online classes in 95% of 953 implemented vocational schools, across 15 sectors i.e. Agriculture, Apparel, Automotive, Beauty & Wellness, BFSI, Electronics & Hardware, ITeS, Healthcare, Media & Entertainment, Physical Education & Sports, Plumbing, Private Security, Retail, Telecom and Tourism & Hospitality. Out of 65062 enrolled students 49260 students are undergoing virtual classes conducted by Vocational Trainers.
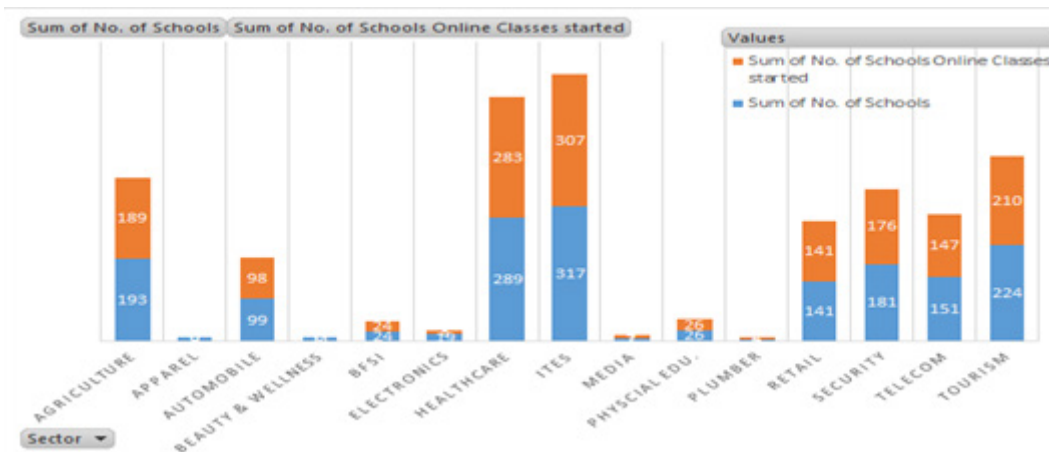
Status of Learning Total Number of Schools vs. Schools Started Online Classes

Swayamsidham

1. The main objective of this program is Learning Enhancement and support for competitive Exams for class 09 to class12.

2. During this programme the targeted students will be engaged for three hours on a daily basis from 10:00 AM. to 01:00 PM. Educational content packages of videos & exercises will be sent daily to all teachers through Deputy DHE and Principal/ Headmasters using WhatsApp groups. Initially the following subjects of Classes 9, 10 & 12 have been included in the program.

   • 9th – Science, Mathematics, Sanskrit, English

   • 10th – Science, Mathematics, Sanskrit, English

   • 12th (Humanities)- English, Sanskrit, Political Science

   • 12th (commerce) – English, Economic, Mathematics

   • 12th (Science) – English, Mathematics, Physics, Chemistry, Biology

The educational content is available on departmental website www.education.hp.gov.in and https://hargharpathshala.in/

The below website contains several content such as Explanation videos, Assessment, e-test Books and lesson plans.

13.9

Assessment Dashboard

Assessment Dashboard has been developed by the State of Himachal Pradesh to monitor and assess learning profiles of students in the elementary grades. Link of the dashboard is as under:

https://hp-samarth.herokuapp.com/

ICT Infrastructure

- There are 1202 Smart Schools in elementary education (Class 1-8).

- There are 513+1824 (out of 1824, 200 schools are under implementation) Smart Schools and 513+1824 digital labs in secondary education (class 9-10).

- There are 1824 (out of 1824, 200 schools are under implementation).
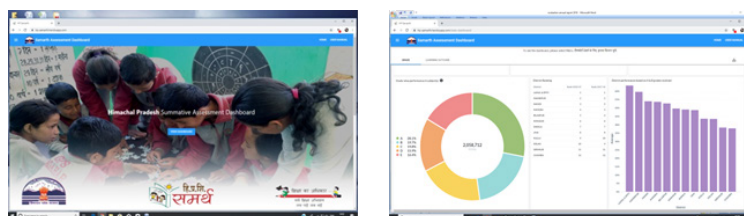
13.10

Sameeksha - Shiksha Saathi Mobile Application

Sameeksha is a technology based integrated review and monitoring system developed by State Project Office, Samagra Shiksha (HP). The core elements of the program constitutes three technology platforms- Shiksha Saathi mobile application, State Inspection Dashboard, and District-level Action Point Trackers, to enable a robust and integrated mentoring and monitoring mechanism, focused on guiding goals of quality of education, access, equity, affordability, and accountability, across the state. This is an overarching initiative for the education department extending from pre-school to Class XII with a broader goal of improving the academic performance of schools and ensuring that students achieve the desired learning outcomes. The platform has streamlined the existing governance processes for review and monitoring in the state and has improved efficiency and increased transparency of the system.

Important feature of this Application

- Technology based review and monitoring mobile application with offline capabilities, i.e, it can work even when there is no internet

- Provision to record evidence, like photographs and documents on school visits on the mobile app

- The application records the location from where the school visit form is filled and helps to keep a check on the monitoring

- State Inspection Dashboard is used to analyse the data conducted on the monthly school visit and take data backed decisions

- Various parameters of **Performance Grading Index, at the school-level** used in **State rankings**, defined by MHRD is also analysed through this program

- Analysis of strengths and weakness of the school, especially with respect to parameters of **world rankings.**

- Preparation of a **school specific action plan** / strategy for improvement on various parameters is created

- Progress on each parameter as per the action planis monitored in the review meetings every month

- Ensure implementation of the RTE Act 2009 and PwD Act 2016 to address gender an social equity within a framework that is holistic and systematic

13.11

Integrated Learning Enhancement program (e- Samwad)

Himachal Pradesh is proposed to strengthen the quality of education via an integrated learning enhancement programme. The components of integrated LEP are:-

- Learning outcome based assessments

- Utilisation of Supplementary materials for identified weaknesses of students through assessments

- Involvement of parents in ensuring accountability of students towards studies

Continuous Learning Programme for Professional Development of Teachers through TEACHER App

The programme, set to be launched by the Education Department on 17th September 2018, is aimed at facilitating better performance of all 6,00,000 elementary school students through continuous support for capacity building to teachers. Through Continuous Learning, the Samagra Shiksha Abhiyan will share short videos focusing on fundamentals of all subjects, activity based learning, pedagogical tips and skill building of teachers, designed by experts on a monthly basis. The video content created and curated for teachers by the Samagra Shiksha Abhiyan in partnership with a non profit organization TheTeacherApp focuses on the learning outcomes (NCERT defined basic learning goals or targets that need to be attained by students). The content for teachers has not only been selected keeping in mind student performance, but is also available offline once downloaded and will be shared via SMS in order to reach teachers in the most far flung areas of the state. These will be brought to practice by teachers in their classroom. At the end of each month, the cluster heads are expected to facilitate discussion on the courses and their classroom implementation with the teachers within their cluster, thus creating a peer mentoring and support system at the ground level.
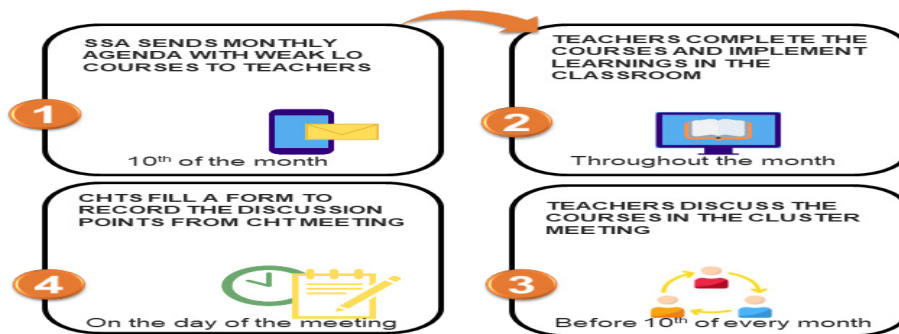
In this manner, the SSA hopes to be able to provide resources and support for continuous professional development of the teachers, and in turn, bring about an upwards shift in the performance of all students in its schools

14 JAMMU & KASHMIR

Digital Education Initiative taken by Jammu & Kashmir:

Virtual Classes: During the prevailing conditions of Covid-19 pandemic and subsequent Lockdown, all the educational institutes have been closed. In order to maintain the continuity of education delivery to students, following steps are being taken:-

1. Tele Classes on DD Kashir and Local Cable Network

2. Video Lectures Repository using JK Knowledge Network (existing knowledge dissemination portal under Samagra Shiksha)

3. Online Classes including Vocational Classes using freely available Applications like Zoom etc.

4. Promoting use of National Educational Portals like e-Paathshala and DIKSHA through various means.

5. Using various digital platforms for reaching out to students.

6. Created Special WhatsApp Groups for interacting with Children with Special needs through Special Educators.

7. Free Laptops & Braille Tactile Readers for Visually Impaired: Under one of the major initiatives, 42 Laptops are being distributed to Resource Rooms established for Children with Special Needs in all the districts of J&K. These Laptops shall be connected with Braille Tactile Reader machines thereby enabling Visually Impaired students/persons to freely access the internet.

8. JK Career Portal: First of its kind online Career Guidance Portal "Manzelein" was launched for students of J&K in association with UNICEF. It's a structured and well programmed portal developed to help students in choosing a right career after completing their secondary or higher secondary education. It will have complete information on 550+ careers, 21000+ colleges and 262,000 programs in 16 countries. In addition, it will have information on 1150+ entrance exams and 1120+ scholarships." Besides, it can also guide the children on available skill-based courses and NSQF compliant curriculums being offered across the country. The portal can be accessed at "https://jkcareerportal.org" wherein students can log on to the portal with their enrolment IDs issued by JKBOSE

9. Distribution of Free Tabs: 2500 Tabs were distributed to schools during Covid period. Schools can use these Tabs for online classes, accessing online content available on e-Paathshala/DIKSHA and other activities during the Lockdown and even beyond. 780 more tabs are also being procured.

10. Capacity building Virtual Online Workshop for DIET: Capacity building of DIET Faculty conducted through Webinars on Audio Video Editing, Content development, Pedagogy & Andragogy in collaboration with Kavilaya Education.

11. Social Media: Enormous promotion is being made regarding ongoing Webinars, Educational Sessions, Tele Classes etc by National/International organizations like NCERT, NIOS, Google Education, UNICEF India, IGNOU etc

12. Online Talent Hunt Competition: An online Talent hunt programme for children of 5-17 years of age is being organized under Samagra Shiksha in association with Viraj Kala Kendra, Jammu. The Cultural Bonanza under the brand name "Skills & Thrills" is being conducted for Dance, Singing and Poster Making competition.

14.1 Jammu and Kashmir Knowledge Network (JKKN)

- The Jammu and Kashmir Knowledge Network (JKKN), 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 application for 2-way interactive lectures from across the state.

- This program is for class 9 to class 12 and covers Hindi, English, Maths, Science, Social Science, Computers and Urdu subjects.

- This program is accessible via Website, Mobile App, WhatsApp, Radio, TV and one can also reach via the link:www.jkkn.co.in.

- E-Contents for the students are regularly updated on the portal by teaching faculty of respective Districts. The students can search the contents topic wise/subject wise on the portal regularly. 6000 Videos have been uploaded on the portal during the lockdown period. 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.

WELCOME TO ONLINE PORTAL OF ICT-CAL J&K (LOG-BOOK)
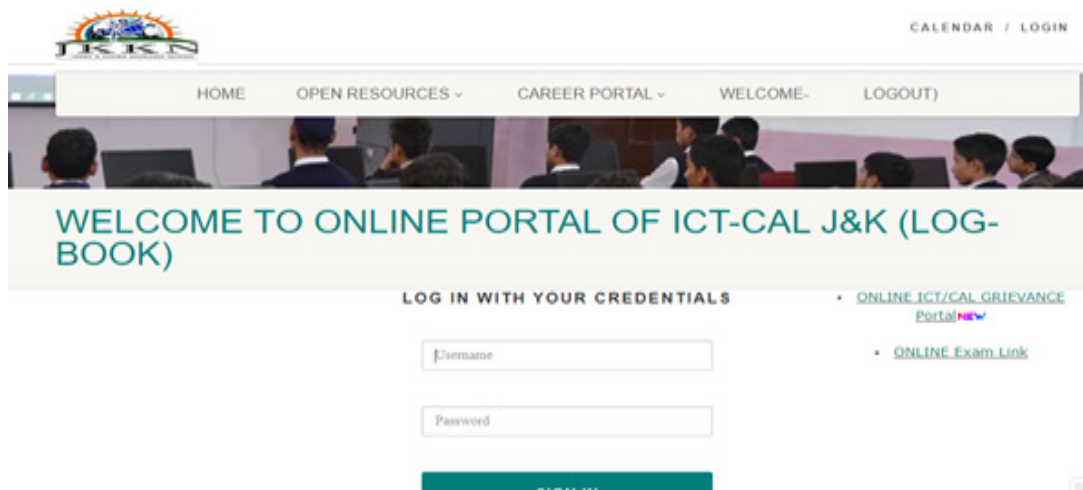
14.2

Samadhan AI-Based Educational Chatbot

- Samadhan is AI based Educational chatbot embedded as a link in JKKN platform used to interact with the students regarding their run-time queries. This tool is used as an auto response interface between the student and the teacher. 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.

- This program is for class 9 to class 12 and covers Hindi, English, Maths, Science, Social Science, Computers and Urdu subjects.

- This program is accessible via Website, Mobile App, WhatsApp, Radio, TV and one can also reach via the link:www.jkkn.co.in.

- This program contains several content such as Explanation Videos, Practice Questions, Assessments, eTextbook PDFs, Lesson Plans, Slides and Recorded Classrooms on the Internet.

14.3

Radio Classes & Tele Classes

- Radio Classes are being organized in association with Mirchi 98.3 wherein classes were conducted through experts for 5 days a week. Besides, local TV channels were also telecasted.

- This program is for class 9 to class 12 and covers Botany, Zoology, Chemistry, Maths and English subjects.

- The sessions were open for all students and the radio sessions especially could be understood by Visually Impaired as well.

Initiatives for Teachers

- Online Platforms: To make DIET Faculties aware about various resource sharing platforms so that they can easily share content and cascade the information to teachers as well as resource persons.

- Kinemaster: To build capacity of DIET Faculties on Audio/Video Editing; later on, they in turn will build capacity of resource persons and teachers of their districts through cascade model.

- Bodh App: To provide an online platform to DIET Faculties, resource persons, teachers for online courses.

- The above three initiatives cover DIET Faculties, DRGs, ZRP/CRPs and In-service Teachers.

- VFS (Virtual FieldSupport): Students could listen to stories, while staying at home. Data for various government schemes is collected through VFS. This is intended for Children, Teachers and Officials.

14.5

ICT Infrastructure

- **Elementary education (Class 1-8):** There are 1609 Smart Schools, and all 1609 schools have digital labs.

- **Secondary education (Class 9-10):** There are 974 Smart Schools and all 974 schools have digital labs.

- **Higher secondary (Class 11-12):** There are 614 Smart Schools and all 614 schools have digital labs.

JK-DIKSHA

15 JHARKHAND

The Jharkhand Government launched the DigiSATH initiative to digitally reach out to students studying in thousands of government schools during the country-wide lockdown. DigiSATH program has created a tremendous state-wide momentum ensuring continued learning through multiple means - WhatsApp, Television, DIKSHA App, offline learning. Entire State education administration has been connected through thousands of WhatsApp Groups created at different levels.

Over the course of two months, nearly 90% schools have been connected through DigiSATH. State is currently able to reach out to more than 4 lakh students through WhatsApp, while the reach of Television is not known yet. Students are studying through both remedial and grade level content being sent out every day. Moreover, with 10-20% increase in performance of grade 9-10 students in weekly quizzes, there has been an improvement in learning levels too.

With the State's SCERT leading content production and curation efforts, digital content is being curated from best ed-tech sources available and is shared with teachers and students through WhatsApp Groups. More than 90% teachers and students have given positive feedback on the content and have also begun to realize the long-term potential of digital learning.
Jharkhand DigiSATH has been initiated as part of Project SATH with support of Boston Consulting Group and Piramal Foundation.

15.1

WhatsApp: Student and teacher learning

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

- Daily content for students and teachers as per a structured calendar covering all major subjects and topics

- High quality student and teacher learning material curated for all classes (I -XII)

- Content messages disseminated through 30,000+ groups at fixed time in the morning ensuring continuity and regularity

- Teachers across the State are also creating content and sharing with students at local level

15.2

Television

- Four hours of dedicated TV programming under "Hamara DoorDarshan Hamara Vidyalaya" with special focus on grade X and XII students for Board examinations

- Content curated with a collaborative effort of multiple Ed-Tech organizations

- Toll free number for children to ask doubts; to be cleared by SCERT every Saturday

15.3

Teacher Professional Development

- Four hours of dedicated TV programming under "Hamara DoorDarshan Hamara Vidyalaya" with special focus on grade X and XII students for Board examinations

- Content curated with a collaborative effort of multiple Ed-Tech organizations

- Toll free number for children to ask doubts; to be cleared by SCERT every Saturday

Courses are being rolled out through DIKSHA App for teachers
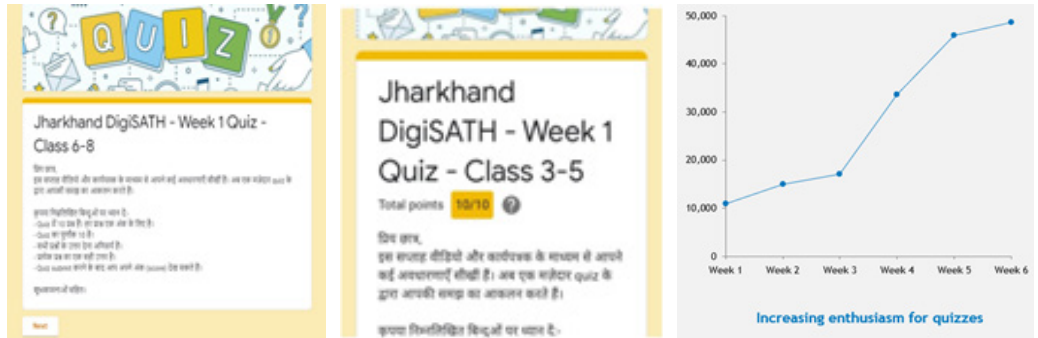
15.4

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 50,000 students across grades participate in these quizzes on a weekly basis. 10-20% improvement in learning has also been observed in grade 9-10 students.

Implementation of DigiSATH

The State has taken multiple steps to mainstream digital learning for continued learning through the DigiSATH initiative.

15.5

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 adoption of video conferencing methods. Mass scale VCs and webinars have been organized at all levels of administration. This has created a momentum for digital learning and ensured direct accountability.

- VC with District/ Block officials (Top Right)
- Weekly VC with HMs/ Prabhari HMs
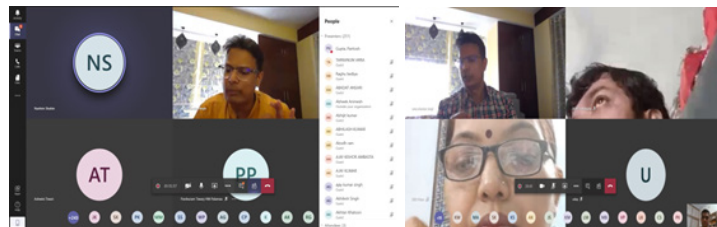
15.6

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.

Regular tracking and monitoring

State ensures regular monitoring of the program at District, Block and school levels. Data is reported daily from the field enabling effective and focused implementation

Impact

1.   With over **30,000 school WhatsApp groups** and **10 lakh students** connected, State is able to reach out to more than **4 lakh students every week** through WhatsApp alone. With 30% TV penetration in the State, learning could be ensured for at least **15 lakh students2.**
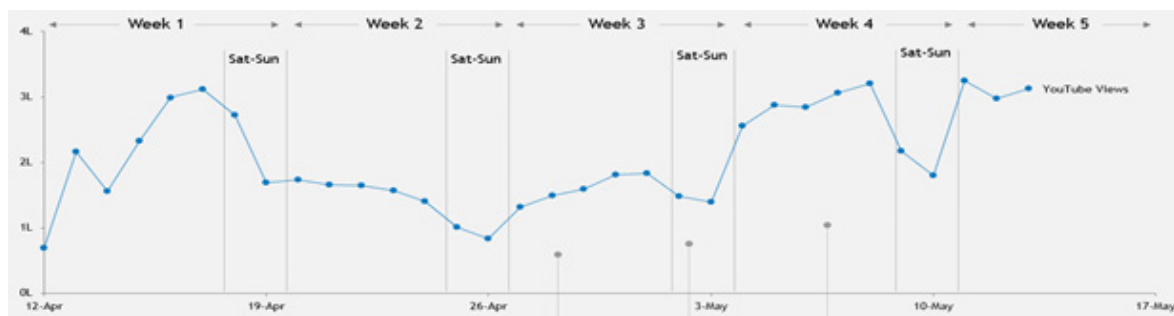
2. Mohalla schools

Teachers across green zones have initiated classes for 8-10 students to maintain social distancing. This has resulted in continued education for students, especially, who can not be connected through digital means.

3. Roving teachers

Many teachers, realizing the need for continued learning have begun to go from house to house to engage with their students. These teachers are interacting with students while completing their mid-day meal and other duties.

4. Bal Sansad

Bal Sansads are playing a prominent role with each Bal Sansad member being responsible for reaching out to 10 fellow students. Peer to peer learning has complemented learning through digital content. A combination of self-study, peer to peer learning and teaching by teachers has evolved over the last two months.

5. Behavioral change

DigiSATH has led to large-scale behavioral changes among all major stakeholders.

• 	Teachers are going out of their way to go from house to house to raise awareness and teach students

• 	Parents are making extra efforts to prioritize education over other aspects of life. They are not only helping out in teaching the kids but taking extra care for greater involvement between teachers and students

Many positive media stories are reported daily from across the State highlighting the large scale momentum and change

JH-DIKSHA

16 KARNATAKA

During the current lockdown in wake of COVID 19, the Department of Public Instruction, Government of Karnataka has proactively taken upon the task of ensuring that children are engaged in learning activity and also established a structured process to continue the same even after the start of the Academic Year. Significant efforts were made by the Department to ensure the integration of digital learning with classroom teaching effectively by following the inclusive approach with consultation of all the stakeholders – Teachers, Parents, Students, School Administrators, SDMCs, and Educationalists etc.

16.1
MAKKALAVANI

During the Covid 19 lockdown period, to keep the children engaged in cognitively useful activities, the department of Public Instructions started an innovative Edutainment Channel in Youtube "MakkalaVani'' NaliyonaKaliyona' and the same was launched by Hon'ble Chief Minister B. S. Yeddurappa on 29th April 2020. The program telecasts daily Edutainment programs consisting of stories, songs, crafts, plays, riddles, proverbs and magic shows, science experiments etc., among other things. The program contents were collected through crowdsourcing mode from teachers, students, educationalists, artists and curated and presented as part of the program. The viewership crossed million within a short span of the launch of the program. The response to the program was amazing and the Department plans to continue the channel in future, during holidays also.

16.2
PARIKSHA VANI

Due to Lockdown instruction for COVID -19, schools were closed before completion of the Board Examinations across Karnataka. The department initiated the Exam preparation program aired through Doordarshan "Chandana" channel for Hr 1.30 Minutes on daily basis, which is repeated during the non peak hours. The program was launched by Hon'ble minister for Education, Sri Suresh Kumar on 9th May 2020. These exam preparation modules were initially started for Kannada medium students, subsequently based on the demand from students, parents extended to other mediums like English. All the subjects English, Hindi, Kannada, Urdu, Mathematics, Science, Social and Sanskrit were covered through this program. These programs were also uploaded on YouTube.

Recorded / Live Classes through Television

As the uncertainty over bringing normalcy in functioning of the schools is still continuing due to Covid-19, the department of Public Instructions planned for alternative digital modes. Based on survey conducted, it was found that around 95% of the households have Television. With the success of "Parikshavani", the department plans to telecast regular classroom instruction through Television. These programs will start shortly.

16.4

ETB (Energized Textbooks)

The Department of Public Instructions, Government of Karnataka had already taken up 39 titles on pilot basis under Energized Text Books, with QR Code tagged content on DIKSHA Portal. This year, the ETBs were extended to all the remaining titles from Class 4 to Class 10 and necessary Digital Content has been provided. The material thus prepared in terms of Videos, Assessments, reference material will supplement the regular classroom teaching. There is a tremendous increase in the usage of these contents during the Lockdown period.

KA-DIKSHA

17 KERALA

Kerala has transformed public education through well-planned, interactive, community-supported, and globally competitive activities, all planned and guided by the General Education Department. Through Public Education Rejuvenation Mission - an Ambitious and Comprehensive Mission Mode Endeavor launched in 2016 - the State Government has been trying to address and improve the quality and equity aspects of education by transforming all government and government Aided Schools as 'Centers of Excellence'. In view of the pandemic crisis the schools in the state were closed on March 10th and all public exams were deferred by March 19th 2020.

