eContent Categories matrix

Type of eContent	Producer	Learners/Audience					
		Foundational Stage (3-8 years or ECCE 3-6 & Class I and II) Learners	Preparatory Stage (8-11 years or Class III to V) Learners	Middle Stage (11- 14 years or Class VI to VIII) Learners	Secondary Stage (14- 18 years or Class IX to XII) Learners	Teacher Education- Stage (Pre- Service & in Service Teachers) Learners	Adult Education
Audio	Government Organisations(NCERT/ SIETs/EMMRCs/CEC/RIEs/ Others)						
	Independent eContent Creators/Institutions/ (other than the Govt.)						
	Teachers/Teacher Educators						
	College Students (In Diploma/UG/ PG programs or PhD Scholars)						
	Children					NA	NA
Video/ Animations	Government Organisations(NCERT/ SIETs/EMMRCs/CEC/RIEs/ Others)						
	Independent eContent Creators/Institutions/ (other than the Govt.)						
	Teachers/Teacher Educators						
	College Students (In Diploma/UG/ PG programs or PhD Scholars)						
	Children					NA	NA
New Media [(Immersive Experience/ XR in Education, Digital Educational Games and Apps)]	The learner/audience cat remain the stakeholders o Children, and Parents)	-					

Note : CIET, NCERT reserves its right to merge any categories at the stage of evaluation.

1 : All India Children's Educational eContent Competition (AICEeCC) 2024-25

ABOUT THE CATEGORIES OF THE COMPETITION

Type of Media

Educational eContent comes in a variety of formats. Some varieties with examples have been listed down below for reference.

1. Video

A video can be considered an animated or motion picture that includes audio to provide viewers with academic knowledge and information.

The videos must be in professional / broadcast medium, i.e. .MOV or .AVI, .MP4, .MKV, .WAV format with a resolution of 1920 x 1080 (High Definition (HD)]. Avoid low-quality formats like .3gp, .mpv.

There are a variety of formats in videos based on the style of presentation, content, etc. Some of the popular formats are as follows:

1. Documentaries

• Educational Documentaries: In-depth explorations of historical events, scientific phenomena, cultural studies, or social issues aimed at educating viewers

Eg:https://drive.google.com/file/d/1DDRDM6gyOIMstwaNJxKW8V8xNaPqthOk/ view?usp=drive_link

Eg:https://drive.google.com/file/d/1jf-e1eva3ukRJpuN4IJw7vXphboWcv0O/view?usp=drive_link

Eg:https://drive.google.com/file/d/1nR8xK9Ly8ek38qfYRdFVYkQH4iglbHTp/view

- Environmental Documentaries: Focus on the burning environmental issues, including facts, stats, concepts, and research studies
 Eg:https://drive.google.com/file/d/1hMd7HBqsABKIOZSPN6xVs1UFy9bM-yA2/view?us-p=drive_link
- **Biographical Documentaries:** Focus on the life and achievements of notable individuals, providing educational insights into their contributions and ideas Eg:https://youtu.be/-gu0egv9nE0?si=fGopT5-HeFAO3IEI

2. Animated Educational Videos

• **Explainer Animations:** Short, animated videos that break down complex concepts into easily understandable visuals and narratives.

Eg:https://drive.google.com/file/d/ISW10uPr6Ig7cCWguadtxUBC4I916ObqL/view?usp=drive_link

Eg:https://drive.google.com/file/d/1jN8SkE3OXx9bpGltRI3MX1Yd34g-fJg4/view?usp=drive_link

• Educational Cartoons: Animation aimed at younger audiences, teaching concepts through stories, characters, and visuals.

