Skilling/Higher Education for Career Growth for Rural Women
Knowledge Sharing and Ecosystem Building Series

By

Sajhe Sapne

Sapno se Manzil Tak

Second Topic

How to Make Education Through TV Effective?

(Discussion Hosted in Collaboration with
Akshara Foundation)

About Sajhe Sapne

Sajhe Sapne is a social enterprise providing young women in villages with aspirational career pathways.

Through the network of its skilling centers called Sapna Centers, it provides exposure, domain-specific skilling, guaranteed employment and on-job mentoring. Sapna Centers can be co-owned and run by community organisations.

Its first skilling program is Rural Development and Management training women to become project associates, managers, coordinators, facilitators etc in companies and startups, nonprofits and social enterprises.

Shared Credits:

This document is prepared with inputs given by Lipsa Bharati, working with Akshara Foundation, a Trust dedicated to ensuring quality pre-school and primary education for every child.

Purpose of Document:

As a part of Knowledge Sharing and Ecosystem Building Series, this document is created and shared publicly by Sajhe Sapne in an effort to share knowledge about the topic and strengthen the skilling and employment ecosystem for young women in rural India.

This can be used by individuals and non-profits working and researching to make education more inclusive and accessible.

Together, we can take the movements on gender equality and rural development forward.

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CONTEXT

A survey by the Ministry of Rural Development, informed that only 8% of the households with youth have Internet access in India. In such a scenario, many NGOs and schools are figuring out how to make education more accessible through TV, Radio and IVRS. It is equally important to find ways to make this content delivery effective and engaging.

COVID-19 school closures' has brought to fore the need for at-home learning solutions to mitigate learning losses. While a lot of online, internet based solutions have emerged, World Bank policy briefs for COVID-19 response to education in emerging countries as well as response from NCERT, India has been to leverage mediums like Television & Radio.

We brought together a set of practitioners in the field of education who are experimenting such interventions and learn from their experiences. This document is the summary of discussion between 15 such practitioners giving some practical tips on content production, content stickiness and delivery. They have also candidly shared the challenges each of these experiments pose and some suggestions on dealing with them.

Notes from an earlier discussion on how to mobilise girls during COVID uncertainty without enough footarmy of field workers can be found here.

AGENDA

(10 mins) **Context Setting** and Discussion Guidelines
(40 mins) **Discussion Theme: 1** Existing examples of **effective** content delivery through TV/Radio and/or Whatsapp/Zoom
(50 mins) **Discussion Theme 2**: Existing gaps and possibilities of new content and pedagogy
(15 mins) **Discussion Theme 3:** What kind of partnerships and incentives do we need to create that ecosystem of content creation and its effective implementation?

EXPECTATIONS FROM THIS DISCUSSION

1. To learn from each other's work so far
2. Explore partnerships/collaborations
3. Together find solutions for some of the common challenges
4. Get a sense of solidarity that many are working towards same challenges

PRIORITIES/ SCOPE OF THE DISCUSSION

1. **Existing examples of education program delivery through TV/Radio/IVRS**
   Effective pedagogy: What kind of pedagogy is working?
   Curriculum Design: What kind of content is working?
   Learning Accountability: What did engagement look like? What factors enabled that content?

2. **Existing gaps and possibilities of new content and pedagogy types**
   Effective pedagogy and curriculum: What kind of content is missing? How can it be created?
   Learning Accountability: What are the ways in which students' learning and followup on lessons can be ensured without a real time presence of a class or teacher? What are those hooks for learning?

3. **Partnerships & Collaboration**

   Key things needed for content creation and effective implementation of Tv based learning. What kind of partnerships do we need to create that ecosystem? Possible incentives?