The pandemic has virtually made the social life come to a standstill and has consequentially affected mobility. In a situation like this children are forced to form new habits in an unnatural environment. The current situation affects the emotional and social development of children in one way or other. Children cannot be subjected to long term forced confinement. COVID 19 limited avenues of children to learn, socialize, gain new experiences and engage in creative activities. The pressure, stress and anxiety experienced by the children on this account needed more attention. The spread of the pandemic has forced the education department to proactively plan new initiatives to cope up with the unprecedented situation.

It is in this scenario that Government of Kerala thought it fit to provide an online platform to students to make use of the holidays from 01/06/2020 onwards. Accordingly, Government devised a program of Online or Digital Classes named "FIRST BELL" to be broadcasted through VICTERS Educational Channel .This format being provided to the students is not intended to compensate with the minimum instructional days which a school year should hold as per the provisions of RTE Act, 2009 and the Kerala Education Rules, but instead to keep abreast with the process of education, which the students would otherwise have undergone in normal conditions. In order to avoid any kind of discrimination especially to those of the marginalised sections, government formulated programmes with the help of the community to ensure access to all children to attend the digital classes and it was decided that each and every child must come under the ambit of the programme. Apart from Television, the sessions were made available on www.victers.kite.kerala.gov.in and on Facebook and YouTube. In case the classes could not be viewed due to power failure or otherwise, the classes could be downloaded and used later or repeatedly viewed thereby ensuring that no student is denied of the availability of the classes thus envisaging a continuing process of education.

Firstly, Specific ICT online training was provided to 81000 Primary school teachers, which was completed within 5 days, by effectively making use of Hi-Tech facilities in schools. The teachers used SAMAGRA Resource Portal (www.samagra.kite.kerala.gov.in) for self-learning with the help of numerous digital contents available in the portal.
Secondly, necessary support systems such as Video Conferencing with a mentor for a fixed number of schools, social media and help desk for doubts clearing and monitoring were also set-up.

Thirdly, a special program called Avadikala Santhoshangal (Happy Vacation Times) was conducted for kids to recoup the lost instruction days in schools.
Fourthly, the Department also rolled out a unique Aksharavriksham initiative, by which digital contents were developed in specific edutainment form so that the students can acquire the defined skills through various games and activities.
Finally, the Government of Kerala used the KITE VICTERS Educational channel (victers.kite.kerala.gov.in) as the specified medium for broadcasting awareness programmes and instructions for the general public especially on the preventive measures to tackle Covid-19 outbreak.

17.1

System Readiness:

Government as per G.O (Rt) No. 1756/2020/G.Edn, dated 29.5.2020 devised a clear-cut mechanism as to how the online platform

is to be rolled out under the directions of the Director of General Education with the help of other Educational agencies like the State Council of Educational Research and Training (SCERT), KITE, Samagra Shiksha Kerala (SSK), State Institute of Educational Technology (SIET) etc. SCERT was given the responsibility of coordinating the academic aspects while technical coordination was given to KITE

In continuation of the government order the Director of General Education fixed the responsibilities of various agencies including SCERT, Samagra Siksha Kerala, Public Education Rejuvenation Mission, KITE, SIET, and stake holders such as Students, Teachers, Head of Schools, Assistant Education Officers, District Education officers, Revenue District level officers, Regional level Officers and State level officers and suggested the role and responsibilities of parents/caregivers, Parent Teacher Association/ SMC through a detailed guideline. The guide line also suggested how the system can ensure facilities for each and every child including children belonging to the disadvantaged and vulnerable sections by utilising different possibilities with the support of the community.

17.2
Technical readiness:

The state has already been able to ensure a technology friendly educational environment. ICT is part of the curriculum from primary stage itself and hence all students in the state syllabus are familiar with this. Kerala has its own educational TV channel; KITE VICTERS and KITE (The nodal agency for implementing digital initiatives in Education) has implemented the Hi-Tech school programme by which 45000 classrooms in 4752 schools were converted in to Hi -Tech classrooms. The 4752 schools include Govt & Govt-Aided High Schools, Higher Secondary schools and Vocational Higher Secondary schools. KITE has also deployed 57,843 laptops and 25,011 projectors for primary and upper primary schools. All the teachers were trained in using and developing e resources and operating the ICT equipments supplied to schools.

Various Digital Initiatives already deployed during the Covid Lockdown period paved the way for the smooth rollout of the "First Bell" programme.

A. Online Specific ICT training:
ICT training online was provided to 81000 Primary school teachers by effectively making use of Hi-Tech facilities in schools. Necessary support systems such as Video Conferencing with a mentor for a fixed number of schools, social media and help desk for doubts clearing and monitoring were also set-up.
A special program called **Avadhikala Santhoshangal (Happy Vacation Times)** was conducted for kids to recoup the lost class days in schools, with the intention to provide an opportunity for enabling a creative and intellectual environment for kids at home. As a first phase of this program, digital content was created for all students from Standard 5 to 9 in the SAMAGRA online resource portal developed by KITE and enriched by SCERT Kerala, as part of the Hi-Tech school project. This included content that promoted learning through stories and poems; small and hassle-free experiments; paintings, other forms of creative work, reading cards, magic shows, IT tasks, mathematical experiments, etc.

Kerala used to conduct Training sessions for all Primary and Secondary teachers during the summer vacations which cannot be physically conducted due to lock down. Hence **Online state-level Training** was conducted for Primary Teachers through VICTERS educational channel, which were simultaneously streamed through Web portal and Social Media. The same was also made available on teacher's login for later viewing. Online Teacher Training Online teacher training for Primary teachers of the State was initiated on May 14th 2020 and more than 80000 teachers participated in it. Session on school safety during natural disasters and epidemics , Health concerns during Lockdown, Precautionary activities related to COVID , session on new trends in Information were included in the training program.

B. AksharaVriksham (Tree of Letters)
Creative content such as stories, poems and articles prepared by the students during the lockdown were collected, compiled and published. Through this program, the students were able to submit contents varying from articles, short stories and poems on Environment, Hygiene, Covid-19 and Prevention against diseases, and were published in School Wiki (www.schoolwiki.in) portal. Over 50,000 entries from across the State were received.   SCERT Kerala then selected the best contents, which were published in 30 Volumes within June 15, 2020.

C. Digital Textbooks and Teacher texts :

All school textbooks were digitized and made available in the Samagra Portal and in the SCERT website . Students can download the textbooks and use them. Teacher texts, which are the transactional aid, were also made available in the Portal.

17.3
Content Readiness:

It has been the major challenge for Online Education. The system did not have much previous experiences to address situation like this. KITE has developed an online learning platform: Samagra Resource Portal, which is a repository of digital resources of all subjects from Class 1 to 12, with the academic support of SCERT. The teachers are extensively using SAMAGRA Resource Portal (www.samagra.kite.kerala.gov.in) for effective transaction.

Recognizing the role of good digital content in enhancing teaching and improving learning outcomes, the Education department of Kerala in association with MHRD launched the DIKSHA programme for grades 9 and 10 for the academic year 2019-20. SCERT Kerala is the nodal agency that implemented DIKSHA project in Kerala. As part of DIKSHA, 108 energized (QR code imposed) textbooks were introduced for students of Classes IX and X for the academic year (2019-20) catering to all the four mediums of instruction – Malayalam, English, Tamil and Kannada. A total of 1703 QR codes were placed at the hard spots identified by the respective subject experts. These QR codes have simplified access to digital content for topics in the syllabi providing contextualised interactive audio-visual content and illustrations. This has made the learning interesting, increased the curiosity among students and has promoted a culture of self-learning among students. Over the last academic year, it has clocked a total of over 90 lakh scans.

The system entrusted Samagra Siksha, SCERT, SIET and KITE to develop the content for FIRST BELL Programme and prepare 30 minute episodes based on the content fixed for each age group for their classroom study. SCERT has to vet the content before broadcasting. The department has specified that 2 hours of content will be aired for Plus 2 classes, 1.5 hours for SSLC, 1 hour each for 8th and 9th classes and ½ hour each for classes 1-7 daily from Monday to Friday. The classes will be re telecasted once within the same week.

17.4
Monitoring & Evaluation readiness

The education department formulated a method for ensuring proper monitoring that each and every student will come under the ambit of the programme. Teachers and officials of the department will ensure the following

•   Collect feedback from the students and their parents. Also, collect, check, approve and share the activities of students.

- Create class/subject level groups with the parents and students on social media and utilise it properly. These groups must be managed by the teachers. Also, ensure that the group is used only for study-related activities.
- Ensure that all students (especially lower primary class students) view the class in the presence of an adult.
- Evaluate the students using worksheets and other methods. Ensure that students are provided with the necessary support based on their performance.
- Should maintain regular contact with the parents/caregivers and understand their difficulties and let the school authorities know about it. These problems should be discussed with a view to find suitable solutions.

<div style="display:inline-block">17.5</div>

Major Hurdles and the way out:

Before introducing the Online platform, the State Project Director, SSK conducted a primary study early in the month of May, 2020 as to the number of students who do not have access to online classes. The study report mentioned that, out of 41.3 Lakhs of students in Kerala, about 2.61 lakhs students were found to be without access to online classes. Hence it was decided that the online classes from 1st to 14th of June, 2020 will be on a trial basis during which the marginalized sections of the students would be identified and steps were taken on a war footing to ensure online classes to all and to rule out any instance of pressure, stress and anxiety in the minds of the students and parents. It was also decided that the initial classes in the first week will be re-telecasted from 8th June to 14th June, 2020.The teachers were directed to identify students who are having no facility in their houses to access online classes and to bring the same to the notice of the Headmasters of the school and to sort out the issue with the help of Local Self Government Institutions, people's representatives, Kudumbasree Units, SC/ST Departments, Co-operative institutions, Libraries etc. The teachers have to ensure that the students of their respective classes are making use of the online facility and no student is deprived of the same. The teachers are to furnish consolidated report as to the outcome of the online classes to the HM periodically. Similar directions were given to the Headmasters/Principals of the schools to take all necessary steps to ensure that all students are benefitted of the online classes and if necessary, to facilitate TV/Computers of the school to designated common study centres which include libraries, Anganwadis, Akshaya Centres, classrooms arranged by the SC/ST department, MGLCs, or using facilities under different departments, study centres arranged by Kudumbasree, BRCs, CRCs, local talent centres (Pradeshika Pradhibha Kendrangal) and Uruvidya kendrangal situates in tribal hamlets under Samagrashiksha. The students shall be brought to the centre by ensuring the COVID 19 protocols. KITE has issued direction to all the Headmasters of Government and Aided schools to make use of 1.2 lakhs laptops, 70,000 projectors and 4545 Television associated with Hi-tech school, Hi-tech lab scheme for the use of online classes.

The Govt appealed to the community to support our students for ensuring that each and every child comes under this venture. The response to this appeal was tremendous. People cut across all political perspectives, civil society organizations and a large number of individuals came forward to be part of this venture. Public sector undertakings, cooperative societies and private enterprises were ready to contribute funds as part of their CSR initiative. Government also gave permission to LSGs to utilize their fund for this purpose and also allowed the MLAs to utilize their development funds for this, through government orders. Local public and teachers had taken great efforts in ensuring that facilities are being ensured for all students. In the light of the steps taken in this matter and in view of the enormous support received from the public and other agencies towards this initiative, the number of students identified to have no access to online classes have been substantially reduced to 17774 by 11.6.2020. It has again come down to 872 by 14.06.2020. Accordingly, sanction was accorded to start further classes in continuation to the trial classes from 15th June, 2020. As per the latest statistics, as on 16.06.2020, the number of students identified to have no access to online classes has come down to 47 and the same will reach to a nil figure quickly. The matter of accessibility with regard to Online Classes was challenged before the Hon'ble High Court in Writ petitions where the Hon'ble High Court has disposed of all the petitions after expressing satisfaction on the activities and actions taken by the State Government.

Having rolled on the online classes through digital platform to the students, the program "First Bell" has received wide acceptance from all corners. Many of the classes have been widely appreciated by the public and many teachers have become heroes among Students and Parents all over Kerala. Non Residential Malayalees have been appreciating this effort as it helps extension of our public education to Malayali students all over the world. Some of the classes uploaded in you tube were watched by more than 40 Lakh people where a particular class will have a maximum of 4.5 lakh students only. This encouraged the Department to roll out new classes to ensure that the digital contents are made available to all possible sections of the student Population. Hence the following initiatives were taken.

1. In order to cater Tamil and Kannada Medium students, Classes were started in Tamil and Kannada with the help of specific DIETs and they were transmitted in the local channels and uploaded in the Youtube channels.

2. In order to address the Children with Special Needs Samagra Siksha Kerala developed separate content under the project named "White Board". With the help of resource teachers materials are being developed for a) Visually Challenged b) Hearing Challenged c)Autistic d) Specific Learning Disablity e) Cerebral Palsy and f) Mentally Retarded students in the primary section and the materials are being uploaded in YouTube. Resource Teachers are also visiting the houses of CWSN students to ensure that the concepts of Inclusive education are being adhered to even in times of Digital Education.

3. Since Kerala is only giving 9 hours air time per day which is distributed among 11 classes, many rare subjects and vocational subjects does not get a chance to be included in the Video content. Hence the Vocational Higher Secondary Wing has started Online classes for 52 vocational Subjects which is being made available through the 'VHSEeVidyalayam' Youtube Channel.

4. Online /Digital Education is often viewed as a factor aggravating digital divide. Kerala tries to stand different by ensuring education to all even during the hard times of Covid 19 by providing digital classes to all section of students taking into consideration the needs of the disadvantaged sections and CWSN students.
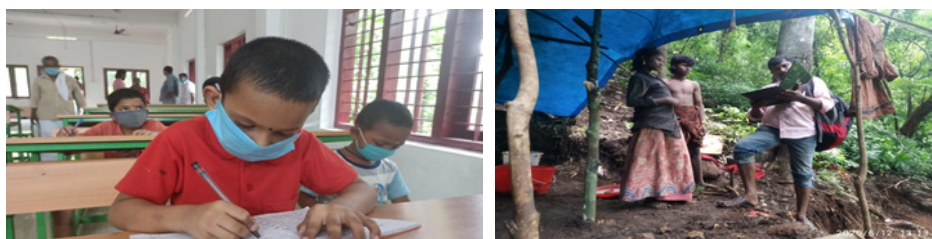
A teacher from Kerala visiting a Tribal family to support online education in side the forest.

Support from teachers at study centers in Kerala

17.6

Activities planned by Kerala Education Department

08:00 AM - 08:30 AM
Kalolsavam 2019 Kalolsavam 2019 (Gaveshanam)

07:30 AM - 08:00 AM
Parayamoru shasthrakadha

06:30 AM - 07:00 AM
Wonderful wetland beds
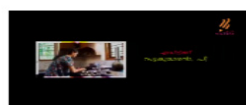
06:00 AM - 06:30 AM
Welcome to Swagathagaanam

Massive state-level training for teachers was introduced through KITE VICTERS educational channel, which were simultaneously streamed through Web & Mobile phones. The same was also made available on site for later viewing. (From 14th May 2020)

Kerala started the academic sessions through virtual classes for the students of class 1 to 12 on 1st June 2020. About 41 lakh students benefited from the virtual classes. The special sessions, termed First Bell, were made available for class I to XII via Victers Educational Channel run by the Government. Apart from Television the sessions are available on www.victers.kite.kerala.gov.in and on Facebook and YouTube. Elaborate arrangements have been made to ensure that virtual classes are available to all students. Facilities such as TV, Satellite Receivers, and Internet etc. are provided in Local Resource Centres run by Samagra Shiksha, Local Libraries and Anganvadis. Teachers are instructed to use social media groups at class level and to collect responses from the students to give feedback.

The DIKSHA initiative

Recognizing the role of good digital content in enhancing teaching and improving learning outcomes, the Education department of Kerala in association with MHRD launched the DIKSHA programme for grades 9 and 10 for the academic year 2019-20. The SCERT Kerala is the nodal agency that implements DIKSHA project in Kerala.

As part of DIKSHA, 108 'Energised' (QR code imposed) textbooks were introduced for students of Classes IX and X for the academic year (2019-'20) catering to all the four mediums of instruction – Malayalam, English, Tamil and Kannada. A total of 1703 QR codes were placed at the hard spots identified by the respective subject experts. These QR codes have simplified access to digital content for topics in the syllabi providing contextualised interactive audio-visual content and illustrations. This has made the learning interesting, increased the curiosity among students and has promoted a culture of self-learning among students. Over the last academic year, it has clocked a total of over 90 lakh scans.

To cater to the demand of students, additional resources that would help students in Exam preparation was uploaded in DIKSHA and was linked to Grade 10 English textbooks. It is to be noted that all these digital contents were created by a pool of trained teachers under the academic guidance of the SCERT Kerala. Based on the success of DIKSHA program, the School Education Department has now decided to place approximately 5000 QR codes in 244 more textbooks from Class 8 -12 for the next academic year 2020-21.

18 LADAKH

All schools in UT of Ladakh were closed for winter vacations from 09-12-20219 to 20-02-2020.Further, in view of harsh climatic conditions, the vacations were extended upto 01-03-2020 in Leh and upto 09-03-2020 in Kargil.

In Leh, schools were opened on 02-03-2020. However, the same were closed again on 11-03-2020 in view of restrictions imposed by District Administration due to COVID-19. The institutions/schools are still closed due to lockdown.

In Kargil District, the schools are closed w.e.f. 09-12-2019 to till date in view of extension of winter vacations as well as due lockdown ordered in view of COVID-19.

18.1

Steps taken for online/digital Education:

1. Recorded contents as per the syllabus are being uploaded on YouTube then the links of contents are shared on different WhatsApp groups of students.

2. AIR Leh and Kargil have provided time slots of one hour and half an hour respectively for broadcast of recorded contents of class 10th, 11th& 12th class (Science as well as Arts streams). The request has been made to Director General, All India Radio, for allotment of a time slot of 3 hours daily through both AIR Leh & Kargil for broadcasting the educational activities during the lockdown period.

3. Similarly, Director General Doordarshan to allocate time slot of at least 2 hours at DD Leh/Kashmir. Now, DD Kashmir has allocated a time slot of 2 hours for telecasting the lessons.

4. EMBIBE Bangalore (NGO) is also arranging online classes for 11th& 12th standard free of cost.

5. DIET faculty (Leh & Kargil) in collaboration with field teachers and 17000 feet (an NGO) are also providing online Education from class 1st to 9th through YouTube and different WhatsApp groups.

6. Mobile app has been developed and launched by the Department of School Education UT of Ladakh wherein content recorded by concerned subject teachers as per the syllabus is uploaded; students from class 1st to 12th can browse the class and subject and view the related uploaded content and clarify the doubts from the concerned class teachers subsequently.

MOBILE APPLICATION

DSEL Online Education
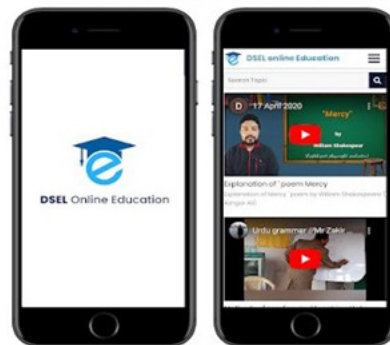
7. The department has uploaded the video content for all the classes (1st to 12th) on the following website and YouTube channel, so that the students can access the lessons as and when required.

    A.   https://www.dselmyhomeschool.in/

    B.   YouTube Channel **"Department of School Education UT Ladakh"**
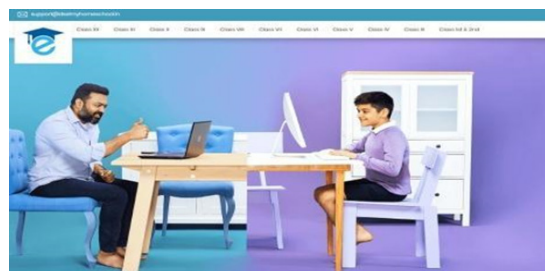
8. Links for Digital Education Websites of MHRD, Govt. of India "**DIKSHA**" is made available on the official website of School Education Department of Ladakh http://dse.ladakh.gov.in/

Challenges related to Digital/Online Education:

1. Large number of students are neither having android cell phones nor Laptop/Desktop or Tablets due to financial constraints.
2. Ladakh is hilly, sparsely populated and is a far flung area where mobile/internet connectivity is very limited. In order to provide teaching content offline, classroom digital equipment is required wherever mobile or internet connectivity is not available so that contents are provided through pre-loading or through CD or pen drive.

19 LAKSHADWEEP

All schools in Lakshadweep are following either NCERT or SCERT Syllabus. Hence Lakshadweep Administration doesn't prepare textbooks, NCERT and SCERT textbooks are provided for all classes I to XII.

Students can refer to DIKSHA portal and find ample resources for digital learning. This allows for remote education mediums to flourish.

In Lakshadweep poor network connectivity is the main impediment that is hampering digital education. However, Lakshadweep is working on initiatives to plug this gap in digital education:

- Books are available in offline mode for all classes and for classes XI and XII, e-content based on NCERT and SCERT syllabus are made available to students through individual tablets provided by school.

- All TV channels are providing KITE - VICTERS Educational channel, which is Kerala's educational TV channel available in Lakshadweep islands also. A public notice has been issued in this matter.

- CBSE- NCERT Syllabus is followed in all schools of Lakshadweep for classes I to X from the past 10 years.

- Teachers and students have been given directions to use the multitude of resources available in the DIKSHA portal.

- Online classes are not completely successful due to poor network connectivity in islands. Thus, radio classes are also conducted, though radio usage is not very high.

20 MADHYA PRADESH

The unprecedented COVID-19 pandemic is going to severely affect not only the economy but dynamics of the social sector also. The state Government of Madhya Pradesh is swiftly responding to the current COVID crisis by introducing a series of interventions across all sectors, as the socio- economic profile of students studying in state run Government schools and their limited access to other resources of learning beyond school, prolonged periods of lockdowns and an interrupted academic session will severely affect the learning outcomes of children. The current state-wide school shutdown presents the unprecedented challenge of keeping students meaningfully engaged in academic learning, while continuing to develop teacher capacity & proficiency, without running regular school operations Recent crisis has also brought within its wake an opportunity for extensive use of IT- based platforms especially in education sector for teachers, parents and above all students. After a long lockdown the department will have to address these challenges. These include –infrastructure and facilities, teaching-learning environment, school's routine activities, teacher training, organisation of co-curricular activities and personal hygiene.

During the current lockdown in wake of COVID 19, the School Education Department of Madhya Pradesh has proactively taken upon the task of ensuring that children do not lose out on any opportunity to learn and to continue their academic progress by providing access to tech-enabled learning sources. It has been envisaged to integrate digital learning with classroom teaching in the post- Covid by introducing well planned interventions addressing critical elements of the learning ecosystem: students, parents and teachers.

Digital Learning for Students

20.1
Radio School

Radio School is a state-wide radio program launched in collaboration with All India Radio (AIR) on April 1 broadcasted from all stations across the state. Key highlights of the programme are as follows:

1. Broadcast in one-hour slot daily (11am-12 pm) except Sundays
2. Mix of both stories & engaging academic programs focused on grades 1-8

Bouquet of Interactive Radio Programmes

Popular stories from the **Facts for Life** entertainment-education radio series for school children between the age of 11 to 14

(124 Episodes, 15 min)

JHILMIL- Content based approach for **Maths & Environment Science** for school children between the age of 6 to11

(41 Episodes, 30 min)

ENGLISH IS FUN- teaches **spoken English** and grammar through 50 songs and simple lessons for helping the children in the age of 6 to 11

(200 Episodes, 30 min)

SUNO KAHANI - Story telling programme, stories narrated by Teachers, students, sports persons, theatre artists etc

(13 Episodes, 15 min)

3.   First story narrated by CM on subject of importance of goal setting & focus in life

The program saw enthusiastic participation from the students and the teachers alike, with some communities even trying innovative practices like using a loudspeaker to ensure that no student in the community is left behind!

