



**Ministry of
Education**
Government of India



Use and Integration of Information & Communication Technologies (ICTs) Education

Central Institute of Educational Technology(CIET)
National Council of Educational Research and Training (NCERT)
(An Autonomous organisation set up by
Ministry of Education, Government of India)



**Imparting equitable quality education
and lifelong learning is the goal**

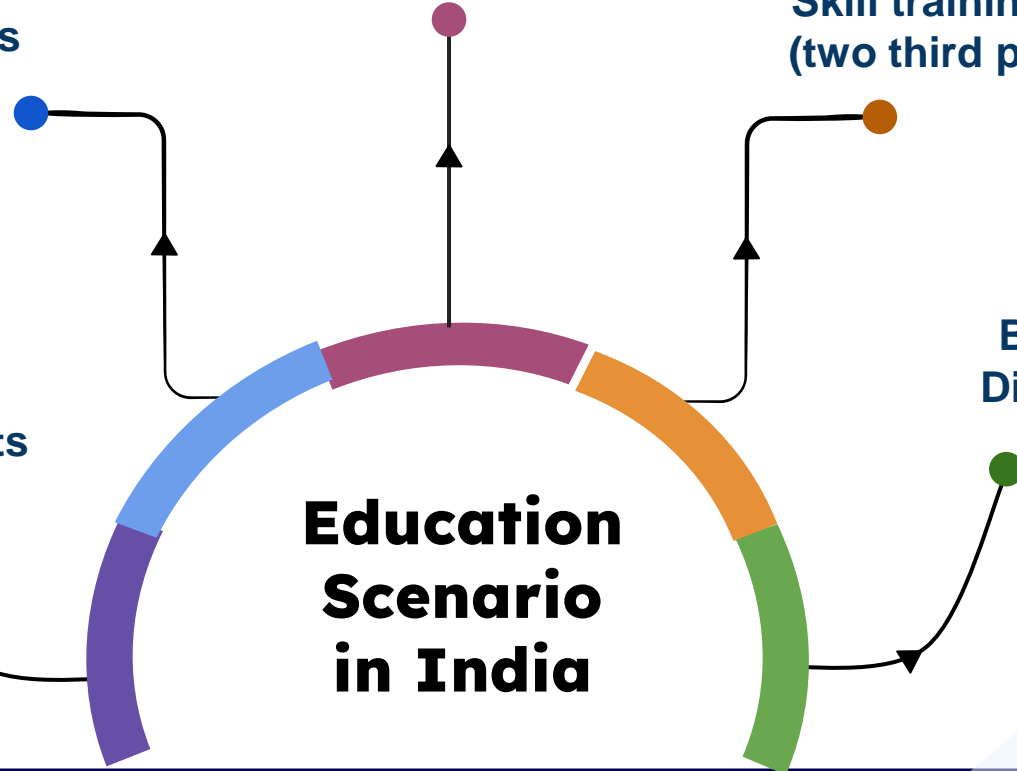
**CPD of
10 million Teachers
is a challenge**

**Skill training of youth
(two third population)**

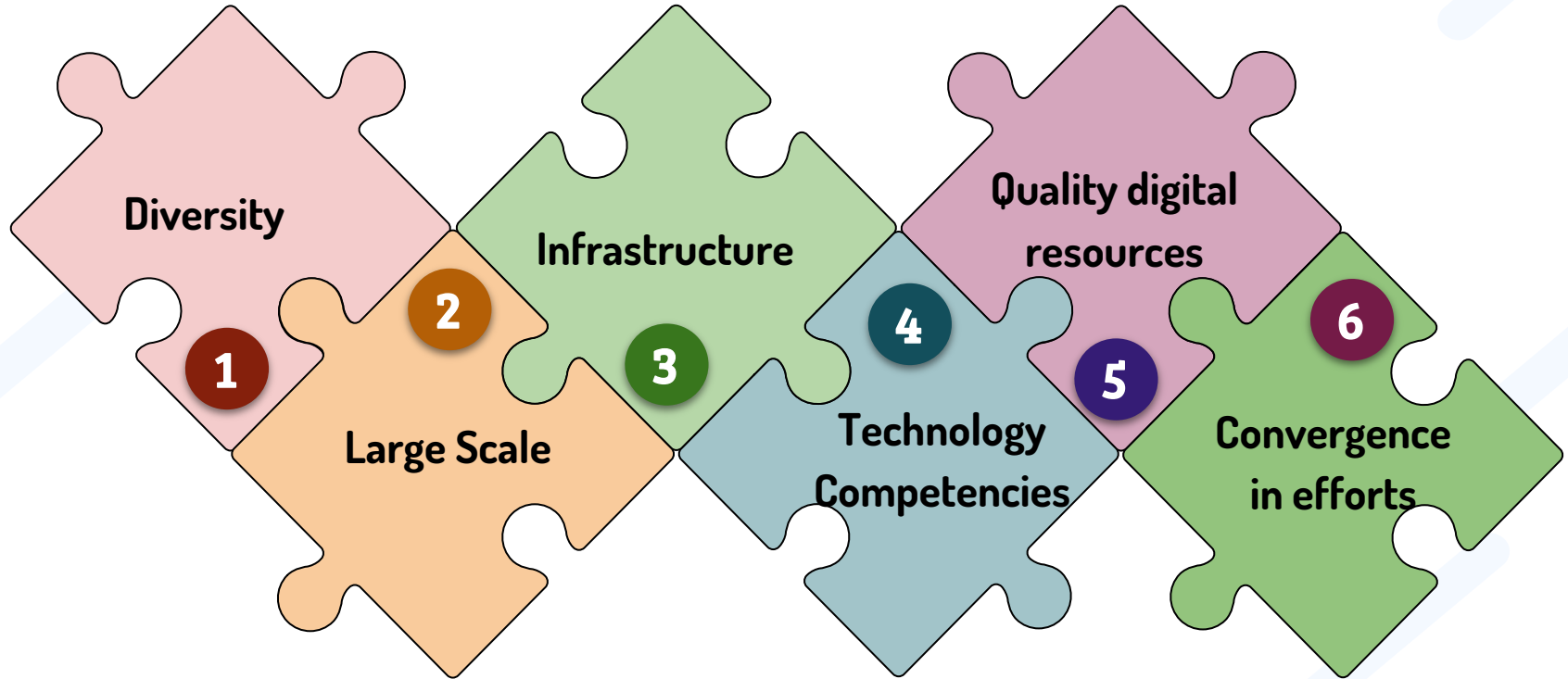
**1.3 bn. People
1.5 million Schools
900+ universities
17000+ TEIs
330 million students**