Eg:https://drive.google.com/file/d/1whdqWzr75t1gj8diHOGE58hAle_mm2ll/view?usp=drive_link (Stop Motion Animation)

Eg:https://drive.google.com/file/d/1P_kz6fhD5BZuU_5XrxMvxISHDwYe27CW/view?usp=drive_link

Eg:https://drive.google.com/file/d/1xR1eBQoR7hySQIOrhV5Iq64FV9Rcfnc1/view?usp=drive_link

3. MOOC (Massive Open Online Course) Videos

Course Modules: Videos that are part of more extensive online courses, covering topics in a structured, curriculum-based format.

Eg:https//youtu.be/H8SzjNBdly4?si=9IXzkaj7Va7oVge2

• **Guest Lectures:** Videos featuring guest speakers or experts as part of an online course, providing diverse perspectives on the course material.

4. Field Trip Videos

• Virtual Field Trips: Videos that take viewers on guided tours of museums, historical sites, natural environments, or scientific labs, with expert commentary.

5. Educational Drama

• **Dramatisations:** Video reenactments of historical events, literature, or social issues used to teach and engage viewers in a narrative format.

Eg:https://drive.google.com/file/d/11dGW0uCnTd5cmqGwVj4XnHvpmnttBHJp/ view?usp=drive_link

Eg:https://drive.google.com/file/d/1XFhOKO8IUCdZeYE7c3Y6kXcolj5b92If/view?usp=drive_link

Role-playing videos: These videos feature actors playing out scenarios that teach specific skills, such as conflict resolution or counselling.
 Eg:https://drive.google.com/file/d/lvdLmBz9Un2n6Oen2ehac39ffjJX3bZ3A/view?us-p=drive_link (Pedagogy Based)

6. Lecture Videos

• **Recorded Classroom Lectures:** Videos of live lectures delivered in a classroom setting, often used for distance learning.

Eg:https://drive.google.com/file/d/1v45ODh8rjKZb2jYhTZy4_XH_SIDIFaNy/view?usp=drive_link

• **Studio-Recorded Lectures:** Lectures specifically recorded for online courses or educational platforms, often with enhanced production quality.

7. Language Learning Videos

- Conversational Practice: Videos that teach languages through dialogues, cultural insights, and vocabulary building.
 Eq:https://youtu.be/7PXGJUu8cVq?si=SAkSZkBtlWZ5JCoz
- **Grammar and Vocabulary Lessons**: Structured lessons focusing on specific language skills, often using subtitles and repetition for reinforcement.

8. Art and Cultural Videos

• Videos showing the traditional arts and cultures of different regions and communities act as a form of preserving the tangible heritage and sometimes themselves becoming the intangible heritage.

Eg:https://drive.google.com/file/d/13luiBxeGQ6Se85TEvwDAzbnsBdn4X1z9/view?usp=drive_link

Eg:https://drive.google.com/file/d/1Ah-cd9g3w7PqzC9fouC5SCcz3sdw_O_k/ view?usp=drive_link

 Instrument Tutorials: Videos teaching how to play musical instruments, often including step-by-step instructions and practice exercises.
 Eg:https://drive.google.com/file/d/1GIKJeviZmS1m5uk_sb6p0KVXCRRAeeT6/view?usp=drive_link

9. Health, Physical & Life Skills Education Videos

- Fitness Instruction Videos: Videos that guide students through exercises are often used in physical education programs.
 Eg:https://drive.google.com/file/d/1WzoPob_JclwyhXIBd63IvDVvg37ofHtG/view?usp=drive_link
- Health Education Videos: Content focused on health topics like nutrition, mental health, or sexual education.

- Life Skill Videos:
 Eg:https://youtu.be/GnGEWc8aVXc?si=9hNc1n5knJSuVTEe
- **10.** Art Technique Demonstrations: Videos that demonstrate specific art techniques, such as painting, drawing, or sculpture.

Eg:https://youtu.be/dmkbP_nf8AI?si=fXX0sB-FAExr0mCY

11. Special Needs Education Videos

• Sign Language Videos: Educational content presented in sign language for students with hearing impairment.