कहानी सच्ची है

लॉकडाउन में लाउड स्पीकर से घर-घर पहुँचा स्कूल

भोपाल : बुधवार, अप्रैल 22, 2020, 22:37 IST

कोरोना संक्रमण में शिक्षकों एवं पालकों की बच्चों की पढ़ाई की चिंता को दूर करने के लिये सीहोर जिले में लाउड स्पीकर से रोज पढ़ाई कराने की पहल की है। नसरुल्लागंज विकासखण्ड के शैक्षिक समन्वयक श्री संतोष धनवारे को जमुनिया बाजयाप्त गाँव के शासकीय प्राथमिक स्कूल के बरामदे के एक कोने में रखे लाउड स्पीकर को देखकर यह आईडिया आया। उन्होंने तय किया कि लाउड स्पीकर से प्रत्येक बच्चे तक गत एक अप्रैल से आकाशवाणी पर शुरू किये गये 'रेडियो स्कूल'' कार्यक्रम को पहुँचाया जाये। उनका यह प्रयोग सफल रहा।

गाँव के बच्चों के साथ-साथ उनके घर के बड़े बुजुर्ग और अन्य सदस्य भी यह कार्यक्रम सुनते हैं। रेडियो स्कूल कार्यक्रम को इस तरह हर घर तक निर्बाध रूप से पहुँचाने पर ग्रामीणों ने श्री संतोष धनवारे के प्रयास की सराहना की है।

Digital Learning Enhancement Program (DigiLEP)

Launched by the Hon' CM on 8th April, 2020 DigiLEP provides learning opportunities over WhatsApp. There are three main elements of DigiLEP: curation of very high quality digital content, creation of a well-defined WhatsApp architecture of 50,000+ groups covering all clusters and secondary schools of the state, and a well-oiled delivery mechanism ensuring now 6.5 lakh+ views per day, and more than a crore views in last five-six weeks! Additionally, to ensure that students are getting continuous support from teachers, teachers have been playing a pivotal role in DigiLEP as well. On the top of it, we are also sharing fun stories every Sunday through Digital Flipbooks.

1.   **Curation of high quality digital content:**

An inter-state team of 50+ members, comprising SCERTs of MP, Jharkhand and Orissa, multiple non-profit organizations across the country, and content experts from civil society organizations came together to curate NCERT curriculum based competency videos for all Classes from I to XII. All key subjects in elementary grades, and many subjects of secondary grades were covered. The team has already curated content for more than two months, and is well on its way to create a freely available well curated resource of videos which could be used by anyone for classroom + at home learning, The library now has more than 250 videos across 5 subjects in elementary grades.

2.   **Well defined state wide network of WhatsApp Groups**

More than **19 lakh parents and 2 lakh** teachers have now been added on a well-defined architecture of **50,000+ WhatsApp groups** across the state. Every cluster has eight groups to cover parents of students in elementary grades, and at least groups for every secondary school, one group for each class. Additionally, district level WhatsApp groups, called DigiLEP groups, have also been made where all cluster academic coordinators and all Principals are added.

DigiLEP:
अब पढ़ाई नहीं रुकेगी!

मध्य प्रदेश सरकार के नए DigiLEP प्रोग्राम द्वारा अब सभी बच्चे और अध्यापक शिक्षा के जुड़ सकते है! चलो! अब WhatsApp और मोबाइल के संग सीखे!

3.   **Well-structured delivery mechanism**

To ensure that the appropriate curated content is reaching every single one of 50,000+ WhatsApp groups across the state and maximum number of children are taking the benefit of it. SOPs were made to clearly define responsibilities and put in place required monitoring mechanisms, and continuous data based insights were shared at all levels. The result is that in the past four weeks, daily viewership of our content has increased from **2.5 lakh per day to around 7 lakh per day.**

4. Constant support by teachers

Every teacher of the state has been directed to connect with at least 5 students daily, and provide support so that every single kid remains in touch with her studies. Teachers are now calling parents, orienting them on DigiLEP initiatives, and are motivating them to play an active role in their children's studies. They are also giving homeworks and assignments to students so that they keep practicing what they are learning from various sources. Teachers are also reporting the details of the calls done and homework/ assignment given through Google forms, the format of which is given below.
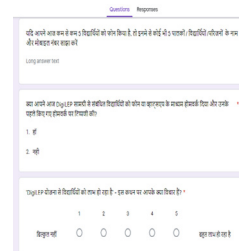
We have been seeing a host of bottom up innovative practices which teachers, parents and community members are taking. For example, some teachers have started **'Mohalla Classes' – c**lasses in which 5-6 students in a neighborhood study together using one Radio/Mobile device, under the inspection of an elderly who prods them to learn, solves their queries about the content, and acts as a bridge between children and teachers, if teachers are themselves unable to reach the kids in person. Another example is teachers going door to door to ensure that no student is left behind, and everyone is connected with learning in one form or the other.

To orient teachers on their responsibilities, and to explain to them the importance of Digital Education, we have also conducted multiple, **large scale webinars,** in which more than **15,000 teachers** across the state have directly participated and interacted with state leadership. We are also planning to use social media further by conducting FB live events starting next week.

5. Weekly Flipbooks on Sundays

Flipbooks are digital versions of hardcopy books which could be read similar to physical books, that is, by just flipping pages. Every Sunday, interesting story books, in the form of flipbooks, are made available to students so that they have multiple and different types of sources to remain connected with studies.
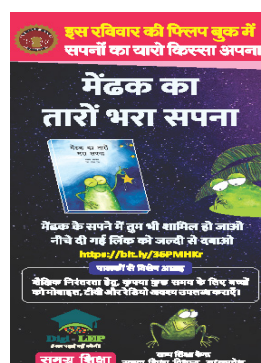
6.   Learning Competitions

To inspire students, parents and other family members of the students to write about their experiences of lockdown and connect with the larger school education community, various competitions were also conducted by the department.

7.   Additionally, a 'Learn from home' repository has been uploaded on the home page of Vimarsh portal; it outlines specific initiatives that the state is driving for digital learning and provides a rich collection of open learning resources for interested students.
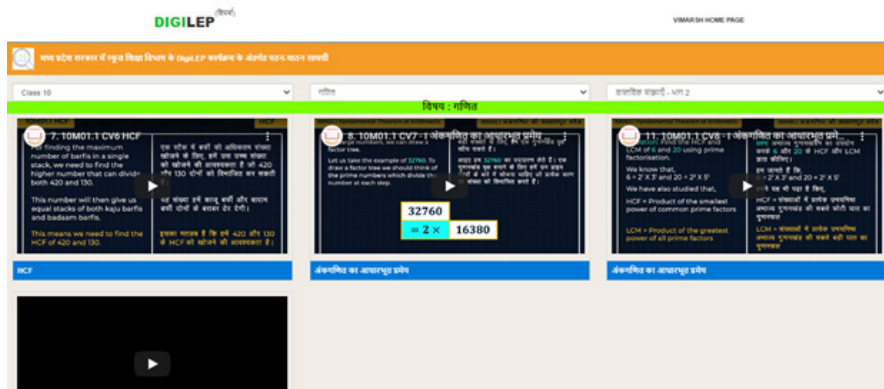
20.3
Online Lectures/ Broadcast through TV/VC

- Online lectures for Secondary classes through Zoom/Webex etc

- Use of local cable network

- Distance learning through Doordarshan from May 11th

20.4
Top Parent App

Top Parent is a first-of-its-kind free-of-cost mobile app that empowers parents of young children (3-8 years) with knowledge and strategies around child development to help them meaningfully engage with their children.

Top Parent builds parents' skills as educators by providing simple day to day solutions via videos and games and recommending easy and cost-free digital solutions for their children's learning needs. With fun, game-based and world-class. EdTech solutions, children can now continue to learn their letters and numbers without the fear of missing out on school.

- It is built on top of 3 student learning apps – Google Bolo, Chimple and Math Masti, with a parent interface integrating them.
- Aim is to build parents' skills as educators by providing simple solutions via videos & games & recommending easy, cost-free digital solutions.
- More than 11,000 downloads of the app happened in the first two days of the launch, and May had 9,000+ active users of the app in the state.
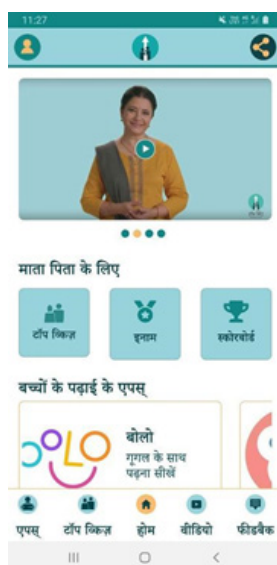
| Home page: Videos for parental awareness | Apps page: FLN focused EdTech apps for children | Quiz page: Quizzes for parents on early childhood education |
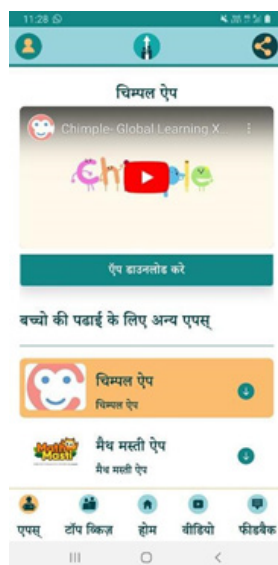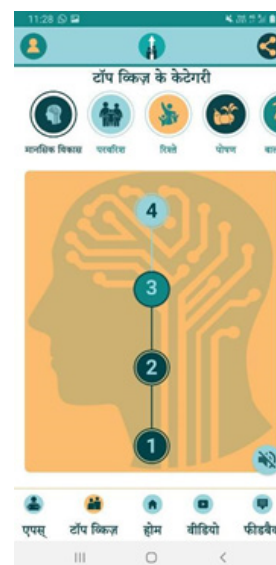
20.5 CM RISE Digital Teacher Training

It was launched on 1st May, 2020 for professional development of teachers. Key highlights are as follows:
- Professional Development Courses for Teachers covering core subject topics, FLN pedagogy skills and select non-subject related soft skills
- Allows for individual pace of learning
- **Diksha** platform is being used for administering teacher courses.
- More than **2.5 lakh teachers** have already completed two modules, and are now enrolled in the third.
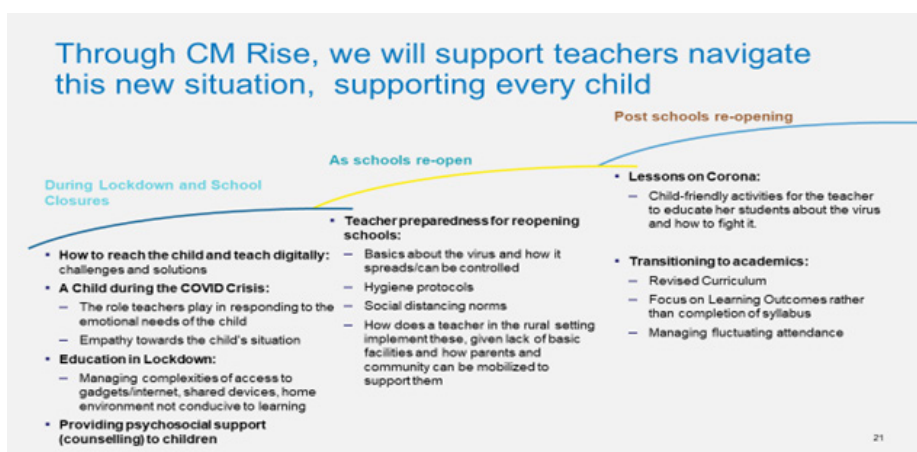
20.6 Other Digital Programs

Gyan Pitara:
Online State Textbooks and Videos are available in this section. This program is for class 3 to class 8 and covers Hindi, English,

Maths, Science, Social Science, Computers and Sanskrit subjects. It can be reached via http://www.educationportal.mp.gov.in/GyanPitara/default.aspx

PLC:

• Digital e-Learning Contents, PLC is an online platform on the Vimarsh portal for teachers, teacher-trainers and other education functionaries for sharing their academic experiences, queries and solutions.

• PLC has a number of forums on different topics related to education. Members can share their academic thoughts, experiences, knowledge, innovation, innovations and good practices in the forum of their choice. They can also post their academic questions, photos, videos, etc. in the forum.

• Teachers can get answers to their academic problems and inquiries from other members. They can also answer questions of other teachers themselves; can also suggest solutions to their queries. Those who are not members of PLC can also view / read different forums.

• This program covers Hindi, English, Maths, Science, Social Science, Computers and Sanskrit subjects. It can be reached via https://www.vimarsh.mp.gov.in/plc/
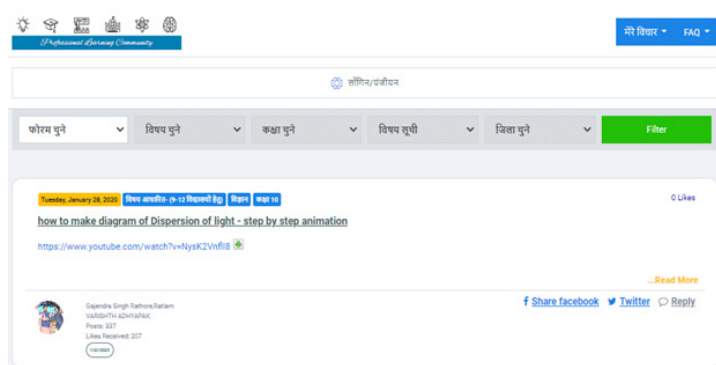
Knowledge Hub for Electronic Learning (KHEL):

• It is Game Based Application that covers class 1-3.

• The objective of this initiative has been to improve learning outcomes in Math and Language in accordance with the school curriculum, and enhance the students' ability in aspects such as observation, critical thinking and communication.
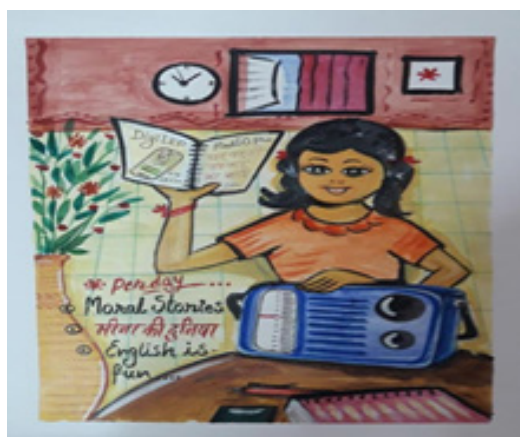
• This program focuses on Hindi, English & Mathematics which is based on both Hindi & English medium.

• The content of this application includes Explanation Animation based Practice Questions, Assessments & Slides.

Joyful Learning:

• Teachers and educationists try out new methods and techniques to accelerate learning in children by engaging them in fun-based activities that not only attract children who are lagging behind, but also keep the rest of the children engaged through the additional element of peer-learning.

• This program focuses on Hindi & Mathematics which is based on Hindi medium and covers class 3-8.

• The content of this program includes Explanation Videos, and it can be accessed both offline &online.

• This program uses YouTube, WhatsApp, Radio and TV as a content delivery platform

Large scale teacher-student and teacher-parent engagement has been orchestrated in a planned manner

A teacher webinar with more than 10,000 participants

- State has asked **each teacher to call 5 students everyday**

- Instructions shared to speak with parents first, understand their situation and empathize, and then emphasize the importance of continuing education via various available modes

- In addition, **multiple innovations** seen in the field in the form of **mohalla-classes** with appropriate social distancing, **door to door visits** etc.

MP-DIKSHA

21 MAHARASHTRA

21.1
Development of the Learning Continuity Plan

In the present situation of school closure and limited physical movement, the Department of School Education, GoM, with technical support from UNICEF, has developed a 3 phased Learning Continuity Plan to ensure continuity in learning for all children grades 1-12. The Department is aware that many of the planned activities may also be suitable for children from ages 3 to 6 years. With the usual norm of more than one child per family, the activities can be used by the parents for their younger children as well. Hence, the Learning from Home strategy adopts a Life Cycle Approach (pre-primary to grade 12)}. The phases take into consideration continued learning in the period of school holidays, delayed school opening post June 2020, and the period of school opening. This is a dynamic document and will evolve with time and better understanding of how COVID is impacting lives.

21.2
The Learning from Home Package

The Learning from Home Package developed as part of the plan is a set of educational interventions available on different technology platforms, such as TV, Mobile phone, and Internet which is shared daily with parents and children through an SMS or WhatsApp message. These different modalities were selected based on the varying access of families to these technologies depending on their location and financial status. The approach is inclusive in that it provides all children, even the most vulnerable, access to some educational content, during this time of school closure. The package was coordinated through the technical support of UNICEF and partners with whom this content was available – Pratham Books, GaliGaliSimSim, Diksha, etc.

The Home Learning Package for these grades for phase 1 includes the following elements-

21.2.1
DIKSHA Abhyasmala campaign

In order to ensure students' continue their learning, MSCERT in collaboration with Leadership for Equity started the Abhyasmala campaign on 13th April 2020. The aim of Abhyasmala campaign is to provide students with academic as well as co-curricular content. DIKSHA core teams (content and outreach) are established at state level that coordinate the work of Abhyasmala. Daily a whatsapp message containing links of digital content is shared by the SCERT director with students through officers and teacher networks.

The Abhyasmala campaign is divided into three phases:

- 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 contribution of teachers and content partner organisations. Since Abhyasmala started, the content on DIKSHA has been played for 2.18 crore times in Maharashtra.

Since the campaign has started a total of 22 lakh students and teachers have used the content circulated via DIKSHA. Out of these, 16.94 lakh were students from grade 1 to 10. Snapshot of content usage as reported from DIKSHA backend is as follows:

MH - DIKSHA
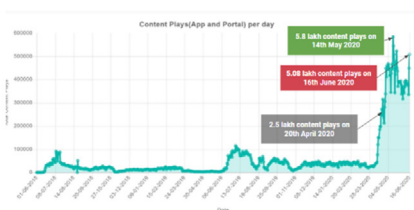
DIKSHA Content usage of Maharashtra

A. DIKSHA Scholarship Campaign

Scholarship exams in Maharashtra are conducted for grades 5th and 8th. Through the Scholarship campaign, preparation material in the form of videos, practice questions and worksheets were shared with the students. The campaign was done specifically for Marathi medium covering the subjects of English, Mathematics and Marathi. The content is available in both online and offline. 13,113 content plays (number of times content is played) was recorded through the campaign.

21.2.2
Initiatives Undertaken by Balbharti

A. E-learning app for 10th standard

An e- learning app was created by Balbharti for the 10th standard. Content on the app is available for the students of Hindi and Marathi medium. Content of the app is available in both online and offline mode which can be accessed using both the mobile app and desktop app. The app has a diversity of content available on the platform which includes: explanation videos, practice questions, assessments, E-Textbook PDFs, lesson plans, slides, recorded classrooms. Currently, there are 46,425 users on the platform.

B. BolkiBalbharti Audio book

The objective of the project is to provide audiobooks for subjects in English and Marathi medium for the students of classes 8,9 and 10th. This content can be accessed using the Bolki app and on the desktop app. Currently there are 22,200 users of this app. The content on the app is available in both online and offline mode.

C. E-Balbharti channel

In order to provide a learning platform for the students, Balbharti started a YouTube channel. The channel has explanation video content available for students from Grade 5 to 10th. The channel provides content to the students and teachers in English, Marathi, Hindi, Gujrati, Telugu, Urdu, Sindhi, and Kannada medium. Since the content is available on the YouTube platform, content can be accessed on both mobile devices and desktops. Currently, there are 39,50,386 users of the platform.

D. E-books

The objective of this initiative is to make the curriculum textbooks available in PDF format for students of all grades in all mediums of the Maharashtra Board. The e-books are available for all the students from grade 1 to grade 12. The Maharashtra board covers 10 mediums of delivery for the students. The platform provides books for all the mediums. Currently, 10,25,000 users have accessed the books on the platform. One can visit this website to access the books: https://ebalbharati.in.

E. Virtual Classrooms

The idea of starting Virtual classrooms was on the objective to reach out to students in schools where teachers are not available. The pilot of this project has been conducted for the Grades of 9th and 10th in Marathi medium. The Virtual classrooms covered the subjects of Mathematics, English and Marathi. The lessons were delivered with the help of devices which were installed already in the classrooms in specific schools. These live classrooms are available only in the online mode and this initiative was tried out with 6,400 students.

F. Learning Outcomes Smart Q Mobile App

The objectives of the initiative are:

• Provide opportunity to the Students to solve the Lo based questions.

• Analysis of the performance of the students according to the LO.

• 100% students will achieve 75% in every LO.

Students from primary and middle school were provided with NAS level Questions for practice in individual LOs. The students and teachers can access these questions using the app available on Play Store. It was developed and implemented by DIET Amravati for the students in the district. They have reached out to 7,67,837 users.

G. Teaching and learning from Home (RAA Amravati)

The objectives of the initiative are:

1. Since school education is not possible, use of digital platforms can help in continuing the teaching learning process for the students
2. To motivate teachers to teach students by using online resources.

The content is available for Primary, Middle, Secondary and Higher Secondary levels. The e-resources were created for the students with the help of DET faculty. Students were provided with the resources over WhatsApp as a medium of communication. The teachers are being trained in subject pedagogy to deliver online teaching with the help of Zoom. Under the leadership of DIET, Amravati 916 teachers from Amravati district planned for online education of 92,560 students. Content created in this initiative is available in both online and offline manner.

21.2.3
Online Capacity Building Initiatives

To build the capacity of teachers & officers in Maharashtra state following initiatives were undertaken by Maharashtra SCERT.

A. BRP Program

To strengthen the outreach of DIKSHA Content and increase usage of DIKSHA App, we aim to train BRPs in the districts. The mode of training was offline.BRPs were trained on how to use technology in the classroom with focus on integration of DIKSHA app in the classroom. This was a zero budget initiative. To monitor and evaluate the training feedback forms were collected from all the BRPs through google forms. In the coming year we plan to train all the BRPs in all 36 districts of Maharashtra.

B. Remedial Program

To create resources which will be useful for the secondary students who need added support and direction, remedial videos were created. Teachers were trained in-person as well as virtual meetings to create these types of resources. Content specifically targeting the learning outcomes that need to be improved in the state and for students who need remedial content were selected for the program. Budget for this activity was allocated from SamagraShiksha. In the coming year we plan to train the same group of teachers to keep creating high quality content.

C. Cyber Security

To ensure higher secondary teachers and students are aware and can protect themselves from cybercrimes (phishing, bullying, etc.), a module was created by SCERT. Budget for this activity came from SamagraShiksha. Post-tests of students and teachers were planned to monitor the usefulness of the module. The module was circulated through hard copy and soft copy forms.

D. Avirat teacher training (Level 3)

To prepare selected teachers to become master trainers Avirat level training was conducted by the state. As part of this, online teacher training was conducted by the ShyamchiAai Foundation. The app was created - mahacareermitraapp.

E. Spoken English MOOC:

Objectives of Spoken English MOOC are as follows :

• To equip the last teacher of English to enable the last student to speak English confidently.

• To enable primary school teachers of English to speak English confidently.

• To give chance to teachers to learn English with their own pace, time and interest.

• To meet expectations by the NCERT in speaking skills, articulated in the Learning Outcomest

The Spoken English MOOC is a Blended Learning Model. It is a blend of Face-to-Face training & online learning forming a Blended learning model for 'Teachers Professional Development'. The training module developed for the Spoken English face to face training was converted into an online module. In the making of this online course script writing, storyboarding, video shooting & editing was done. The Online Spoken English blended model has three phases. Phase-1 starts with MOOC Orientation meeting, Baseline one & Confidence survey, Course consumption, Mid phase assessment, MOOC meeting one, Classroom execution, Pre webinar survey, and Webinar one in it. Then phase two and three are similar to phase one. At the end certificates are available to download. In the COVID-19 lockdown situation the inputs planned for face-to-face delivery are being delivered through webinars.

Budget for this activity came through SamagraShiksha. Total 19297 teachers enrolled in the MOOC, out of which 15317 completed the MOOC training. After the successful piloting of Spoken English MOOC 499 Mentors across the state were trained as MOOC mentors at State level in three batches. MOOC Mentors conduct a monthly MOOC meeting with 25 teachers from their cluster. MOOC mentor support and monitor the progress of Teachers. FGDs are conducted with the teachers and MOOC mentors. The performance is tracked through online consumption and tests. In the coming year, Regional Academic Authority, English Expertise, Aurangabad is planning to develop Advanced Spoken English MOOC.

F. Samarth Prototype Program

A strengthened cadre of academic and administrative officers working across state, district and urban education departments with improved skills to design and lead effective programs and drive effective people management structures, Samarth Program was introduced. The core values of the program are collective learning through peers and use of technology to improve effectiveness of people and programs.

In this program, SCERT's continuous professional development department in partnership with Leadership For Equity (LFE) conducted an extensive need analysis, based on it State decided to Develop/Design content on conducting effective online sessions. Course mainly helps officers to understand the topic and also how a particular topic can be implemented or used in their day to day life. Course contains many real life examples and its solutions, case studies, reflective questions and many videos to understand the content. This prototype course was intended to develop the understanding on how States can develop high quality courses, and stages of course creation. With the help of this, Now Samarth program has developed 3 other courses on Team Management, Monitoring and Evaluation and Effective online course creation. To track success of the program Number of minutes spent on the platform by each user were measured, completion rate was also measured. In the coming year, we aim to selecting the group of 400+ Academic and Administrative officers from state (SCERT, RAA, DIETs and ZPs), Officers consuming the course, Implementation of PLC batches, Capstone project and Gathering the learning for further expansion of the project.

G. Virtual Professional Development Forums

Virtual Professional development forums started as a response to the COVID 19 crisis with the intent to ensure a continuous learning platform for 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 many 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 knowledge of officers on program design and evaluation. It was completely online, ZOOM application was used to deliver these trainings. Education experts, health practitioners, poets, authors, political and administrative leaders have conducted virtual sessions for officers. Net promoter score, online surveys, digital poll during and after the training were conducted in order to check the usefulness of these sessions.

