

Television Education Knowledge Pack

With a focus on low-resource settings

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Image Credit: S. Siva Saravanan via The Hindu (India).

Overview: *What does the World Bank and its Global EdTech team do? How does this Knowledge Pack fit in?*

Background

- World Bank's [goals](#)
- World Bank Education Technology team's [vision](#)
- World Bank's [5 EdTech Principles](#)
- World Bank's [EdTech Approach](#)
- **[Overview of this Education TV Knowledge Pack](#)**



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What are the World Bank's goals?

The World Bank Group has two goals:

To end extreme poverty and promote shared prosperity in a sustainable way.



What is the World Bank's Education Technology team's vision?

The World Bank's Education Technology (EdTech) team's vision is to:
Reimagine Human Connections to Transform Teaching and Learning for All



What are the World Bank's 5 EdTech principles?



1 **ASK WHY:**

EdTech policies and projects need to be developed with a clear purpose, strategy and vision of the desired educational change.



2 **DESIGN AND ACT AT SCALE FOR ALL:**

The design of EdTech initiatives should be flexible and user-centered, with an emphasis on equity and inclusion, in order to realize scale and sustainability *for all*.



3 **EMPOWER TEACHERS:**

Technology should enhance teacher engagement with students through improved access to content, data and networks, helping teachers better support student learning.



4 **ENGAGE THE ECOSYSTEM:**

Education systems should take a whole-of-government and multi-stakeholder approach to engage a broad set of actors to support student learning.



5 **BE DATA DRIVEN:**

Evidence-based decision making within cultures of learning and experimentation, enabled by EdTech, leads to more impactful, responsible and equitable uses of data.

What is the World Bank's 5 EdTech approach?

To operationalize the 5 EdTech principles, the World Bank focuses on:
discovery, deployment and diffusion of new technologies.

Discover, document, generate and analyze evidence-based technology solutions in education relevant to developing countries.



Deploy solutions, at the pilot level and at scale, tackling adoption barriers (including in procurement) and in ways that are informed by evidence and which allow for efficient course correction.



Diffuse related knowledge widely across policy makers in our client countries and support capacity development to better use this new knowledge.



Overview of Education TV Knowledge Pack

1. WHO?

- [Audience](#) & [Purpose](#)
- [What](#) is a Knowledge Pack?

2. WHY?

- Overview of the [problem](#) (during COVID-19 & beyond)
- [Why TV](#)? TV as a tool to reach students without access to connectivity.
- [Uses & Advantages](#) of EduTV
- What is the [evidence for effectiveness](#) of EduTV?

3. WHAT?

- What is required to start/ enhance EduTV?
 - A '[Decision Tree](#)' to help navigate decision-making on EduTV
 - What [capacity is required](#) to start EduTV?
- What are the [key cost elements](#) involved? How do you keep costs low?
- What are the common [challenges & trade-offs](#)? How can ministries plan for them?

4. HOW?

- What are the key [implementation](#) steps to start/enhance EduTV?
 - 5 things to do to [start](#) EduTV
 - 5 things to do to [enhance](#) EduTV
- Case Study [Overviews](#): Insights from around the world
- Examples of [World Bank projects](#) with EduTV components (during COVID-19)
- Where can I [learn more](#)?

5. ANNEX



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Overview: *Who is this Education TV Knowledge Pack aimed at serving?*

1. WHO?

- Audience & Purpose
- What is a Knowledge Pack?



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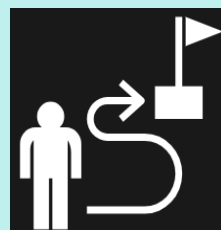
Audience & Purpose: Who & what is this Knowledge Pack aimed at serving?

Main Target Audience



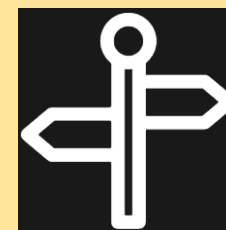
World Bank staff (particularly, Task Team Leaders) and decision-makers beyond the World Bank who support education ministries on education technology

Purpose



To support the main target audience as they work with education ministries to start [1] or enhance education television [2] programming as a remote learning tool during COVID-19, during emergencies as well as beyond.

What is a Knowledge Pack?



A series of short, pragmatic guides on individual topics within EdTech to support the target audience to make informed yet quick decisions about EdTech interventions in their work with education ministries.

[1] Note: To “start” EduTV, we assume that some basic television production infrastructure is available to be leveraged for the short-term. [2] Television (TV) is defined in this Knowledge Pack as a stand-alone device capable of receiving broadcast television signals, using popular access means such as over-the-air, cable and satellite. It excludes functionality integrated with another device, such as a computer or mobile phone. (Definition source: [ITU, 2014](#))

Overview: *Why use Education Television Programming?*

2. WHY?

- Overview of the [problem](#) (during COVID-19 & beyond)
- [Why TV?](#) TV as a tool to reach students without access to connectivity.
- [Uses & Advantages](#) of EduTV
- What is the [evidence for effectiveness](#) of EduTV?



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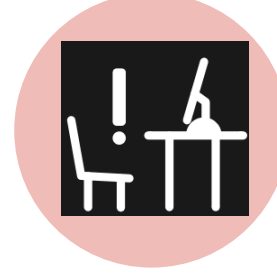
Overview of the Problem



The COVID-19 pandemic has left more than 1.3 billion children out of school with **more than 80% countries mandating school closures** [1] [2].



With the length of school closures uncertain, countries are attempting to support learning of students out-of-school and in almost all cases, are turning to the use of educational technology (**EdTech**) to support remote learning. [3]



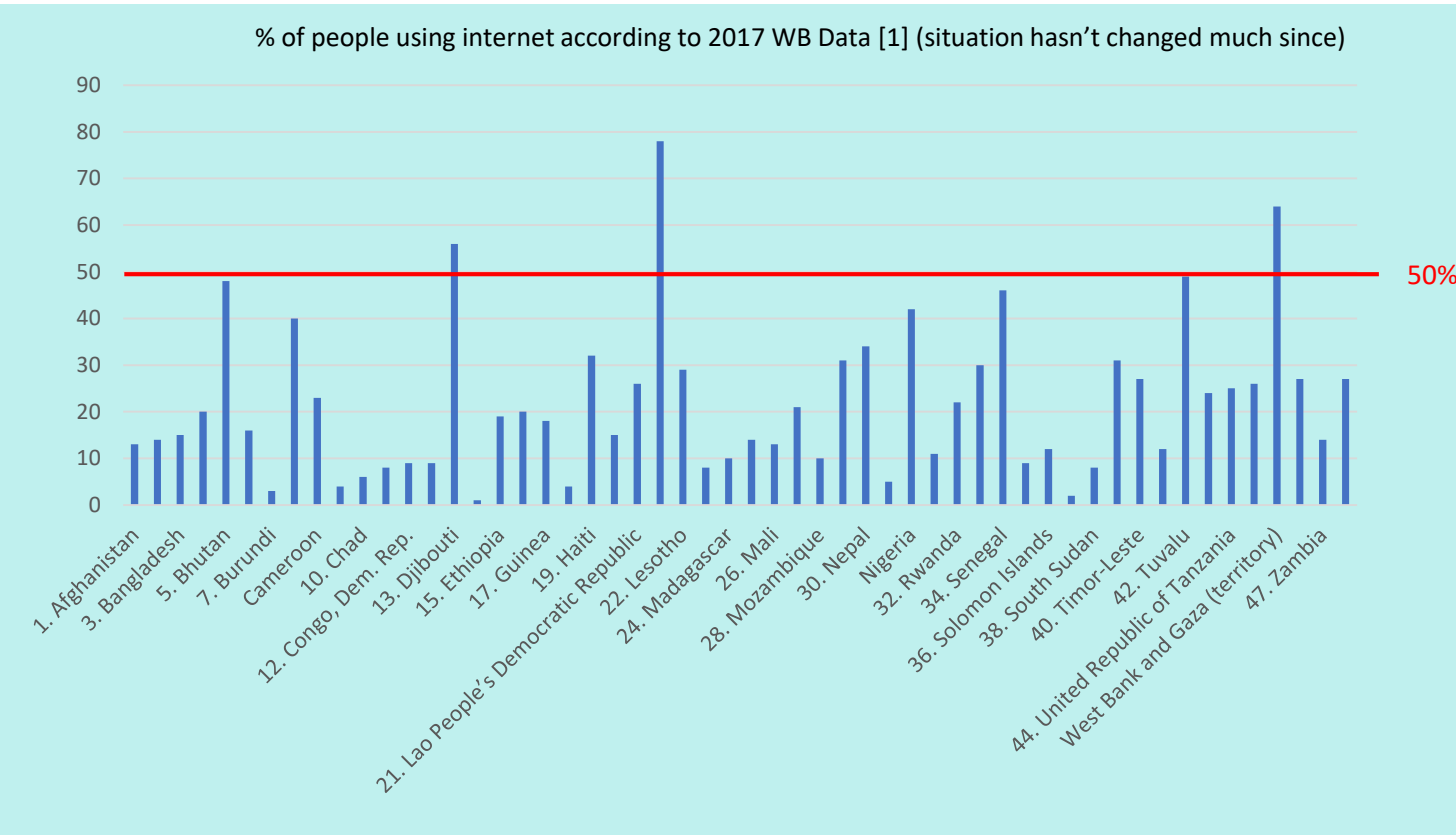
Middle- and high-income resource contexts in countries are **deploying online learning systems** (e.g. Learning Management Systems, Video Conferencing) with some also **using broadcast media** (e.g. **television, radio, mobile phones**) and **print media** as supplementary channels of delivery. However, online learning has exposed huge digital divides within and across countries. [4]