Eg:https://drive.google.com/file/d/13842FI_NzcODnOhAbAtOIF01cXaXMAI1/view?usp=drive_link

• Sensory Learning Videos: Videos designed with sensory elements to support learners with special educational needs, such as autism.

12. Experimental Learning Videos

- Science Experiments: Videos demonstrating scientific experiments, explaining the process, and discussing the results.
 Eq:https://youtu.be/G9uE9kqVo5s?si=2b2_BUn7ypOwQDJj
- **13. Project-Based Learning Videos:** Videos that show the process of completing a project are often used in STEM education to illustrate problem-solving and design thinking.

Eg:https://drive.google.com/file/d/1wu0_gBqr_obsmP4yOZUxRLFf3fDOYK-K/view?usp=drive_link

Eg:https://drive.google.com/file/d/1PKyzNuEcpyqN7flBVhcdoK8AbJEq8HIY/view?usp=drive_link (demonstration video for teachers, how to use graphics in teaching concepts)

14. Educational Games and Gamified Videos

- **Game-Based Learning Videos:** Videos that are part of an educational game, where gameplay is used to teach or reinforce concepts.
- **Gamified Lessons:** Videos incorporating game elements like points, levels, or challenges to make learning more engaging.

15. Videos for Awareness about Government Initiatives

Eg:https://drive.google.com/file/d/1GWauQmnBI3EfkRcUG9ZIzKg0IORICI_I/ view?usp=drive_link

2. Audio

An audio program consists of sound, either natural or created sound, or a mix of both. The program can bring to the learner the sounds of people and places, the sounds of real and imagined situations, and sounds designed to stimulate, support, illustrate, and enrich the learning process.

In India, Akashvani has broadcast many educational audio programs; they explore variety of formats in audio programs, from audio dramas, features, science programs, regional and folk music, to programs based on health and family welfare, farm and home to magazines etc.

There are other formats that can be explored:

- Educational Podcasts: These are regularly scheduled audio programs focused on a specific educational topic, often including interviews, discussions, and expert insights. Eg:https://drive.google.com/file/d/1cl_Jnwo1ICJ8UsUQvWMbQpyUkDvXwiQL/view? usp=drive_link
- 2. Lecture-Based Podcasts: Lectures dealing with a particular concept in a lecture mode.

3. **Storytelling :** These programmes narrate stories through voice, sound effects, and music. They engage listeners by creating immersive auditory experiences and helps in developing listening comprehension.

Eg:https://drive.google.com/file/d/1B2fS-LJ60BP4paZeRaZaQCsEYyP35iXG/view?usp=drive_ link

4. **Textbook Audiobooks:** Audio versions of textbooks that allow students to listen to course material.

Eg:https://ciet.ncert.gov.in/audio-book/40

- 5. **Fiction/Non-fiction Audiobooks:** These are used in language arts and literature courses to analyse text through listening.
- 6. **Audio Lessons:** Standalone audio programs focusing on language learning, often including dialogues, vocabulary, and pronunciation practice.
- 7. Language Immersion Programs: These audio programs are designed to immerse learners in the target language through conversations and stories.
- 8. **Guided Imagery:** Audio programs that use narration to guide listeners through visualisations or mental exercises, often used in health and wellness education.
- 9. **Step-by-Step Tutorials:** Audio instructions guiding listeners through specific processes or activities, such as art, meditation, or cooking.
- 10. **Educational Songs:** Music composed with lyrics that teach specific concepts (e.g., the alphabet song, math facts).
- Drama: Any program that uses sound effects, dialogue, and music to help the listener imagine the story and characters
 Eg:https://drive.google.com/file/d/leD7ct7AM6ZNCQbjqEt0cEzYiNOWXSqn7/view?usp=drive_link
- 12. **Docu-drama:** A documentary presented in the form of a drama. Eg:https://drive.google.com/file/d/IME_69uSMHHEgII50_Ecpk60on8NSpOB1/view?usp=drive_link

The common file formats for audio programs are .mp3, .wav, .aac, .ogg, etc.