21.2.4
Story of the Day

Apart from those stories that can be accessed through DIKSHA, Pratham's 'Missed Call Do AurKahaniSuno'number is also shared with parents (through teachers) so that children can access the service. The toll-free number can be dialed by Parents who will then receive a call with an audio story. A set of generic activities are shared with the parents via SMS daily that can be done by the children after listening to the stories.

21.2.5
TV programme

Currently Galli Gallo SimSim is being aired by DD Sahyadri at 10am from Monday to Friday. The programme is suitable for young children (pre-primary to grade 2) and is being watched by over 11 lakh children in the state.

Radio programmes

A set of educational games and activities are also being broadcast through radio in one region of the state by Pratham in partnership with MSCERT. The MSCERT is considering taking the program across the state.

Bookyboo

A storybook for children on COVID has been adapted with WHO messages and has been developed in Hindi, English and Marathi, and in AV format for wider dissemination. This has been launched by the MSCERT in partnership with UNICEF.

Career Portal for guidance in careers

This portal was launched by the Education Minister for students of grades 9-12 so that they can explore the wide menu of career paths available and to serve as a guide to navigate through the multiple ways of achieving their aspirations. Further, it will become a powerful tool in the hands of the over 400 counsellors in the state who play a critical role in mentoring students. Over 5000 education functionaries participated in the launch.

Webinars for capacity building of Education Functionaries

5 webinars were conducted with education functionaries on different topics (given below) to build their capacity and enable them to facilitate the reach of the Learning from Home package to teachers, and parents. There was overwhelming attendance in these webinars with around 3900 participants in each one.

The following two visuals give, in brief, an outline of the Home Learning Package for each age-group, with the implementation modalities. Some of Package elements are already launched, while others will be launched soon.
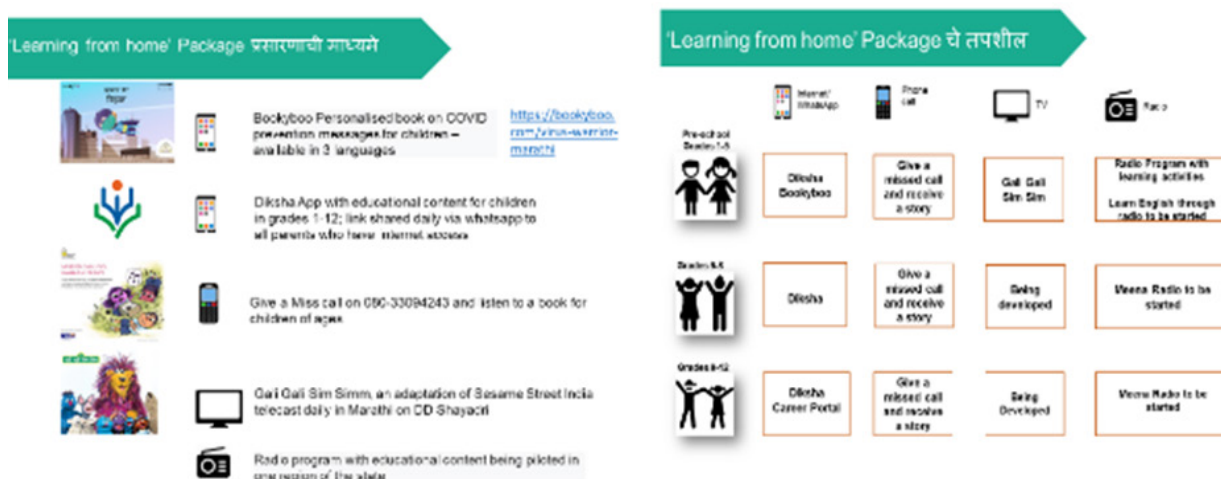
Figure : Maharashtra Home Learning Package

Dissemination of the Package & Mentoring
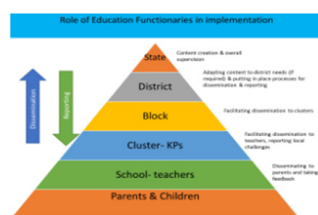
Figure : Maharashtra Home Learning Package

The success of the Learn from Home Strategy is based on two things- the awareness and support provided to parents to cope with the situation of being at home, and on the awareness and use of the Home Learning Package. To address the above, first, the communication channel through WhatsApp groups was activated so that information reached over 700,000 education functionaries and teachers through the cascade approach.

State-------District-----Block-----Cluster Leaders----Teachers-----Parents & Children
Next, GoMin partnership with UNICEF, adapted the leadership program to motivate the network of educational officers to disseminate the package to all parents and children in the state. In particular, it was thought very critical to strengthen the cluster leaders, who lead 15-20 schools, and mentor the teachers of these schools. In the current times, the skill building program was adapted to address using the skills of data management, action plan development to support teachers to reach parents and children with key messages – on COVID prevention and learning continuity. To date, 5 webinars have been completed with the leadership cadres with an average participation of 3900 officers in each webinar. Cluster leaders are motivated by the webinar series and many are submitting stories for the COVID diaries which will be published soon.

Aspects covered in the webinars series so far

Collecting and analysing data on mode of access by different students in their cluster; developing an action plan for their cluster of schools to ensure better implementation of the Learning from Home program and tracking of progress; importance of parent engagement in promoting learning from home.
A special session on caring for self and addressing the psycho-social needs of children during the pandemic and lockdown has been taken care of. A resource person from TISS – iCALL online psycho-social care programme and helpline conducted the session
Dissemination of key information on cyber-security, and WASH messages, etc. as they pertain to learning from home using technology, and also adequate preparation for reopening of schools taking care of sanitation, water, and hygiene.
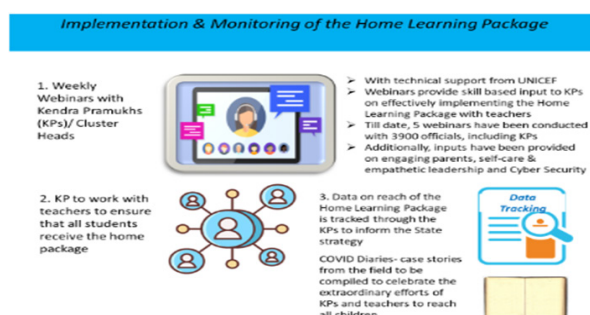
Figure : Implementation and Monitoring of Home Learning Package

Data on Reach

The table below provides data on reach using the different interventions that are part of the Learning from Home package:

Tracking reach of Learning from Home Package

Platform/ Programme	Modality	Target Audience (children)	Total Numbers reached as of reporting date	Date of reporting
Diksha	WhatsApp	Grades 1-12	May 20th data: 5,83,984	3-Jun
GaliGaliSimSim (start date 20thApril 2020)	TV	Children 3-8 years	1,117,000 or 1.12 Million kids, 2-14 yrs.	20th Apr'20 – 22nd May'20
Pratham Books – Missed Call Do KahaaniSuno (start date 22nd April 2020)	Give missed call on 080330 94243 from any mobile phone (basic or feature orsmart phone) and even a landline phone	Ages 0-14 years	Number of Calls from MH : 119k / Number of listeners [Children] MH :45K / Number of stories listened to in MH :112K / Tot. num. of minutes consumed by MH state:250k	1-Jun
Pratham Radio (1stMay 2020)	Radio	children 3-10 years	3,99,430	11-Jun-20
Bookyboo Books (14th May launch)	Internet	children 3-10 years	97,648 downloads	4-Jun-20
Webinars with Education Functionaries covering a variety of topics	Webinar	education functionaries	3900 in each of 5 webinars	30-May-20
Career Portal	Online	grades 9-12	accessed by over 2000 students	6-Jun-20

Preparation for the new Academic calendar

Academic Learning Calendar

In order to ensure students and teachers are able to access chapter wise learning resources and activities, the MSCERT has undertaken the task of preparing an academic learning calendar for grade 1 to grade 10. The calendar will comprise quarterly plans for each subject of grade 1 to grade 10. For the first quarter from June to August 2020; month wise chapters to be covered and links of digital resources for that chapter along with activities are mentioned in the learning calendar. Once the academic year starts in the state, the calendar will be shared with all teachers through district offices and also WhatsApp groups.

Guidelines and Checklist for School Opening

MSCERT in partnership with UNICEF has formed a resource group that is working on a checklist that will guide school functionaries in developing a feasible plan for opening schools safely (when state allows for the same). This is being developed through a

consultative process and covers non-negotiable and safety and hygiene measures that need to be put into place before considering opening of the school. This is currently in draft state, and will be finalized before the end of June.

A UNIQUE SOLUTION

With the motto of 'school closed; education open', a primary school run by the zilla parishad in Pabe of Velhe taluka, a remote village around 75 kilometres from Pune, has come up with a unique initiative of 'Lockdown Pabe pattern' to bring education to even those students who do not have access to the internet or a smartphone. The students at Pabe reside in hilly areas and face issues like road connectivity during monsoon as the village receives heavy rainfall.

The Lockdown Pabe pattern

- Time table for 15 days is prepared by the school administration.

- Class teacher of every class will prepare a time table on the basis of the school syllabus.

- Time table will be given to every student via WhatsApp and those who don't have WhatsApp, school administrator committee members will visit his/her place to hand over the time table.

- Students will study by referring to books which were distributed to them on June 14.

- Students will do the assignments and they will send photos of assignments to their teachers via WhatsApp and will give them three missed calls.

- Once a teacher receives three missed calls from respective students, he/she will check his/her assignments and will call back the student to clear his/her doubts. This routine will continue every day till June 30.

- The students who don't have access to phone or Internet will keep doing every day's work as assigned in the time table and on the eighth day after completing assignments they will visit school administrator committee member who will at the same moment click the pictures of his/her notebook and send it to the class teacher.

- Once the class teacher receives assignments pictures, at the same moment she/he will check all assignments and will call back the school administrator committee member to talk with students and clear her/his doubts.
table and on the eighth day after completing assignments they will visit school administrator committee member who will at the same moment click the pictures of his/her notebook and send it to the class teacher.

- Once the class teacher receives assignments pictures, at the same moment she/he will check all assignments and will call back the school administrator committee member to talk with students and clear her/his doubts.

22 MANIPUR

E-Content Portal

So far, there was incomplete audio-visual e-content for all subjects. This changed with the creation of e-content (audio-visual classes) for all subjects (over 200 in number) and for all classes (1 to 12) in bi-lingual mode. The Department of education, Manipur, is working with a large number of teachers for taking classes as well as curation work. The class wise content is now getting produced and uploaded on a dedicated website www.laireek.net and also shared on a mobile app called 'Lairik. (which means 'book'). In addition, this content is also uploaded in "Department of Education Schools Manipur" Youtube channel and Facebook page.
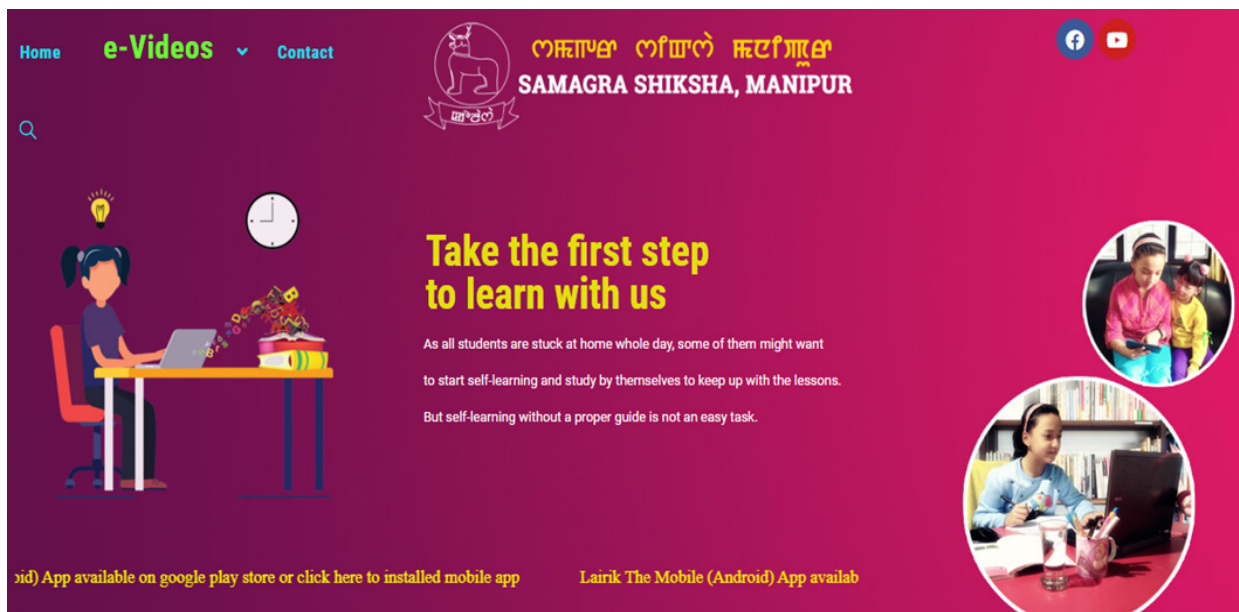
Figure 24 - Manipur Learning Portal

Community Radio / AIR / Cable TVs

The Department has also started broadcasting through Radio, other community radios, and local cable TV channels to reach out to maximum number of students.

E-Textbooks

Textbooks prescribed in the State board were never available in a digital format. After the lockdown, textbooks for class 1-10 have been digitized and e-textbooks are now available on www.bosemebook.in and also in mobile app "BOSEM eBook".

Figure 25 - Class wise content available

Comic Textbooks

To supplement learning and make learning fun, comic textbooks for classes 3-5 (containing Language, EVS, Maths) have been developed, a part of which is available in e-format. These Comic textbooks have covered all chapters in the textbooks.

Further plans

Reaching out to the last mile is the most important criteria to ensure that learning takes place. Identification of Shadow areas (of internet & power supply) and underprivileged sections without proper access to either mobile, TV or radio are being undertaken. Providing equipment and alternative mechanisms in these areas is being worked out so that contents can be pre-loaded and access is ensured. Swayam Prabha is also to be launched with a month's content available for telecast.

MN-DIKSHA

23 MEGHALAYA

E-Learning Portal

The Government of Meghalaya has started an online learning portal in 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.

Web page of CR school portal

The platform features a robust system for communication, collaboration and sharing of digital contents which allows access for schools, teachers and students to ensure as per the table below:

Schools	Teachers	Students
Seamless and free online classes	uploading of video lessons by teachers	Interactive learning process and communication between Teacher and Student
Syllabus wise class lessons	Student evaluation	Prometric tests
Anywhere anytime access to study materials	Downloadable Content	Availability of Mobile App(Android and IOS)

Registration with the e-learning portal is free for everyone to encourage participation of schools from all over Meghalaya. This is one option to permit accessibility to study material, necessary instruction and most important, to assure students that their teachers are within reach. The portal can be easily accessed on a desktop, laptop, tablet and even a smartphone.

At present, 33 Schools have been registered with CR School platform. Total App Users - 18168; Total Students – 12252; Total Teachers - 783.

23.2

Digital Content Portal

On the 27th April 2020, the Department of Education, Government of Meghalaya, announced the pilot launch of the e-scholar portal (https://niceinfotech.co.in). Through this platform digital content developed for secondary level under Supporting Human Capital Development in Meghalaya Project was aimed at SHCDM project schools. However access has now been given to all secondary and higher secondary schools to aid in their studies during the pandemic. This portal has content for all subjects with the exception of MIL. An emphasis has been stressed on the availability of comprehensive and interactive study material, multimedia, reference books, in tandem with the MBOSE Syllabus. Other resources such as Articles, Assessment Tools will be added subsequently. The Department is ensuring that schools are made aware regarding this through the Meghalaya School Improvement Programme, State and District teams. As of 8th May 2020, more than 3500 students throughout the state have registered with the e-scholar portal.

23.3

Free Online Course for Teachers

The free online course for teachers was initiated as soon as COVID 19 lockdown started as there was no reliable mechanism for teachers to connect with their learners to ensure learning takes place at home. Teachers had to rely on WhatsApp Groups, sending assignments on SMS and connecting with their students through platforms like Zoom, google classroom, etc. Even though the efforts of teachers were highly commendable, it was observed that there were few gaps especially in the structuring of content and an absence of robust assessment strategies. Further, even the very well produced e-learning resources brought out by teachers lacked alignment with learning outcomes and in many cases did not address learning objectives adequately. As a result the MSIP team from the DERT decided to offer a free online course to help teachers in the following aspects:

- Setting up their own online classroom

- Undertake topic analysis exercises

- Analyse course and lesson content for students

- Extract learning objectives by deconstructing learning outcomes statements

- Prepare simple online formative and summative assessment tools

- Prepare unit plans by mapping the course content with learning outcomes

- Acquire adequate knowledge on the stages of instructional design

- Use ID to plan their online lessons

- Offer a platform for networking with other teachers across the state and share best practices.

The course was initially targeted at only the MSIP Schools as teachers have been capacitated in using learning outcomes. However due to the sudden surge in online enrolments, the DERT had to start two teacher cohorts with the capacity of 250 enrolments each. A sizable number of teachers (289) registered and this experience has revealed the existing divide and the need to shift to large scale ICT infusion in schools.

23.4

Free Online Course for Teachers

The Education department, Government of Meghalaya has also signed an MoU with DDK Shillong and AIR for broadcasting lessons to students designed by the department and focus on hard spots of the school curriculum. Students can tune in to AIR Shillong , Tura or Jowai for these lectures.

23.5

Teacher Initiatives

In addition to the various efforts of the government, some school teachers have improvised during the current lockdown situation and are using social media platforms such as WhatsApp, Instagram and other online video-hosting services to deliver resources and assignments to students.

Case Story – Mr. Aibantiplang Rynjah, a teacher in Mawkhar Christian Higher Secondary School, Shillong has taken it upon himself the responsibility of imparting knowledge to students during the ongoing covid-19 lockdown by launching a YouTube channel entitled Minot Thop after failing in his effort to start with a website for this purpose due to the high cost for server space. He effectively took advantage of YouTube being a platform viewed particularly by the younger generation and utilized it to share video lessons on important concepts of Mathematics and Physics at secondary level education.

Directorate of Educational Research & Training (DERT)

The DERT is currently working with Professional Learning Communities (PLCs) from the different districts for content creation, curriculum mapping, sharing unit & lesson plans etc. The Learning Outcomes documents (elementary & secondary) have been coded and an adjusted school syllabus is currently being finalized with the different PLCs. Apart from this PLCs are identifying all LOs to be covered through Inquiry Based Learning and Direct Instruction. All this is being done through online mode.The DERT has trained and is working with a pool of 25 teachers and have created 120 audio and 617 video e-learning resources for Remote Learning.The DERT Studio is also producing Masterclasses by the best teachers in various subjects which are then telecast in DDK, YouTube and shared through offline mode.On the anvil are sharing of Unit and Lesson Plans through resource pooling under the Meghalaya School Improvement Program (MSIP) & PLCs.

ML-DIKSHA

24 MIZORAM

The unprecedented COVID-19 pandemic is bound to severely affect not only the economy but dynamics of the social sector also. The state government of Mizoram is responding to the current COVID-19 crisis by introducing certain interventions in some sectors. As the socio-economic profile of students studying not only in state run government schools but also in private schools and their limited access to other resources of learning beyond school, prolonged periods of lockdowns and an interrupted academic session will severely affect the learning outcomes of children. The current state-wide school shutdown presents the unprecedented challenge of keeping students meaningfully engaged in academic learning, while continuing to develop teacher capacity and proficiency, without running regular school operations. COVID-19 crisis also brought with it an opportunity for extensive use of IT-based platforms especially in the education sector for teachers, parents and above all students.

The School Education Department of Mizoram has proactively taken upon the task of ensuring that children do not lose out on any opportunity to learn and to continue their academic progress by providing access to tech-enabled learning sources as spelt out below:

24.1
Online Edu-Challenge 2020

To actively engage students and teachers in productive time investing activities during lockdown period, the State Council of Educational Research and Training (SCERT), Mizoram initiated a weekly Challenge starting from 13th April 2020 for Elementary and

Secondary school students and teachers of Mizoram. Instructions and submissions for different activities are shared using WhatsApp mobile application. The SCERT invited challenges for students on poster making, collage making, card making, letter writing, making best out of waste, drawings and paintings on themes like 'Heal the World', 'Single Use Plastic', 'Thank you note to doctors and nurses and other task forces on Covid-19', on Lockdown, Prevention from Covid-19, creation of picture characters from Mizo folktales and stories in their school textbooks and many more. Storytelling by studentsfrom their textbooks was also invited hoping to familiarize students with the contents of their textbooks. Some teachers have given the challenge items as assignments for their students which will further be used for assessment.

Even though academic session for 2020-21 has not started in Mizoram in the beginning of the first Lockdown, the SCERT took initiatives to engage students and teachers in informal education. Teachers were invited to participate in challenges like making videos on their innovative teaching practices, article writing on their memorable teaching experiences, short video clips on teaching of English vocabulary, development of video clip on fun way of teaching mathematics, video clip on reuse of waste materials and the like.

24.2
Activities for students

Poster making, collage making, drawing, card making, challenge on producing the best out of waste and story-telling.

24.3
Challenge for teachers

Video clip on innovative practice in teaching, video clip on reduce/reuse/recycle, article writing, story-telling and fun way of teaching mathematics.

24.4
Tutorial Class

Tutorial classes on TV for Elementary and Secondary School students were introduced from 13th April, 2020 by the School Education Department, Mizoram. The programmes are broadcast on National channel, Doordarshan Aizawl Kendra at 3:05 pm and two other main local cable television networks, Zonet and LPS at 2:00 pm and 4:00 pm respectively, from Monday to Saturday. Different slot timings were selected in the channels to ensure maximum coverage.

The Directorate of SCERT and Directorate of School Education collaboratively developed video clips for these tutorial classes. Teachers are engaged to deliver these classes through TV and the contents of these videos are targeted at students from Class 1 to 10. Contents include all subjects of study as well as life skills for students, teachers and parents during these trying times. Contents for Higher Secondary section is also planned to be developed.

YouTube Channel

Videos of tutorial classes are uploaded in the official YouTube channel of SCERT 'Directorate of SCERT'

https://www.youtube.com/channel/UC4rCYqo5ur0pb5OllNBcCAA

and School Education Department

https://www.youtube.com/channel/UCPRpPH8HUGyprMY29yJfv_g

to ensure availability of these teaching materials whenever needed. The channels have registered more than 12000 subscribers and viewers of the content increases
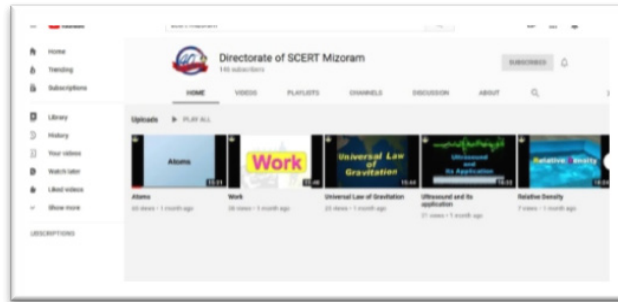
every day. The SCERT Mizoram Facebook page also has more than 24000 followers and the online activities of the department are shared in this page.