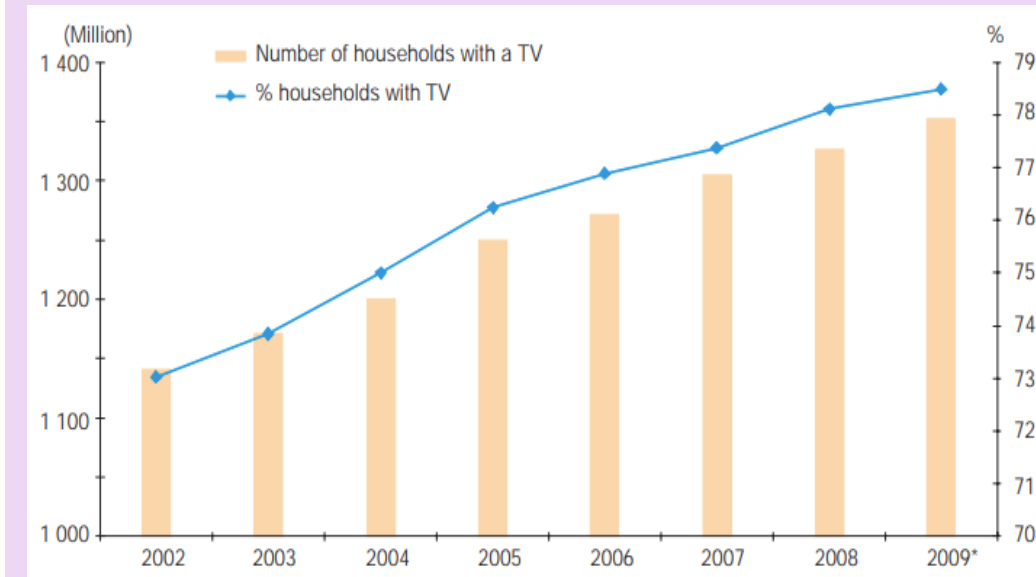
Low-resource contexts in Least Developed Countries (LDCs) and Fragile, Conflict and Violence (FCV) affected environments lacking the necessary connectivity and devices are **deploying alternative EdTech tools** such as **educational television, radio, mobile phones supported by print material**. [5]

Why TV? Television as a tool to reach students with limited access to internet-based learning

Only 5% (3 of 54) LDC and FCV countries have Internet penetration rates above 50%.



TV penetration rate has been increasing in LDCs. [2] [3]



79%

of all households across the world have access to TV. [4]

72%

of all households in developing countries have access to TV. [5]

80%

of rural electricity consumption across the world accounts for TV and lighting. [6]

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Uses & Advantages of EduTV

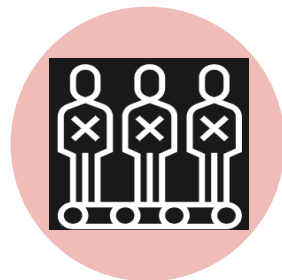
Supports Distance Education



EduTV has been used for delivering distance learning [since the 1950s](#) in low- and middle-income countries including interactive television lessons more recently in rural schools (e.g. in Brazil, Ethiopia, and Ghana) ([Navarro-Sola, 2019](#)). Programming created during COVID-19 can be repurposed to support distance education for children out-of-school.

[1]

Supports learning during teacher shortages/ absenteeism



EduTV lessons have been used to support inadequate supply of secondary education due to shortage of qualified teachers willing to work in rural/marginalized areas, especially in developing countries ([Banerjee et al., 2013](#), [Calderoni, 1998](#)) as well as in areas with teacher absenteeism ([Navarro-Sola, 2019](#)).

Support for teachers & complementary learning to schooling



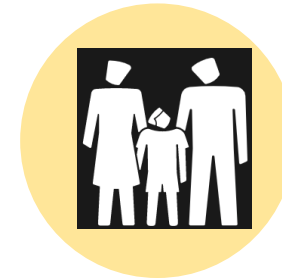
Lessons can be used to complement face-to-face instruction in school/post-secondary education as well as early childhood education when EduTV is aligned to the curriculum. EduTV lessons can also provide lesson plan support to teachers.

Provides (equitable) education during emergencies



EduTV can be one of the standard protocols for education in emergencies when schools are closed. [2] Since TV penetration is typically higher than internet penetration across countries, this ensures equitable access to learning for disadvantaged communities.

Supports parental/caregiver support with learning

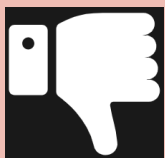


EduTV programming (especially Edutainment programs) provides support to parents/caregivers on supporting learning at home, especially in early childhood education.

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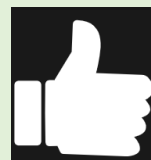
[1] Out-of-school students are likely to increase after COVID-19 as low-income families will be further resource constrained and may not be able to afford schooling which will exacerbate the opportunity cost of sending kids to school. [2] Emergencies are more frequent than we think. Almost every week around the world, schools in cities across the world are closed due to an emergencies (eg. floods, hurricanes, storms, forest fires, earthquakes, disease, terrorism,

Negative



Exposure to general entertainment TV programs can lead to deficits in student achievement by replacing it with more beneficial intellectually engaging activities, resulting in lower levels of language and intellectual functioning (Huston et al, 1999; Wright & Huston, 1995). For preschool children, it interferes with a child's opportunity to interact with adults (St. Peters, Fitch, Huston, Wright, & Eakins, 1991).

Positive



Primary & Pre-primary children: Educational programs for young children are designed to enhance academic and social skills and competence as well as school readiness (Huston & Wright, 1994). Educational programs, such as EduTV or radio, can encourage literacy skills acquisition, such as children's letter recognition, vocabulary, and syllabification (Borzekowski & Henry, 2010) Preschool educational programs lead to higher achievement in school (Wright et al., 2001). Viewing edutainment programs at young ages has been shown to lead to improved grades in high school even when family characteristics are controlled (Anderson et al, 2001).

Secondary & post-secondary: Long-term studies of EduTV programs for out-of-school children finds significant impact on increased enrollment into formal education and as a result, increased labour-market participation and earnings. ([Navarro-Sola 2019](#))

Policy Level Conditions



Benefits of EduTV programs need to be effectively communicated to motivate parents to encourage children's viewing of Edu TV programs. Such programs should be broadcast at times when preschool children are likely to view them for the programs to be most impactful. ([Baydar et al, 2008](#))

Overview: *What is required for Education Television Programming?*

3. WHAT?

- What is required to start/ enhance EduTV?
 - A 'Decision Tree' to help navigate decision-making on EduTV
 - What capacity is required to start EduTV?
- What are the key cost elements involved? How do you keep costs low?
- What are the common challenges & trade-offs? How can ministries plan for them?

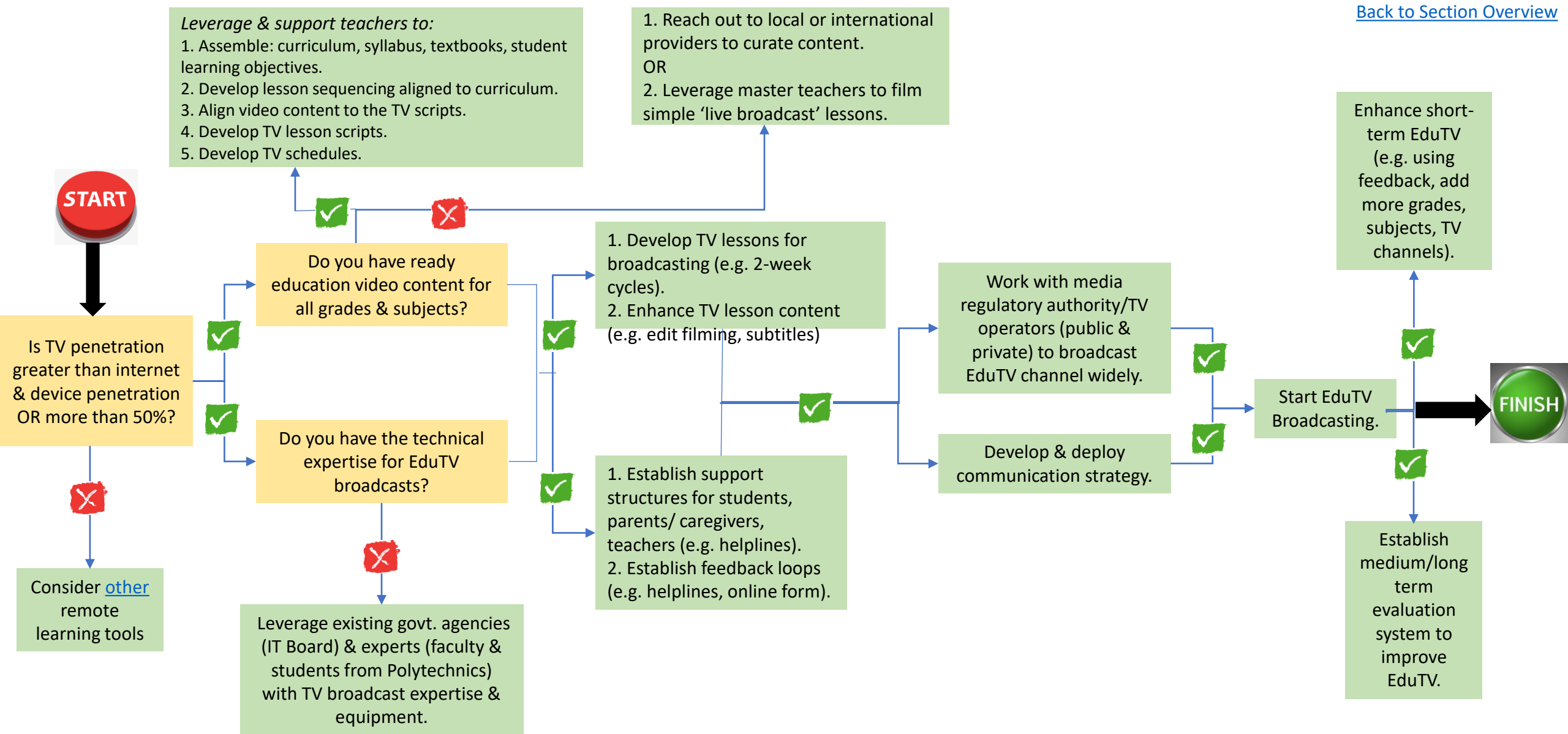


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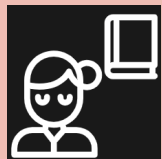
Decision Tree for EduTV Quick Start

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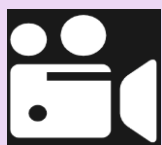
Note: This is a simplified version of the decision tree. Different versions of this decision tree are possible. For real examples, click to see 2 different decision trees used during COVID-19 by: (1) [Pakistan federal education ministry](#) and (2) [Pakistan's Punjab provincial school education department](#).

Content & related personnel



- Education video content to be curated [1]
- (Master) teachers / subject experts to present and support development of lessons.
- Teachers to develop sequencing of lessons for TV broadcasting and/or Script Writers to develop TV lesson scripts.
- Curriculum, syllabus, textbooks [2], student learning objectives for each grade level (if possible, national averages of student performance data)

TV broadcasting & related personnel

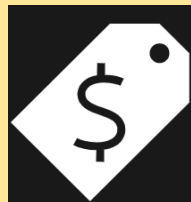


- TV Studio & production equipment
- Personnel with technical expertise with TV production, filming, editing & broadcasting
- Partnerships with pan-country TV networks for widest possible coverage of EduTV channel(s)/content (e.g. through media regulatory authority, partnerships with private & public TV operators)



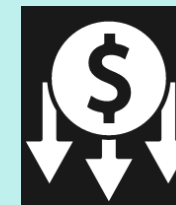
[Turkey](#) worked with national broadcaster TRT to set up 3 separate channels in SD & HD.

Biggest cost elements



- Communication strategy
- Content development and production (e.g. research, filming, editing, assembly)
- Copyright fees
- Broadcast transmission costs (or network usage fees)
- Staff expenses
- Translation/Dubbing
- Storage and distribution of content

Keeping costs low (in the short term)



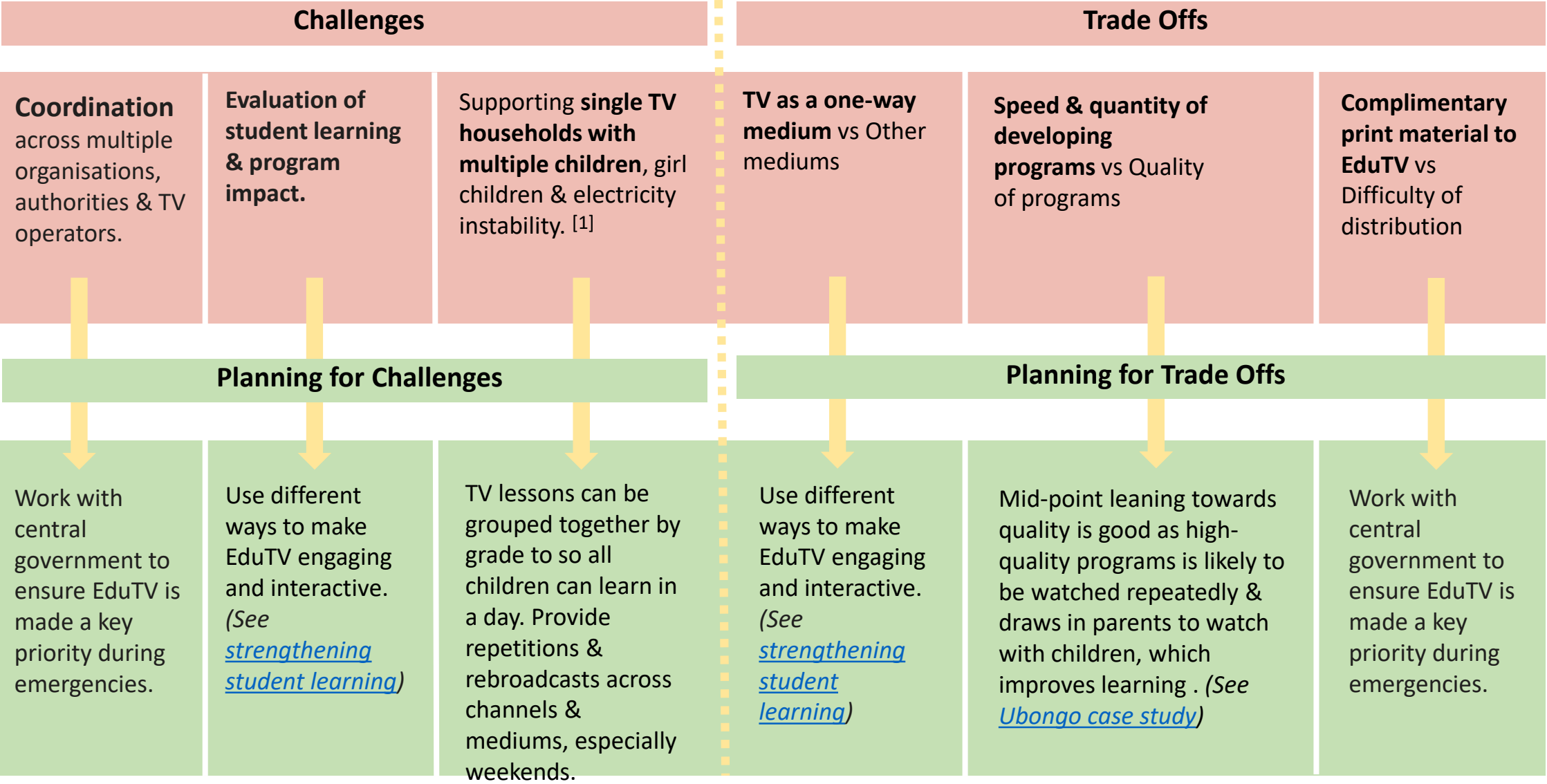
- Instead of developing, curate existing content.
- Leverage staff already on government payroll (e.g. teachers, content developers).
- Leverage existing TV production expertise and infrastructure (e.g. (e.g. faculty, students or IT boards with expertise in TV broadcasting (e.g. [Pakistan](#), Rwanda).
- Work with media regulatory authority/TV providers to broadcast content widely at subsidised/no cost (e.g. [Pakistan](#)).
- Work with Telecom companies to ensure mass messaging & calling is at subsidised/no cost and for zero-rating complimentary online educational online platforms.

Example of costs in the short-term (from [Punjab-Pakistan case study](#)): Punjab leverages existing resources (including personnel and equipment) to launch its EduTV initiative 'Taleem Ghar'. Only cost incurred was for communication amounting to \$15,000.

Example of long-term cost breakdown (from [Punjab-Pakistan case study](#)):
Broadcasting: 40%; Human resource (including design & management): 40%; Operational expenses: 8%; Communication: 5%; Utilities: 5%;
Software & Connectivity: 2%

Example for keeping costs (from [Ubongo case study](#)): There are no costs to countries for non-commercial use of African edutainment provider, [Ubongo](#)'s content for EduTV. For localizing content, translation could be the only cost.

Challenges & Trade-Offs of EduTV and how to plan for them



[1] Girl children are more likely to support chores & caretaking, etc. ([USAID 2020](#)).

Overview: *How can Education TV programming be implemented?*

4. HOW?

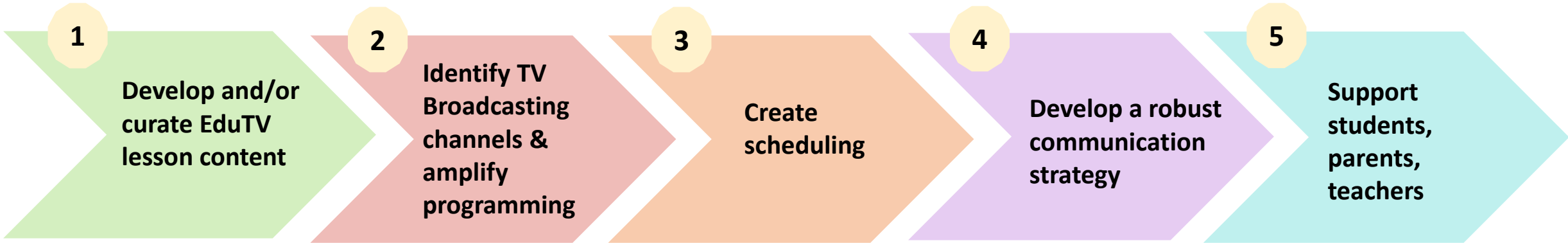
- What are the key implementation steps to start/enhance EduTV?
 - 5 things to do to [start](#) EduTV
 - 5 things to do to [enhance](#) EduTV
- Case Study [Overviews](#): Insights from around the world
 - [China](#)
 - [Korea](#)
 - [Pakistan](#)
 - [Ubongo](#), Africa
 - [Sesame Workshop](#), Global
- Examples of [World Bank projects](#) with EduTV components (during COVID-19)
- Where can I [learn more](#)?



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5 Things to do to start EduTV programming (Implementation Steps)



Types of programming:

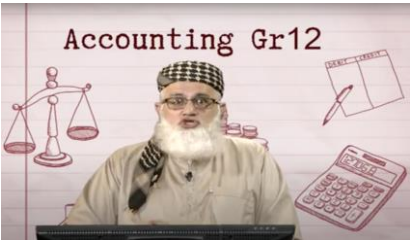
- Live broadcasters
- Pre-recorded broadcasts
- Edutainment programs

- Start with Government TV broadcasters
- Leverage private broadcasters
- Repeat & rebroadcast programs.

- Develop schedules
- Share them widely

- Communicate before EduTV launch
- Communicate continuously and widely

- Provide technical & pedagogical support
- Provide socio-emotional support
- Collect & use continuous feedback
- Organise all resources into one place online



Live broadcast in [South Africa](#)



[India](#) broadcasts EduTV lessons on 32 free channels.

	Pazartesi	Salı
08:00-10:00	3. ve 4. Sınıf	3. ve 4. Sınıf
10:00-12:00		
12:00-14:00	5. ve 6. Sınıf	5. ve 6. Sınıf

Schedule from [Turkey](#).



[Brazil](#) shares communication on its education ministry website.

NUMBERS	PARISH
876-560-9314	Westmoreland
876-788-5568	Westmoreland

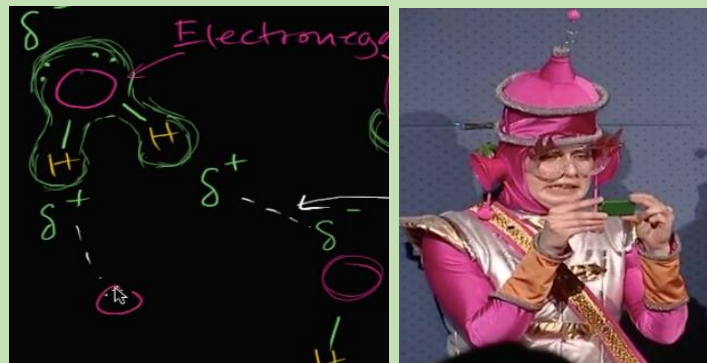
[Jamaica](#) provides 36 helplines for parents.

(1) Live broadcasts



- **What is this?** Involves recording a teacher teaching a live lesson in a staged classroom setting and broadcasting the recorded lesson on TV (e.g. [Morocco](#), [South Africa](#), [Turkey](#), [UAE](#)).
- **How to produce?** This content is directly aligned to the curriculum [1]. Pedagogically strong teachers can be used to produce these quickly as be a low-cost rapid production (e.g. [Kenya](#)).

(2) Pre-recorded content



- **What is this?** Involves curating existing [on-demand video content](#) aligned to the curriculum and programmed into TV schedules for broadcasting (e.g. [Croatia](#)).
- **How to produce?** Source existing content from local EduTV programs, work with private providers with on-demand content, use [Open Education Resources](#), leverage content from international partners that can quickly be contextualised and mapped to curriculum (eg. [Spain](#), [Khan Academy](#)).

(3) Edutainment programs



- **What is this?** These provide education in the form of [entertainment](#) and are typically extremely engaging.
- **How to produce?** Source content from Private providers including non-profits (e.g. [Blue's Clues](#), [Teletubbies](#), [Sesame Workshop](#), [Ubongo](#)).



[1] To use textbooks for programming, consider resolving copyright issues first. [2] Consider video quality when using existing online videos for TV programs (as videos are typically compressed when hosting online) & licensing and copyright issues. [3] In the immediate short term, creation of such programs is not advised given its time and cost intensiveness. Instead, consider sourcing, curating and obtaining intellectual property rights for existing edutainment content from local, regional or

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Start with Government TV broadcasters.



Quickest way to start, including redirecting government owned channels dedicated to other themes. (eg. [Morocco](#)).

- Work with the media regulatory authorities who deals with cable operators to get EduTV content broadcast across TV operators (eg. [PEMRA](#) in Pakistan)

[Morocco](#) leveraged its sports channel to broadcast EduTV.



Leverage private broadcasters.



This will enhance reach of EduTV by leveraging reach of private providers in countries where government owned TV networks are limited (e.g. [Mexico](#)).

- Consider leveraging broadcast licenses if they include national emergency mandates or mandatory public service requirements for airtime.

[Mexico](#) works with multiple channels to broadcast content.



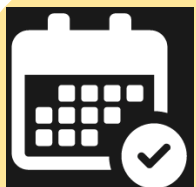
Rebroadcast programs to amplify reach and increase uptake.



- **Multiple channels and timings** - Repeat broadcasting of EduTV to cover multiple grade levels simultaneously (e.g. [India](#), [Turkey](#)). This increases access to EduTV for families with multiple children and one TV, especially girl children who are more likely support with home chores [2].
- **Multiple mediums** - Make programs available as on-demand content [3]. This can be on education ministry website; its YouTube channel (eg. [Kenya](#)); its mobile app (eg. [Pakistan](#)); national television network website (eg. [China](#)); or radio (e.g. [Rwanda](#)).

[India](#) broadcasts EduTV content on 32 free channels.





Develop simple **schedules for when, where and for whom** (grade level, subject) EduTV programming will be broadcast (e.g. [Bhutan](#), [Korea](#), [Turkey](#)). This is critical to EduTV success.



Countries can provide **student-friendly daily and weekly schedules** on their **education ministry website** (e.g. [Mongolia](#)), on **education television network websites** (e.g. [India](#)), on **institutional websites** (e.g. [Kenya](#)), on radio (eg. [Ubongo](#)), etc.

Aprende en Casa
Lunes 18 de mayo - viernes 22 de mayo

I.º GRADO DE SECUNDARIA

Horario	Lunes 18	Martes 19	Miércoles 20	Jueves 21	Viernes 22
08:00 a 08:25 h.	Formación Cívica y Ética Democracia representativa y responsabilidad ciudadana	Matemáticas ¿Estamos 100% seguros?	Lengua Materna. Español Reinaba un profundo silencio...	Ciencias y Tecnología. Biología ¿Cuándo y cuántos hijos tener?	Tecnología Necesidades e intereses, el principio de todo proceso técnico
08:25 a 08:50 h.	Artes. Danza Me muevo al son de la Imagen	Geografía Medio ambiente y calidad de vida	Artes. Música Vamos a ver cómo es la música	Geografía Retos locales y globales: contaminación por residuos plásticos y migración	Ciencias y Tecnología. Biología ¿Cuánto vale la biodiversidad?

EduTV schedule from [Mexico](#)

	ДАВАА 5-Р САРЫН 11	МЯГМАР 5-Р САРЫН 12	ЛХАГВА 5-Р САРЫН 13	ПҮРЭВ 5-Р САРЫН 14
1- анги	Монгол хэл 11:00-11:25			
2- анги	Математик 11:25-11:50			
3- анги		Математик 11:25-11:50		
4- анги	Нийгэм ахуйн баримжаа 11:50-12:15			
5- анги		Нийгэм ахуйн баримжаа 11:50-12:15		
6- анги		Монгол хэл 11:00-11:25	Математик 11:25-11:50	
7- анги			Нийгэм ахуйн баримжаа 11:50-12:15	Математик 11:25-11:50

EduTV schedule from [Mongolia](#)

4 Develop a robust communication strategy



Communicate before EduTV launch

Clearly communicate who, when and where these programs can be accessed before its launch. Build excitement around it (e.g. [Brazil](#)).



Communicate continuously and widely

Continuous communication across all possible ways to amplify awareness & uptake of EduTV (eg. [West Bank and Gaza](#)). **Examples of ways to communicate:**

- Ads via print (e.g. newspapers, hoardings), TV or radio; mass messaging & circulating short teaser videos via text messages or WhatsApp (e.g. [Peru](#), [Pakistan](#)); updates via social media like Facebook (e.g. [Rwanda](#)), websites of education ministries (e.g. [Belize](#)) and education television networks (e.g. [Korea](#)).
- Make announcements on speakers in communities/local religious institutions (e.g. China, [Pakistan](#))
- Work with ministers to launch EduTV/share communication on social media to increase media coverage (e.g. [Pakistan](#)).
- Leverages schools & teachers to communicate with students & families.

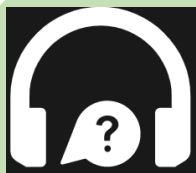
04 May Back to school

13 May Instructions for high schools

04 May Plans for all grades

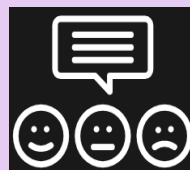
24 April Address by the Minister

[Croatia](#) organises all related communication on its education ministry website.



Provide Technical & Pedagogical support

- **Technical Support** - Use toll-free call centre helplines, WhatsApp numbers, email addresses, chatbots to provide technical assistance (e.g. [Turkey](#)).
- **Pedagogical Support** - Leverage teachers for this (e.g. China). Provide support & subsidise teacher communication (calls, text messages, data)



Collect and use continuous Feedback

- **Pedagogical feedback** - To understand effectiveness, improve programming & increase uptake of EduTV, enable two-way communication, continuous feedback and insights from users (e.g. [China](#), [India](#), [Pakistan](#), [Russia](#))
- **Non-pedagogical feedback** – Collect data on the use of EduTV (e.g. TRPs, website hits, app downloads, YouTube views) to understand & improve programming.



Provide Socio-emotional support

- **Why provide this?** Transition to education entirely through TV is difficult for students, caregivers and educators. Socio-emotional support will ease the transition.
- **How?** Provide multiple helplines to support parents (e.g. [Jamaica](#) has 36). Communicate directly with students, parents, teachers through videos, live streams/chats, letter of encouragement, TV programs, etc. (eg. [Croatia](#), [Spain](#)). Turkey has a “Parent Hour” on TV.



Organise all resources into one place online ('landing page')

- **Why provide this?** This simplifies access to resources & increases uptake, especially for less digitally literate beneficiaries.
- **How?** Organise all broadcast schedules, links to re/broadcasts, helpline numbers, mobile app, feedback form & related resources - all in one landing page (e.g. [Brazil](#), [Nigeria](#)).

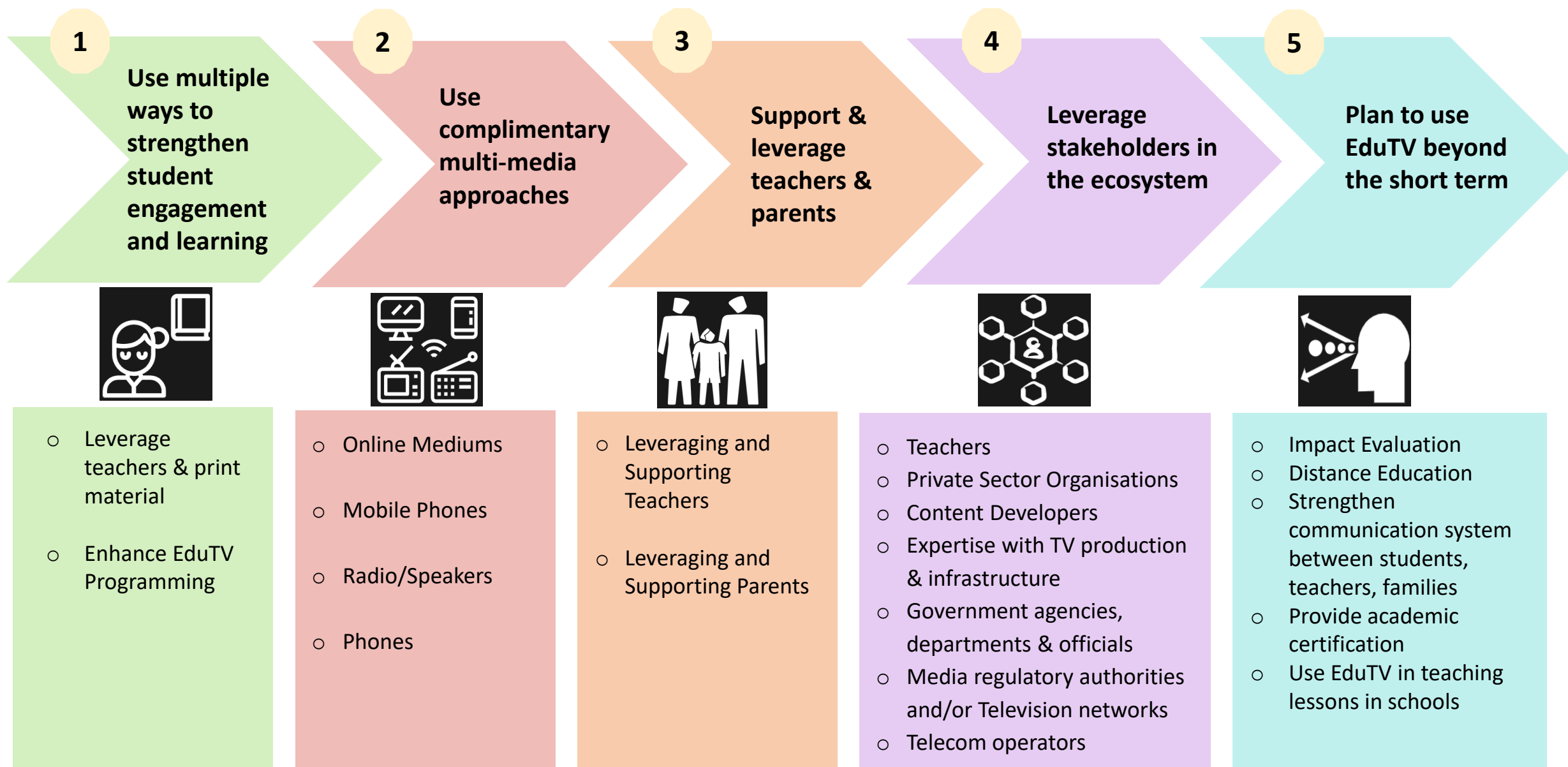


[Turkey](#) has a Command & Control Centre for monitoring & improvement



[Belize](#) organises communication on its education ministry website.

5 Things to consider to enhance programming (Implementation Steps)





Leverage teachers & print material

Present TV Lessons -

Pedagogically strong teacher can be selected & trained to present TV lessons.

Live Q&A sessions - Live Q&A sessions after TV lessons can be used to ask/answer lesson doubts. Questions can be collected via SMS, WhatsApp, live chat on the website broadcast. These sessions can be rebroadcasted & online platforms [zero-rated](#).

Leverage local teachers for 1:1 support – This can be after EduTV lessons/larger Q&A sessions by answering doubts (via phone calls, WhatsApp), assessing homework, providing feedback (e.g. [China](#)).

Questions during live broadcast - Teachers can ask questions during TV lesson & pause for replies. Students can send SMS responses. SMS short codes can be set up to provide automated responses to students. Parents can support younger students to respond verbally (eg. [Pakistan](#), [Ubongo](#)).

Formative assessments - Teachers can use phone calls [1] to conduct short formative assessment of TV lessons. This data can be used to improve programming as well.

Print material - Assign homework after TV lessons (eg. [Korea](#)). This can be graded by teachers once schools reopen (eg. [Bangladesh](#)) or on a weekly basis - transported by healthcare volunteers (e.g. Spain). Teachers can give feedback over phone calls (e.g. [China](#)).

Enhance EduTV Programming



User-centric design - Create programming based on student-centred research, tested with children & families during the design phase (eg. [Ubongo](#) & [Sesame Workshop](#)).

Attention span - Consider attention span of students (by age) when producing programs.

Repeat programming - For edutainment programs, for younger children, repetition of the same episode for up to 7 days in a row is more impactful than new episodes daily. For older students, repetition once in 3 months can strengthen concepts taught. (e.g. [Ubongo](#)).

Visual & auditory experience - Use video editing to enhance learning experience for students (eg. [Korea](#), Pakistan).



Online Mediums [1] - Use websites (e.g. EduTV network, education ministry), YouTube[2], Mobile Apps[3] to:

- Rebroadcast EduTV programs as video on demand (eg. [Brazil](#), [Ghana](#), [Madagascar](#))
- Organising everything in one place (e.g. [Argentina](#), [El Salvador](#))
- Collecting lesson doubts & feedback
- Host live Q&A session with teachers [4]



Mobile Phones – Use mass messaging via SMS, WhatsApp, Call centre helpdesks to:

- Build awareness like, sharing schedules
- Sign up to SMS short code service to receive EduTV updates
- Share reminders/nudges (e.g. [Ubongo](#))
- Collecting Qs from students regarding lessons
- Receive feedback
- Conduct formative assessments
- Provide technical, pedagogical & socio-emotional support
- Short activities for parents to support younger children during programs (e.g. [Ubongo](#))
- Share adapted TV lessons (e.g. Turkey)



Radio/Speakers/USB to:

- Use USB devices to distribute TV lessons that can be plugged into TVs and viewed as on-demand content. (e.g. [Ubongo](#))
- Use radio/speakers to build awareness, sharing schedules verbally, share reminders/nudges (e.g. [China](#))



Print – Use print material (e.g. newspaper, postcards, textbooks) to:

- Provide TV lesson supplementary activities
- Map lesson content to textbooks so students can follow along lessons or use as reference material (eg. Mexico)
- Provide supplementary worksheets/assignments (eg. [Argentina](#), [Bangladesh](#), Spain) [5]



Leverage and support Teachers

- ***In the short term to:***
 - Develop **lesson sequencing** for TV broadcasts; **develop & present TV lessons**; **curate & align content** to curriculum or student learning objectives
 - **Strengthen student learning** through interactive elements [1]
- ***Beyond the short term to:***
 - **Continue to develop EduTV**, especially gap content.
 - Use EduTV in their teaching – either in the classroom or remote teaching (education in emergencies / out-of-school children). Provide support (e.g. professional development, incentives) to teachers for this.



Leverage and Support Parents/Caregivers

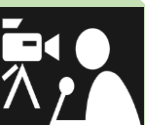
- Leverage parental supervision for students to watch EduTV, complete assignments, contact teachers for after class tutoring, (where possible) support student learning at home (eg. [China](#)).
- Provide support for home-schooling like learning activities for parents to do with children (e.g. [Ubongo](#))
- Provide technical, pedagogical & socio-emotional support & encouragement (e.g. Jamaica has 36 helplines for parents)
- Broadcast edutainment episodes geared towards parents & children alike to ensure families can enjoy & learn together. Research shows that younger children learn better when watching edutainment programs with parents. (e.g. [Sesame Workshop](#) & [Ubongo](#))



Students – To get feedback during market testing EduTV content as well as to participate in development of lessons, especially live lessons and edutainment programs.



Teachers & Educators – To support EduTV lessons, student engagement, assessments, feedback. [1]



Parents/Caregivers – To support student learning at home and to get feedback during market testing of EduTV content.



TV production experts – To develop TV lesson broadcasts.



Private sector (local & international) – To leverage existing education content for EduTV lessons (eg. [Mexico](#)) as well as develop video content for TV broadcasts



Government departments & agencies – To coordinate different aspects of EduTV programming & support structures like helplines, MoE websites (e.g. IT Board) & communication (e.g. district officials, teachers).



Media regulatory authorities and/or Television networks (public & private) – To leverage reach of TV networks to broadcast EduTV programs widely.



Telecom operators – To expand access to the Internet by subsidising/[zero-rating](#) educational online platforms, to set up short SMS codes & helplines to improve interactive elements of EduTV.



Impact evaluation of EduTV programming and student learning outcomes



Use this programming to start/enhance EduTV for **out-of-school children** [1] (eg. [Mexico](#), Sierra Leone, Korea) as well as for a **standard operating procedures for education in emergencies** [2].



Establish a **standard communication system** between the education TV network, education ministry, schools, students/families



Provide **academic certification** for distance learning students for completing EduTV based learning.



Incentivise and support **teachers** to use EduTV in school lessons aligned to the curriculum.

[1] Out-of-school students are likely to increase after COVID-19 as low-income families will be further resource constrained and may not be able to afford schooling which will exacerbate the opportunity cost of sending kids to school. [2] Emergencies are more frequent than we think. Almost every week around the world, schools in cities across the world are closed due to an emergencies (eg. floods, hurricanes, storms, forest fires, earthquakes, disease, terrorism, etc.) and education is disrupted. EduTV programming can be used as an education in emergency standard protocol.

Case Studies: Insights from across countries & Edutainment providers

Case Studies based on Countries



[China](#): Ministry of Education



[Korea](#): Ministry of Education



[Pakistan](#): Ministry of Federal Education & Professional Training and School Education
Department of Punjab provincial government

Case Studies on Edutainment Providers



[Ubongo](#), Africa



[Sesame Workshop](#), Global



Examples of World Bank projects with EduTV components (during COVID-19)

Below are examples of DRAFT [1] versions of COVID-19 Education Response World Bank project documents from across countries that include education TV programming components. These may be helpful references for World Bank staff while drafting similar project components. [2] Non-World Bank staff see footnote [3] for access.



Ethiopia ([P174206](#))



Rwanda ([P174046](#))



Ghana ([P165557](#))



Sudan ([P174220](#))



Kenya ([P174059](#))



Togo ([P174166](#))



Madagascar ([P160442](#))



Uganda ([P174033](#))

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[1] These are [draft projects documents](#) (PIDs/PADs). Hence, they may be updated significantly. Please use the P code to access the final project documents. [2] There are many more such projects. Shared here are those whose documents were accessible when developing this Knowledge Pack. [3] Non-World Bank staff can also access these documents through [this external page](#) using the project codes above (e.g. P174026). These will be shared onto the external page once they are

Where can I learn more?



Podcast interviews by the World Bank EdTech team on Education TV during COVID-19:



- **Ubongo:** [Apple](#) | [Spotify](#) | [Anchor](#)
- **Sesame Workshop:** [Apple](#) | [Spotify](#) | [Anchor](#)
- **Pakistan Ministry of Federal Education & Professional Training:** [Apple](#) | [Spotify](#) | [Anchor](#)



Detailed Case Study - “[Pakistan - TeleSchool and Taleem Ghar \(Educational TV at Home\)](#)”, World Bank, September 2020.

Examples from countries – “[How countries are using EdTech \(including online learning, radio, television, texting\) to support access to remote learning during the COVID-19 pandemic](#)”. This includes 50+ Edu TV examples from around the world.



Policy Briefing - “[Rapid Response Guidance Note: Educational Television & COVID-19](#)”, World Bank, April 2020.



Blog - “[Educational television during COVID-19: How to start and what to consider](#)” (4 pages), World Bank, April 2020.



Academic Paper - “[Secondary School Expansion through Televised Lessons: Labor Market Returns of the Mexican Telesecundaria](#)”, Laia Navarro-Sola, 2019

Acknowledgements

Special acknowledgement and gratitude to the following people for supporting this work:



Case Study on [TeleSchool](#) (initiative of Pakistan's Federal education ministry, [MOFEPT](#)): Umbreen Arif and Umair Javed



Case study on [South Korea](#): SunA Kim and team from Korea Education Broadcasting Service (EBS) of Korea



Case Study on [Taleem Ghar](#) (initiative of school education department of provincial Punjab within Pakistan): Abdal Mufti from Punjab's School Education Department; Kashif Farooq, Adnan Khan and Mahnoor Shakeel Rajput from Punjab IT Board (PITB)



Case Study on [Ubongo](#): Nisha Ligon, Cliodhna Ryan and Doreen Kessy



Case study on [China](#): Yidan Wang from Education Global Practise, World Bank



Case Study on [Sesame Workshop](#): Danny Libin, Shanna Kohn and Alana Tummino



Guidance on Knowledge Pack: Yidan Wang, Julia Liberman, Kumar Vivek and Pragati Tiwari from The World Bank

Overview: *In this section, find additional resources.*

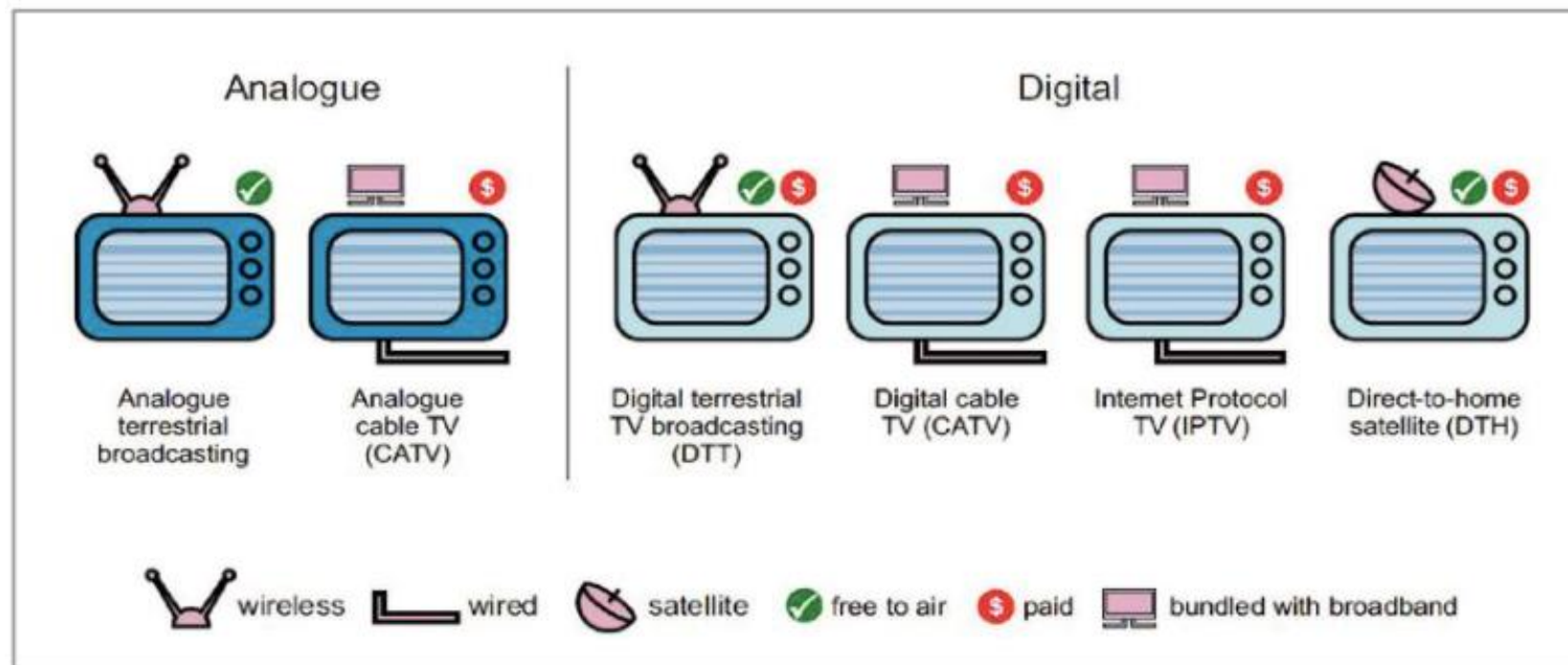
5. Annex

- [Annex 1](#): Forms of TV distribution technologies
- [Annex 2](#): Decision Tree used by Pakistan education ministry (MOFEPT) for EduTV quick start during COVID-19
- [Annex 3](#): Decision Tree used by Pakistan's Punjab provincial School Education Department (SED) for EduTV quick start during COVID-19
- Detailed Case Studies:
 - [China](#): 5 Highlights from the Case Study
 - [Korea](#): 5 Highlights from the Case Study
 - [Pakistan](#): 5 Highlights from the Case Study
 - [Ubongo](#): 5 Highlights from the Case Study
 - [Sesame Workshop](#): 5 Highlights from the Case Study



Click on any [hyperlink](#) to jump directly to the section.

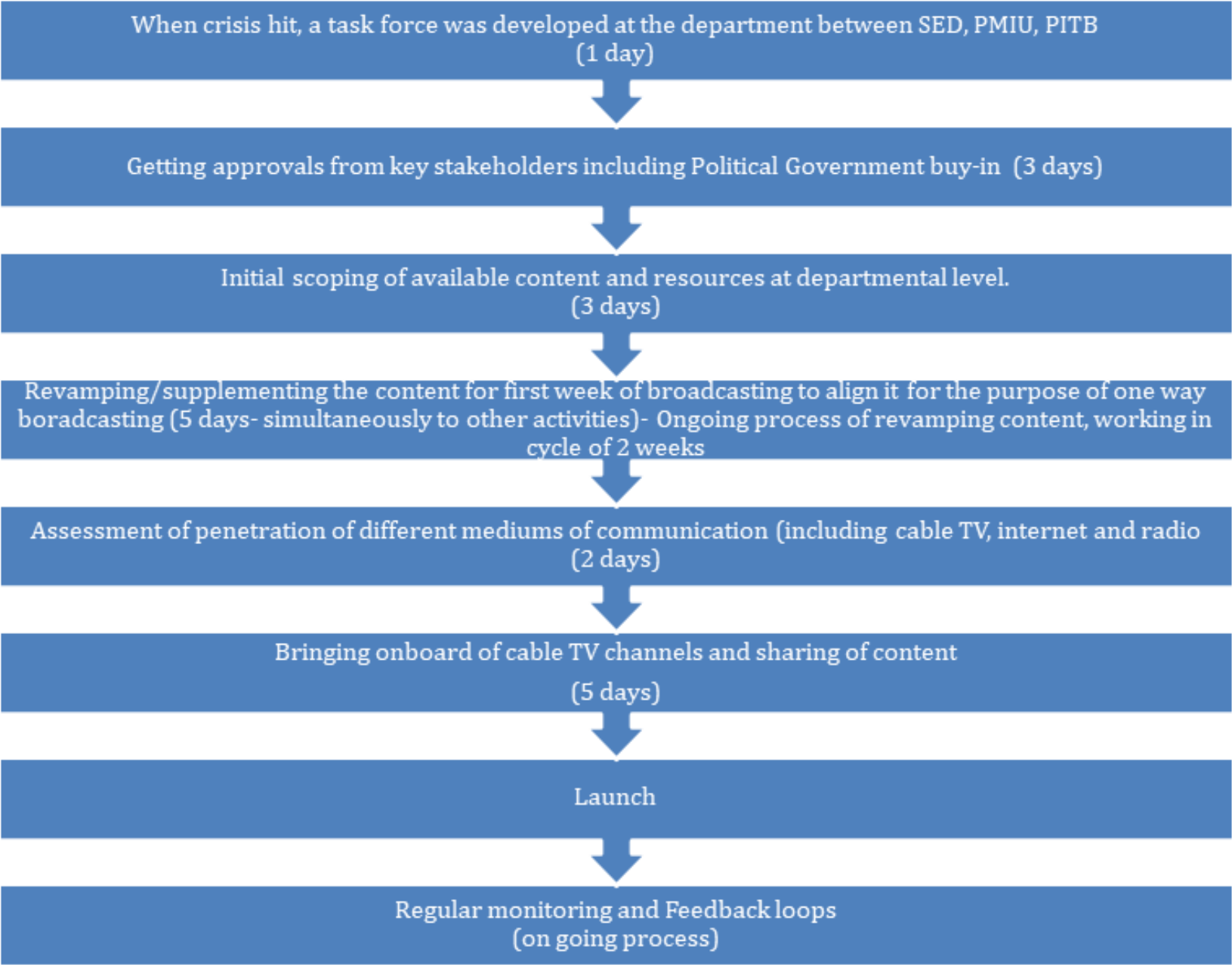
Annex 1: Forms of TV distribution technologies



Source: [ITU, 2014](#) [1] [2] [3]

Note: [1] Some Internet Protocol TV (IPTV) can be free. [2] Many free to air TV channels have IPTV livestreams as well. [3] Another way to distribute content to be used on TV is via USB devices. [Ubongo](#) distributes its content on USB devices that can directly be plugged to TVs and viewed as [on demand content](#).

Annex 2: Decision Tree used by Pakistan education ministry (MOFEPT) for EduTV quick start during COVID-19		
Date	Action/Step	Remarks
13 March 2020	Committee formed at Ministry to formulate actions on continued learning during closure of educational institutions	Quick analysis of methods available to continue learning
16 March 2020	First meeting with Pakistan Television on availability of dedicated TV channel	Broad contours agreed
17 March 2020	Meeting with content providers/Ed-tech companies	Partners agreed to provide content pro bono till COVID19 crisis remains
17 March 2020	Committee recommends TV channel as viable option on continued learning	Digital platforms other method, not enough coverage
18 March 2020	Second meeting with Pakistan Television	Detailed costing, timings provided
18 March 2020	Emergency Learning Centre established at Federal Directorate of Education with a dedicated team of 60 subject and time-tabling specialists	Identification of curriculum SLOs, review of available content and broad timetabling of contents. Work continues till date on daily basis.
19 March 2020	Preparation of concept note on potential emergency education funding World Bank funding	Led by Ministry’s Technical Advisor
20 March 2020	Pakistan’s Planning Commission approves concept note	Led by Ministry’s Secretary and Technical Advisor
20 March 2020	Pakistan television formally asked to finalize arrangements for TV channel	Technical and administrative arrangements begin
21 March 2020	World Bank Project that includes emergency education funding for continued learning agreed with Government of Pakistan (PREP)	Negotiations started 9 am and concluded 10 pm
25 March 2020	MOU signed with Pakistan Television	In presence of Federal Minister for Education
26 March 2020	Ministry makes national appeal for free educational content	350 responses received over next three days
27 March 2020	Technical Committee formed to lead work on World Bank PREP project	Includes Ministry and National Disaster Relief Authority officials
28 March 2020	First meeting of Technical Committee	Approves procurement framework
1 April 2020	Federal Minister for Education tours Emergency Learning Centre and is briefed about on-going work	Minister appreciates work done by various teams
2 April 2020	Meeting with Allama Iqbal Open University	AIOU agrees to provide pre-airing editorial services
3 April 2020	Logo of Teleschool approved by Federal Minister for Education	Received one day earlier
3 April 2020	Broadcast details of TV channel forwarded to Pakistan Electronic Media Regulatory Authority to ensure that all cable operators carry channel	Discussed with PEMRA beforehand on telephone
3 April 2020	Communication agencies briefed on upcoming channel	Given 3 days to come up with electronic and social media ideas
4-5 April 2020	Teams at Emergency Learning Centre and AIOU work to finalize Day 1 and 2 broadcast content	Work continues on rolling basis till date
6 April 2020	Communication agency finalized	Subsequent work to finalize adverts
7 April 2020	Meeting with Pakistan Telecommunication Authority, Digital Pakistan Initiative, and Telecom operators for support on continued learning	Preliminaries of a two-way SMS system, e-portal discussed
7 April 2020	Teasers of upcoming channel launched on PTV	Done by PTV
9 April 2020	Teleschool channel graphical themes finalized and final editing of Day 1 begins at PTV	Subsequent on rolling basis
9 April 2020	Test-transmission of Teleschool channel begins	From PTV Islamabad with ‘Coming Soon’ loop
10 April 2020	Prime Minister of Pakistan formally requested to inaugurate Teleschool on 13 April 2020	Approved same day
10 April 2020	Media campaign for Teleschool approved	Spread over one week
10 April 2020	Pakistan Telecommunication Authority requested to send nationwide SMS about upcoming launch of Teleschool	In English and Urdu
12 April 2020	Prime Minister launches Teleschool	At PM’s office
13 April 2020	Formal broadcast of Teleschool begins at 8 am	At last!!!





Why China? China has one of the longest histories of using education television for teacher training and adult learning. During COVID-19, China implemented the strategy “Suspending Classroom without Suspending Learning” by launching EduTV to reach out all students.