Key Insights: Existing examples of education program delivery through TV/Radio/IVRS

INTERVENTIONS WITH LARGE SCALE IMPLEMENTATION

TV Broadcasts in Rajasthan, Jharkhand and Bihar

- **Eckovation** is producing and disseminating content for class 6th to 12th. The content aligns with state boards, ICSE and CBSE syllabus. The response so far has been fairly good with parents wanting more such content. Still waiting for TRPs to analyse the viewership.
- The attention span of students on videos on Youtube and TV is pretty low, on an average 2-3 mins, so it is important to keep the videos small. Anything beyond 10mins is not advisable. Videos also have MCQ questions during the session to engage students and ensure stickiness of the content.
- Videos also do not have to be focused on just one concept but can be made using multiple concepts with some storyline.
- Parents often expect animations in the videos because a lot of content on Youtube is such; but they have kept their videos simple and direct which seems to be working with students well.
- Sample Eckovation content as broadcast on Bihar TV in partnership with Govt can be accessed here- Elementary, Secondary & Senior-Secondary

- **Similar to Eckovation, Pratham** is also producing the content for school going students (std 1-5) and broadcasting it in districts of Bihar.

- There are set hours regularly for broadcasting content on TV; one hour for Std 1-2 and 2 hours for Std 3-5.
- They have made this content using lessons learned from Pratham's rich experience of creating digital content. All their material is under Creative Commons and is accessible to a wider audience here.
- Each video/broadcast is complete in itself and one video's learning doesn't rely on students watching previously broadcasted content. Thus, the programs are not made linear in terms of content but in a mixed manner.
- They also ensure inserting fun activities in between the modules to allow for some downtime for the children during the show. It is important to not bombard the students with concepts but create engaging story lines with multiple concepts integrated well. For example, in case of language subjects, they use stories and rhymes at the beginning of the videos as attention hooks. Also, addressing the viewer directly during the session such as "what do you think about this?" or "have you done it in your notebook?" nudges students to think on their feet and connect a bit more with teaching through a screen.
- Screen recording for teachers teaching lessons or voice overs in a PPT are one of the low-cost ways of creating quality content.
- One subject goes on for 20 mins and within that video multiple concepts of that subject.
- In Bihar, creating characters that are consistent across videos have helped in establishing more relatability to the learning session among students. Here's the content posted by Bihar govt
- If considering peer-learning, then creating a content script and outline for children which they can read out loud would help in ensuring quality.

1. Youtube Content Complemented with TV Broadcasting:

- **Avanti Learning Center's** have been posting content for std 9th to 12th on Youtube; their videos are 5-7mins long. The Madhya Pradesh education department uses their youtube playlist to make educational episodes and broadcast them on Doordarshan
- There is fixed timing for each subject and the schedule is shared with the students beforehand.
- The guidelines and flexibility for creating content for these two platforms differ from each other. Also, syncing up the frequency and timing of the content on both the platforms is an issue. Children can access the content on Youtube anytime and thus, might skip the lessons on TV. Also, episodes on TV are 50 mins long which necessarily may not ensure consistent attentiveness of students. As per the insights from youtube, the attention span of students usually lasts 2-3 mins.
- Each youtube video of the concept is 5-7mins. There is an introduction to every chapter, real life application of that chapter, within each subtopic the narrator talks about real-life examples, problems and then concept tests and recall tests.
- For different states, Avanti created separate links to track tractions.
- Every Saturday, tests through google forms are conducted wherever possible. Also, they are going to experiment with Whatsapp-based assessments provided by Convegenius

2. Hands-on activity based STEM content for TV broadcasting:

- **Akshara** is working with Education department in Odisha to release maths videos on TV with a focus on do-it-yourself Teaching/Learning Material (TLMs)
- It is important to work on education delivery through TV not only because there is a lack of accessibility to the Internet and phones but also because it offers bigger screen size and time for learning. It should be worked out irrespective of Internet accessibility.

- They initiated the process of production through engaging with teachers and practitioners in the domain and understand what kind of pedagogy and content might work with the students
- The videos are one-way transmission with clear **call to action** among it's viewers (children and parents). The average video length would be 20-30 mins, which needs to be reconsidered based on experiences of others in the domain.
- The current framework for structuring the content include: a) Engage activity - song, dance, peer game, activity, project - Demo by the teacher of these activities with children participating in it. - *call to action* (parents/siblings to help) b) Revision - check prior knowledge - Teacher checking if children required prior knowledge. c) Do-it-Yourself TLM (used for this concept) - *call to action* (for parents or children) d) Demo of the TLM e) Representation/Pictorial Stage Practice e) Practice problem from the Workbook/ Textbook - *call to action e)* Real-life examples/use case for the concept f) Effective ways of solving word problems for the concept g) Common Misconceptions for the concept h) Scan the QR code in Diksha for practice material games on BB. - *call to action* (students play the game)

3. Combining mobile App-based and text-based content delivery:

- **Byju** has strengthened their social initiative with a dedicated team to find ways to make their content accessible to low-resource communities.
- Since Internet bandwidth and smart device accessibility is limited in many places, they are targeting teachers with smartphone access to use their content on Byju's app specifically for std.9th and 10th. The teachers convert this content (lessons, quizzes, question banks and exercises) into text based content and send to the students. They customize this content for their classrooms and understand what kind of lessons might work for their students.

- They are also considering creating partnerships to broadcast their lessons through local cable operators in Uttarakhand but need to ensure that their content is not copied without proper rights/credits and is not misused for payments by local operators.
- The few things they focus in their content: rich audio-visuals with 3D animation wherever possible, it always has a person present in the video who navigates through the concepts, overlaid with lots of images and visuals esp for tough concepts, it is aligned to state level/CBSE/iCSE curriculum, it is intended to be an additional support school app. Breaking down chapters into concepts and not necessarily focus on going through chapter wise. For example, if a video explains pythagoras theorem, it will be shown wherever it is applicable across subjects.
- Creating content in vernacular language is the focus, with content in eight languages so far.
- The video settings have five different speeds so that students can engage with their needs in different settings. For example, for revising a concept, a student might want to quickly go through the video and for the first time understand, at a slower speed.
- Lots of quizzes and interactive actions. Tech plays a strong role. Adaptive learning, when a student answers a question, the next question shows up depending on the difficulty learning.Responsive tool. Instant gratification really helps - one correct answer gets you a badge.
- Scenario-based learning is something that could be tried to make the content engaging. Wherein a question with multiple options can help students learn a concept through different scenarios that can be resulted when an option is chosen as an answer. This would make students accountable for their decision in non-classroom based teaching.
- One subject will be taught by the same teachers. Relatability of the image and voice and consistency with the same person is important. Person is a cue to bring students to learn about a particular subject.

- It might be useful to recreate a mini-classroom setup within videos to help students connect with the process through TV

Interventions at smaller scale currently

1. **Community Radio and IVR:**

- **Think Zone** has a team of community educators in Odisha who started sharing the content on Whatsapp. Because access to Internet and smartphones are a challenge, they started an IVR program, where a number was publicised on which students can call and get the content, clear doubts, and get motivated to study. Anyone in the country can call on this number and access content is in three languages for school going children.The current scale of this IVR is 3600 calls regularly with access to 5200 students through SMS
- Push based content where student-specific content gets shared with parents during a specific time period in the day. And content for parents to help them engage with the resources for educating the child.
- Piloted a learning program through community radio but the challenge is to have a program without music or ads interruption is difficult.

2. **Community Radio and TV Broadcast:**

- **Sanjhi Sikhiya** in Punjab played two hours of educational content in community radios targeted at students of 70 schools in a district. But did not get a favorable response from the students, partly because of access to phones, partly because of understanding the concepts just by audio pieces.
- They complemented this content with a more 2-5 hours of broadcast of tailored content on TV and sending it on Whatsapp as well.

- Providing data packs to recharge parent's phones and arranging notebooks was also part of this initiative.

3. Using Government's e-Learning Platform, Diksha

- **Pi Jam Foundation** has made computer programming learning modules and uploaded them to Diksha. Since for their hands-on learning program, android access was key, it became limiting because many students did not have access to phones. Diksha can be accessed offline and since lockdown, it has become accessible not only to the teachers but also to students. It is important to note that there is rich content available for science, maths and languages but non-core subjects such as computer science, arts-based courses etc are yet to be developed properly.
- They are also focusing on peer-learning through whatsapp and zoom sessions where students create simple animations and share it with others.

4. Text-based "non-academic" Content Disseminated Through SMS and Whatsapp. Creating Safe space for Children is Very Critical

- Slam Out Loud has been offering activity-based and art-based (storytelling, poetry writing etc) learning activities to help students find avenues of self-expression and also support their mental health in the process.
- They are using Whatsapp to disseminate and mobilize children in under-resourced communities. After an activity, they can send an artwork on a whatsapp number. Sometimes they do, sometimes they don't.
- For children with internet access, we at Slam Out Loud have also launched a FREE and interactive at-home 'Do-It-Yourself' styled theatre course video content accessible on-demand by hosting on our YouTube channel. In case anyone is interested they can check it

out. They also have FREE wellbeing activities for kids which can build life relevant skills and provide a safe pace for expression.

- Lots of orgs are doing work in STEM but art-based curriculum is needed and such spaces need to be created. The arts-based content is key for the well-being of children during the current times when students, teachers and parents are overwhelmed by excess information from different channels.
- The outreach to children gets limited or impacted by low bandwidth, so the team started making low-bandwidth text-based content. This content and exercises are different from their school textbook curriculums and are not mandatory or imposed upon them
- While designing the content, there are elements to engage with parents and siblings. For kids, it acts as a way to reduce loneliness and create more accountability.
- The content is short and instructions are simple and in regional languages. It is key to use vernacular language as it builds relatability and more understanding.
- The team takes periodic feedback from students to understand the needs of the students. This is done using google forms and msgs.
- In terms of suggestions to make content more engaging and ensuring that students keep following up on lessons, one can introduce an interactive series of questions where students can give themselves 3-4 stars and after the end of the video based on their answers. They can also be encouraged to give themselves medals for trying and for being sincere at doing an exercise. Being mindful about the metrics of learning would help in not using “comparison” as a key driver of learning.
- Another suggestion was to introduce a helpline number that can be introduced along with the TV program as a doubt clearing ways. A student gives a ring to this number and an educator can call them back to clarify doubts and motivate them. A specific day and hours could also be fixed for this. For smaller programs, zoom calls for

50-70 students can show up and tell everyone else what they did learn.

- Sharing helpline numbers that address children's safety and wellbeing should also be included in most programs that are broadcasted through youtube or TV. Since the class environment is missing, teachers who used to be trust-worthy allies for students to report abuse or distress, it is important to keep creating space in every video that their issues are seen and they are heard.

- Dream a Dream too is working on creating non-curriculum content for children where their wellbeing is at a priority. Creating safe and joyful learning spaces even when the children are learning at home is the key thesis for their content.
- They are making their plans by engaging with their existing network of teachers, students and parents. Feedback from students so far has been that they are enjoying the time off from school

5. Interactive Workshops Through Zoom and Whatsapp Ensuring Kids Do Hands-on Activities to Learn STEM Activities

- Aavishkaar creates hands-on exercises and activities to help students learn concepts of maths and science. They do teachers' training across India to help educators pick up these rich content of interactive activities. During the lockdown, they converted their maths camps and teachers' training sessions on Zoom and still had great success in terms of participants' response and participation.
- Their regular sessions are usually with 30-40 participants at max. For a lesson on any concept for students, a question or puzzle is included within the first 2-3 mins of the video/session to invite students to actively think and be part of the session. The concept lesson then unfolds with unfolding of this puzzle and their thoughts and responses about it.
- The activities and exercises are done with objects which can be found at home easily. Examples of this can be seen here.