Online Classes for B. Ed (Special Education)

The SCERT Mizoram offers B.Ed (Special Education) course since 2017 with 120 students at present. Several sessions of zoom classes are being conducted on the course papers apart from sharing of study materials through WhatsApp groups. Assignments are also given to students and submission of students' works is also done through the app.
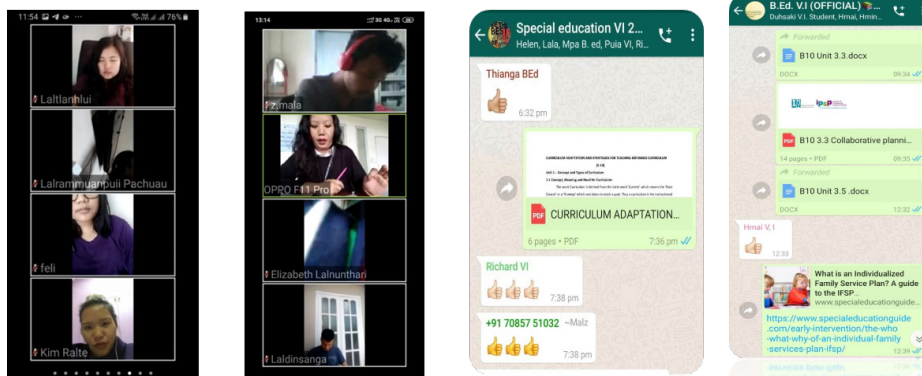
Launch of Diploma in Early Childhood Education

The much anticipated 6-month Diploma on Early Childhood Education (ECE)course for in-service teachers which was due to be launched in the month of March was initiated online on 1st May, 2020. Teachers who have enrolled for the Course are given an online pre-test to determine their level of knowledge in ECE. This pre-test is a very important factor in identifying the needs of teachers in terms of the content and delivery system for the Course as it could not be conducted on a face to face mode. Faculty from SCERT and DIETs are engaged to deliver learning for the course.
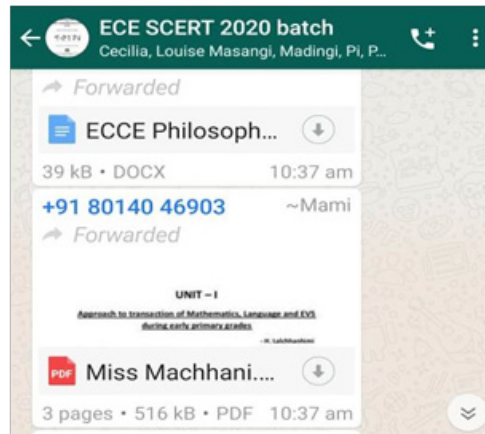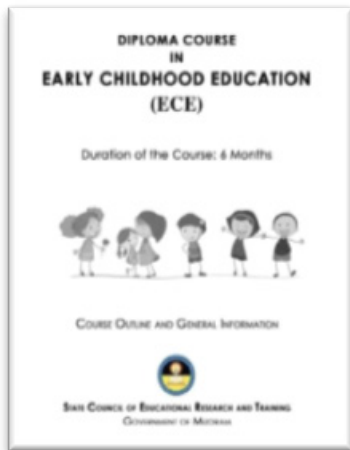
Faculty members share study materials on the papers assigned to them through a dedicated WhatsApp group created for the course. Assignments have been given out and completed works are being submitted to the faculty members through the app.

Video meetings with Principals and Faculty of DIETs

The current pandemic situation has disabled all forms of personal meetings between the Districts at DIETs and the State at the SCERT. To solve the problem of academic and administrative meetings with principals and Faculty members of DIETs across the state, the Director of SCERT resorted to video meetings through Zoom application. Meetings are often held for review of Annual Work Plan for 2020-21, Review of PAB Appraisal Notes and on Academic progress by the DIETs.

Faculty of different DIETs continue to impart education to their students through the use of internet to ensure that their courses are efficiently being conducted. Tutorial classes are held using Zoom app on a regular basis, sharing of lectures on topics pertinent to their courses are being shared in WhatsApp groups and live discussions are held at regular intervals. However, poor internet connectivity in the rural areas hinders learning to a great extent. It may also be mentioned that many of DIET buildings and hostels are being used as community quarantine centres for the time being, some faculty members of DIETs are assigned to take care of these centres.

DIKSHA Mizoram

SCERT, Mizoram has conducted several workshops to create high quality e-contentsfor QR Codes of Elementary school textbooks.
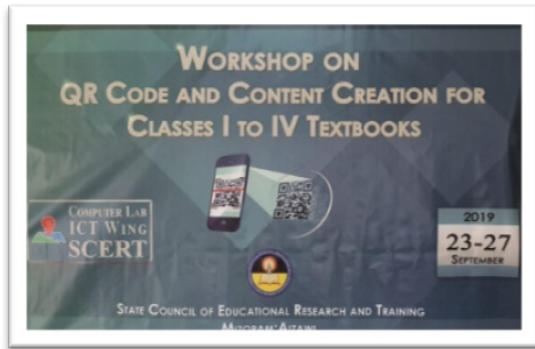
SCERT faculty and teachers have been trained to develop contents on the workspace of DIKSHA App. More than 100 contents have been created for Mizo and Hindi Elementary Textbooks.

25 NAGALAND

25.1
Introduction

The COVID-19 Lockdown forced the majority of the school children to be occupied with entertainment programs 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 Human Resources Development suggested States to consider telecasting educational programs through Doordarshan broadcast. Motivated by the initiative of MHRD, the department has developed the idea of Tele Education further and launched the innovative Online Digital Education in the State.

25.2
Pre-Telecast Preparations

The department had invited applications from teachers residing in and around Kohima for delivering lessons through the digital media. Nearly 50 teachers have volunteered for rendering their services and a total of 23 teachers (11 from Govt. schools and 12 from private schools) were selected through a screening process for executing the project. A temporary video recording studio was set up at the Directorate and a private production unit was commissioned to make the videos. 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 daily broadcast of the recorded lessons in the 3 hours per day time slots for an initial period of one month which shall be further extended for another two months.

25.3
Commencement of Broadcast

The video broadcast of lessons through Doordarshan commenced from 1st May 2020 and the audio broadcast through All India Radio commenced from 2nd May 2020. Initially, the broadcast is done for students of classes 8 to 10 and 12 and it is proposed to extend the same for students of classes 5 to 7 from the month of June 2020.

In order 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.

25.4
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**' and also through the Facebook page '**School Education, Nagaland**'. The YouTube channel of the department has registered more than 20,700 subscribers within a short period of its launch and the Facebook page has 12,500 followers as of now. The Online Digital Education Program 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.

Supplementary Study Materials

The department directed schools to devise mechanisms for preparation and circulation of notes and exercise materials for the lessons being broadcasted. The department also proposes to make Class wise DVDs/Pen Drives of the entire telecast and distribute to interested parents, teachers and schools at a nominal charge.
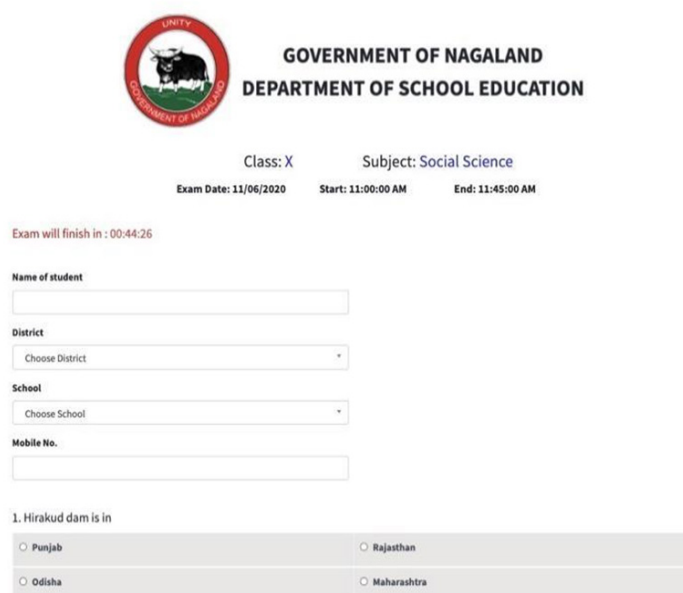
25.6

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 in 2G internet connections.

Two numbers of tests, each of duration 45 minutes will be conducted for each subject from the video lessons broadcasted in the previous month; May 2020. The evaluation schedule will be made available to students in advance so that they could view the video lessons again and prepare well for the assessment. On the specified date and time of evaluation, students will have to login into 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' will be made available to all stakeholders so that they could employ appropriate remedial measures. Best performing students and schools will be rewarded so that it will serve as a motivation for all others. The main objective of conducting the online test is to encourage students to keep them engaged with the processes of continuous learning and the marks scored in these tests will not be considered for any purpose of formal evaluation.

25.7

Utilizing Services of Expert Educators

The department proposes to make use of the talents and expertise possessed by educators from the State and also from other parts of the Country. Original Video recordings on different lessons/ topics have been solicited for broadcasting through the department's YouTube Channel & Facebook page and this initiative is greeted with a good response from educators across the State. Best presentations will be rewarded and producers of all videos selected for the broadcast will be honoured with certificates of appreciation. It is proposed to extend this adventure to students also in the next phase.

Online Admission

Admissions in all the government Higher Secondary Schools is conducted online.
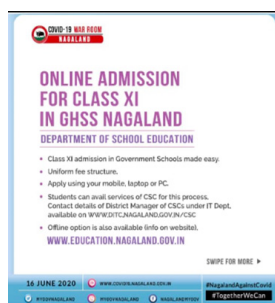
25.9

IEC materials on Safe Online Learning

In order to protect the children from clutches of Cyber predators, a well thought of initiative to safeguard children, IEC materials on safe online learning is available on the website of Nagaland education department.

With the introduction of online teaching by schools, there are reports about possibility of online exploitation of children and increase in activity related to child sexual abuse materials.
Materials can be accessed through the link http://education.nagaland.gov.in/

25.10

Making use of goodwill of Private Enterprises

*   FREE APP for Classes IX & X Mathematics and Science Learning: The department issued advisory to students of classes 9 and 10 on 20th March 2020 for downloading and using the 'Bright Tutee' App which supports learning of the subjects Mathematics and Science. The APP services were offered free by M/s Clixa Technologies Private Ltd, New Delhi.

*   Live online Mathematics and Science classes for Classes VI to VIII: The department issued advisory to parents of students of classes 6 to 8 on 21st April 2020 for downloading and using the 'Bright Tutee' App which offered broadcasting of conduct of live online classes in the subjects Mathematics and Science based on the books published by NCERT w.e.f. 22nd April 2020 till re-opening of schools.

25.11

Limitations

People viewing TV telecasts using private DTH service providers are unable to view the Doordarshan telecast as private service providers have not included the DD Kohima satellite transmission in their telecast list. The matter is already taken up with the Ministry of Information and Broadcasting and it is hoped that the issue will be resolved soon. Poor internet connectivity in various parts of the State also remains as a hindrance for many students across the State to make use of the program to the optimum level.

25.12

Conclusion

In spite of various difficulties being faced during the lockdown, the department has made the remarkable achievement of making the services of few of the best teachers from the State Capital available to all sections of students across the State.
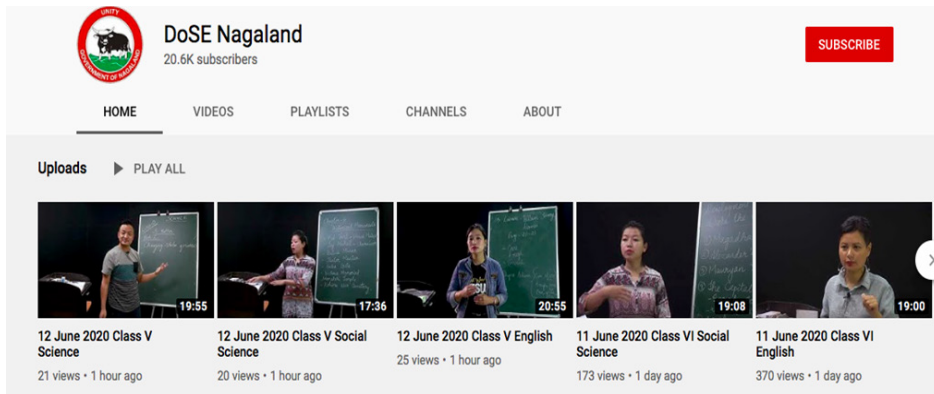
This initiative has opened the avenue of sharing of knowledge between students from rural and urban areas in the State in the coming days. It is worth mentioning that Nagaland is the 14th State in India to launch the Tele/Online Education Program during the COVID-19 Lockdown and might be the first Indian State to introduce the Online Evaluation Portal for Upper Primary and Secondary School Children. The department proposes to carry forward these initiatives even after the lifting of lockdown.

NL-DIKSHA

26 ODISHA

Odisha Shiksha Sanjog

A digital learning programme through WhatsApp group has been implemented to engage students in teaching learning activity.

- 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 are participating in the programme.
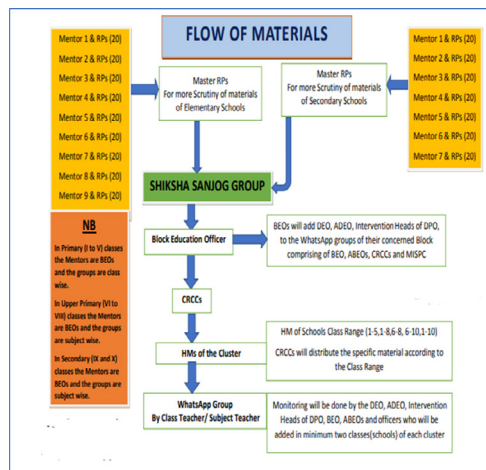
Figure - Odisha Shiksha Sanjog Group

- The e-content like written explanations, video explanations, audio clips, video clips, etc. are collected from different digital platforms and are also developed by teachers. Those are shared in the class wise WhatsApp groups 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 put 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 note books in order for physical verification by teachers after reopening of the school.
- Time table has been prepared at district level for posting of learning contents in different subjects for the programme.

Formation of WhatsApp Groups: The following WhatsApp groups have also been created at different levels for generating and sharing the e-contents and monitoring the implementation. The DEO, DPC, BEO, ABEO, BRCC, CRCC, HMs, teachers and students are included in different groups.

Resource Person Group: The RP group has been formed class-wise, subject-wise, taking 10-15 teachers. One Headmaster or Sr. Teacher has been designated as the mentor of the group. E-content, worksheets and answer sheets are prepared by the group for respective subjects/class.

MRP Group: The MRP group examines materials prepared by the Resource group and finalizes it for sharing.

Monitoring Group: The DEO, DPC, ADEO, BEO are the members of the monitoring group. This group shares the materials finalized by the MRP group with Field Circulation group consisting of BRCC, ABEO, CRCC and follows up for ensuring that it reaches students being guided by teachers for doing the activity.

Headmaster Group: The field circulation group shares materials with Headmasters group.

Teachers Group: The Headmasters shares the materials with the teachers group of the school.

Students Group: The teachers will post the materials in the class wise students groups constituted for the purpose.
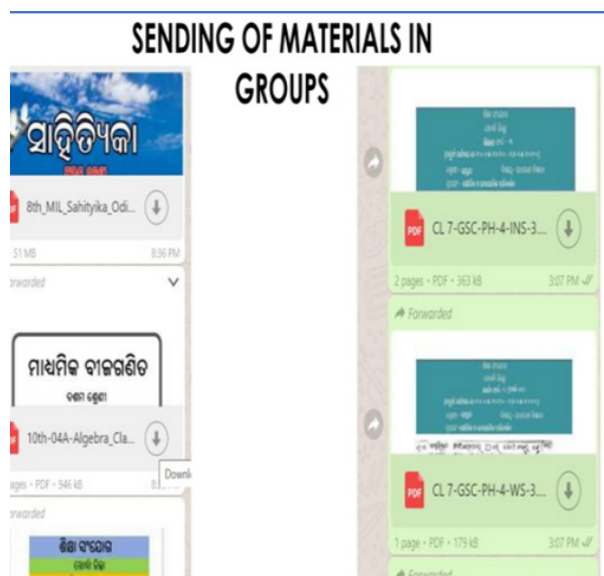
Figure - Use of Whatsapp groups

Coding of Materials: The coding of learning materials (lesson content, worksheet, answer sheet) have been done for the convenience of students, parents and teachers. For example: Coding for Class-X, Chapter-I, Math: Lesson content (X-MTH-C-1-L-1), worksheet (X-MTH-C-1-WS1), Answer sheet (X-MTH-C-1-AS-1)

Role of Teachers & Parents:
• The Headmaster and teachers are to ensure formation of WhatsApp groups for every class.
• They are to create awareness among the parents and motivate them to participate in WhatsApp group activity and facilitate the child's learning.
• The parents are to encourage their wards to engage in the learning activity at home.
• Posting of materials not related to Odisha Shiksha Sanjog are prohibited in these WhatsApp groups.
• The DEOs have been given liberty to issue guidelines at their level for any area-specific activity for the interest of learners.

Progress of Odisha Shiksha Sanjog:
• The programme was first initiated in Khordha district from 19th April 2020 and subsequently extended to the whole state from 4th May 2020.

- It is heartening to see that many teachers across the state are creating self-recorded video lessons using varieties of TLMs to explain the concepts.
- Many parents are also engaged with their wards in teaching-learning activities. They have also started interacting with teachers on study matters.
- The teachers are also creating different types of innovative learning materials for easy understanding of the concepts.
- The use of DIKSHA portal and Madhu App has been multiplied in the state. The materials developed by teachers are planned to be put in a repository for reference.

Telecast of video lessons in Doordarshan, Odia

Video lessons are being telecasted for Class-X students from 20th April 2020 for two hours a day i.e. from 11.00AM to 12.00Noon and 03.30PM to 4.30PM (from Monday to Friday). The content development is under process for Class-XII students.

DIKSHA Portal

All Textbooks have been converted to energized Text books providing QR codes to each chapter and uploaded to DIKSHA Portal as well as OSEPA website. The digital content developed through different sources from Class-I to X has been linked with QR code in DIKSHA portal. The use of DIKSHA platform has been popularized among the students, parents and teachers. The e-content from DIKSHA is also used in Odisha Shiksha Sanjog.

OD-DIKSHA

Madhu App

A syllabus based e-learning App in Odia language has been developed to provide mother-tongue based virtual classroom experience for self-learning and self-assessment. To begin with, videos in Math and Science Subjects from Class V to X have been uploaded along with chapter-wise textbooks, self-assessment tools. The students can easily access the portal through mobile and download videos and assess their learning achievement online. It helps the child clarify doubts at his/her own space of learning and also helps parents to guide their child's learning at home.
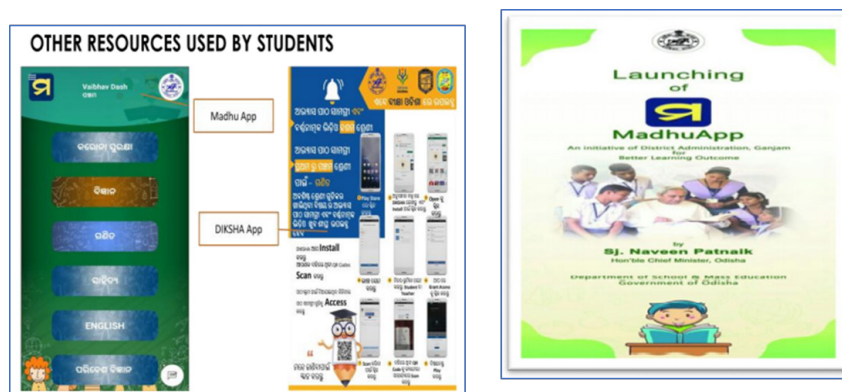
Figure Madhu app and DIKSHA app

E-class through Microsoft Teams/ Zoom/ Google Meet Platforms

The online classes are going on for students of Secondary Schools through Microsoft Teams. The different kind of e-learning activities are being taken up in DIETs and Odisha Adarsha Vidyalays through Zoom and Google meet. The capacity building of teachers, other field functionaries and administrators have been done by Microsoft experts through different virtual platforms.
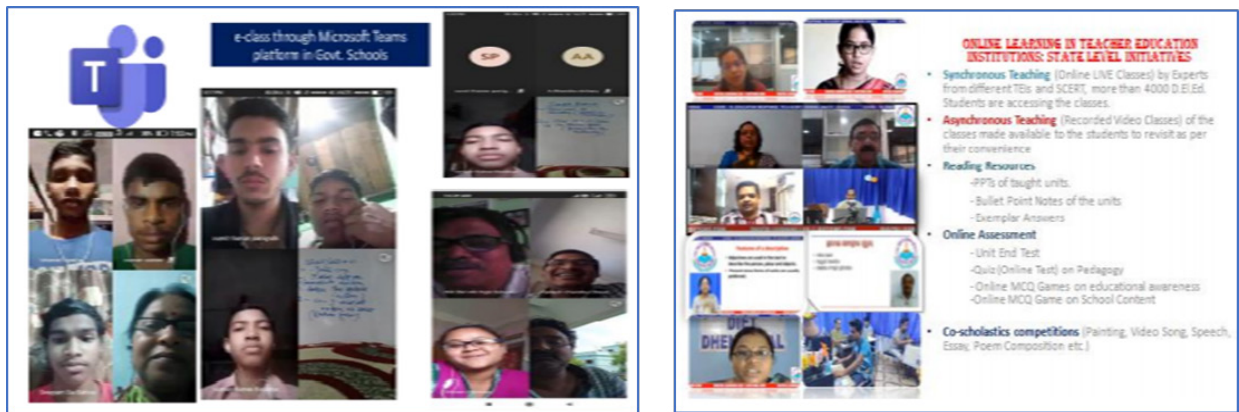
Figure - eClasses being held through digital platforms

E-Vidyalaya App

The e-contents developed for ICT @ Schools for class IX and X have been uploaded in e-Vidyalaya App for easy access of students.
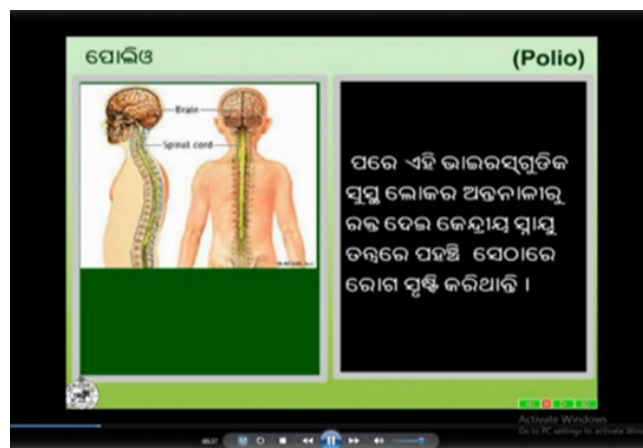
Figure Content uploaded on e-Vidyalaya App

Distribution of books to children at their doorstep

Figure Textbooks distributed to children at their doorstep in Odisha

Odisha Education Resource Portal

Odisha Education Resource portal (OERP) is a comprehensive one stop portal, catering to the educational needs of the students, teachers & parents. The OERP is a unique initiative of Center for Modernizing Government Initiatives (A society under GA (AR) Department, Government of Odisha) for utilization of the School and Mass Education Department, Government of Odisha.

The Odisha Primary Education Programme Authority (the State implementing unit of centrally sponsored DPEP & SSA), the SIET, the TE & SCERT of the School & Mass Education Department, Government of Odisha have developed and implemented different pedagogical initiatives to ensure joyful learning, subsequently which is the key for enrolment, retention and quality education in the Government Schools.

It is observed that there is a huge transmission loss during transformation of pedagogical inputs from the state resource group up to cluster resource groups or up to school levels. Secondly the good practices at individual, school & cluster level have not been shared with other schools.

Realizing the above facts, the idea of OERP has conceived to address the above issues. The OERP is not only a platform for the teachers & teacher's education, but also a unique platform for Government school students and their parents. It will also bridge the gap of digital divide between the modern private school children and the Government school children. This portal will help the students to develop an outlook on a global perspective.

Figure - Odisha Education Resource Portal

Students Academic Management

Students' Academic Management System, i.e. SAMS, is an online program used to manage the admission, administration, registration, form fill-up etc. processes of the Higher Secondary Schools of the state. This online system is used by the students to take admission into Class XI of Arts, Commerce, Science, Vocational and Sanskrit Higher Secondary Schools of the state. The admission process thus carried out through the internet and computers is called as eAdmission. At present, SAMS covers admission for various other departments, other than Higher Secondary Schools under School & Mass Education Department: Degree, ITI, Diploma, Teacher Education, Physical Education. Other than e-Admission, SAMS also maintains the academic and financial records of all the students admitted into different educational institutions. The list of Higher Secondary Schools (Erstwhile Junior Colleges) is available in the official website www.samsodisha.gov.in.

Objectives

- Ensure single window system for admission through the e-Admission process

- Make the admission process economical

- Reducing the anxiety of applicants/parents by making the entire selection and admission process transparent.

- Reduce the workload of school /college through several administration modules, using the database for the admission process and thereby improving services to the students.

- Increases accuracy and efficiency of all activities involved in the student's life cycle.

Components of SAMS

There are two components of SAMS: e-Admission & e-Administration

e-Admission aims at successful use of Information Technology to make the admission process simple, economical, fast and transparent. This process is accomplished using Computers and the Internet.

e-Administration uses the admission database for the issue of Higher Secondary School Identity Cards, Library Cards, record of fees collected from the students, allocation of subjects and sections, preparation of Long Roll Register and Return of Matriculates, Maintenance of student's attendance, Tabulation of Higher Secondary School level examination marks, issue of Higher Secondary School Leaving Certificates etc. This would improve efficiency, and save precious time for Higher Secondary School authorities, ensuring dissemination of correct information and services to all stakeholders.

27 PUDUCHERRY

The following digital initiatives have been taken by Puducherry to alleviate the problem of remote learning for students:

27.1
Community Radio

The UT of Puducherry is exploring the feasibility of setting up Community Radio stations in 2 or 3 locations to cater the educational needs of the students and public.

27.2
DTH TV Channel

The UT of Puducherry is exploring the feasibility for tie-up for educational TV broadcast.

27.3
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.