**Bridging the
Digital Divide
is the goal**

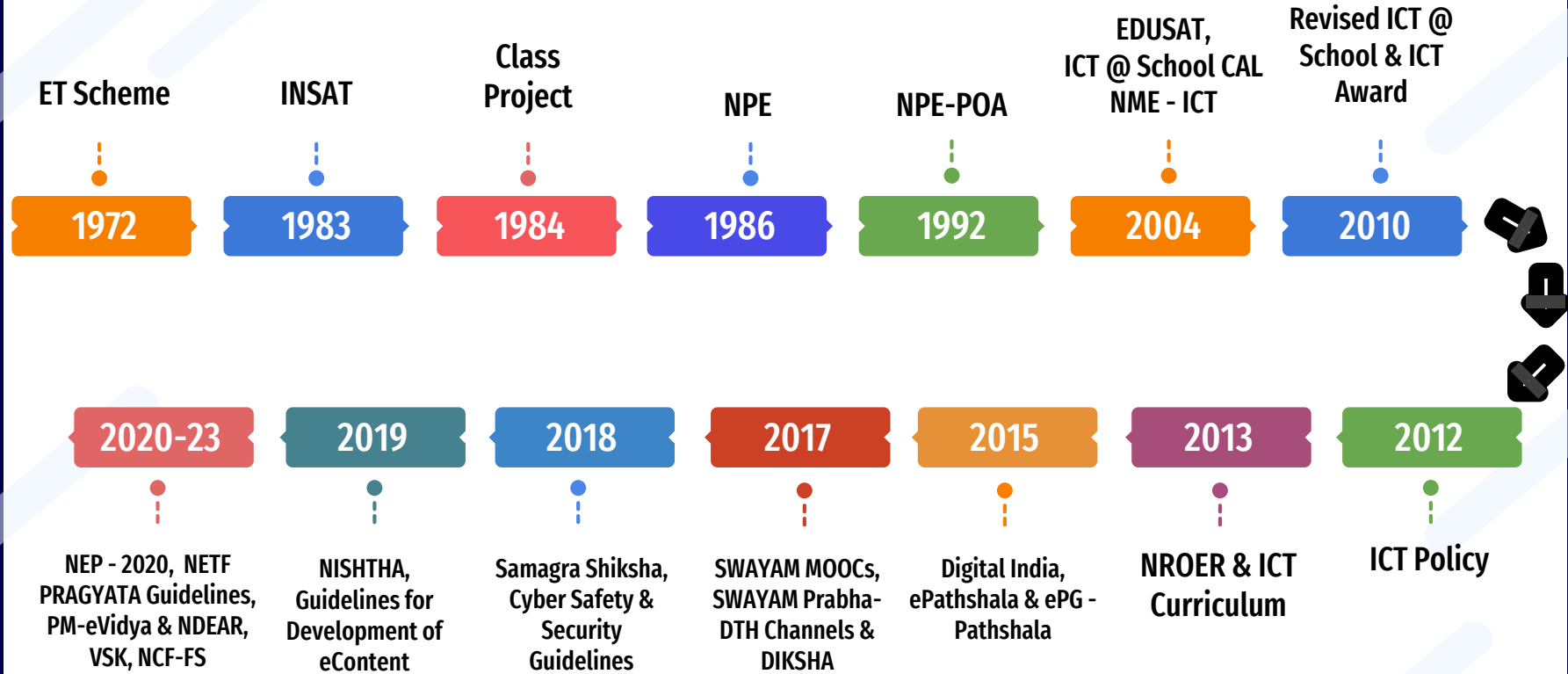
**Education
Scenario
in India**



Issues & Challenges of Implementing Technology in Education



ICT Use in India: Policy Directions



NEP 2020 - Thrust of Technological Interventions

Teaching-learning & evaluation processes

Supporting teacher preparation & professional development

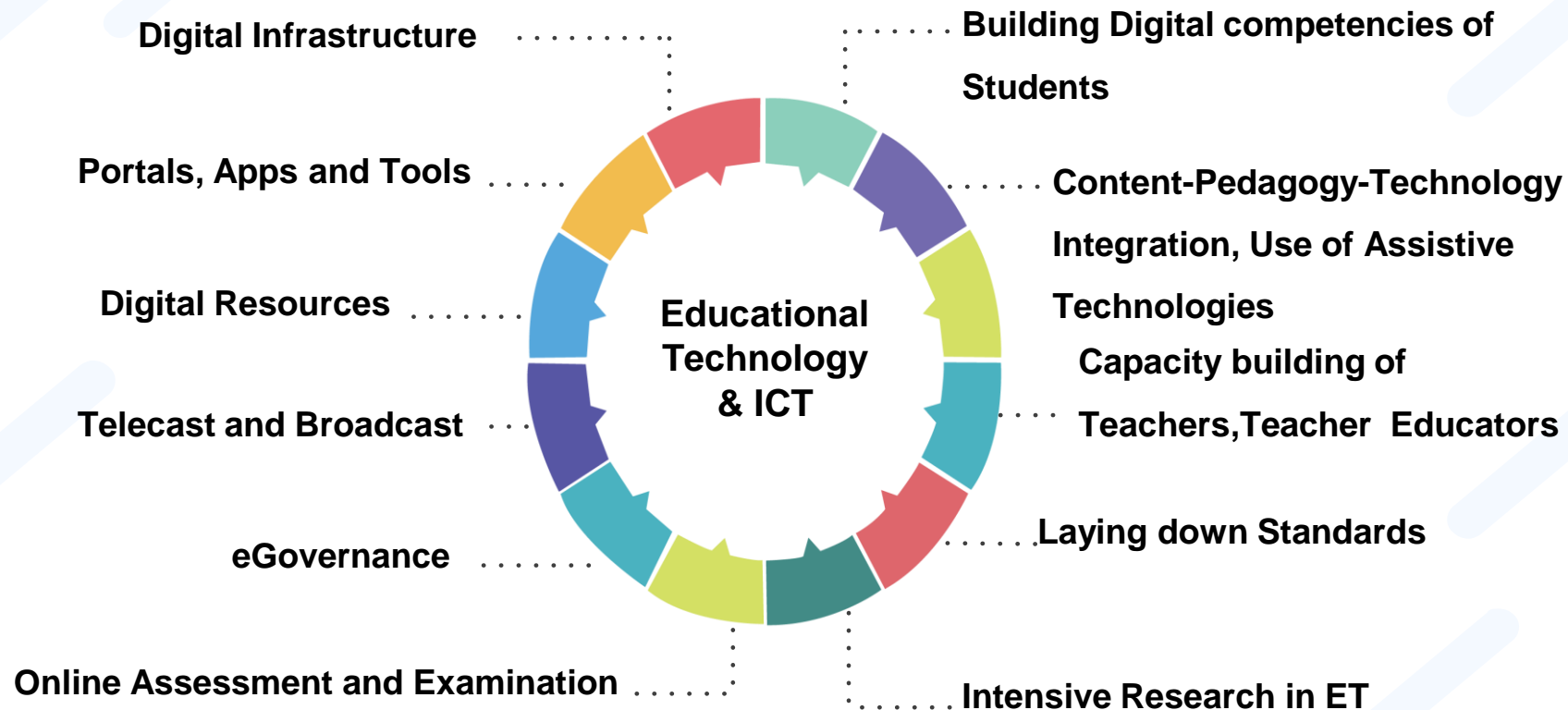
Enhancing educational access

Streamlining educational management and administration

Removing language barriers

Access to Divyang students

NEP-2020: Recommendations for Online and Digital Education



Digital Initiatives

<https://www.menti.com/alyh4yo72n2q>

Major Digital Initiatives

1

PMeVIDYA



2

DIKSHA



3

ePathshala



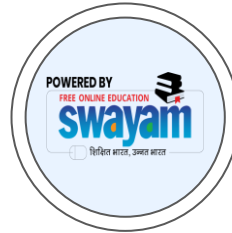
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NISHTHA



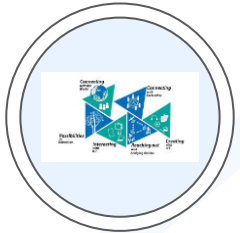
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SWAYAM



6

ICT Curriculum



Vidya Samiksha Kendra (VSK)

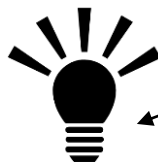
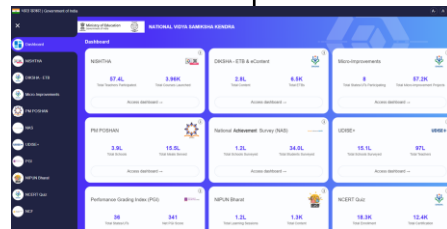
Vidya Samiksha Kendra : helping us see & monitor policy implementation and drive reforms



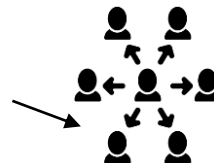
DATA FROM DIKSHA PROVIDES THE ABILITY TO SEE AND EMPOWER RELEVANT STAKEHOLDERS



Visibility: 'Ability to See' in real time



Insights: 'Ability to Make Sense' of data



Actionability: 'Ability to Amplify Actions' through coordinated efforts

Continuous Professional Development (CPD)



NISHTHA

42 Lakh (Ele), 7.2 Lakh (Sec),
12.6 Lakh (FLN), around 1.2
Lakh (ECCE)

- Digital Literacy
- Motivation
- Responsibility
- Data
- Incentives



CPD Courses

3,67,657 Certificates issued



MOOCs for School Education

3,70,000 enrolled including
students, teachers, parents
and civil service aspirants

*Platforms: MOODLE,
SUNBIRD, OPEN
edX, Google Course