Reaching all students	Because of high TV penetration across China, the Ministry of Education (MoE) launched EduTV to teach basic education curriculum for elementary and secondary students. The EduTV is broadcasted through China Education Television Channel 4 (CETV4) every day through satellite as well as cable TV. This reaches almost all students, including those from remote and disadvantaged areas as well as areas with limited/no internet. According to MoE data, 97.1% of students did not suspend learning during the educational disruption.
Leveraging & Supporting Teachers	After the EduTV lessons, local schoolteachers are responsible for tutoring students by answering their questions through various mediums, assessing homework and providing feedback to students. Support was provided for teachers through remote learning seminars on how to address student questions.
Leveraging Parents	Parents play important roles in remote learning of students. Their supervision is leveraged to ensure students watch EduTV lessons, complete homework assigned during these lessons and contact teachers for after-class tutoring, as well as for clearing lessons doubts.
Communication between teachers, students & parents	Students, teachers and parents communicate through phone calls, WeChat (similar to WhatsApp) and text messaging to ensure smooth and continuous communication and support between them.
Communicating with students in remote areas	In remote areas and villages, teachers are using public radio and speakers to provide supplementary support to EduTV lessons and to broadcast messages (eg. Guizhou, China).



Why Korea? Korea has one of the longest experiences of deploying EduTV during COVID-19 school closures. Its EduTV organisation, Korea Education Broadcasting System (EBS) also provides support to other countries to set up their own EduTV programming (e.g. Vietnam, Cambodia, Paraguay, Uzbekistan, Lao PDR amongst others).

<i>Korea leverages and supports teachers for EduTV lessons.</i>	To produce programming suitable for educational continuity, Korea ensures school-teachers participate in developing TV lessons and lessons are aligned to curriculum & textbooks . Korea provides support to teachers to develop innovative, engaging EduTV lessons.
<i>Korea’s EduTV supports all content across all grade levels.</i>	EBS deployed 12 EduTV channels during COVID-19 to ensure content for all 12 grades can be covered effectively.
<i>Korea uses multiple ways to ensure student engagement and learning during TV lessons.</i>	Assignments are given to students aligned to TV lessons that allows teachers to assess how much students have learnt as well ensures students make use of the EduTV lessons. Korea enhances the visual & auditory experience for students (e.g. using graphics to highlight key points of the lesson).
<i>Korea works with stakeholders to improve programming.</i>	Korea EBS works closely with the education ministry to ensure EduTV programs are relevant and widely used by students and teachers. EBS constantly collects and acts on feedback on its programming.
<i>Korea works on keeping EduTV costs low.</i>	Some ways include: a crisis response manual for education TV; an established communication system between EBS, education ministry, schools & families; a ready pool of teachers (with extensive content production know-how) willing to create content on short notice; integrated online and offline platform that allows easy access to EduTV content, etc.



Why Pakistan? Within a matter of weeks of school closures, Pakistan deployed 2 EduTV initiatives as remote learning: ‘TeleSchool’ by its [Ministry of Federal Education and Professional Training](#) and ‘Taleem Ghar’ by the [School Education Department](#) of the province of Punjab. This is a great example of swift response by governments to support equitable learning for all children during emergencies that is easily replicable by other countries.



<i>Pakistan deployed 2 EduTV initiatives within the span of a few weeks.</i>	Within a matter of 3 weeks, the School Education Department (SED) of the province of Punjab in Pakistan deployed its EduTV initiative ‘ Taleem Ghar ’ and similarly, within 4 weeks, Pakistan’s federal education ministry , the Ministry of Federal Education and Professional Training (MoFEPT) deployed ‘TeleSchool’.
<i>Pakistan leveraged existing education content to be programmed into TV lessons for a swift response.</i>	The federal education ministry (MoFEPT) worked with private education partners who offered existing education content for free to be used as part of the TV lessons. Punjab’s SED leveraged content previously created by the provincial government for teacher training and adapted it for TV lessons for students. Taleem Ghar team (Punjab) created 8 new animated characters (e.g. Miss P(a)i , Miss Curie , Mr. Isaac Newton) to adapt this content to make it student-friendly.
<i>Pakistan involved teachers to support TV lesson programming.</i>	Pakistan leveraged teachers and subject specialists to support the development of TV programming. This includes developing the sequencing of lessons; aligning existing content to the curriculum and student learning objectives; developing TV lesson scripts, voice overs for TV lessons , etc.
<i>Pakistan used continuous & varied forms of communication to spread awareness of EduTV to all communities.</i>	Communication campaigns involved print ads, TV ads, and leveraging ministers to amplify awareness on social media, including leveraging the Prime Minister of Pakistan and the Chief Minister of Punjab. The Taleem Ghar team shared 30-second teaser videos via WhatsApp & social media to build excitement. Punjab also made announcements in local mosques to ensure the communication reaches those without access to other media. A helpline was set up by the TeleSchool team well before its launch to provide additional support to students & parents/caregivers.
<i>Pakistan organised all related resources into a landing page to make it easy for students & parents to access & use EduTV.</i>	A Taleem Ghar website has been set up that organises all related resources in one place to make it easy for students and parents/caregivers to use them. This includes broadcast & rebroadcast schedules, links to rebroadcasts, link to its mobile app, feedback portal, etc. The TeleSchool team will soon be launching a similar portal as well called <i>e-Taleem</i> .



Why Ubongo? Ubongo is an edutainment organisation that uses contextual and inclusive content to support learning for children in Africa. Impact evaluations show strong impact on children and parents/caregivers in Tanzania.



<i>Ubongo uses program repetition to increase impact of its programs.</i>	For younger children, the same EduTV program episode is repeated up to 7 days in a row as research shows that this is more impactful for children learning than broadcasting new content daily for younger students. Learning increases each time children re-watch it. Younger students enjoy repetition. For older children, repetition is used once in 3 months as it helps to strengthen the concept being taught.
<i>Ubongo uses simple and unique ways to continue developing programming during COVID-19.</i>	Ubongo uses simple mobile phones and microphones to capture voice recordings for characters its programs during COVID-19. It takes them about 1 hour to record 5 minutes of voice recording for programming since many rounds of practise, trial and error are involved. They purposefully see challenges (like children's voices in the background while recording) as opportunities to make their recordings reflect realities of the lockdown. For children voices during the lockdown, since children cannot come to studios, Ubongo is considering using voice mapping software to map adult recordings to pre-recorded voices of children.
<i>Ubongo works with African governments to provide support with EduTV programming during COVID-19.</i>	Ubongo is sharing its content (including typically paid content) with governments and broadcasters for free to be used as part of EduTV programming. It has mapped its content (as well as non-Ubongo content) to national curriculums. It also provides templates for mapping its content to national curriculum, existing EduTV resources and language requirements of countries. Ministries can thus easily use Ubongo content as part of EduTV programming. Ubongo also distributes its content on USB devices that can directly be plugged to TVs and viewed as on demand content .
<i>Ubongo uses text messaging and IVR systems to complement its EduTV programs.</i>	An Interactive Voice Response (IVR) system provides free audio lessons to callers by leveraging radio content repackaged into mini phone-based lessons. Text messages are used to share reminders and scheduling about upcoming programs, activities for students/parents to engage their children in, adaptive quizzes regarding the content of their programming as well as nudges. For example, a nudge text message reads: "Did you know that if kids watch Akili and Me with their parents, they learn better? Tune in at 8pm to watch together."
<i>Ubongo distributes its TV programming content on</i>	Ubongo distributes its edutainment TV programming content on USB sticks



Why Sesame Workshop? Sesame Workshops has 50 years of experience with edutainment programs for children across more than 150 countries in more than 30 languages. Several impact evaluations show the effectiveness of Sesame Workshop programs for children.



<i>Sesame Workshop provides its COVID-19 content in 35+ languages to be used across countries.</i>	Sesame Workshop’s program, <i>Caring for Each Other</i> , is its new initiative focused on 3 areas: prevention, learning from home and coping with illness. This content has been adapted in over 35 languages. The content features Raya, the global health ambassador Muppet. Raya, since her creation has helped children in 15 countries and today speaks over 30 languages. Raya’s messages are being shared by Ministries (eg. Mexico) and and international NGO partners on broadcast, digital, and other platforms.
<i>Sesame Workshop makes its content engaging and locally relevant.</i>	Sesame Workshop creates content through an iterative research-based approach, aligned with the local curriculum. They engage local experts to develop a culturally meaningful curriculum that ties to local and measurable learning objectives. They employ formative and summative impact evaluations to continuously improve programming. Sesame Workshop also trains caregivers and service providers to use its resources in classrooms and communities.
<i>Sesame Workshop use a lean version of its research process during COVID-19 to ensure its content is impactful.</i>	During the lockdown, new content is being created rapidly with a collapsed, virtual version of their standard iterative process to ensure high quality. For example, in the Middle East, the International Rescue Committee tested digital delivery of early childhood development audio messages, Ahlan Simsim video and print materials with groups of caregivers through WhatsApp.
<i>Sesame Workshop uses complementary approaches to enhance the impact of its programs.</i>	(1) An Interactive Voice Response (IVR) system has been set up in India where people watching the local program, Galli Galli Sim Sim , can call a number for related resources. Their call is returned so they are not billed for the call. (2) During Sesame Workshop broadcasts in Mexico, a WhatsApp number is displayed at the bottom of the screen that parents can text to get related material that can be accessed on their phones.
<i>Sesame uses simple ideas to quickly contextualise its content.</i>	In some cases, Sesame Workshop changes the background images of the edutainment programs to localise the content to the country or region it is being broadcast in. Content is created with universality in mind so that this can be easily done.



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