27.4
Vetri Nichayam

In order to address the needs of Class X students going for examination, **Vetri Nichayam (Success Guaranteed)**, a programme was initiated through local cable TV. This involves one hour recorded session followed by 1 hour Question & Answer session.
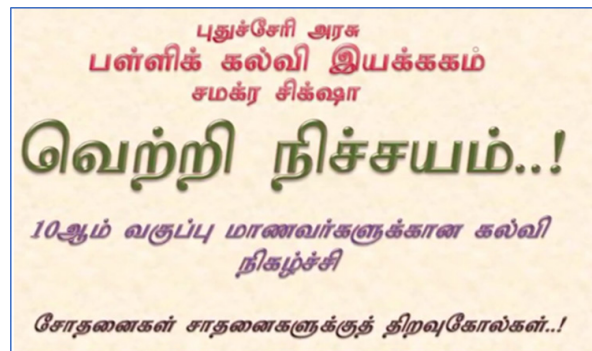
Figure - Vetri Nichayam programme

27.5

Virtual Control Room and telecasting the 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 call and video recording. Tamil, English, Mathematics, Physics, Biology and Social Science subjects were covered.
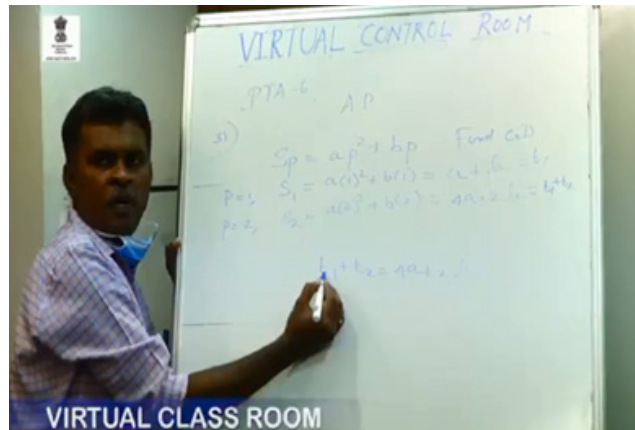
27.6

To facilitate online classes for Teachers

The department, in association with the Atal Incubation Centre, Pondicherry Engineering College, conducted a webinar on how to conduct online classes for students. Around 3,660 teachers attended the webinar. This equipped teachers to conduct online classes.
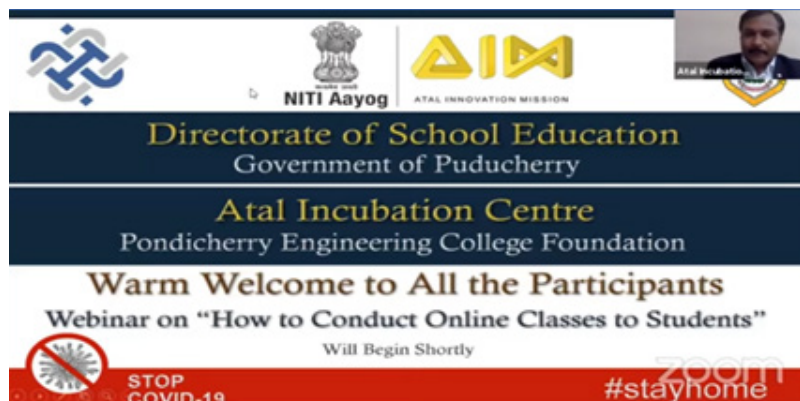
27.7

Online Textbooks

The UT of Puducherry follows the textbooks of CBSE for class 1 to 5, and for class 6 to 12 it follows the neighbouring States of Tamil Nadu, Kerala and Andhra Pradesh. Online textbooks for these are available.

27.8

Digital Repository

A team has been formed to create a digital repository for ease of access of students.
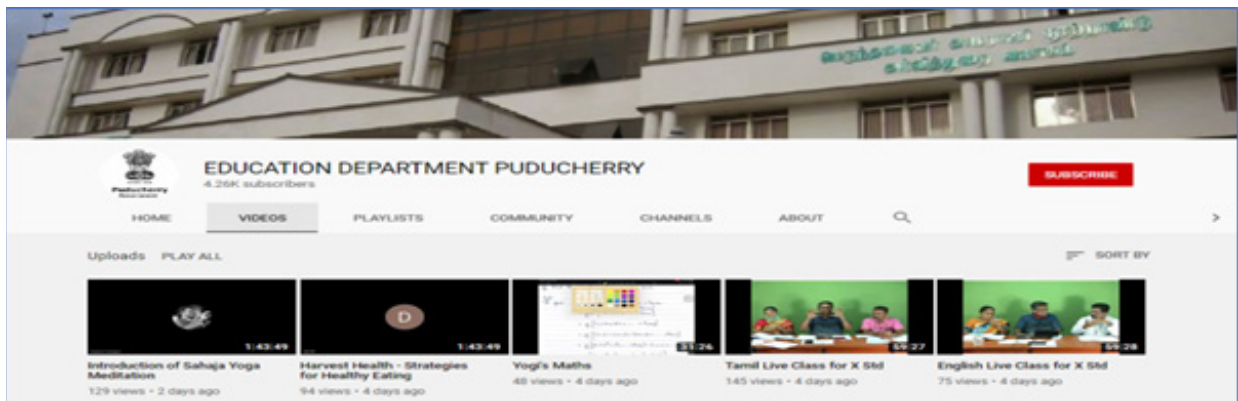
YouTube

YouTube channel for Directorate of School Education has been created to upload the recorded classes & Webinar.

- No. of Subscribers- 4280

- No. of Viewers -1,24,555

27.10

Conduct of Online Classes for Secondary & Higher Secondary Students

Several schools have started to conduct online classes at their level.

27.11

Capacity Building of Teachers through Webinars

A series of webinars have been conducted for improving capacity building of all Heads of Schools and Teachers in various topics as shown below.

From 6th April 2020 to 17th June 2020, **42 numbers** of webinars were conducted. It is planned to continue the same.

WEBINAR ON SCIENCE SUBJECTS FOR LECTURERS

APRIL 2020
27 PHYSICS
28 Chemistry.
29 MATHS
30 BOTANY/ZOOLOGY

10.00 am to 1130 am

STATE TRAINING CENTRE PUDUCHERRY

GREEN CAMPUS

WATER RESOURCE MANAGEMENT

DR. M. NANDIVARMAN, COORDINATOR, OFFICE OF GREEN CAMPUS, PONDICHERRY UNIVERSITY
29.04.2020
2.00 pm to 3.30 pm

SIDDHA MEDICINAL PLANTS & THEIR BENEFITS

01.05.2020
2.00 pm to 3.30 pm

Dr. A Rajendra Kumar, Research Officer, S-II and Dr. R. Rathinamala, Research Officer Siddha Regional Institute (Under CCRS), Ayush Ministry, Govt. of India

Directorate of School Education, Puducherry

WEBINAR ON DIGILOCKER

Date: 01.05.2020
Time: 11.30 am to 12.30 pm

DigiLocker

MR. AMIT JAIN, PRODUCT MANAGER & MR. SANJIB MITRA, SENIOR MANAGER DIGILOCKER, NATIONAL E-GOVERNANCE PROJECT, MEITY, GOVT. OF INDIA

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

Teacher We need your help

EARLY DIAGNOSIS OF CWSN

Mrs. Chitra Shah
Director
Sathya Special School

MONDAY, MAY 11, 2020, 10.00 AM TO 11.30 AM

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

CRAFT FROM NATURAL WASTE

MR. V. UMAPATHY, FINE ARTS TEACHER INTERNATIONAL CRAFT INSTRUCTOR

FRIDAY, MAY 15, 2020, 10.00 AM TO 11.30 AM

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

DIAGNOSIS & REMEDIAL MEASURES FOR LEARNING DISABILITY

Dyslexia Dyscalculia

Mrs. Chitra Shah
Director
Sathya Special School

WEDNESDAY, MAY 13, 2020, 10.00 AM TO 11.30 AM

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

HOW TO CONDUCT ONLINE CLASSES FOR STUDENTS

ONLINE LEARNING

Google Meet   Webex Meetings   zoom   T

SATURDAY, MAY 61, 2020, 10.00 AM TO 11.30 AM

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

BAL BHAVAN ACTIVITIES

HEAD MASTER & INSTRUCTORS BALBHAVAN

MONDAY, MAY 18, 2020, 10.00 AM TO 11.30 AM

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

E DISTRICT & CERTIFICATE

HAPPY E-District

MR. M. KARTHIKEYAN SERVER ADMINISTRATOR E-DISTRICT, PUDUCHERRY

WEDNESDAY, MAY 19, 2020, 10.00 AM TO 11.30 AM

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

COMMUNICATION SKILLS

Communication Skills

DIRECTOR OF SCHOOL EDUCATION PUDUCHERRY

FRIDAY, MAY 22, 2020, 10.00 AM TO 11.30 AM

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

HYGIENE PRACTICES IN SCHOOL PREMISES

MRS. E. VINODINI, TEACHING ASSOCIATE MR. M. RAJA, TEACHING ASSOCIATE PONDICHERRY INSTITUTE OF HOTEL MANAGEMENT

TUESDAY, MAY 26, 2020, 10.00 AM TO 11.30 AM

Row 1

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

SCHOOL HEALTH AND WELLNESS PROGRAM

HEALTH & WELLNESS

Women for Health and Wellness

Health and Wellness in schools with linkages to the Health and Wellness Centers will provide an opportunity to promote gender equality and challenge gender stereotyping

Dr. Zoya Ali Rizvi
Deputy Commissioner, Adolescent Health, MoHFW

**WEDNESDAY, MAY 27, 2020,
10.00 AM TO 11.30 AM**

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

CRAFT FROM WASTE PAPER

MR. A. KRISHNAN, FINE ARTS TEACHER
INDIRA GANDHI GOVT. HR. SEC. SCHOOL,
INDIRA NAGAR, PUDUCHERRY

**FRIDAY, MAY 29, 2020,
10.00 AM TO 11.30 AM**

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

Tips to improve your spoken English

Rebecca Rawnson
Senior Academic Manager
British Council, UK

BRITISH COUNCIL

Danish Abdullah
Academic Manager
British Council, South India

**WEDNESDAY, MAY 6, 2020,
10.00 AM TO 11.30 AM**

Row 2

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

THE BHARAT SCOUTS & GUIDES

INDIA

Mr.V. Shanmugam
State Organising Commissioner
Bharat Scouts & Guides, Puducherry

**MONDAY, MAY 4, 2020,
10.00 AM TO 11.30 AM**

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

Getting your students communicating

Rebecca Rawnson
Senior Academic Manager
British Council, UK

BRITISH COUNCIL

Danish Abdullah
Academic Manager
British Council, South India

**FRIDAY, MAY 8, 2020,
10.00 AM TO 11.30 AM**

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

HOW TO USE SCIENCE CORNER

Mr.M.Albert Dominic Rayen, V.P
Mr. S. Rajkumar, TGT
Mr. D. Aravindaraja, PST
Members of Science Corner

**THURSDAY, MAY 7, 2020,
10.00 AM TO 11.30 AM**

Row 3

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

fssai
FOOD SAFETY AND STANDARDS
AUTHORITY OF INDIA
Inspiring Trust, Assuring Safe & Nutritious Food
Ministry of Health and Family Welfare, Government of India
Mid Day Meal Scheme

Food Safety

Mr. M. Ravichandran
Food Safety Officer,
Department of Food Safety, Puducherry

**TUESDAY, MAY 5, 2020,
10.00 AM TO 11.30 AM**

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

PREPAREDNESS ON SANITATION OF SCHOOL CAMPUS

Commissioner
Municipality, Oulgaret

Deputy Director
Directorate of Health & Family
Welfare Services

**THURSDAY, JUNE 4, 2020,
10.00 AM TO 11.30 AM**

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

Reading Festival

Mr. S. Pakkirisamy
Deputy Inspector of Schools,
Zone - 3

Mr. R. Sivakumar
Headmaster (P)

**FRIDAY, JUNE 5, 2020,
10.00 AM TO 11.30 AM**

Row 4

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

REPAIRS & MAINTENANCE OF SCHOOL BUILDING

**Director of School Education
&
PWD Engineers**

**TUESDAY, JUNE 9, 2020,
10.00 AM TO 11.30 AM**

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

HARVEST HEALTH: STRATEGIES FOR HEALTHY EATING

DR. S. ALAMELU MANGAI
Asst. Prof, PG & Research Dept. of Home Science
Bharathidasan Govt. College for Women, Puducherry

**WEDNESDAY, JUNE 10, 2020,
10.00 AM TO 11.30 AM**

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

SAHAJA YOGA MEDITATION
Feel The Energy Within

Mr. Sivakumar Veerapan
Founder and CEO
Anubavam
Chennai

**FRIDAY, JUNE 12, 2020,
10.00 AM TO 11.30 AM**

ICT Infrastructure

All Secondary and Higher Secondary Schools are equipped with ICT Labs in UT of Puducherry.

Level of Schools	No. of Schools	TICT Labs	No. of Schools having Smart Classroom
Govt. Higher Secondary Schools	59	59	47
Govt. High Schools	72	72	22
Govt. Middle Schools	48	-	13
Govt. Primary Schools	233	-	51
Total	412	131	133

28 PUNJAB

In the present scenario due to Covid-19, digital/online education becomes a necessary platform for students to continue their studies. Under the edges of 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 Channel.

28.1
EDUSAT Content through Satellite Network (ROT):

The initiative was taken to enhance the learning level of students by providing them quality multimedia based Econtent for better understanding of concepts. However, in remote areas having lack of teachers and internet facility, Edusat ROT (satcom) is one the best medium to provide education Training Sessions, English Speaking Skills, meet a Scientist, Meet a Personality, Motivational Lectures, Competitive Coaching/Examination Preparation, Traffic Awareness, Health Tips etc. programs through EDUSAT Satellite Network ROTs (Receive Only Terminals) in 3289 Schools for 6th to 12th classes
(Presently, no telecast on EDUSAT, because ROT are installed in Schools and schools are closed due to COvid-19, but in order to substitute the content broadcasted through Edusat the same has been provided via YouTube channel).

Figure – Children Learning through Edusat Television

28.2
DTH TV Channels:

- Daily 4 hrs slot on DTH channel Swayam Prabha-20 for 6th,7th,8th,12 Classes (available on DD free dish, Dish TV, Fastway cable , Jio TV App)
- Daily 7 hrs slot on DTH/Cable TV channel DD Punjabi for 9th, 10th, 11th (Sci), 12th (humanity) and Primary (3rd-5th Classes) available on DD Free Dish, Airtel Dish, Videocon d2h, Tata Sky, Fastway Cable, Dish TV, Sun Direct and Reliance Big TV .

Radio:

Audio content specially Language based subjects being delivered on Akashwani Radio at regional level.

28.4

EDUSAT Content through YouTube Channel (named Edusat Punjab):

Hindi, English, Maths, Science, Social Science, Computers, Physics, Chemistry, Biology, Punjabi, Special Programs, Training Sessions, English enhancement Skills, for various classes, 2000+ video lectures, 19668 hours watch time, 619155 viewers so far.
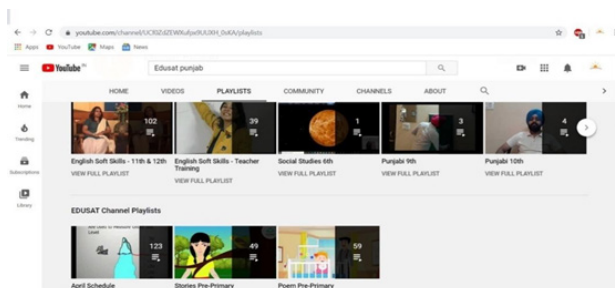
28.5

Mobile Application & System Software (named iscuela learn)

- Explanation Videos, Animations, Practical, Models, Practice Questions, Assessments, PDFs, Slides, Recorded Classrooms on TV for 1st -10th classes
- Total Application downloads 81099 ; Usage in hours 109504
- Way forward is to prepare 700 topics for Class 11th & 12th along with new application Platform(s)
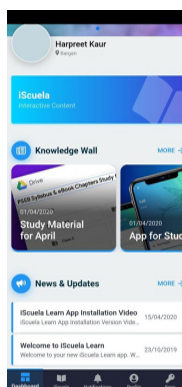
E-Books and Month-wise eBook Distribution:

Created during Lockdown and is being used by all the teachers and students having Internet Access.

Month-wise eBook Distribution through Google Drive to students from classes 1 to 12 is to make available the content in different forms. The content is made easier for the students to download and study from syllabus based eBooks on day/week/month-wise as per the planned curriculum and to bring uniformity in the teaching/learning process.

WhatsApp: Teachers have been created WhatsApp groups of their respective classes in which learning material, e-content, assignments and other information is shared on a daily basis.
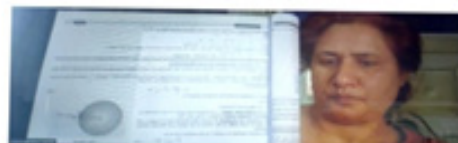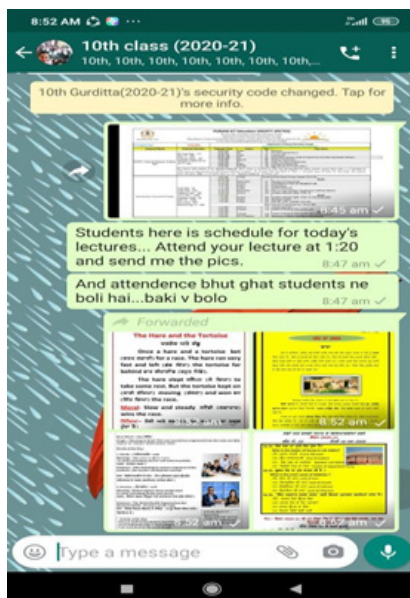
Online Learning Platform:

During this covid-19 situation online classes are conducted through teachers with the help of various online methods/Apps by one to one interaction mode.

ICT Computer Labs and Smart Classrooms

6130 Govt. Schools have been provided well equipped computer labs. Apart from this, 4170 Multimedia Devices like LFDs (large front display), LCDs, KYANs have also been provided in schools for joyful learning of students. 8061 Smart classrooms have also been set up in Govt. schools and 5594 smart classrooms are in process.

PN-DIKSHA

29 RAJASTHAN

The Department of School, Government of Rajasthan is implementing the following programs on digital learning to support student and teacher learning during Covid-19 as well as overall digital practices in the state:

1. SMILE program- Social Media Interface for Learning Engagement
2. Shikshadarshan – Educational content via TV
3. Shikshavani - Radio broadcasts for students who don't have access to smartphones
4. Hawamahal – Joyful Saturday
5. Conducting live sessions for students on career guidance via YouTube
6. Kala Utsav – Summer Camp
7. DIKSHA content
8. E-content invited via ShalaDarpan

Figure Initiatives by Rajasthan Education Department

29.1

Project SMILE

- School Education Department, Govt. of Rajasthan Project SMILE (Social Media Interface for Learning Engagement) A program to ensure continuous learning for students and teachers from home

- School education department, Government of Rajasthan kicked off Project SMILE (Social Media Interface for Learning Engagement) on April 13 2020. It's a program to ensure continuity of learning for students and teachers during the COVID-19 lockdown period across the state.

- 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 publically available resources. This content is reviewed by a team of subject matter experts from SCERT. Students and teachers can just click on the links and access the content. Students in Grade 10 and 12 also receive 10 practice questions daily on remaining Board papers under the #10PrashanChallenge

- To ensure that these groups reach maximum children (via parents), including those in far-off areas, Panchayat level Education officers (PEEOs) are actively communicating with teachers in their jurisdiction to identify and add as many parents as possible. PEEOs have created two kinds of groups- one with all the teachers in their jurisdiction and another with all the students' parents in their jurisdiction. Every morning, at 9 AM a message with the links of the videos for the day is forwarded via the WhatsApp channels from State Core Team to reach students (via parents) and teachers ("हरसवेरे 9 बजे, हरघर ,कूलघंटीबजे")

- The content is currently reaching students in 12.78 lakh households via 9226 WhatsApp groups and 3.28 lakh teachers via 9768 WhatsApp groups every day

- 2.5 lakh children are viewing the videos daily. 90% students and teachers shared (via a feedback form) that the content quality was good. 98% parents shared (via a feedback form) that their children learnt a new topic after watching the videos

Mobile Based Application

The Rajasthan government launched a free digital learning app for students during Covid-19 lockdown. Rajasthan government has tied up with e-learning platform Bright Tutee to launch a free digital learning app for students of classes 9 and 10.

- The free subscription of the app would include comprehensive Learning, topic-wise Videos, Assessment and Question Bank for Mathematics and Science.

- The entire learning digital content is available in three languages, namely Hindi, English, Hindi-English (bi-lingual).

Rajasthan SMILE initiative

29.2

Shikshadarshan - Educational TV - DD Rajasthan to reach students of Rajasthan w.e.f. 01.06.2020 for all classes.

- 195 minutes of content shared from Mon to Saturday for Grades 1 to 12 via DD Rajasthan

- Partnered with Eckovation, Central Square Foundation and Tic Tac Learn for content creation

- 75.2% students said that they watch Shikshadarshan content daily (based on teacher calls)

Class	Time
1 – 8	12:30 – 1:30 pm
9 – 10	1:30 – 2:30 pm
11 - 12	3:00 – 4:15 pm

Figure 44 - Rajasthan Educational TV

29.3 Shikshavani – Education via Radio

- 55 minutes of stories (MeenakiKahani – which talks about social issues) and study material shared via radio at 11 am daily

- This is being broadcasted via 25 stations of All India Radio. Content also includes interesting stories, recordings on life-skills for children

- 62% students claim to listen to Shikshavani content daily (based on 1L+ teacher calls)

- 90% listeners found the content interesting

Schedule for 1 week

29.4
Hawamahal- Joyful Saturday program

"कोरोना समय में बच्चों का झरोखा"

- Every Saturday, a poster with a short description of stories and games is shared via the WhatsApp groups. Students across age groups can give a missed call to a number to listen to these stories and play the games as directed. Children can also find PDFs of stories via these posters

- Over 25,000 students hear the stories weekly

29.5
Conducting live sessions for students on career guidance via YouTube Rajiv Gandhi Career Portal

- Live career counselling sessions on YouTube for **secondary students**. Available every Monday, Wednesday and Friday at 5 PM

- Sessions on how to look for job, enhance skills, build CV, etc. provided

- Counselling helpline number also launched

- Attended by over 3 lakh students

29.6
Kala Utsav

From 15 – 28 June, a **SMILE Summer Camp has been launched – Rajasthan Kala Utsav**

- In the first week, YouTube live sessions (2 hrs/day for 6 days) portraying **Rajasthani art, craft and culture** will be conducted in collaboration with Prithviraj Foundation, Ajmer. This will be open for all classes and the sessions will be broadcasted via the SMILE YouTube channel. SMILE WhatsApp groups and teacher calls will be used to disseminate information about the programme.

- In the second week, a **competition** will be run wherein children will be asked to **prepare art & craft models** learnt in the workshops – submissions will be received via Google forms.

Workshops:

1. Phad Painting: Shri Kalyan Joshi (Bhilwara)

2. Charcoal Painting: Shri Laxyapal Singh Rathore (Ajmer)

3. Watercolour Painting: Shri K. G .Kadam (Bhilwara)

4. RjasthaniMandana: Shri Sanjay Sethi (Ajmer)

5. Paper Mache: Shri Virendra Kumar Sharma (Jaipur)

6. Collage Making: Smt Uma Sharma (Mathura)

Orientation Sessions:

1. कला क्षेत्र में शिक्षा, कैरियर एवं अर्थोपार्जन: Shri Bhawani Shankar Sharma (Former President Rajasthan Lalit Kala Academy, Jaipur)

2. भारतीय कला का इतिहास एवं विकास: Dr. Anupam Bhatnagar (Former HOD of Fine Arts Government College, Banswara & President of Aakar Art Group)

3. राजस्थानी लोक कलाएं: Padmashri Dr. C.P. Deval (Ajmer)

4. Youth Icon- Nitin Jain, Founder Indibni

5. कला में साहित्य संस्कृति आध्यात्म का समावेश: 'Kalavidh' Shri Ram Jaiswal (Ajmer)

6. कला एवं कलाकार का व्यक्तित्व और समाज में भूमिका: Dr. Annapurna Shukla (Assistant Professor, Banastali Vidhyapith)

29.7

DIKSHA - RISE (Rajasthan Interface for School Educators)

1. 2501 topics from 28 books for classes 1 to 10 made live

2. Over 45 L views received on the content

3. Single sign-on being developed for over 3 lakh teachers in the state. State to launch a digital

    training program in the first week of July

RJ-DIKSHA

29.8

Shaladarpan

This is the state's integrated MIS portal. It has real-time data available and is integrated with key processes at all levels e.g. for Schools- Infrastructure, SDMC details etc.; for Student- Enrolment, Board results, Tracking of Free Text-book distribution etc.; and for Teachers- joining, relieving, service book, training etc. It is also used to track digitally record teachers' attendance The state digitally tracks the demand and distribution of textbooks for each student and each book individually. This is being tracked since 2019

1. E-content invited from teachers for all grades and chapters

2. Plan is to create a digital library that can be used once schools reopen and be integrated with the regular offline modes of teaching

3. Over 900 teachers have submitted content

4. Content being vetted and mapped to syllabus

Shala Samvad

State has developed a "Talk to teacher" interface on its integrated MIS portal(ShalaDarpan). Students can log into the portal and ask any content related questions (by grade-subject). A panel of subject experts can answer students' queries. Students can ask questions in any language, upload images etc. This will allow students and teachers to stay digitally connected from the safety of their homes.