Builder*



Online Capacity Building on ET/ ICT

4 Lakh + Certificates issued

NISHTHA



NISHTHA
(Elementary Level)



NISHTHA
(Secondary Level)



NISHTHA
for NIPUN
Bharat



NISHTHA
(ECCE)
(Ongoing)

18 Courses	12 Courses	10 Courses	06 Courses
30 States/ UTs and 7 autonomous organisations under MoE and MoD	33 States/UTs and 8 autonomous organization under MoE, MoD and MoTA	33 States/UTs and 5 autonomous organizations under MoE	29 States/ UTs initiated POs, CDPOs, Supervisors, DIET faculty from DRU for NFE & AE
11 language - Assam, Bengali, Bodo, English, Kannada, Hindi, Telugu, Odia, Gujarati, Punjabi, Urdu	10 language - Hindi, English, Urdu, Gujarati, Punjabi, Telugu, Kannada, Bengali, Marathi and Odia	11 language - Hindi, English, Urdu, Gujarati, Punjabi, Telugu, Kannada, Odia ,Bengali, Marathi and Mizo	2 languages - Hindi , English

42 Lakh

7.2 Lakh

12.6 Lakh

Target -1.2 Lakh

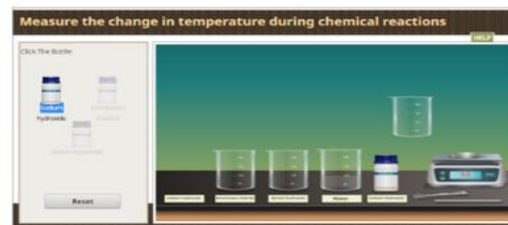
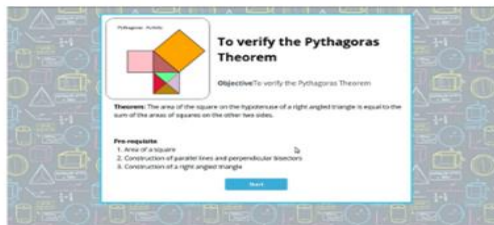
Glimpses of AR, VR labs and Experiential learning center

Virtual labs

Developed in collaboration with CDAC (Mumbai) and AMRITA Vidyapeetham

Available on DIKSHA portal/app

Link for Virtual Labs vertical- <https://diksha.gov.in/virtuallabs.html>



Phygital

Bridging of physical and digital worlds by 'energizing' textbooks...




...which lead to ease of access to relevant digital content across the nation and enable continuity of learning

State board, Grade 5th Textbook

NCERT, Grade 8th textbook

QR Code linking to relevant e-content (student and teacher facing content)

ಅಭ್ಯಾಸ - 1
ಗುಣಕಾರ



ನೀವು ಈ ಅಭ್ಯಾಸದ ಅಭ್ಯಾಸದ ನಂತರ ಕೆಳಗೆ ಸಾಮರ್ಥ್ಯಗಳನ್ನು ಗಳಿಸುವಿರಿ :

- 3-ಅಂಕದ ಎರಡು ಸಂಖ್ಯೆಗಳ ಗುಣಲಬ್ಧವನ್ನು ಕಂಡುಹಿಡಿಯುವುದು.
- 4-ಅಂಕದ ಸಂಖ್ಯೆಯನ್ನು 1 ಅಥವಾ 2 ಅಂಕದ ಸಂಖ್ಯೆಯಿಂದ ಗುಣಿಸುವುದು.
- 5-ಅಂಕದ ಸಂಖ್ಯೆಯನ್ನು 1 ಅಂಕದ ಸಂಖ್ಯೆಯಿಂದ ಗುಣಿಸುವುದು.
- ಗುಣಕಾರ ಕ್ರಿಯೆಯನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವುದು.

ಗುಣಕಾರದ ಗುಣಿತದ ಮೂಲ ಕ್ರಿಯೆಗಳಲ್ಲಿ ಒಂದು ಎಂಬ ಸಮಗತಿ ಕೆಳಗೆ ಗುಣಕಾರದ ಪ್ರಗತಿಯಂತೆ ಸೂಚಿಸಿದೆ. ಎರಡು ಸಂಖ್ಯೆಗಳನ್ನು ಒಂದೇ ಬಾರಿಗೆ ಗುಣಕಾರ ಮಾಡುವುದು. ಗುಣಿಸುವುದು ಸಂಖ್ಯೆಯನ್ನು 'ಗುಣಿಸಿ' ಎಂದು ಮತ್ತು ಗುಣಕಾರ ಸಂಖ್ಯೆಯನ್ನು 'ಗುಣಿಸಿ' ಎಂದು ಕರೆಯುತ್ತೇವೆ. ಈ ವಿಧದ ಸಂಖ್ಯೆಗಳ ಗುಣಕಾರದಿಂದ 'ಮೊತ್ತ' ಸಂಖ್ಯೆಯನ್ನು 'ಗುಣಲಬ್ಧ' ಎಂದು ಕರೆಯುತ್ತೇವೆ.

ಗುಣಿಸಿ × ಗುಣಿಸಿ = ಗುಣಲಬ್ಧ

ಗುಣಕಾರದ ಗುಣಲಬ್ಧಗಳನ್ನು

- ಯಾವುದಾದರೂ ಒಂದು ಸಂಖ್ಯೆ ಮತ್ತು ಕೆಳಗಿನ ಗುಣಲಬ್ಧದ ಯಾವುದೇ ಸಂಖ್ಯೆಯನ್ನು/ವಿಧವನ್ನು. ಉದಾ: $13 \times 0 = 0$, $8 \times 0 = 0$
- 1 ಮತ್ತು ಯಾವುದಾದರೂ ಒಂದು ಸಂಖ್ಯೆಯ ಗುಣಲಬ್ಧದ ಯಾವುದೇ ಸಂಖ್ಯೆಯನ್ನು/ವಿಧವನ್ನು. ಉದಾ: $9 \times 1 = 9$, $6 \times 1 = 6$
- ಗುಣಿಸಿ ಮತ್ತು ಗುಣಕಾರ ಸ್ವಲ್ಪಮಟ್ಟಿಗೆ ಬದಲಾಯಿಸಿದಾಗ ಅಭ್ಯಾಸ ಗುಣಲಬ್ಧದ ಒಂದೇಯಾಗುತ್ತದೆ. ಉದಾ: $4 \times 7 = 28$, $7 \times 4 = 28$.

ಪ್ರಗತಿಯಂತೆ ಅಭ್ಯಾಸ

1 ಗುಣಲಬ್ಧವನ್ನು ಕಂಡುಹಿಡಿಯಿರಿ.

1) 35×0	4) 1×235
2) 164×1	5) $0 \times 1,001$
3) 100×0	6) 1×55



Land, Soil, Water, Natural Vegetation and Wildlife Resources



In a small village in Tanzania, Africa, Mamba gets up very early in the morning to fetch water. She has to walk a long way and returns after a few hours. She then helps her mother in the house and joins her brothers in taking care of their goats. All her family owns a piece of rocky land around their small hut. Mamba's father can barely grow some maize and beans on it after tilling hard. This is not enough to feed their family for the whole year.

Peter lives in the heart of the sheep rearing region in New Zealand where his family runs a wool processing factory. Everyday when he returns from school, Peter, watches his uncle taking care of their sheep. Their sheep yard is situated on a wide grassy plain with hills in the far distance. It is managed in a scientific way using the latest technology. Peter's family also grows vegetables through organic farming.

Mamba and Peter stay in two different parts of the world and lead very different lives. This difference is because of the differences in the quality of land, soil, water, natural vegetation, animals and the usage of technology. The availability of such resources is the main reason places differ from each other.

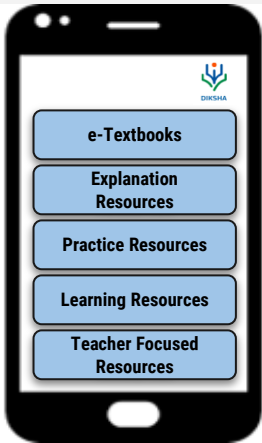
LAND

Land is among the most important natural resources. It covers only about thirty per cent of the total area of the earth's surface and all parts of this small percentage are not habitable.

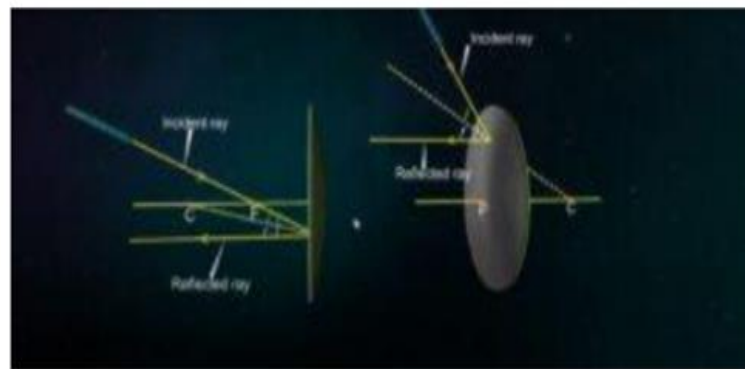
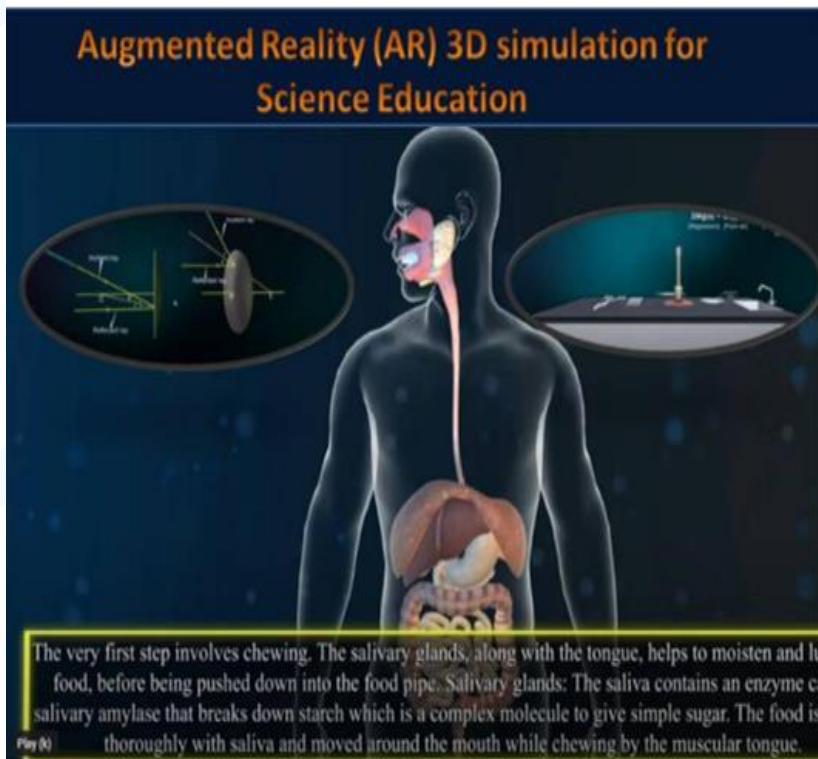
The uneven distribution of population in different parts of the world is mainly due to varied characteristics