- For every group, they meet twice in a day. Once in the morning when a concept and a puzzle is discussed and a new question/experiment is given for everyone to try. Once in the afternoon, when everyone demonstrates their experiments and carry a discussion on the same.

Key Challenges, Missing Gaps and Potential Fixes

1. **Need Low Stakes Parental Engagement for At-Home Learning**
   - Awareness of online or TV based digital learning programmes is also low. Efforts are required in constant messaging as well as collating a suite of learning choices available currently. Messaging through key influencers and local media will empower parents with information on how they can ensure that their child has learning opportunities. Getting their buy-in to provide TV/device screen time wherever there's access is a first step towards engaging.
   - During COVID, one thing organizations are seeing on ground is that some sort of guidance for children is key. In absence of schools, parents may have to play that role. Content that is created should have nudges and simple guidance for parents to participate in their child's learning process. SlamOutLoud has seen that conversion for their arts based WhatsApp content with cues for family engagement.
   - However, engagement of parents has to be low stakes and easy. ThinkZone ensures that they share very simple activity tips at optimum hours of the day, with parents that can be done with materials found easily at home.

2. Conscious Design Thinking to Enable Safe & Supportive Digital Learning Spaces that Inspire Creativity

- Design thinking for content and delivery to consciously create safe or positive space during TV lessons is needed. This could be done by extending support beyond curriculum, using sessions for disseminating information on various helplines, sharing relatable experiences at the end of each session e.g. Shaktimaan's *"Choti choti par moti baatein"*.
- Current content on TV is very unidirectional and may not be inspiring creativity. If we draw parallel to why we watch TV and how it translates to learning through TV, there's always a story line and we were excited to see how that progresses. Having a set of constant characters on a programme can create the sense of connection and storyline.
- Scenario based learning where students estimate the outcome of any experiment of a problem can create a sense of interactiveness as well as learning accountability in a non-classroom based teaching.
- Simple rewards for learning through TV can be done as is done in gamified learning environments e.g. "*A practice problem is given. The correct answer is shown after some solving time. If the learner gets it correct, they can draw a star in their copies*".
- However, it's important to consciously create space for children who may not be able to get these rewards because of pre-existing learning gaps from the school system. The digital learning space shouldn't become an additional struggle for children given the current pandemic context.
- Meshing cognitively loaded programmes on math or other subjects with spaces for art, craft and other forms of expression can help.

3. Processes to Monitor Learning Quality & Impact Through Non-internet, Non-platform Mediums

- Monitoring the real impact of education programs through TV is a challenge. TRP and viewership can be a way to know whether a program is being watched or not.
- Need to think of other student outputs at the end of a session. An analogy was shared by Enviro-Vigil regarding their "Growing the Green" for soft content encouraging students to grow plants. By measuring seed-sales by NGOs they were able to correlate the conversion of their call to action. Similarly toll free text options can be given to students in case they want to share post lesson thoughts or solutions to a puzzle etc.
- Qualitative data through surveys and interviews of stakeholders will help in the initial phase and further evolution of such programmes in terms of timings, engagement with learners, scaffolding of content etc.
- Dedicated mechanism and time for sharing learnings amongst children and follow up by a teacher on specific days can help bridge the unidirectionality of TV/Radio/IVRS based learning programmes.
- As collecting relevant data is difficult during these times and a reliable assessment process is yet to be thought out, it could be experimented that students can be given an option to send texts on a toll-free number (which doesn't charge them) with regard to whatever they have learned from the television episode that day - it may be the concept or it can also be chapter. Though it is not the best measure to collect all the relevant data but can still serve useful in resource constrained environments and especially on mediums which lack 2-way communication.
- The results of the feedback/assessment can also be displayed as a poll result in the next video/television episode which gives the children an incentive to participate as they

feel a part of the poll/survey result.

4. Scope for Peer Learning in Digital Programmes esp in a Physical Distancing Context

- Dedicated mechanism and time for sharing learnings amongst children and follow up by a teacher on specific days can help bridge the unidirectionality of TV/Radio/IVRS based learning programmes.
- Peer learning is missing in current digital learning content whereas we probably imitate the behaviour of those who we connect to the most. Can the aspect of children teaching other children be explored in TV or Radio based programmes? This can help bring some reminiscence to classroom situations of peer learning.
- An easy process to integrate children's involvement could be to prepare readymade scripts that can then be read by children
- In order to ensure programme content is inherently child centric, content moderation teams could include students too.

5. Balance of Short-Term Need and Long-Term Strategy

- There's a lot of existing content and "what should children learn" frameworks out there. In a short run, focus could be more on implementing them and giving learners a sense of "being there".
- A holistics longer term approach to thinking is needed where initiatives to bridge the existing digital divide as well as integrating digital learning into regular school curriculums.
- In this light, TV as a medium is worth pursuing given screen size and better viewability and not just as the substitute of lack of access to mobile devices.

Possible Partnerships and Collaborations

1. **Within NGOs as per Comparative Advantage**

    - Small NGOs with focussed expertise and larger NGOs with scale could partner for mutual benefits. Case in point is Pi Jam's computer learning curriculums were integrated with DIKSHA in Maharashtra through partnership with Leadership for Equity, an organization which has a strong partnership with Govt. of Maharashtra.
    - STEM focussed organisations could come together for collaboration on digital programmes as they all would have insights on hands-on teaching-learning. An example would be Akshara Foundation with Math expertise as well as Govt. partnerships working with Aavishkar which has Math & Science hands-on programmes. Or Pi-Jam Foundation pa

2. **With Governments at Multiple Hierarchies**

    - Partnering with governments helps achieve scale and leverages existing resources.
    - NGOs can choose to decide State vs District partnerships based on their internal capacity and bandwidth for scale.
    - With governments, written or oral recommendations from other government bodies help in anchoring initial conversations.

3. **With Communities of Homeschoolers**
    - There's an active community of homeschoolers in India. Collaborating with them could help in better design of at-home learning solutions and provide fast feedback for improvement of content design, delivery processes etc…
    - A sample note shared by a homeschooler with India's Central Board of Secondary Education(CBSE) can be found here. This

formed the basis for CBSE's guidance to parents and principals across the country as a response to closure of schools.

4. **With India's "One Nation One Digital Platform"-DIKSHA**

- Scale of DIKSHA- This is the nation's digital learning and almost every state of the country has a partition.
- VidyaDaan- DIKSHA in partnership with state governments has created crowdsourcing platforms and protocols for easier content collaboration in this space.

5. **Co-creation of Content & Delivery with Student**

- The idea of involving children in co-creation of content as well as delivery through multiple media can be thought of seriously to ensure child-centric programmes are designed.

6. **Platforms like Internshala Offer Exchange of Talent & Exposure**

- In a time of resource scarcity in terms of human power to be able to design, collate, deliver content on digital media, partnership with platforms like Internshala can be explored on "impact" projects. Environ-Vigil was able to get subsidised support from Internshala for their projects.

Participants:

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Binayak Acharya from ThinkZone. As a direct response to the crisis, ThinkZone is using accessible technology to implement 'home-based education programs' for children aged 3-10 years. We use 'voice call & SMS-based' learning platforms to reach out to parents so that they can engage children in activity-based learning content. Access to the content is free of cost for the families. (binayak@thinkzone.in)

Prakash Joshi, Joint Director(DIKSHA) from Odisha School Education & Programme Authority (OSEPA). OSEPA is the implementing body of Samagra Siksha in Odisha and is aligned under the Department of School & Mass Education, Government of Odisha.

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Yoshita Agrawal from Pratham Education Foundation in the Hybrid Learning program. The program primarily focuses on delivering Science, Maths, English and Language content to Std 6-8 students through a digital based medium. We

have collaborated with Bihar Govt, to provide TV episodes of 1 hour each for Std 1-2 and Std 3-5. (yoshita.agrawal@pratham.org)

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