3. New Media

1. Immersive Experience/ XR based educational content

Educational immersive experience or extended reality (EduXR) encompasses technologies like virtual reality, augmented reality, and mixed reality, merging digital and physical worlds. Using devices like VR headsets, smartphones etc., XR (extended reality) is becoming common in everyday applications like Google Maps.

EduXR blends real and/or synthetic environments, engaging learners with defined educational goals to support or achieve learning outcomes. Some of its types are:

1. Virtual Field Trips: Content that take viewers on guided tours of museums, historical sites, natural environments, or scientific labs, with or without expert commentary embedded in it.

Eg:https://360degree.mijr.org/vrtajmahal

- 2. **Branching Scenarios:** eContent that allow viewers to make decisions at certain points, leading to different outcomes and personalized learning experiences.
- 3. **Quizzing Videos:** Videos embedded with questions or activities that require viewer interaction, often used in e-learning environments.

The eContent in this category can't be a simple video. Interactivity with the users (the user should give input to move further in the system/video) or the environment around them is an essential element of an immersive eContent.

The common file formats are MP4 (H.264), WEBM, MKV, ProRes, etc.

2. Digital Educational Games

Digital educational games are interactive computer-based experiences designed to engage learners while teaching specific skills or knowledge.

Educational Games, sometimes called serious games, are interactive simulations that replicate real-world scenarios or processes aimed primarily at solving problems.

Digital Game-based Learning is a type of pedagogical practice, that utilizes computer games to enhance teaching and learning, focusing on the educational potential of digital games. In the 21st century, these games can be accessed on tablets, computers, mobile phones, PlayStations, and more, drawing significant attention for their pedagogical applications.

The essential elements for an eContent to be categorised as a digital educational game in the competition is:

- 1. Specific Educational Learning Objectives
- 2. A product of some form of coding
- 3. Active participation of the user

The common file formats are .exe, .dmg (for iOS), .pkg (for iOS), .tar, .tarz, etc.

The following fundamentals can serve as an equally good guide in creating digital educational games:

- Topic: Plot your game's learning outcomes
- Type: Choose your gameplay concept
- Goal: Pinpoint your game's objective
- Mechanics: Map out your game's action system
- Rules: Set your game's expectations

3. Digital Educational Apps

An educational app is a small computer program that can be downloaded or accessed on a browser (Web Apps) in a mobile computing device (Smartphone, tablet).

The common file formats are .apk (Android Application Package), .ipa (iOS App Store Package), HTML5, CSS3, JavaScript, etc.

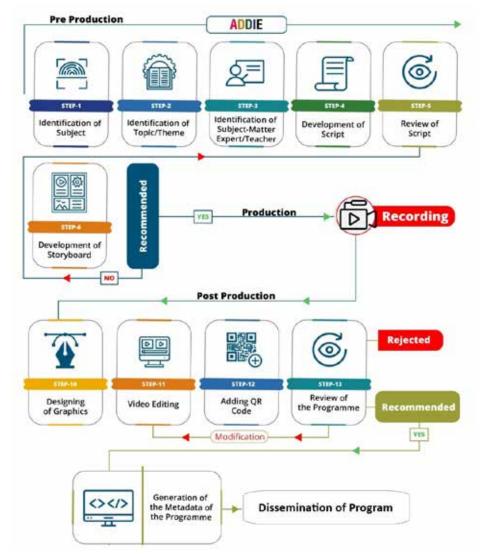
Educational apps can also be game-based, but they can also be LMS apps, Audio Book apps, etc.