Let's do
Observe the land, type of soil and water availability in the region you live. Discuss in your class, how it has influenced the lifestyle of people there.

Do you know?
Ninety per cent of the world population occupies only thirty per cent of land area. The remaining seventy per cent of the land is either sparsely populated or uninhabited.



Augmented Reality (AR)



Glimpses of AR, VR labs and Experiential learning center



Experiential Learning Centre
Developed in collaboration with Jubilant Bhartia and Ganpat University



- **Repository of Open Educational Resources**
- **Collaborative Platform**
- **Curriculum-aligned content**
- **Analytics**
- **Multilingual support**
- **Offline access**

Dedicated Verticals for



Foundational Literacy and Numeracy (FLN)



Adult Education



Virtual Lab



Children with special needs (CWSN)



Vocational Education

Jaadui Pitara



6500+ ETBs by States / UTs



3,12,930+ eContent



9300 + eCourses



31.2 million page hits on daily basis



**Supports 36 languages
Including 22 scheduled
languages and indian sign
languages (ISL).**

DIKSHA's building blocks were used for multiple use cases



**Energised
Textbooks**



**Teacher
Professional
Development**



**Question
Bank**



**Digital
Credentials**



Collaboration



Phygital



**Content
Sourcing**



**Content
Authoring**



Quizzes



cQube



Surveys



**Language
Translations**



**Content
Consumption**



**Data Tools
&
Dashboards**



Chatbot



Mentoring



**Sunbird Registry and
Credentials**

Vidya Samiksha Kendra - CCC
System to monitor, mentor,
manage the whole ecosystem

CIET - NCERT develops...

variety of digital contents



Energized books



Assessment questions



Infographics



eCourses

Guidelines/ Handbooks



Videos, UDL videos



Interactive &
Immersive content



Audios, Talking
Books, Audio Books



Worksheets

eContents



eContent in curricular and generic areas various Indian Languages



Age appropriate content for various stakeholders - Students, Teachers, Teacher Educators, Parents etc



Universal Design of Learning (UDL) based content




Collaboration and Partnership

Game Based Learning



Place Value(Ones, Tens and Hundreds)

Drag and drop the note(s) and/or coin(s) you need to buy this object.

Drop cash here



Rs. 15



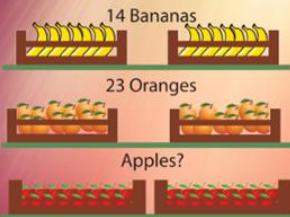
☒ Check

3 / 7

Reuse <> Embed H-P

Addition and Subtraction

A fruit seller has 69 fruits. Out of which 23 are oranges, 14 are bananas and some apples. How many apples does the fruit seller have?



☐ 33

☐ 32

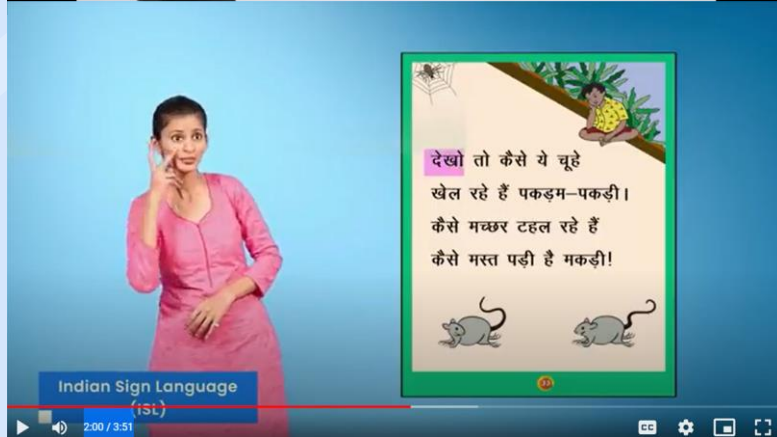
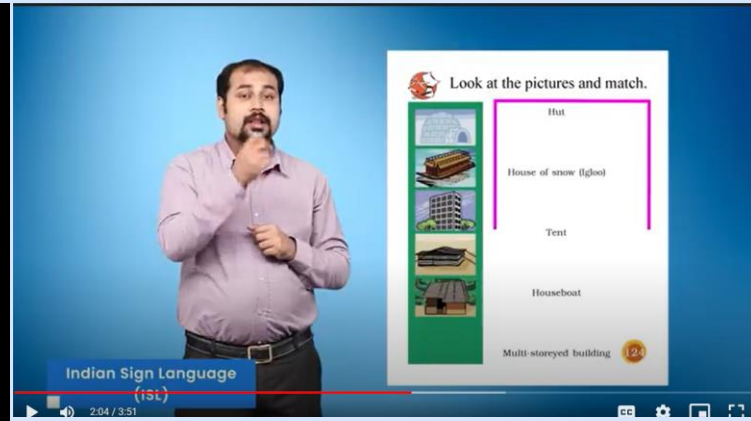
☐ 30

☒ Check

5 / 7

Reuse <> Embed H-P

eContents based on UDL





19,29,88,268 visitors on Portal

30 M users in UMANG

App Rating

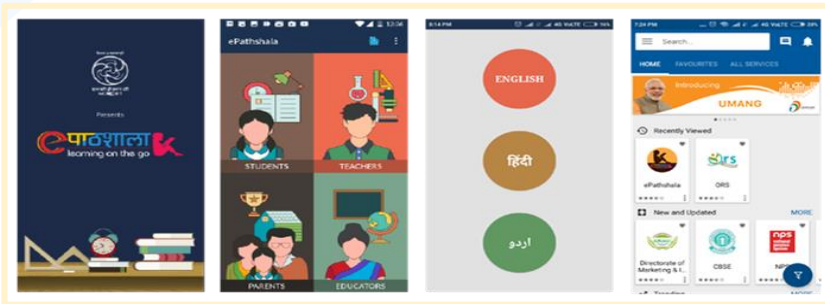
- 4.3 on Google play store
- 3.5 on Apple Store

App downloads/Users

- 55,47,565 on Google
- 21,61,272 on Apple

Total Books as ePub: 608

Total no of Flipbook: 539



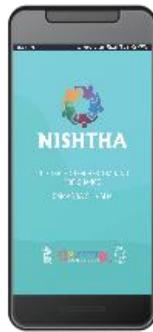
Dissemination through Educational Apps



DIKSHA



ePathshala



NISHTHA



PMeVidya - AR



NAS



ePathshala
Scanner



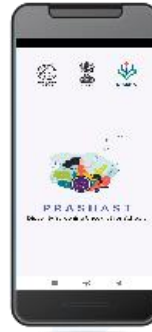
SSP Mauritius



NCF



DISaNC



PRASHAST

PRASHAST



https://play.google.com/store/apps/details?id=com.dscs.app&hl=en_IN&gl=US&pli=1

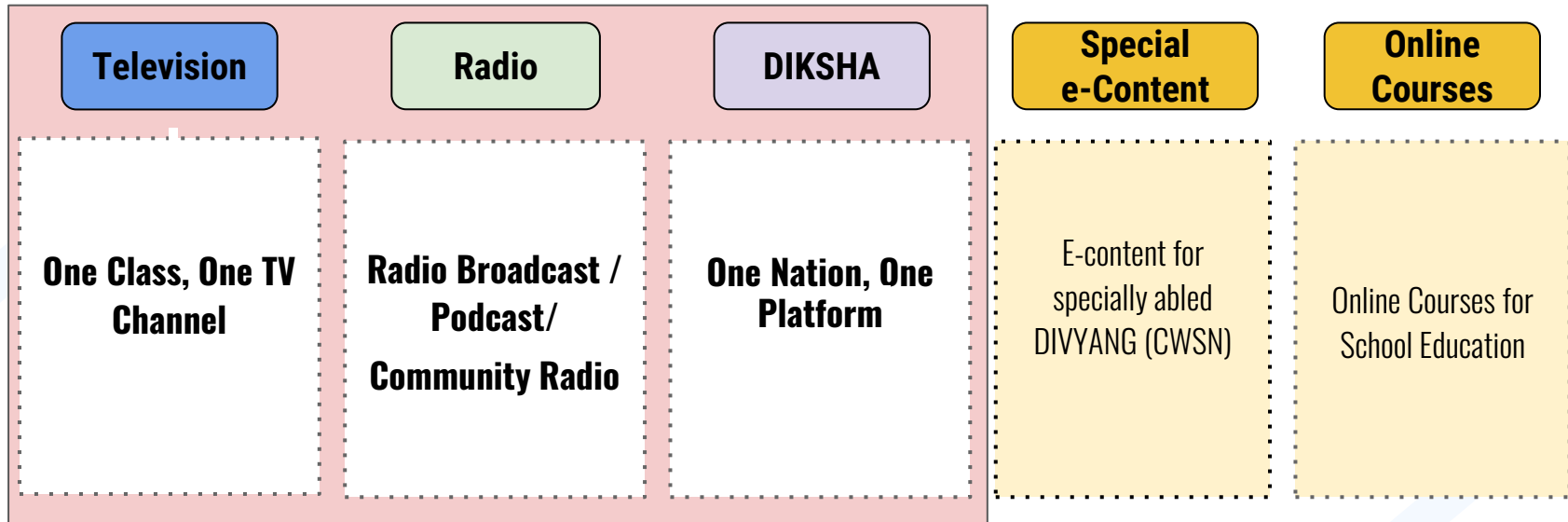
https://ncert.nic.in/pdf/DSCS_booklet.pdf

PM e-VIDYA



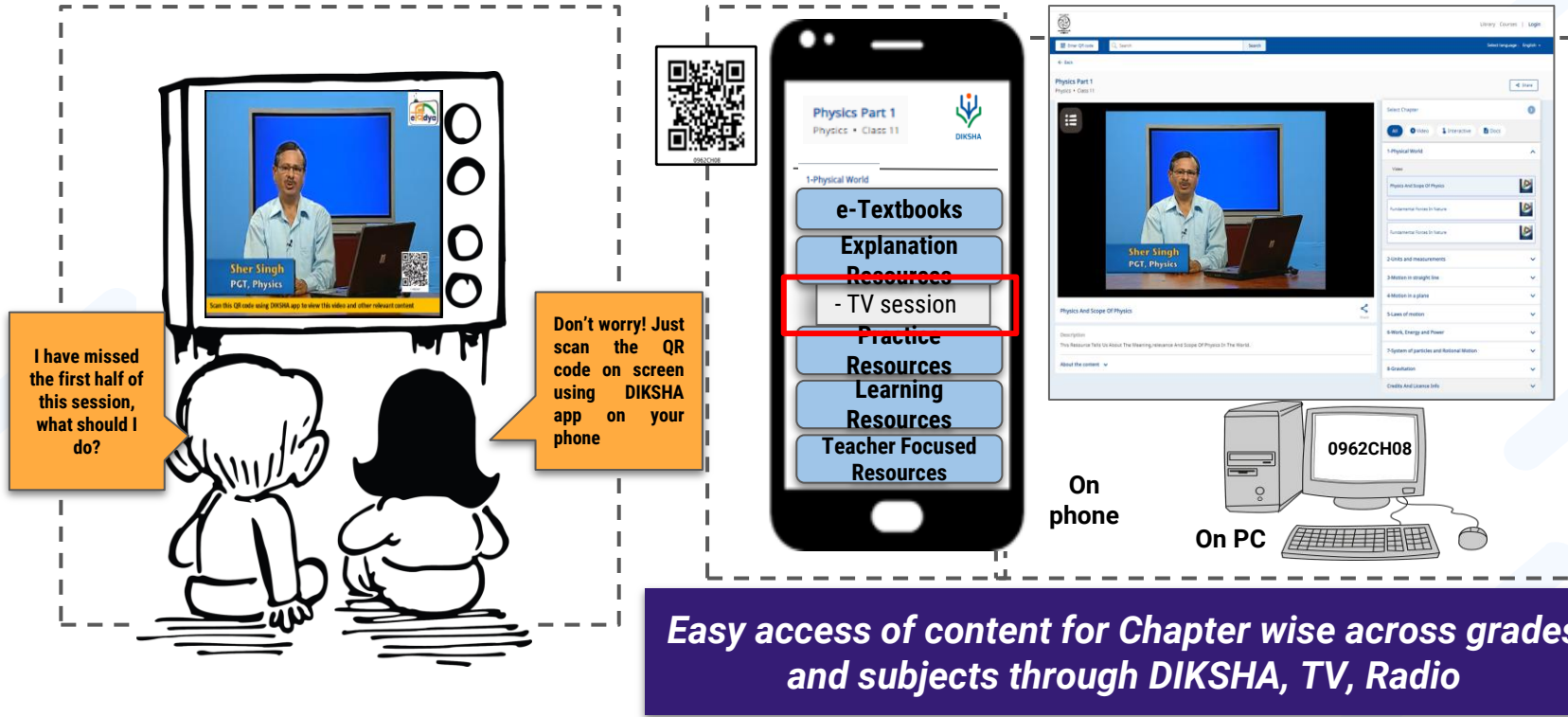
PM e-VIDYA focuses on unification of efforts, enabling multi-mode access to education

PM e-Vidya focuses on developing multi channel learning continuum



DIKSHA, Television and Radio are the focus of discussion for resilient and coherent access

NCERT has leveraged DIKSHA to enable Coherent Access



Present status of PM eVIDYA 12 DTH TV Channels



6,789 video programmes

Both in English and Hindi medium for classes 1-12

4,247 ISL Programmes

ISL video lessons
telecast



5,416 Live Show

Covering 3435.5 hours based on AAC

9,422 Content Reviewed

NCERT, NIOS, NVS, RILM, States/UTs



3,994 pieces of curriculum-based radio programmes broadcasted on 398 Radio Stations & 2,557 live sessions on iRadio and JioSaavn Mobile apps

Television



12 DTH TV Channels on 24×7 basis daily and simulcast on Jio TV App, Private cable operators, YouTube channel etc.



6,903 curriculum based videos developed for school education in English, Hindi including Indian Sign Languages (ISL) including vocational education



One hour live session for each class for clarification of doubts



IVRS support for addressing queries of students

Radio



3,980 pieces of curriculum-based radio programmes (Classes 1 -12)

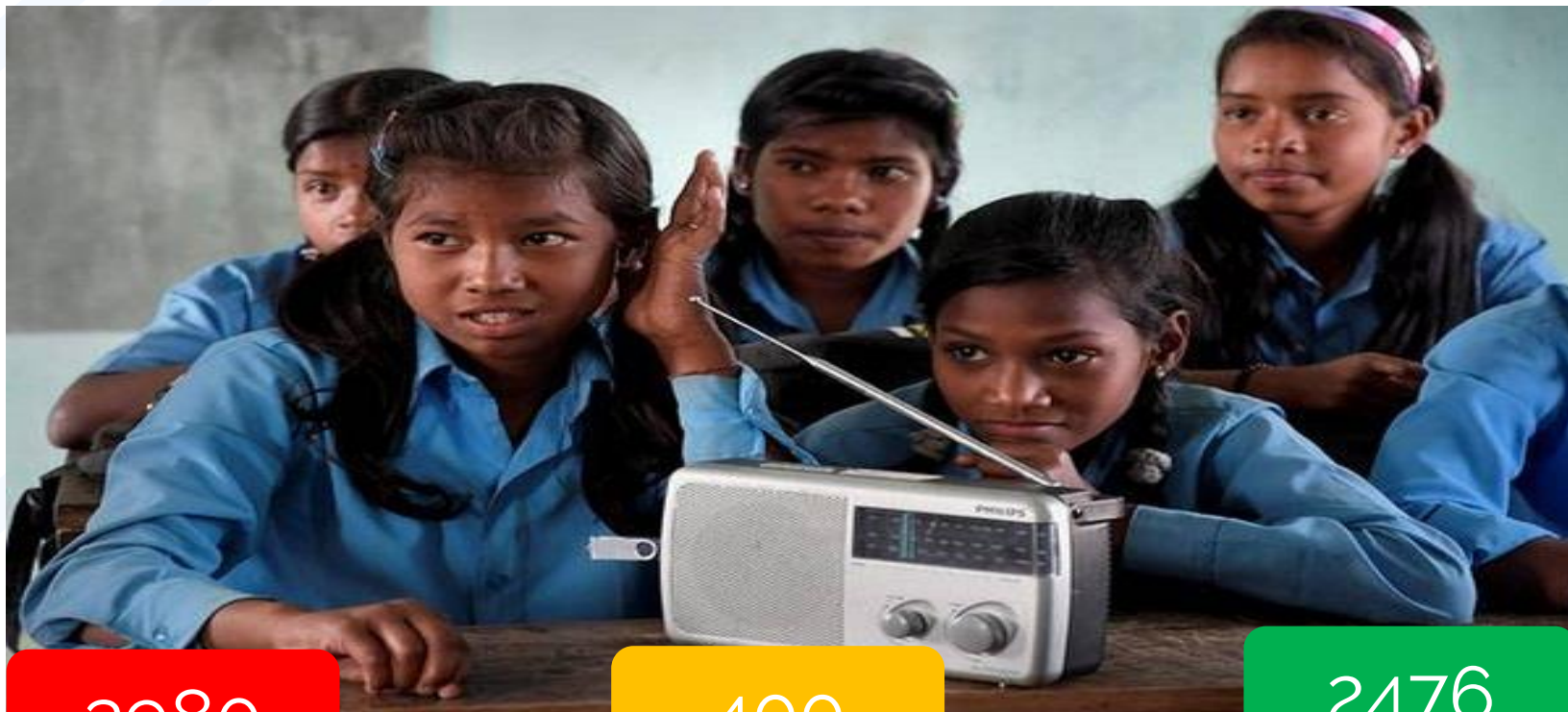


Broadcast on 400 Radio Stations (11 GyanVani FM Radio Stations, 257 Community Radio Stations, 132 All India Radio stations), iRadio and JioSaavn Mobile apps



2,476 live programs podcast on iRadio

Radio



3980

Curriculum based radio
program(Class 1-12)