Other Initiatives

Online interviews

- State conducted interviews over VC with over 600 candidates through Microsoft Teams to recruit teachers for English Medium schools

- Day, slot, panel wise online interview links were sent to each candidate's personal email and WhatsApp numbers

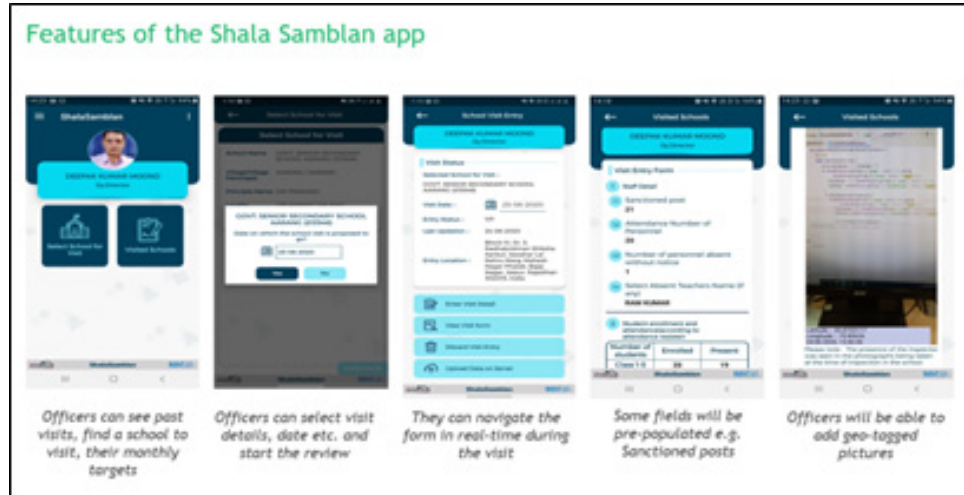**Online grievance redressal system**

- State has developed an online grievance redressal system in which teachers can submit their grievances, and the same can be digitally tracked and resolves

Shala Samblan

- State is developing an app-based monitoring process via the Shala Samblan app. The Shala Samblan process is a school visit program for monitoring administrative and academic performance of the schools. The mobile app will be used to digitize the school monitoring process to provide the state real-time data on the status of schools. Data from the app will be used to populate dashboards which will provide a one-stop view of all key metrics

- An app-based Samblan process will allow several field functionaries- State level officials, District level officials (CDEOs, ADPCs), Block level officials (CBEOs, Resource Persons), DIET Principals etc. to record any school's performance during a visit. Anyone with valid credentials can download the app and use it to initiate the Samblan process. The application will allow officials to capture data on the following sections- Daily attendance & enrolment, leave sanctions; Infrastructure; Tracking learning outcomes; Classroom practices; Progress on departmental initiatives; Feedback & suggestions section

- Academic monitoring or tracking learning outcomes is an integral part of the Samblan process. The state intends to achieve this via spot-check assessments. The process is planned as the following-

1. During each spot check visit, the visiting officer will select students randomly & ask skill-wise questions based on the student's grade. The questions will be auto-populated in the app based on a pre-defined question bank. The user will just have to enter how many students could solve it

2. Basis this grade-wise data, percentage of students proficient in a given skill area will be calculated at block, district, state level for reviews

Features of the Shala Samblan app

Officers can see past visits, find a school to visit, their monthly targets

Officers can select visit details, date etc. and start the review

They can navigate the form in real-time during the visit

Some fields will be pre-populated e.g. Sanctioned posts

Officers will be able to add geo-tagged pictures

30 SIKKIM

SIKKIM EDUTECH APP

a.   This mobile application connects all the schools of Sikkim under the State Education Department.

b.   Head of the Institutions can login and configure the school details like the classes they have and the subjects they have in different classes.

c.   This provides a platform for teachers to plan their classes online like they can provide their audio lectures and PowerPoint presentations. After completion of the lesson they can also push assignments online. Similarly, students can watch the lessons pushed by the teachers and submit their scanned copy/photo of the assignments and submit it to the teachers online. The teachers will correct it and give the feedback.

d.   Till date 15th June 2020, 3420 teachers are active in this app and have uploaded 3672 sessions for various classes. Total numbers of 5814 students are also active in the app.

e.   Even parents can also login and get the details of their wards.

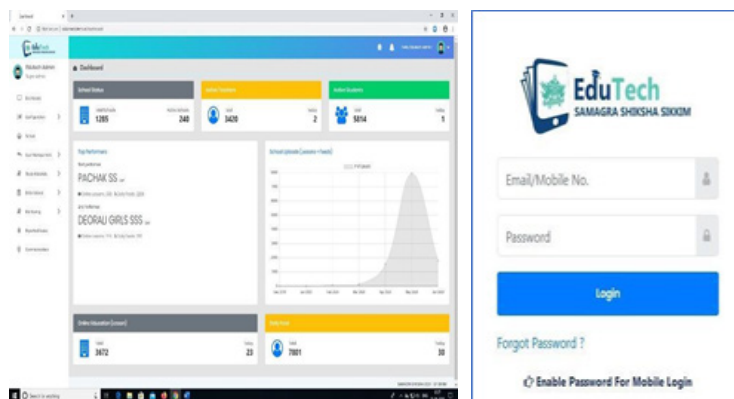f.   The entire process can be monitored by the Education Department.

Figure - Sikkim Edutech App & Monitoring

All INDIA RADIO LIVE

AIR Gangtok and FM Kanchenjunga 103 MHz in collaboration with Dept of Education, Govt of Sikkim started a Live Phone in Educational Broadcast Programme entitled "STAY HOME, STUDY AT HOME", for the Students of Sikkim. The programme began from 16.04.2020 and will be aired between 01.00 p.m to 2.00 p.m daily. The teachers will give lessons on scheduled topics for 40 mins after which the phone lines will be open for the students to put forth their doubts and questions. The program covers arts subjects and language for classes 5 to 8. Till 15th June 2020, 52 sessions have been telecasted.

SAMVAAD TV

Video lessons for Science and Maths classes for students of class 5 to 8. The video lessons are prepared in the studio daily and are broadcasted everyday from 6 pm to 7 pm with proper editing. Altogether 54 sessions have been covered
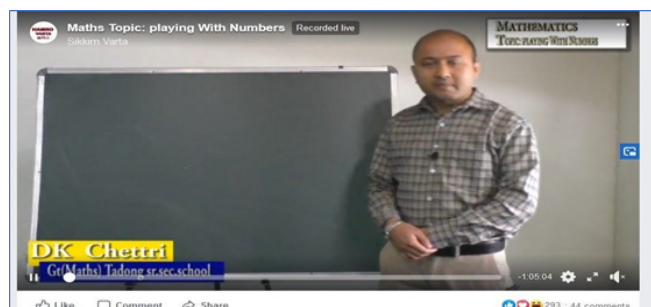
SCHOOL RADIO

The link for the school radio is being circulated to listen to all the content which has been broadcasted at any time according to the convenience of students. Till now 41 sessions have been conducted.
Link: http://stream.zeno.fm/g2szgxxpqwzuv.

FACEBOOK CHANNELS

There are three Facebook (Sikkim Chronicle, Summit Times and Sikkim Varta) channels have been created to take live video lessons. The teachers who are confident enough go for live video lessons. Till now 52 sessions have been conducted.

Link: https://www.facebook.com/Hamrovarta12/videos/1528683480615566/

https://www.facebook.com/Hamrovarta12/videos/873903153090386/

6. For students who have not covered through the above, offline content is being sent to districts which will be further sent to BACs.

7. Some school teachers even tutor the students at home maintaining social distance in a group of 4.

8. Zoom meeting with officers and Principals on 1.5.2020.

9. For classes, 1 to 3 due to introduction of new books, orientation of primary teachers in teaching the new books is done through Live Radio session thrice in a week. Till now 15 Sessions has been conducted.

https://www.facebook.com/esmicillia/videos/2890363897723746/

10. Online competitions are announced for teachers and students on COVID - 19

Also, any college or senior students are appealed to guide junior students near their home.

31 TAMIL NADU

Tamil Nadu Government is pioneering the use of digital technology to improve governance, to empower teachers and to 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 best use of the available digital platforms.

Presently, all schools are closed as a precautionary measure to contain the spread of COVID-19. School students have been significantly affected due to the lockdown since the academic year 2019-20 could not be properly brought to a proper close. 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.

Due to the COVID-19 crisis, all students are restricted to their home and they have no access to the classroom and school. There are few opportunities for them to engage with academic content and practice during the extended emergency break in schooling. 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 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 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.

31.1
E-Learn Platform for Students
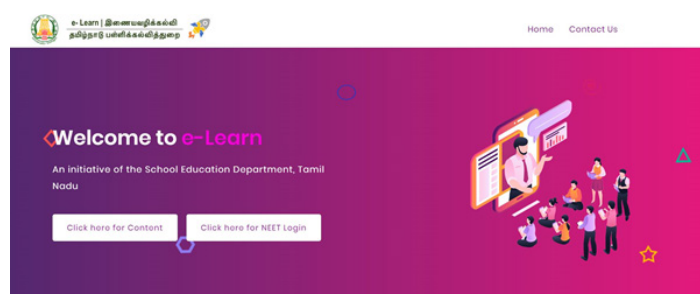
Tamil Nadu e-learn Platform is a customized content repository for students to access and utilize digital resources to improve their learning outcomes.

- It hosts more than 10,000 E-Learning Contents, 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 NEET exam.

31.2

## 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.
- '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.
- The contents can also be viewed through QR codes on Textbooks

TN-DIKSHA
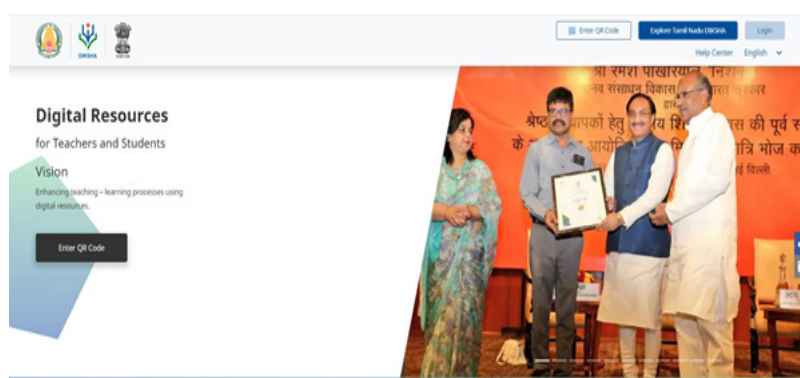
31.3

Tamil Nadu Teachers Platform (TNTP)

- 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 Contents, 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.
- TNTP can be accessed through https://tntp.tnschools.gov.in/
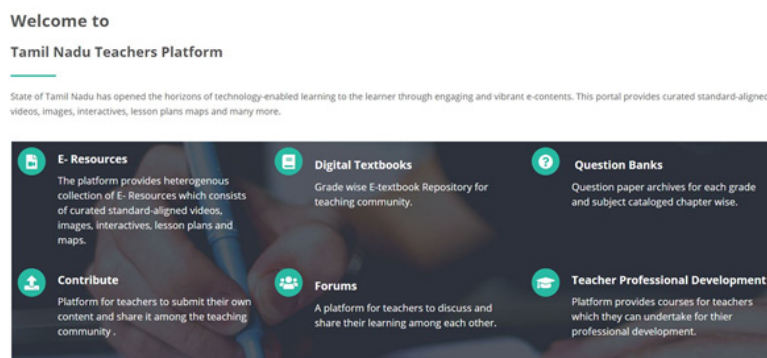
31.4
KalviTholaikatchi (Television Channel for Students)

- KalviTholaikatchi is an exclusive education channel which streams programmes 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.
- It can be viewed in the following cable networks within the State.
    - TACTV - CHANNEL 200
    - TCCL - CHANNEL 200
    - VK DIGITAL (POLIMER) - CHANNEL 55
    - AKSHAYA CABLE - CHANNEL 17
- The contents of Kalvi TV official channel are also accessible through the YouTube Channel Kalvi TV official. (https://www.youtube.com/channel/UCTMjO0AVI__8bnjTiK3JyPw)

31.5
TNSCERT YouTube channel

- TN SCERT YouTube channel hosts around 3390+ videos which cover a wide range of topics related to education. From science practical videos to teaching video lessons, 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. (https://www.youtube.com/ channel/UC7GbVKqHPXww1acL1x9DNQw/)

FACEBOOK - WORKPLACE

- TN Schools Facebook Workplace provides a platform for teachers to learn through collaboration and sharing. Teachers can share best practices used in their classrooms, share resources and participate in discussion in different subject oriented groups.
  Website: https://tnschools.workplace.com/
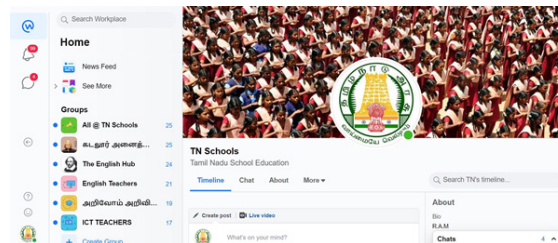
31.7

Student Mental Wellbeing in Partnership with UNICEF

- 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 call back 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.

31.8

Tamil Nadu VagupparaiNokkin (Classroom Observation module)

One of the modules of the TN-EMIS mobile application is the classroom observation module for Block Resource Teacher Educators. This is used to capture the teacher practices, student learning levels and other classroom related data to identify best practices and to improve classroom experience for the students as well as for the teachers.

NEET – Online Practice tests & Crash Course

- As a part of the e-Learn portal for students, online Practice tests is offered for Government and Government Aided Students preparing for NEET exam.
- Students are provided individual logins based on their NEET registration numbers. Students can log in, take practice tests and receive a detailed analysis of their performance topic-wise.
- Online NEET crash course is also provided to students from Government and Government Aided Schools. The course contains several hours of video lectures and 6500+ questions covering all topics.

32 TELANGANA

Digital / Online Education – Action taken by the State

Educational functionaries throughout the world have admitted the fact that ICT is an essential pillar of the education system in the 21st century. A wide range of ICT intervention in education can be seen globally. Considering the importance of ICT, the state of Telangana has also taken many initiatives as listed below to reap the benefit of it.

1. Digital Interactive Classroom / Virtual Classroom

Children in Government schools, who were accustomed to rote learning, are now taught via digital classes and audio sessions. The Telangana government introduced digital classrooms in 1,500 schools in the first phase from November 2016 as part of the government's resolve to improve the quality of education.

Schools which have LCD projector, computers, and Mana TV network were selected for the digital classroom programme. The selected schools provided computers which contain digital lessons for classes 6 to 10 for Telugu, English, mathematics, science, and social studies. Training for teachers was given to get accustomed to digital classrooms.

2. Labs

Ministry of Human Resource Development (MHRD), Govt. of India launched Information & Communication Technology (ICT) @Schools scheme in the year 2008-09 in Telangana. The scheme was implemented in the state in two phases - ICT@5000 schools in year 2008-09 and ICT@1300 schools in year 2010-11. In the first phase 2159 schools were covered and in the second phase 535 schools. There were 7 private agencies that had partnered with the government for implementation of the scheme which includes NIIT, Educomp, Everonn, ECIL, Terasoft, Social Computers, and Institute of Electronic Governance (IEG). Phase 1 schools completed the first 5 years of the scheme in 2012-13 and phase 2 schools in 2014-15 academic year. Schools covered under ICT Phase 1 and Phase 2 were mostly Secondary schools. In this programme classes 6th to 10th were covered. All the students in the identified schools were taught computer basics like MS word, Excel, PowerPoint, Web browsing etc. Teachers were also trained in integrating the ICT in the teaching learning process.
Apart from the 2694 schools having ICT labs, KYAN projectors are given to 4000 secondary schools.

3. E Content Repositories / E learning portals

There are three existing sites that are major E content Repositories for School Education in Telangana and one site (VidyaDaan) launched in the year 2020.

(a) **SCERT Website:**
The official website of SCERT is an important repository with all the e textbooks of classes 1 to 10 in 7 media uploaded on it. Apart from the textbooks many online programmes for teachers and students like the present webinar sessions being conducted by SCERT are all hosted on this website. It contains additional resource material in the form of audio and video lessons to enrich the learning experience of students and also help in self-learning.
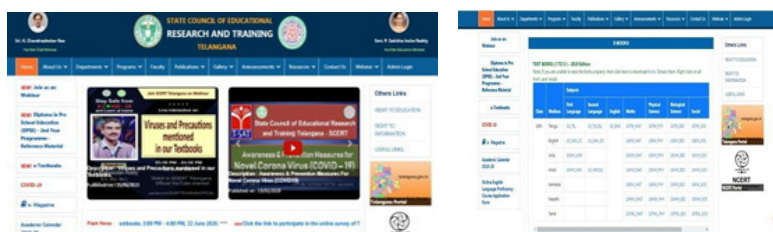
(b) **Telangana Repository of Open Educational Resources (TROER):**
TROER is an initiative of the Department of School Education, Government of Telangana for resource creation of the teachers, by the teachers and for the teachers to make available curricular resources as well as support continuous professional development through participatory resource creation. It is envisaged that teachers and teacher educators will collaborate to build OER on this platform. Participation by teachers can provide a sustainable model of creating and sharing educational resources that can enhance the educational outcomes.
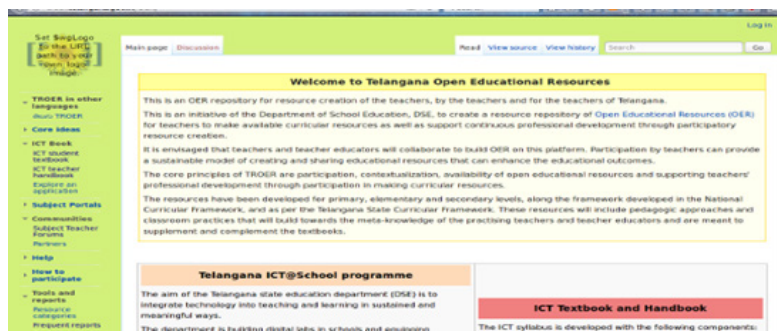
The core principles of TROER are participation, contextualization, availability of open educational resources and supporting teachers' professional development through participation in making curricular resources.

The resources have been developed for primary, elementary and secondary levels, along the framework developed in the National Curricular Framework, and as per the Telangana State Curriculum Framework. These resources include pedagogic approaches and classroom practices that will build towards the meta-knowledge of the practicing teachers and teacher educators and are meant to supplement and complement the textbooks.

A handbook for teachers and teacher educators is developed to help them implement the syllabus as well as support their own knowledge and learning of the ICT applications based on the NCERT ICT curriculum. A textbook for students, that introduces ICT skills and applications in a project based way, integrated with the different school subjects.

(c) DIKSHA, TELANGANA:

DIKSHA, TELANGANA is a digital platform launched by the School Education Department, Govt. of Telangana for the teaching community to create and exchange e-resources to bring about qualitative changes in the teaching learning process. Under the chairmanship of the Secretary Education, Govt. of Telangana, Commissioner and Director of School Education and with representatives from SCERT Telangana, Samagra Shiksha Telangana, different Universities, NIC, Telangana etc. as members constituted the Project Steering Committee of DIKSHA, Telangana for facilitating this digital interface for the teachers of the state. SCERT, Telangana being the Nodal Agency of DIKSHA, Telangana facilitates a panel of subject experts for review and curation of the contents to be uploaded in the portal. Under DIKSHA project till now 16 textbooks of all non-language textbooks of classes 8th and 9thin Telugu and English media have been energized with QR codes and implemented in the State. 37 more textbooks of Classes 6th to 10th will be energized with QR codes and implemented in the State from the academic year 2020-22.
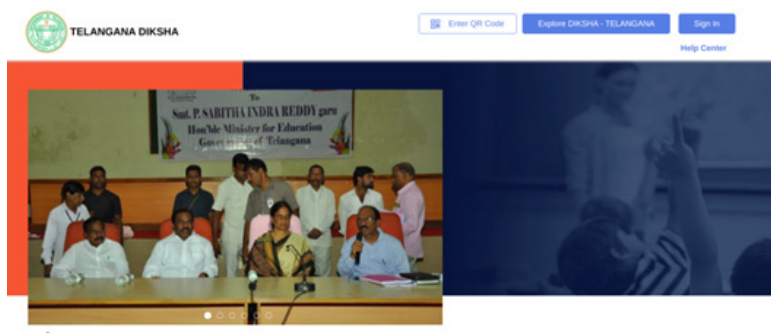

(d) VidyaDaan:

To integrate digital education with schooling and learning, GoI has launched VidyaDaan, a program of the Nation, for the Nation and by the Nation for managing continuity of education on 21st April, 2020 for inviting e-learning contributions.
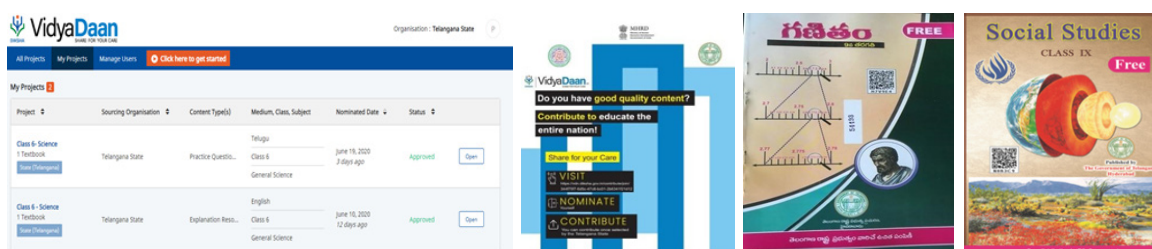
VidyaDaan in Telangana is launched during June, 2020 wherein teachers are invited to contribute content for class 6th General Science in Telugu and English media.

(a) TSAT App

The digital lessons for Class 6 to Class 10 students developed by SIET and the lessons intended for teachers and trainees developed by SCERT are made available in the app.
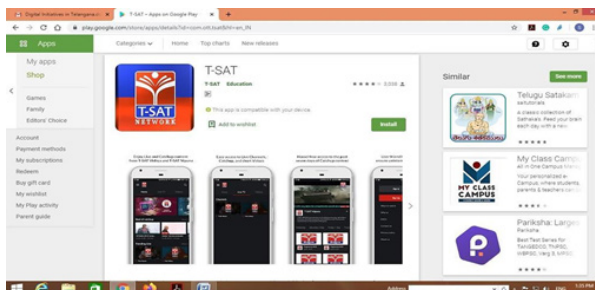

4. Interactive Resources

(a) Educational TV - T-SAT (MANA TV) Lessons:

Through T-SAT (Mana TV), SOFTNET live and recorded lessons are being transmitted for children of 6th to 10th classes, in-service Teachers and trainee Teachers i.e. for D.El.Ed. & B.Ed. Students. At present, about 2500 institutions in the State have the connectivity of T-SAT (Mana TV) ROTs (Receive only Terminal). The viewers can interact with the live presenters.

(b) Web TV channel – SCERT YouTube channel

SCERT has started capacity building programmes for teachers through interactive webinar sessions daily for teachers starting from 27.04.2020 both on subject related topics and others that include usage of technology in teaching – learning, physical and mental well-being of students etc. The sessions also include inputs for headmasters and teachers to reach students in the context of delayed opening of schools to ensure continuous learning of students. The sessions are being telecast live on SCERT, Telangana YouTube channel and the questions sent by teachers on chat box are addressed at the end of the session. The viewerships of many of the webinar sessions have crossed the one lakh mark. The teachers can use the materials and resources developed and made available by SCERT in their teaching. Teachers shall also be encouraged to adopt different strategies of online teaching like conduct of webinars, use of local TV channels, WhatsApp groups, YouTube and other platforms to reach students and help them learn.
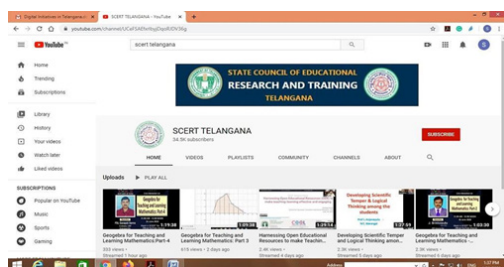
5. Other Initiatives:

(a) Computer Aided Learning in Elementary School (CAL):

Telangana State has implemented the CAL program from the year 2008-09, and 1516 Schools have been identified for CAL Program until 2012-13. A 5-day training to 7,580 teachers (@ 5 teachers per school was conducted to implement Computer Aided Learning in these schools. These Schools are Supplied with 80 titles of interactive multimedia CDs for classes III- VII, 8 Audio

DVDs consisting of poems, songs, English rhymes and narratives based on text books for classes I, II, III, VI, VII, 100 animated "Vishwadhabhirama Vinuravema poems" along with Teacher handbook and 21 lessons in multimedia for class I.