Problem Statements for New Media

The following problem statements (suggestive) can guide the development of educational games/apps/software:

1. Al-based assessment of learners: The idea of assessment has always been closely linked to learning and has undergone multiple changes from being a mechanical year-end activity to being an integral part of learning. Teachers and learners are gradually adapting to this change, with assessment still being associated with paper-pencil tests, where the frequency of such tests has increased. Formative assessments, too, have been moulded into the shape of summative paper-pencil assessments. Therefore, transforming the nature of assessment is the need of the hour, and making its integration into everyday learning seamless for the student as well as for the teacher, should be the objective of this new media app/software. Al integration can be used to make learner-specific assessments, etc., which could be possibilities that can be explored in the project.

- 2. **Students' ePortfolio with data analytics:** Assessment of the children in the classroom remains a challenge. Using a variety of assessment activities requires a smart and efficient way of documentation of those outcomes too, therefore this project should aim at making the process of creating a student ePortfolio easier.
- 3. **AI-based classroom simulator:** Practice teaching is an essential part of any teacher education program where the intern-teachers are supposed to teach students in real-world settings. Therefore, the aim of this simulation app/game should be to create a virtual classroom experience for intern teachers to practice implementing lesson plans. The student can provide their lesson plan in a certain format, based on which the situation can be set up.
- 4. Project Planning and Monitoring App/Software: Managing multi-stage projects, especially in educational settings, requires efficient tracking and coordination. This app should provide tools to monitor workflows, assign tasks, track deliverables, and send notifications for delays, ensuring projects remain on schedule and objectives are met on the lines of MIS.
- 5. **Educational video content production process optimiser:** Education content at a larger scale requires tracking at multiple stages. The three major stages of video production are pre-production, production, and post-production, and the activities involved in each stage are given in the flow chart below. Each activity requires a coordination between multiple people:



Therefore, the app/software should be made with an aim to streamline this process and facilitate tracking and coordination between different teams.

Note:

Submitting an eContent that meets the criteria outlined above does not guarantee an award. The information provided is solely for knowledge and exploration. The parameters for an award-winning program extend beyond what is mentioned here and are determined at the discretion of the jury.

NCERT also reserves its rights to merge any categories at the stage of evaluation.

Learner/Audience Categories

1. School Education:

The content under the school education structure should cater to the following structure of school education (5+3+3+4):

(a) Foundational Stage Learner: 3 years (Anganwadi/ preschool/Balvatika) (Ages 3-6) + 2 years (Class 1 & 2) (Ages 6-8)

The Foundational Stage encompasses five years of flexible, multilevel, play and activitybased learning, guided by the principles of ECCE. This stage emphasises diverse and adaptable learning experiences, including play-based, activity-based, and inquiry-based methods. The curriculum covers various topics such as alphabets, languages, numbers, counting, colours, shapes, indoor and outdoor play, puzzles, logical thinking, problemsolving, and creative arts like drawing, painting, craft, drama, puppetry, music, and movement. Additionally, it focuses on fostering social skills, sensitivity, good behaviour, ethics, cleanliness, teamwork, and cooperation.

The ultimate goal of ECCE is to achieve optimal outcomes in physical and motor development, cognitive development, socio-emotional and ethical development, cultural and artistic growth, and the advancement of communication skills, early language, literacy, and numeracy. Importantly, India's rich local traditions, developed over millennia, encompassing art, stories, poetry, games, songs, and more, should be thoughtfully integrated into the curriculum of this stage.

(b) Preparatory Stage Learner: 3 years (Class 3 to 5) (Ages 8-11)

The Preparatory Stage spans three years and builds upon the play, discovery, and activitybased learning approach established in the Foundational Stage. During this phase, the curriculum gradually introduces light textbooks and incorporates more formal yet interactive classroom learning elements. The stage aims to establish a strong foundation across various subjects, including reading, writing, speaking, physical education, art, languages, science, and mathematics.

(c) Middle Stage Learner: 3 years (Class 6 to 8) (Ages 11-14)

The Middle Stage encompasses three years of education, expanding upon the pedagogical and curricular foundation laid during the Preparatory Stage. At this level, the focus shifts to more abstract concepts across subjects such as sciences, mathematics, arts, social sciences, and humanities. Although more specialized subjects and teachers are introduced in this stage, experiential learning within each subject and the exploration of connections between different subjects is be encouraged and emphasized.