400

Radio Stations

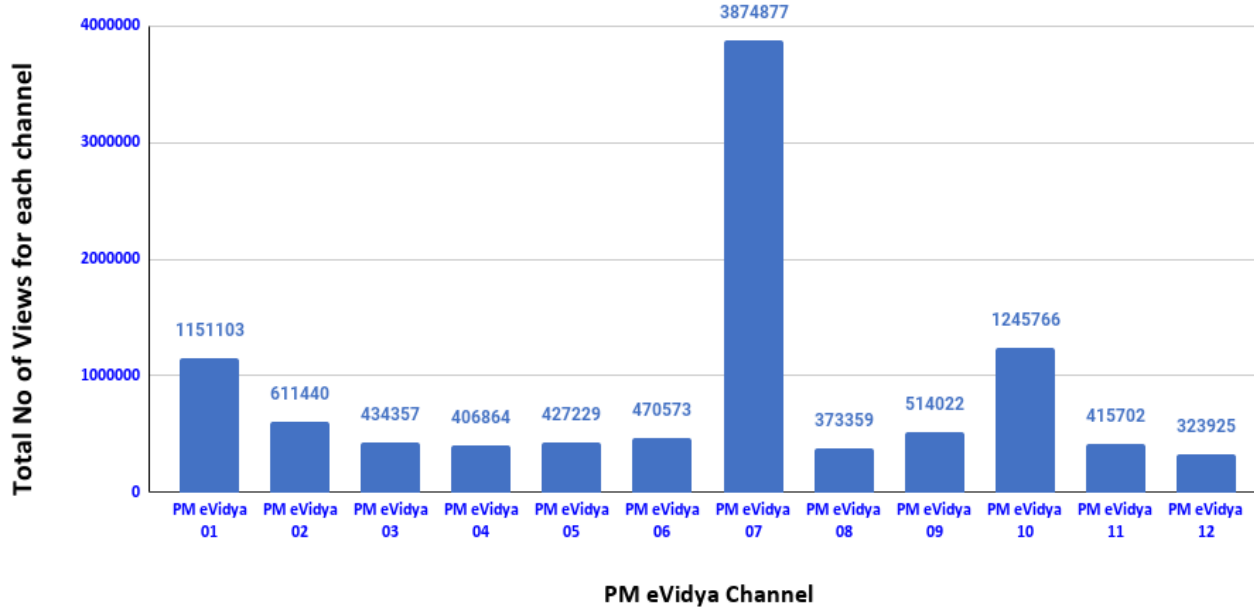
2476

LIVE radio podcasts

Viewership details

PM eVIDYA Channel

Total No. of Views for PM eVidya Channels on JIO TV Mobile App (Sep 2020 - Nov 2022)



Feedback Mechanism



IVRS, Email & WhatsApp Group



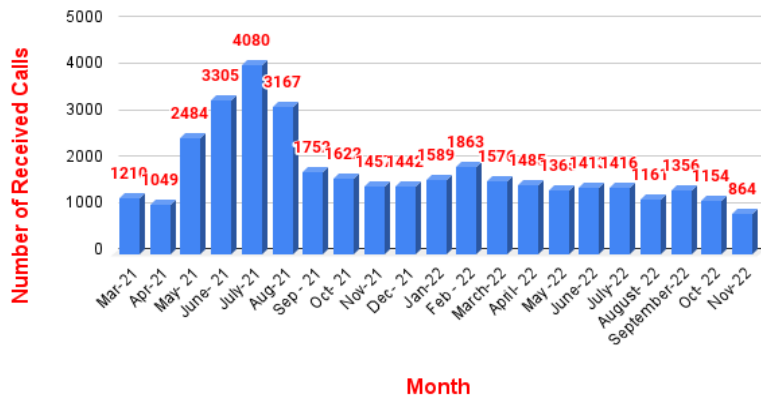
Radio Broadcast



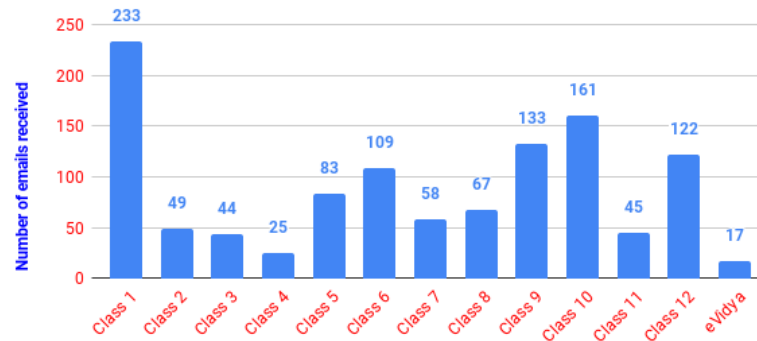
TV Telecast

- Email: **1,182** Emails received
- PM eVIDYA IVRS no. (8800440559)- **40,949** calls received
- Manodarpan IVRS no. (8448440632)- **23,714** calls received

Month-wise PM eVidya IVRS Calls Status

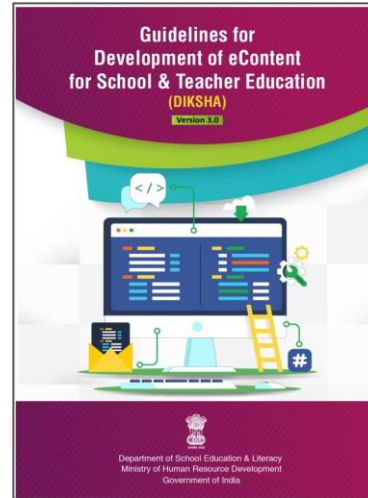
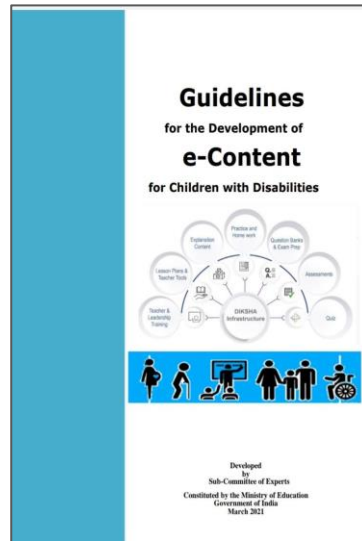
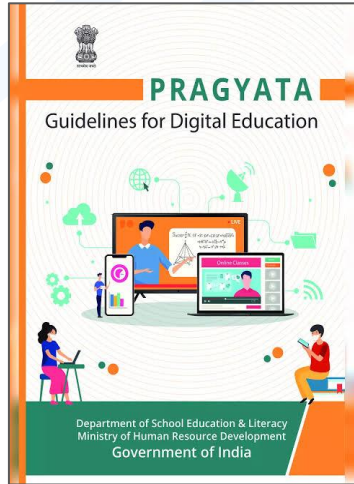


Feedback received through emails for PM eVIDYA 12 DTH TV Channels



Mail Feedback Summary of PM eVIDYA Channels

Standards & Guidelines for Digital Education



Cyber Safety Guidelines

English



Hindi



International Collaboration



Trained master trainers of Mauritius on developing and disseminating OER, Developed a portal and mobile app



School Online Programme - Collaboration between Indian and Israel Schools



Trained master trainers of Nepal on developing and disseminating eContents and OER



School Online Programme - Collaboration between Indian and Korean Schools



Shared eContents developed by NCERT

Appreciations





@ncertofficial



NCERT OFFICIAL



@ncertindia



@ncert | @ciet_ncert