(b) ICT integrated "Subject Teacher Forum":

UNICEF and RMSA, Telangana, envisioned initiating a programme with the approach of integrating information and communications technology into teacher education, focusing on building "Teachers Communities of Learning" to create digital learning resources and network with one another for sharing and learning. The program provides an opportunity for teachers to engage in discussions related to the different disciplines like mathematics, science, and social science, participate in an online community of learning and create and share open digital resources. The program is based on the extensive and intensive use of public digital resources to build and support teacher networks as well as to create a resource rich learning environment.

(c) Connected Learning Initiatives (CLIx):

School Education Department, Government of Telangana in collaboration with Tata Institute of Social Sciences (TISS) initiated CLIx project to work with 300 rural government schools in erstwhile 3 districts (after administrative changes in the state they become 13 districts) in Telangana State. CLIx is geared to provide engaging, hands-on learning experiences in Mathematics, Science, Communicative English and digital literacy, integrated with value education and skills relevant to the 21st century. As a platform for innovation in education, CLIx also supports the professional development of teachers, making substantial contributions to teacher education in Indian languages.

Currently, CLIx implementation activities are being undertaken in 300 schools in 13 districts of Telangana. These districts are Ranga Reddy, Vikarabad, Medchal, Warangal (U), Warangal (R), Jangaon, Jayashankar, Mahabubabad, Rajanna, Karimnagar, Siddipet, Peddapalli and Jagityal. Of these 300 schools, 70 are fully functional and an additional 65 are close to functional.
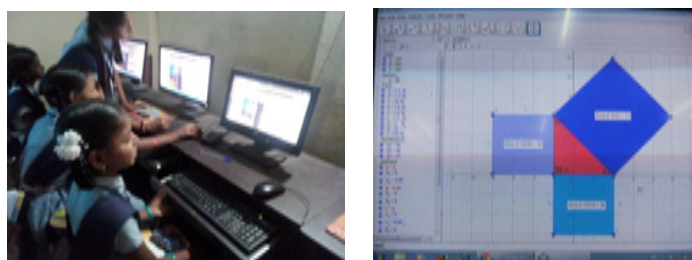
(d) English Language Proficiency Course:

The state of Telangana has introduced English Medium in Government schools from class 1 to 10. To equip the teachers in transacting in English Medium, SCERT in collaboration with Azim Premji University has designed, developed and launched an 'English Language Proficiency Course' being conducted separately for Primary and Secondary teachers. SCERT in collaboration with Azim Premji University conducted a Need Assessment survey done in the four major language skills i.e., listening, speaking, reading and writing. After thorough discussions on the findings of the Need Analysis Report with the Subject Experts from Azim Premji University, the Objectives for the English Language Proficiency Course were designed. A blended course on 'English Language Proficiency' was co-developed and after conducting the first batch training in blended mode the course was transformed to entirely online mode in view of lockdown due to COVID 19 pandemic.

(e) Training to teachers on 'ICT in Education':

SCERT is at present working on a program to provide training to teachers on 'ICT in Education' in collaboration with CIET, NCERT. SCERT, Telangana under the initiative and guidance of CIET prepared the curriculum for training on 'ICT in Education' during the

year 2019-20. For 2020-21 it is proposed to conduct training to teachers based on the curriculum. The ICT in Education Curriculum for Teachers of Telangana is designed to provide an enhanced exposure to information and resources for improving teaching-learning-evaluation, support for continuous professional development and achieve quality through increased productivity. The implementation of the ICT in Education curriculum is expected to equip every teacher in the state with necessary competencies for integrating ICT in the teaching learning process. It will enrich the teaching-learning process and to make it more interactive, interesting and engaging for the students and productive for the teachers.

(f) SCERT on twitter (@ScertTelangana):

SCERT has created a twitter account with the handle @ScertTelangana to share the latest updates with the teachers, children and educationalists across the state.

32.2
Action being taken in the context of COVID 19:

32.2.1   SCERT

Though digital lessons are being telecast by SIET, SCERT as the apex academic body at state level for school education and the academic authority for elementary education is catering to the online education component of both teachers and students.

A. For Teachers:

a. Webinar Sessions:

SCERT has started capacity building programmes for teachers through interactive sessions daily for teachers starting from 27.04.2020 both on subject related topics and others that include usage of technology in teaching – learning, physical and mental well-being of students etc. The sessions also include inputs for headmasters and teachers to reach students in the context of delayed opening of schools to ensure continuous learning of students. The sessions are being telecast live on SCERT, Telangana YouTube channel and the questions sent by teachers on chat box are addressed at the end of the session. The viewership of many of the webinar sessions has crossed the one lakh mark. The teachers can use the materials and resources developed and made available by SCERT in their teaching. Teachers shall also be encouraged to adopt different strategies of online teaching like conduct of webinars, use of local TV channels, WhatsApp groups, YouTube and other platforms to reach students and help them learn.

b. Online Certificate Programmes:

The first batch of 'English Language Proficiency' co-developed by SCERT, Telangana and APU was conducted in blended mode during 2019. Now the course is transformed to entirely online mode in view of lockdown due to COVID 19 pandemic.

SCERT in collaboration with NIRD has conducted a certificate programme for teachers on 'Management of Mental wellbeing during COVID-19' from 18th to 20th May, 2020. More than 55000 teachers have participated and were issued certificates.

SCERT in collaboration with CDAC, Hyderabad under Information Security Education Awareness (ISEA) project phase II, Ministry of Electronics and Information Technology, Government of India has conducted a programme on 'Cyber Safety and Security' to teachers from 27th to 30th May, 2020 to provide information on the risks and safety measures in view of the present demand of usage of ICT for ensuring continuous learning of students. For this programme also more than 55000 teachers have participated and were issued certificates.

B. For students:

SCERT has developed worksheets for classes 2 to 10 for all the subjects in 7 media being offered in the state. These worksheets shall be uploaded class / medium / subject wise on SCERT website for use by students on a daily basis.

As a pilot project audio version of literary works in Telugu in the form of poems – 'ShatakaPadyalu' is developed and uploaded on SCERT website so that students can learn, enjoy and appreciate them. It is now proposed to extend such work to other languages and non-language subjects as that shall also be in compliance to the needs of the CWSN children.
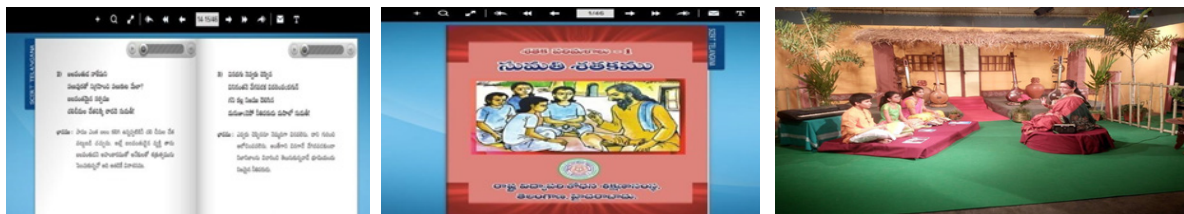
SCERT has also in collaboration with SIET developed videos for learning music that are included under co-curricular activities and uploaded on SCERT website so that they are used for self-learning by students. This activity shall also help the students to relax and be relieved of stress if any.

32.2.2 SIET

SIET has conducted the following activities in the context of COVID 19:

  a.   SIET has transmitted Digital Lessons for Class-X Students in subject areas of English, Mathematics, Physical Science, Biological Science and Social Studies through Doordarshan Yadagiri Channel from 10.00 A.M. to 11.00 A.M. and from 4.00 P.M. to 5.00 P.M. from 12.04.2020 to 23.04.2020 for the benefit of Class X student

  b.   Uploaded 513 Digital Lessons pertaining to classes VI to X subject-wise on to the T-SAT App for easy viewing by the clientele group. Digital Lessons developed by SIET are being telecasted through T-SAT Vidya Channel in 5 slots for classes VI to X from 12.30 P.M. to 1.00 P.M and from 2.00 P.M. to 4.00 P.M. Further, SIET is already utilizing the services of Doordarshan Kendra, Yadagiri Channel on a regular basis i.e., ½ hour slot for telecast of Tele-school Video Programmes from 10.30. A.M. to 11.00 A.M. daily for the elementary classes. Hence available resources are used for implementing Digital / Online Education.

TS-DIKSHA

33 TRIPURA

The unprecedented COVID-19 pandemic is going to severely affect not only the economy but dynamics of the social sector also. The state Government of Tripura is up to the task in its reply to the current COVID-19 crisis by introducing a series of interventions across all sectors. As the socio- economic profile of students studying in state run Government schools and their limited access to other resources of learning beyond school, prolonged periods of lockdowns and an interrupted academic session will severely affect the learning outcomes of children. The current state-wide school shutdown presents the unprecedented challenge of keeping students meaningfully engaged in academic learning without running regular school operations. Recent crisis also brought with its wake an opportunity for extensive use of IT- based platforms in the education sector for teachers and students alike. After a long lockdown the department will have to address these challenges. These include infrastructure and facilities, teaching-learning environment, alteration of class routine, teacher training, organisation of co-curricular activities etc. while maintaining personal hygiene.

During the current lockdown in wake of COVID 19, the School Education Department of Tripura has proactively taken upon the task of ensuring that children do not lose out on any opportunity to learn and to continue their academic progress by providing access to technology-enabled learning resources. Digital learning is being resorted to more and more as the time progresses.

33.1
Creation and telecast of E-Classrooms

E-Classes are recorded in Studios. After editing and other technical works, the same is then sent to SCERT, the State Academic Authority for vetting. After obtaining vetting, the episodes are then transmitted over Doordarshan and Local Television Channels. Copies of the Digital Classrooms are also uploaded in the YouTube Channel of the Department, titled: `TripuraSikshaBandhu'(https://www.youtube.com/channel/UCoOarQM2xtN4HxXjgwR7oYA. The students and teachers can refer to these E-Contents anytime later on. This initiative has been highly beneficial for both the students and teachers especially during this COVID-19 Lockdown period. Classes have been conducted for covering subjects like: English, Maths, Science, Bengali, Social Science for Classes III to XII. The digital contents are also uploaded in a popular privately-managed website: https://tripurainfo.com/OnlineClassesHomepageSearch.aspx

33.2
Digitization of Textbooks

Textbooks of all the Classes have been digitized in **pdf** and **e-pub** formats and hosted in the website of SCERT Tripura. This is done so that the students have access to the digital copy of their Textbooks from anywhere and continue their study. All the Textbooks of all the Classes (from I to XII) have been digitized. The web address of the books is: http://www.scerttripura.org/ebooks.php

33.3
State Repository of Open Educational Resources (SROER)

Another remarkable initiative of SCERT, Tripura is creation of the State Repository of Open Educational Resources (SROER). It is a platform containing around 200 Audio-Visual contents for reference. At this moment, the repository contains quality audio / video contents for students of classes VI to XII free of cost, covering subjects like Bengali, English, Physical Science, Life Science and Mathematics. The link of the repository is: http://www.scerttripura.org/eresources.php
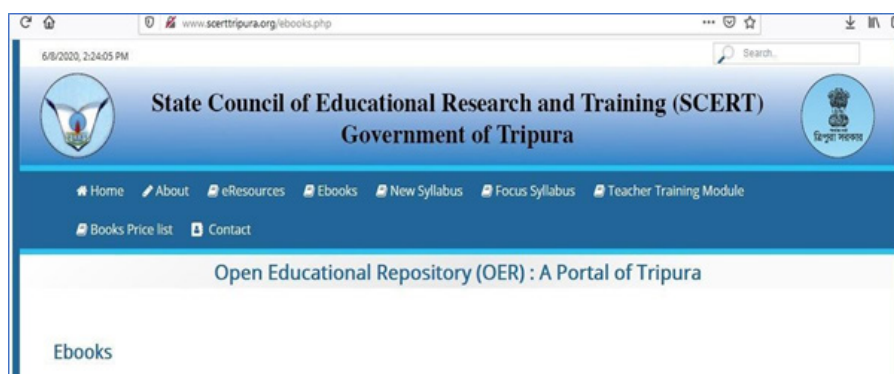
33.4
EDUSAT Programme

A special initiative by using Satellite Interactive Terminals (SITs) in the State is the EDUSAT Programme. Under this initiative, live and interactive classes are conducted by expert teachers and the same is transmitted through the EDUSAT network. Students from far-flung areas of the State are able to participate in the classes. Science, Mathematics, English, Physics and Chemistry of Classes VI to XIII are covered under this initiative.

33.5
Use of App

An educational app is already in use in the State Education Department, titled "EmpowerU Shiksha Darpan". During these hard times, for facilitating the appraisal of students in Annual Examination for the Academic Year 2019-20, the marks secured by the students of Classes III to IX and XI, have been uploaded in the App.

33.6
Other efforts

To explore the feasibility of circulating the study materials to the students and parents through e-learning / social media platforms, all the teachers have been requested to take necessary actions.

34 UTTAR PRADESH

Under Mission Prerna ki e-Pathshala, Department of Education, Uttar Pradesh, has taken a multi-modal approach to ensure that student learning and teacher professional development continues through digital means.

34.1 Through WhatsApp

As part of Mission Prerna ki e-Pathshala, teacher-to-student WhatsApp groups have been formed in 90%+ schools (i.e. ~1.4L groups) across the state. Average number of students added to each group is 15, thus ensuring that ~25L students are connected to their teachers through WhatsApp on their parents' Smartphone's. The department is using its existing network of more than 1,000 WhatsApp groups with Basic Shiksha Adhikaris (BSAs), Block Education Officers (BEOs) and Head Teachers, and more than 9,000 groups with teachers to enable the reach of educational content to all teachers, who can then forward it to students' groups. Daily grade and subject wise messages are being sent out by the directorate at Lucknow and reaches lakhs of parents in no time.

34.2 Through DIKSHA

4000+ direct-to-student videos (a mix of curation from expert organizations and crowdsourcing from teachers) have been uploaded and tagged to QR codes printed in textbooks prepared by UP SCERT. Additionally, various other types of available content - Explanation Videos, Practice Questions, Assessments, eTextbook PDFs, Lesson Plans, Slides, Recorded Classrooms on Internet, Recorded Classrooms on TV, e-books etc. have also been made available. These videos have also been made available on the department's YouTube channel (https://www.youtube.com/channel/UCnsflXk7nAsqADM35Ysx6qg) to ensure that those students who do have Diksha app downloaded can also benefit.

34.3 Through other digital resources

- The department's website http://prernaup.in has dedicated teacher resources and student resources, where a large number of e-resources (textbooks, activity charts, posters, audio content etc.) is made available for easy reference and availability to both teachers and students.
- e-Pothi / e-Books - Additionally, all textbooks have been made available on the UP SCERT website, in a subject wise and grade wise manner - http://www.scert-up.in/e-books.html

34.4 TV Channel & Radio Initiatives

- Doordarshan - For those parents and students who do not own a smartphone, the department has made a facility to make high quality educational content available through far-reaching Doordarshan Uttar Pradesh channel. From end-April to mid-June, a 1.5 hour slot on Doordarshan UP has been dedicated to provide self-learning content to children customized in the forms of structured episodes. As per independent reports, 18-20% students across the state are benefitting from this content. Therefore, beginning mid-June, the department is purchasing a 4 hour slot on DD UP to increase learning through this channel.

- Radio – The reach of Radio is expected to be even more than television, hence radio channels have been engaged to help students in areas and communities where TV coverage is limited. 15-30 minute slots on AIR and other radio channels are being fixed to provide audio-based learning to children at home. Audio content of UNICEF and Gali Gali Sim Sim and other curated sources will be played on Aakashwani.

Partnership with Civil Society

School department has pooled in resources and services from a strong network of national and global organisations like Central Square Foundation, Sesame Workshop India, Pratham, Khan Academy, Google, WhatsApp, the TeacherApp, UNICEF. Efforts to intensify the usage of the content uploaded on 'DIKSHA' — the national e-learning platform launched by the Ministry of Human Resource Development that hosts video content for children in all age groups. Khan Academy, a leading international not-for-profit educational organisation, which has more than 1,000 self-learning videos available for children to learn mathematics from class 1-8 in Hindi. Pratham Education Foundation, an Indian not-for-profit organisation, which has extremely good video-based learning of foundation literacy and numeracy concepts.

Turning parents into teachers

The launch of Top Parent, a first-of-its-kind free-of-cost mobile application that provides parents of 3-8-year olds with language, strategies, and resources to actively participate in their children's learning. The application currently houses three high-quality EdTech apps for children – Chimple, Maths Masti and Google Bolo.

Massive outreach campaign

Massive outreach campaign to make all stakeholders (parents, students, teachers, officers etc.) aware of the above mentioned digital initiatives has been undertaken.
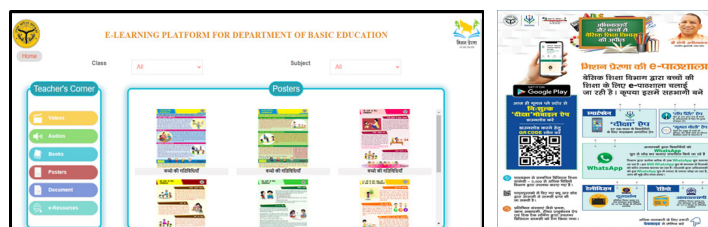
Focusing on Teacher Professional Development

There has been a greater focus on TPD. 100+ standalone concepts and pedagogy based videos and 75+ micro-courses (45-60 mins each) have been uploaded on DIKSHA and teachers encouraged to learn through these videos and courses.

UP-DIKSHA

35 UTTARAKHAND

Sampark Didi Mobile App

The Uttarakhand state education department has started virtual lessons for primary level students through a mobile app 'SamparkBaithak App' developed by Sampark Foundation. Through the app, students can access animated videos, audios, worksheets, puzzles, fascinating activities etc. while they are confined to their homes during the pandemic.

The syllabus has been made available in both Hindi and English. Schools can share their best practices through this app and students can share their homework, opinions and doubts through this app directly with the teachers for doubt clearing and support from teachers. The app also provides facilitation of QR code scanner which can be used for viewing content available in multimedia workbooks.

WhatsApp Classes

Meanwhile, the education department has also started classes through WhatsApp where children are being given tasks to do, and they can connect with teachers via the social media platform for doubts and concept clearing.

Officials have created different WhatsApp groups and selected teachers for different subjects from across the State and connected them with students where they are being given tasks. Students are also being given online study material by the teachers.

Gyaandeep Programme

The state of Uttarakhand is a hilly State and Internet connectivity remains a major issue in hilly/rural areas. Therefore, it becomes very difficult to provide online e-learning material to all students. In view of easy access of learning content to all students across the State, it is decided at State level to initiate a relay of learning content ('Gyan Deep' programme) through Doordarshan, as Doordarshan has better access up to remote areas and most viewed by all sections of people.

Features of the relay are as follows -
- The Gyan Deep programme has been getting relayed through Doordarshan since 24th April 2020.
- An MoU is signed with Doordarshan for the cited telecast as per government approved rates.
- Content for the relay is being developed at State level with the help of subject specific teachers.
- Subject wise and slot wise schedule is given to Doordarshan Kendra along with recorded lectures.
- Lectures relayed through Doordarshan are also being relayed through some other channels (DD Free Dish-41, Dish TV-229, Den-137, Ansel-400, Videocon-889, Tata Sky-1195, Hathway-483, City Cable-671, Lucknow-237, Big TV-250, Net Vision-138. These lectures are also available on Youtube link- https://www.youtube.com/channel/ UCx55tefMzKkaA0uDmj9g2SXA).
- Comprehensive directions are issued to District Magistrate, District Education Officers, and at subordinate level for community awareness.

Community Radio

Community radio is also being used for digital online learning in some of the areas in the State. Through community radio, stories are being broadcasted for the children studying in primary classes, and skill development programmes like reduce stress, solve problems, time management, nutrition etc. for girls. At present 10 community radio channels in 5 districts are being operated. With the help of NGO partner (Room to Read) early reading is being facilitated through 2-3 minutes broadcast. This has been initiated in two districts. Content for the broadcast is developed by the combined efforts of Room to Read, SCERT/DIET faculty and KGBV wardens.

35.5

Use of Educational Portal

State Education portal (e-portal) is also being used by teachers and students for digital learning. A link (https://educationportal.uk.gov.in/Guest?action=elListPage) is given on the e-portal where teachers can upload learning content, handwritten notes etc. and the same can be downloaded by the students as well as other teachers from the portal. This has been conveyed to all concerning beneficiaries and is being used.

36 WEST BENGAL

36.1

Online Classroom

The Department of School Education, Government of West Bengal launched Online classroom education for all classes through
https://banglarshiksha.gov.in/Frontend/online_classroom

- The Online classroom is based on activity based learning teaching.
- Activities have been designed for class Pre-Primary to 12th covering all subjects.
- The Model Activity Task is designed initially on the basis of the syllabus of the First Summative Evaluation. Subsequently the syllabus of second summative evaluation was also covered.
- All topics are developed and finalized by subject teacher experts under the supervision of the Expert Committee and the Boards.
- Activity Tasks have been given in two phases: Activity Task I and Activity Task II
- Activity Tasks are available in Bengali, English, Hindi, Urdu and Santahali
- The activity tasks are to be submitted to the respective subject teachers after schools reopen.
- Teachers were advised to assist students in carrying out activity tasks using telephone, email or through WhatsApp.
- TV programs / Video Programs for Class V-VIII & IX- XII have been uploaded on the portal for almost all subjects concerned.

The key features with regards to BanglarShiksha Online include:

- A **Guideline Tab** that directs students to progress through the activity tasks
- A **Q&A** tab that lists down the most frequently asked questions with subsequent answers
- A **Suggestions Box** that allows students, teachers and parents to provide feedback and recommendations on the enhancement of this initiative. The School Education Department regularly monitors the suggestions and incorporates the relevant ones. Through the suggestion box, the Department received an array of feedback on providing video tutorials in Hindi and Santhali, apart from Bengali (which has been the main medium of instruction), which was later incorporated into the E-learning material
- An exclusive and dedicated **toll-free** helpline number has been enabled for students to call and clarify doubts, if any.

E-Learning material available:

- A huge number of learning videos covering topics of first and second summative evaluation of all subjects for all classes have been uploaded.
- Available in Languages:
  1. Bengali
  2. English
  3. Hindi
  4. Santhali
  5. Urdu

36.2 Social Media

West Bengal's School Education department launched a YouTube Channel where subject topic and language wise various e-Learning videos are available.
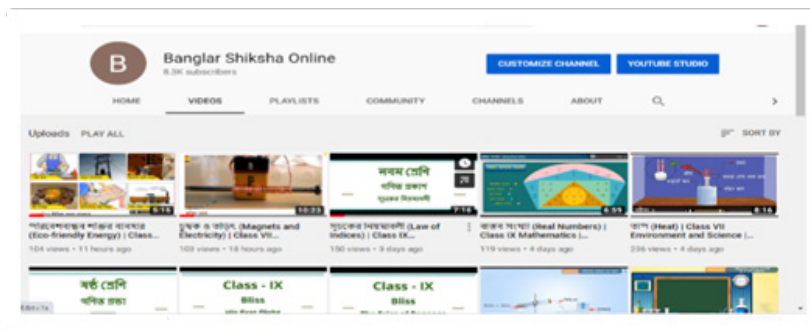
36.3 E-learning Portal

E-Textbooks for all the classes can be accessed at: http://www.wbsed.gov.in/etextbook.php

- Teachers Manual
- Formative Evaluation for Class I-V
- English Support Material
- Material for Pre-Primary School

TV Channel

West Bengal's School Education department tied up with TV Channel ABP Ananda and Zee 24 Ghanta to hold live lectures for the students of Class X to XIIon ABP Ananda and Class V to VIII on Zee 24 Ghanta to compensate the classes missed. The lectures telecast daily from 10 am to 11 am and 3 p.m to 4 p.m. on ABP Ananda and 10 am to 11 am on Zee 24 Ghanta — with half an hour being devoted to students of any two classes.

The programme is aimed at students following the State board syllabus and, therefore, covers all schools run or aided by the State government.

Development of content

The selection of subjects and topics for each grade level was done by an Expert Committee, which is the team within the School Education Department that develops the content for all classes with regards to Government Schools, Government sponsored schools and Government aided schools. The topics, subjects and its subsequent content was finalized by the Expert Committee for this initiative, and in accordance a weekly program schedule ahead of the week was prepared mapping the appropriate teachers against each subject for each class.

All subjects and content, including non-compulsory subjects for senior classes were covered through this initiative. For junior classes, an array of topics was covered across different subjects.

WhatsApp Groups based Learning

Schools formed WhatsApp groups to circulate worksheets so that they do not lag behind in preparing for their board exams of class 10th & 12th.

ACKNOWLEDGEMENTS