(d) Secondary Stage Learner: 4 years (Class 9 to 12) (Ages 14-18)

The Secondary Stage consists of four years of multidisciplinary study, deepening the subject-oriented pedagogy and curriculum of the Middle Stage. This phase emphasizes critical thinking, and alignment with students' life aspirations, and offers increased flexibility and choice in subject selection thus multidisciplinarity becomes a key element of this stage.

2. Teacher Education:

The content in this category should be well-informed by the ITEP framework. The teaching of cutting-edge pedagogy, grounded in sociology, history, science, psychology, early childhood

care and education, foundational literacy and numeracy, knowledge of India and its values/ ethos/art/traditions, and more.

3. Adult Education:

NEP considers the opportunity to have foundational literacy as a basic right. To achieve that the curriculum framework for adult education includes at least five types of programs, each with clearly defined outcomes:

- (a) foundational literacy and numeracy;
- (b) critical life skills (including financial literacy, digital literacy, commercial skills, health care and awareness, child care and education, and family welfare);
- (c) vocational skills development (to obtain local employment);
- (d) basic education (including preparatory, middle, and secondary stage equivalency); and
- (e) continuing education (including engaging holistic adult education courses in arts, sciences, technology, culture, sports, recreation, and other topics of interest or use to local learners, such as more advanced material on critical life skills).

Producing Agency Categories

1. Government Organizations

If you are applying under this category, the producer must be an organisation or institution, not an individual. The project must have been funded by a government organisation. The recognition will be given in the name of the government organisation/institute.

2. Teachers/Teacher Educators

If you are applying in this category, you are applying as an individual producer. Your institutional affiliation will not be recognised in this category. Moreover, proof of your affiliation with an institution must be attached, verifying your designation as a teacher or teacher educator. The project must have been funded by you and not your affiliated organisation (in case your school or organisation funds the project, apply in the Independent eContent Creators/Institution category).

3. Independent eContent Creators/Institutions

This category is for individuals or private institutions/organisations specialising in eContent development. The project must be funded independently of any government organisation, and the producer can be either an individual or an institution. (Private schools can apply in this category).

(In case of more than 2 individuals co-producing an eContent, the entry must be made as a team, the recognition will be given in the name of the team and not individuals.)

4. College Students

This category is for individuals currently enrolled in a college or university pursuing higher education. If applying as a group, a maximum of four college students can be listed as producers of a single eContent.

5. Children

This category is for individuals under 18 who are part of a formal or informal education system. For an entry to be considered valid in this category, a child or children should have contributed significantly to the development of the eContent.

References:

- 1. Mckenzie, Sophie & Bangay, Shaun & Nicholas, Maria & Cardilini, Adam & Singh, Majeet. (2024). Reviewers of Educational Immersive and Extended Reality (XR) experiences: Who is creating these reviews and why?.
- 2. Peña-Miguel Noemí , Sedano Hoyuelos Máximo (2014). Educational Games for Learning. Universal Journal of Educational Research, 2(3), 230 - 238. DOI: 10.13189/ujer.2014.020305.
- 3. CIET, NCERT. (2023, June 26). Online Training : Audio resources: Policy Perspectives, Concept, Format and Scope [Video]. YouTube. Retrieved from: <u>https://www.youtube.com/</u> <u>watch?v=GTkar4p3XdU</u>
- 4. Lambert, N., J. (2024, April 11). 5 Fundamental Principles for Developing Educational Games. Retrieved from: <u>https://hbsp.harvard.edu/inspiring-minds/5-fundamental-principles-for-developing-educational-games</u>
- 5. Ministry of Education, Government of India. (2020). National Education Policy. Retrived from: https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf