JUL-DEC 2020

IMPACT AND LEARNING REPORT

PREPARED AND PRESENTED BY

MANTRA4CHANGE, BENGALURU, KARNATAKA

INTRODUCTION: PBL & THE COLLECTIVE

The disruption to education caused by COVID-19 in the year 2020 has left the continuity of learning for crores of Indian children hanging. With over 60% of India's school-going children belonging to rural and tribal communities (an estimated 208 million children) , there emerged a need to provide them with contextual and enriching learning opportunities independent of prerequisites like the internet at a time when schools are shut.

In response to this need, the Innovation Directorate at Education Above All (EAA), an international education organisation based in Qatar, began to develop internet-free learning resources (IFERB projects) for continued learning in low-resource and digitally disconnected contexts. Together with EAA, Mantra4Change seeded the idea of a collective to reach 100,000 children in remote geographies across India. The Collective comprises 15 organizations who have come together to translate, contextualize and implement EAA's internet-free learning resources (IFERB projects) in 12 states across the country.

These 15 organisations work in remote, and oftentimes difficult, contexts around the country. Shiksharth, for example, is based in Chhattisgarh and works with children in conflict-affected areas. Vidhya Vidhai works with low-fee private and government school children in rural Tamil Nadu. rZamba, based in Kargil, works with children in adverse physical and socio-economic conditions.

Prior to IFERB implementation through the Collective, none of the students were engaged in any learning activities from schools. Most students, who were part of the partner programs were engaged in learning by using foundation literacy & numeracy worksheets.

IFERB projects are the EAA Innovation Directorate's adoption of the project-based learning approach for low-resourced and disconnected communities IFERB projects do not require the internet, have little need for extraneous resources, and were designed to help provide students who experienced disruptions due to COVID-19 with learning opportunities. The projects are spread across the areas of literacy, numeracy, social science, and science.

INTRODUCTION: PBL & THE COLLECTIVE

They contain a number of interactive components, including experiments, games, and activities, to help facilitators and students navigate academic concepts in a fun and playful manner. Through this report, we aim to capture the impact of this intervention and the PBL approach, as well as document the many learnings from the pilot. What we want to explore, in particular, is how the IFERB projects supported learning for those in disconnected and low-resource communities, as well as some of the challenges and successes of the pilot in addressing the learning needs of these children across India.

Our monitoring. evaluation, and learning framework was based on the following questions:

1. What are the challenges and opportunities when it comes to remote learning in rural and tribal geographies across India?
2. What are different models which would enable remote learning in these geographies?
3. Is PBL an effective alternative for continued learning in the context of school closures?
4. What elements of the program impact continue after the pilot program intervention?

The data was collected through a mixture of student and volunteer surveys, student assessments, and focus group discussions.

OUR PARTNERS

INDEX

PILOT OVERVIEW

Operationally, the collective began the pilot in July 2020. The intervention began with the baseline academic assessment, administered to 8000 students across 10 states. Before the baseline assessment, the organisations had been involved in recruiting students as well as onboarding and training volunteers. We also undertook a community survey during this time to understand the socio-economic background of our learners better.

Once the assessment stage was complete, volunteers began to facilitate the various projects for their students. The projects were translated and contextualised into 6 regional languages, and disseminated in many forms. Some organisations, for example, chose to send small video snippets describing the project's daily activities to their volunteers, while others chose to share a worksheet or instruction sheet for the entire project.

Though the operational model (empowering volunteers to reach students) remained the same across organisations, volunteers engaged students through a variety and combination of channels.
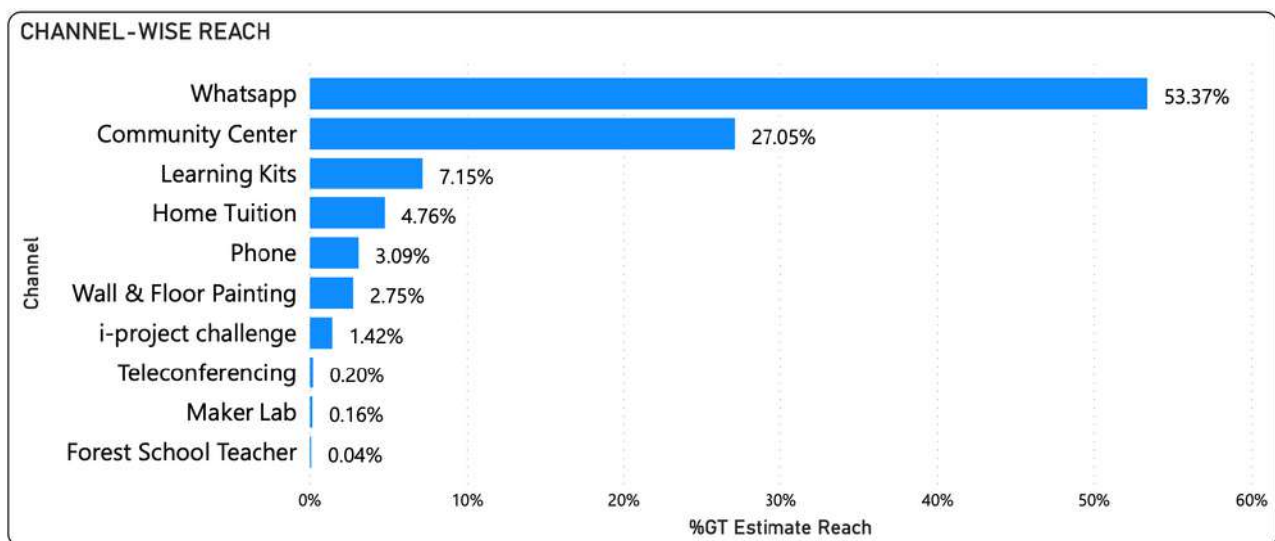
various operational models in detail later in the report.

PILOT OVERVIEW

Once the projects were underway, volunteers began to send us student feedback as well as their own thoughts on each project, allowing us to understand which projects were relevant, impactful, and enjoyable for our learners. We also organised bi-weekly check-in calls with the organisations, allowing us to get rich insight into the operational process and challenges. We were able to use these calls to brainstorm about many of our challenges on field happening in real time, such as difficulties with differentiation or getting parents on board.

Beginning with a deeper understanding of our reach and the context of our learners, this report will examine the growth in learners and volunteers, and the various impact stories collected through the intervention.

We will also explore in detail the content creation process, feedback on the project, and our big learnings from the pilot.

REACH BY GEOGRAPHY

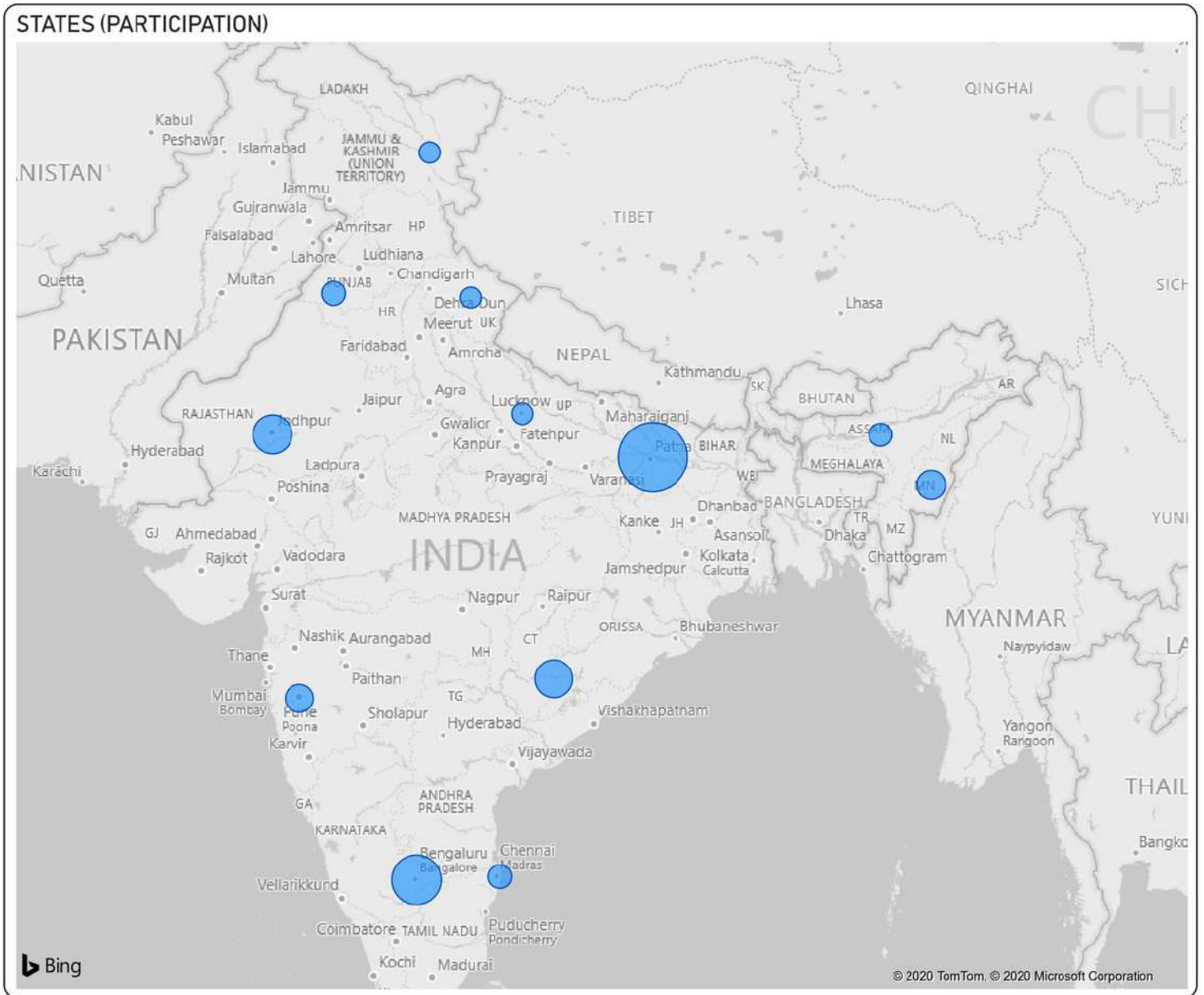## MAPPING REGIONS AND SIZE OF STUDENT PARTICIPATION ACROSS THE COUNTRY.

STATES (PARTICIPATION)

FIG 1. GEOGRAPHIC REACH
*SIZE OF DOTS ILLUSTRATIVE OF SIZE OF PILOT

WHO ARE OUR LEARNERS?

UNDERSTANDING THE BACKGROUND OF OUR LEARNERS.

Many of the children reached through this intervention came from disconnected, rural, and remote communities, where education was poor quality and often affected by violence or conflict. Many of our learners had dropped out of school. To understand more about our learners' socio-economic context and educational background, we conducted a survey with a sample of 564 households across 7 states. Following are some of our learnings from the survey:

- **Parents' levels of formal education:** Of the parents surveyed, 35% had not gone to school and 31% had stopped their education before the 10th grade. 9% had an undergraduate degree or above.
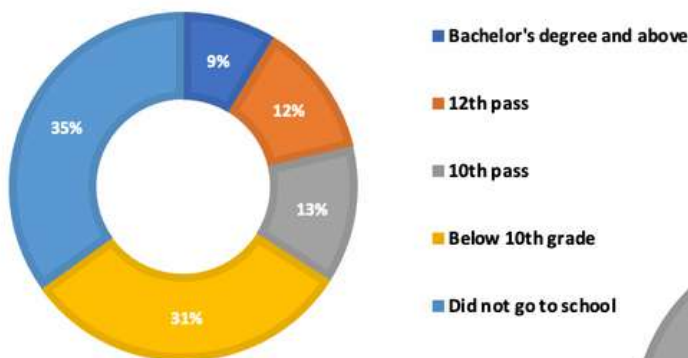
PARENT'S EDUCATION

Fig. 2: Parents' education levels

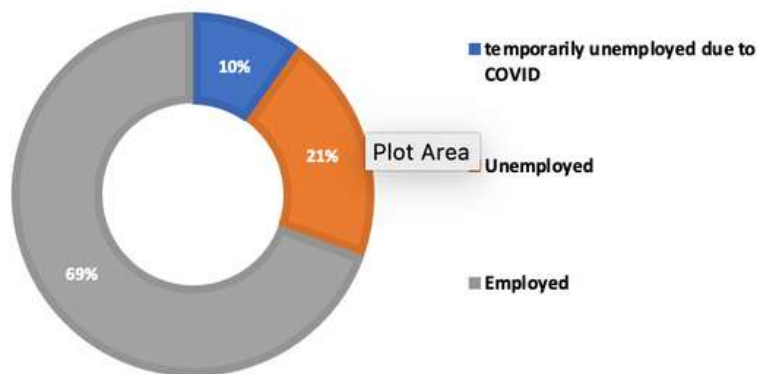### PARENT'S EMPLOYMENT STATUS

Fig. 3: Parents' employment

While the overall education level of the surveyed population seems low, around 65% of parents have still attained some form of education and would be able to help at least the younger students with the IFERB activities designed for home learning.
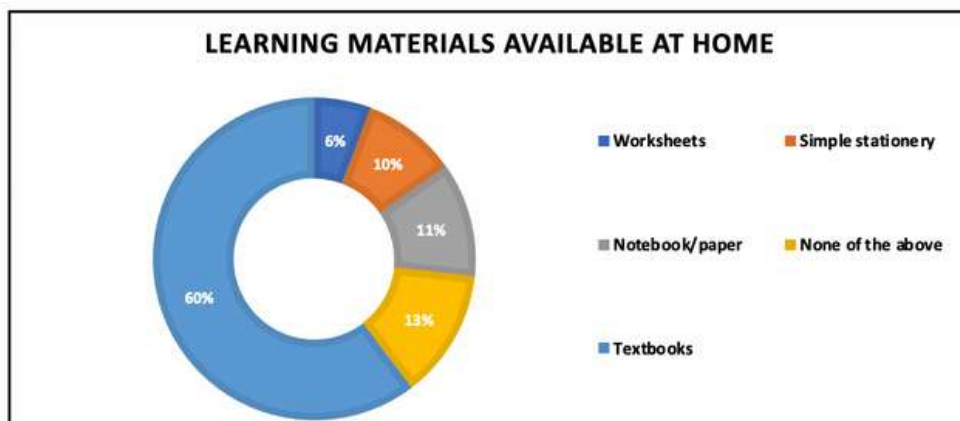
WHO ARE OUR LEARNERS?

However, as nearly 70% of these parents were also employed (as labourers, farmers, or village workers), they would not necessarily have the time to engage in learning activities at home.

We can see from the graoh below that 45% parents would have no time for learning activities, and 24% able to spend 1-2 hours on learning.

TIME TO DO LEARNING ACTIVITIES WITH CHILDREN

- Less than 1 hour
- 2 to 3 Hours
- Sometimes during weekend
- More than 3 hours
- 1 to 2 Hours
- No Time

5% 7% 9% 10% 45% 24%

Fig. 4: Time availability

- **Resource availability at home:** In terms of learning materials, 60% of the surveyed parents indicated that they had textbooks at home, with around 7-10% indicating that they had worksheets, textbooks, and simple stationery. 37% also had storybooks at home.

LEARNING MATERIALS AVAILABLE AT HOME

- Worksheets
- Simple stationery
- Notebook/paper
- None of the above
- Textbooks

6% 10% 11% 60% 13%

Almost half the parents surveyed also had a smartphone with internet. In theory, this would make digital learning (through WhatsApp, for example) possible for many of these children, but only as long as they had access to their parent's smartphone.

KEY INDICATORS:
OUR VISION FOR SUCCESS

INDICATOR	TARGET	ACHIEVED
NUMBER OF PROJECTS TRANSLATED AND CUSTOMISED PER LANGUAGE	30	23
% OF TEACHERS/VOLUNTEERS SATISFIED WITH LEARNING FROM PBL RESOURCES	75%	100%
% STUDENTS SATISFIED WITH LEVEL OF ENGAGEMENT WITH PBL RESOURCES	75%	83%
% STUDENTS SATISFIED WITH LEARNING FROM PBL RESOURCES	75%	98%
NUMBER OF STUDENTS PARTICIPATING	100,000	101,000

HOW WAS STUDENT LEARNING IMPACTED?

A QUICK GLIMPSE AT HOW STUDENT LEARNING WAS IMPACTED BY THE INTERVENTION.

INDICATOR	ACHIEVED
AVG % GROWTH IN STUDENT PERFORMANCE FROM BASELINE TO ENDLINE	16.5%
AVG % GROWTH IN STUDENTS' SCORES ON SELECTED 21ST CENTURY SKILLS	18.2%

ACADEMIC GROWTH

HOW DID WE MEASURE ACADEMIC GROWTH?

The baseline assessment was designed as a question bank containing a few questions for each project on the list of core projects. There was an equal distribution of Knowledge, Skill and Discovery questions (spread across literacy skills, numeracy skills, basic science and social science knowledge). Each assessing organisation chose a smaller list of projects from the core project selection, and then picked 1 or 2 questions per project from the bank and created their own assessment. Questions were disseminated in oral and/or verbal format, depending on the literacy levels of the students as well as mode of assessment (phone, in-person, etc.).

Breaking down the assessment:

Discovery questions: these questions test learners' understanding of concepts that are central to the project theme and acquired by applying learning. Learners should be able to understand these concepts through the execution of the projects' tasks, experiments etc. Examples: What are some ways we can conserve water? What happens if we bury a plastic item?

Skills questions: these questions target learners' ability to demonstrate both understanding of concepts and application of knowledge in different ways including writing, reading comprehension, illustration and representation of information in different formats etc. The skills may be directly or indirectly related to the project theme. Examples: compare between two concepts; represent the data in a graph; draw a diagram; solve the following problem; choose the correct tense.

Knowledge questions: these questions test learners' knowledge of concepts covered in the projects that do not require application skills and are more theoretical (or general knowledge based) in nature. Examples: list two uses of plants; name three planets; how many sides does a rectangle have?

ACADEMIC GROWTH

THE RESULTS FROM THE ASSESSMENTS

Analyzing the baseline & endline data of around 8000 students (from 10 organizations working in 8 states), we found significant growth in their scores. There was a **16.5% average increase** in scores from baseline to end line for all sampled students. The average growth rates for students who took the written assessment and those who did an oral assessment are close to each other: the growth rates are 19% and 18% respectively. From the graph in Fig. 6 below, we can immediately see that:

- Students across all ages show growth in their scores from the baseline to the end line assessment, indicating definitive learning across all age groups.
- The growth rate is highest (25%) among students of age 5, stays at around 17% for students of ages 7-11, then decreases to about 12% for ages 12-15. Younger students have thus experienced the most growth in their academic scores as a result of the intervention. We could attribute this trend to the fact that the intended audience for IFERB Level 1 projects (which were used in this pilot) is children of ages 4-7.
- Students of ages 12-15 scored higher on the baseline than other age groups, and had the lowest growth rate of all ages. These students might have benefitted from a more complex set of projects. However, volunteers have indicated through fee that many older students benefitted from Level 1 projects in two ways: one, the projects were a refresher on basic concepts such as spelling, vocabulary, and math operations; and two, projects such as Our House Rules for COVID-19 gave all students (regardless of age) timely and relevant information about their current environment.

In Fig.7, we can see the age-wise distribution of the students in the collective. We can see that the age group that had the highest growth rate (4-7) and the age group that has the largest number of children (8-10) do not overlap. This means that despite the highest growth rate being 25%, the age-wise distribution shows us that a majority of students had a growth rate around 17%, which once again speaks to the intended audience for the Level 1 projects being much younger than the average age of the collective.
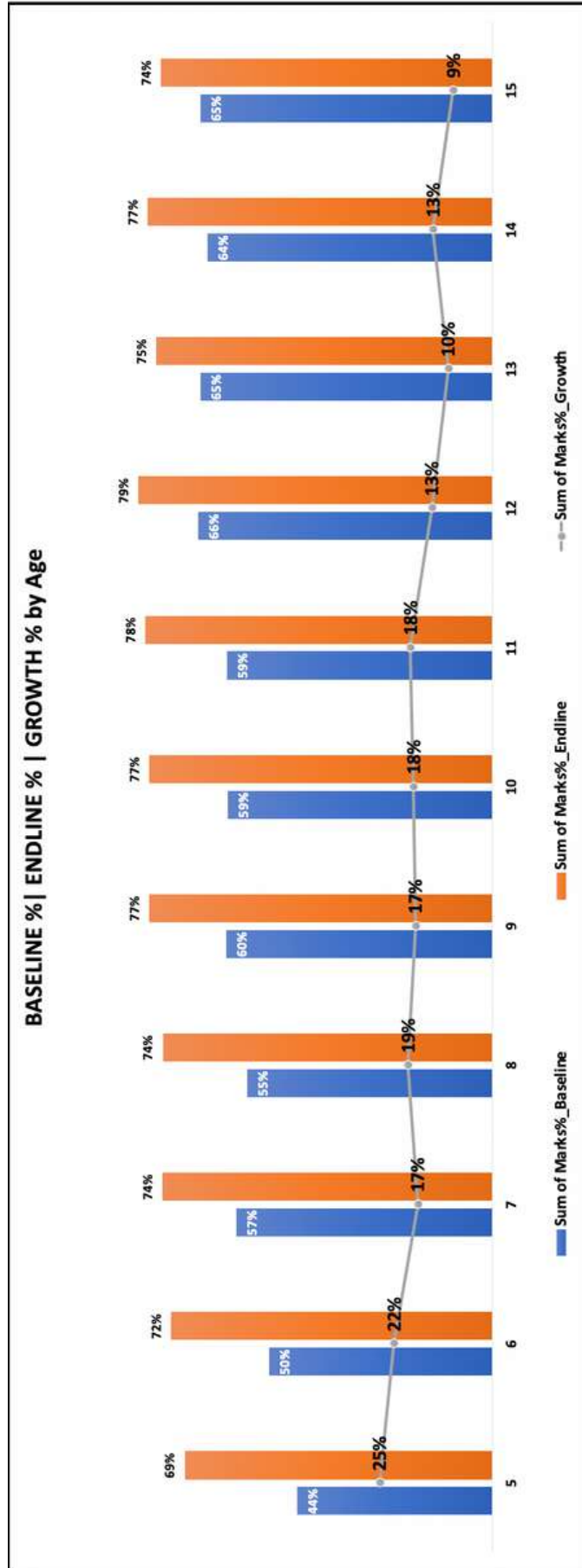
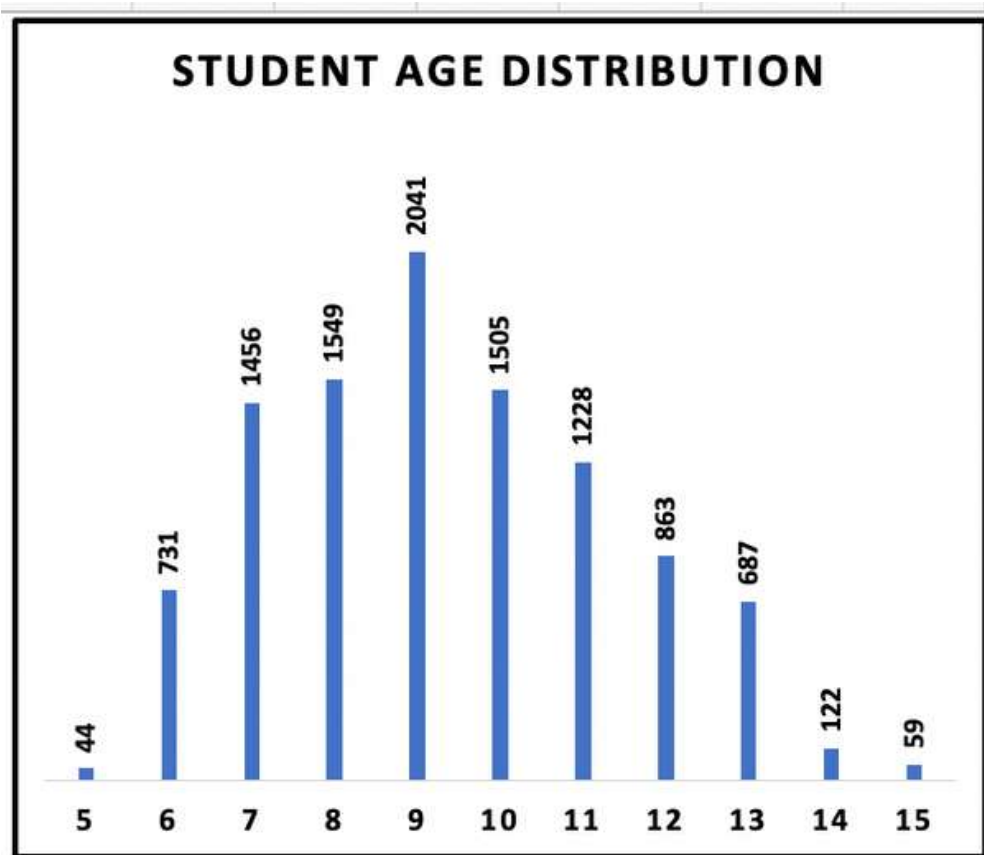*Fig. 6: Increase in assessment scores by age group.*

Fig. 7: Distribution of sampled students across age groups.

Overall, the significant jump in learning leads us to conclude that the IFERB projects were successful in supporting and continuing basic education for learners, especially those in the age group 5-10.

GROWTH IN STUDENTS' 21ST CENTURY SKILLS

HOW DID WE MEASURE 21ST CENTURY SKILLS?

Given that the students in the collective came from 12 different states with many cultural and contextual differences, it was difficult to standardise a measure of 21st century skills that took all of these differences into account. Moreover, a majority of our volunteers were inexperienced with complex data collection, which meant any tool we designed to measure 21st century skills needed to be as simple as possible.

Based on an analysis of the selected projects, as well as secondary research on existing 21st century skill frameworks, we arrived at an observation-based tool to test 3 skills: communication, critical thinking and creativity. For each of these skills, there was a simple activity prompt for the student (such as "introduce yourself" for communication), and a rubric with which volunteers could evaluate a student's performance (from levels 1-4).

Life Skill	Level 1	Level 2	Level 3	Level 4
Communication	Is unable to introduce themselv	Is able to give a short introduction but it is not clear or understandable	Is able to give an introduction but it may be incomplete or have jumbled sentences.	Is able to complete the introduction clearly and confidently
Critical Thinking	Is not able to answer the prompt at all	Is able to describe some steps but not in order	Is able to think through the major steps (3-4) in order	Is able to think through all the steps (7-8 or more) in order
Creativity	Is not able to answer the prompt at all.	Is able to describe 1-2 events of the day	Is able to describe the main events of the day.	Is able to describe the beginning, middle and ending of story fully.

Fig. 7: The 21st century skill rubric

Based on logistical considerations, four organisations in the collective were able to conduct a baseline assessment based on this tool. The graph in Fig. 8 shows the data for 400 children from these four organisations,
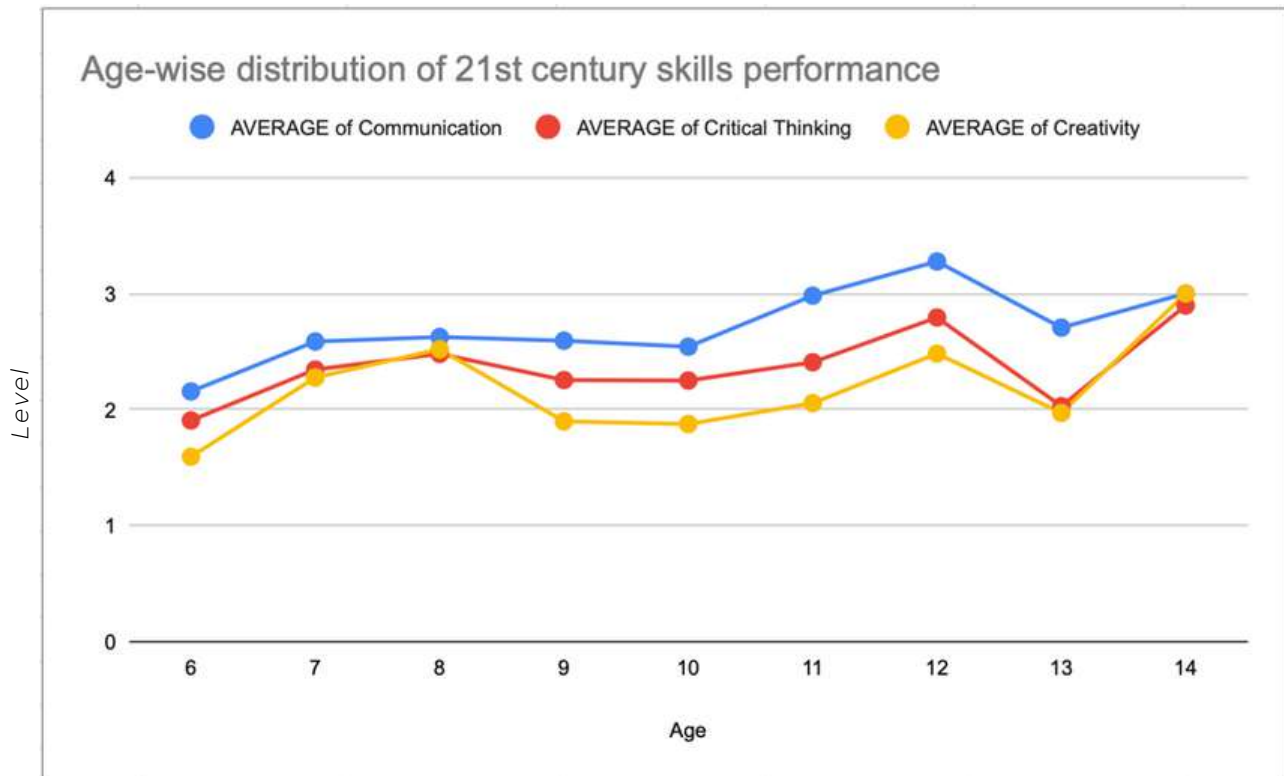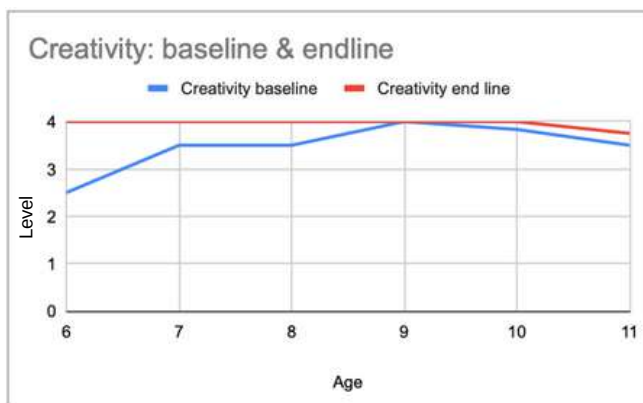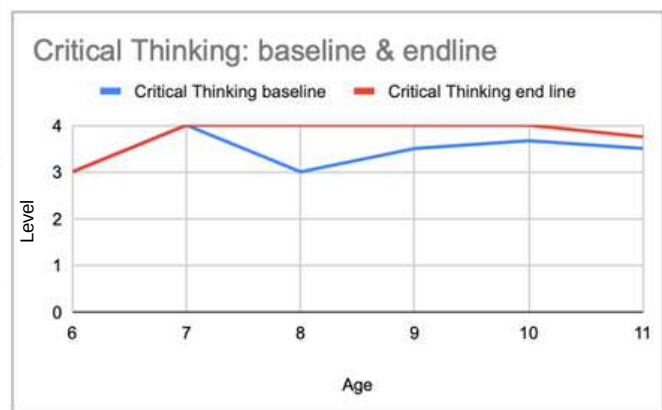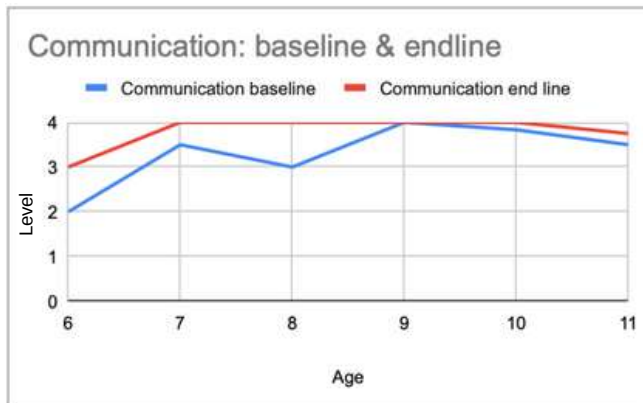
GROWTH IN STUDENTS' 21ST CENTURY SKILLS

Fig. 8: Results from the 21st century skill baseline assessment

From the graph above, we can see that:

Average scores across the three domains of the tool show us that the Communication activity has the highest average score (it was designed to be easier than the other two) and creativity is the lowest. However, all three average at around level 2. This trend is reflected in the mode analysis as well: more than half of the respondents scored a level 2 in Creativity and Critical Thinking, but in Communication about 37% are in level 3, with 20% each in level 2 and 4. One encouraging insight is that Level 1 scorers are in the minority across all domains.

An age-wise breakdown of average scores across organisations shows us that creativity and critical thinking scores tend to cluster together (this can be attributed to the difficulty level of the three tests), and that scores improve with age. Except for a dip at age 13, scores rise steadily from ages 6 to 14.

Due to COVID-19 restrictions and other logistical difficulties, only two of the four organisations were able to complete the end line assessment with the 21st century skills tool. One of these organisations, Vidhya Vidhai, saw a jump in scores across all domains: the average score for communication moved from 3.4 to 3.8; critical thinking from 3.5 to 3.8, and creativity from 3.5 to 3.9. **The average growth is 18.2%**. The growth, as we can see from the graphs below, is higher with younger students.

Figs. 9,10,11: Results from Vidhya Vidhai's 21st century skill end line assessment

The other organisation, Mantra4Change, was unable to conduct the end line assessment with the same group of students as in the baseline. It should be noted that, although the trend with Vidhya Vidhai's sample is a positive indication, the tool still needs to be used in a wider variety of contexts and with a larger sample before it can be used to accurately measure growth in 21st century skills.

21ST CENTURY SKILLS: A STORY FROM THE FIELD

THE STORY OF YOUNG ENTREPRENEURS IN RAJASTHAN USING PROJECT-BASED LEARNING TO INSPIRE THEIR WORK.

In October 2020, the popular Hindi newspaper, Patrika Citizen, ran an article about a group of government school students in Udaipur who had created contactless sanitizers and water dispensers to make their neighborhoods safer. The story grew popular and was soon picked up by other outlets, including The Local Samachar, a local online newspaper.

The idea for these machines had germinated from the students' work on EAA's project "Our House Rules for COVID-19", which explored what COVID-19 is and how we can keep ourselves safe from it. Inspired by their learnings, the students created contactless dispensers out of waste materials, and have already received 30+ orders from hospitals and police stations nearby for their creations. For Vidhyalay Udhyam, the organisation mentoring these students, this was a big milestone.

Documented **here** is the story of how these students drew inspiration from project-based learning and set out to solve problems in their local community through entrepreneurship.

OTHER IMPACT

Besides strengthening students' academic learning and 21st century skills, the project-based learning approach also impacted students in other ways.

PARENT ENGAGEMENT

In Manipur, children were being pulled out of any learning and schooling programs to work and make money. However, once parents saw the work that the children's friends were doing and experienced project-based learning themselves, they adjusted their work schedules and requested that their children be allowed back into the program. The students rejoined the program primarily because of how engaging the projects were and how much learning they were witnessing.

GENDER AWARENESS

In Maharashtra, doing the Pop-up Restaurant project led many young boys to cook for the first time and, consequently, learn the value of their mother's role in the house.

In Dehradun, the story of Samanta's child parliament stands out. In the penchi, facilitators typically decide a topic of discussion which are aimed at testing student learning and revisiting concepts. In one such penchi, the discussion evolved into a debate between girls and boys. The girls won the debate—aided, in fact, by their mothers, who are historically discouraged from speaking out in their society.

SUSTAINABILITY

100% of the volunteers surveyed after the pilot wanted to continue project-based learning and stay in the education space. Many developed their own skills—in teaching, facilitating, speaking with parents—and felt more confident as a result. Said one volunteer: "After starting this activity, parents come to me and ask me to take classes or at least to spend time with children. I feel proud and satisfied for this."

OTHER IMPACT

STUDENT DISCOVERY AND JOYFUL LEARNING

In Karnataka, students enjoyed the Jumping Math project so much that it became a game they played with their friends, even after the duration of the project. Similarly, in Bihar, students enjoyed creating their own models of flood management, and began to explore other practical activities such as designing evacuation plans and their own life jackets.

STUDENT OWNSERSHIP OF PROJECT LESSONS

In Bihar, after students completed the Why All the Plastic project, they started to discover and understand why plastic is bad for the environment. They planted trees on their birthdays, made sure the neighbourhood shop switched to cloth or paper bags and were found chasing a goat that had eaten a plastic bag to take it out of his mouth. In Rajasthan, students were able to create contactless sanitizers for their community hospital based on the COVID-19 project. Moreover, they retained these learnings and followed safety protocols while conducting a census in their neighborhood for their next project,

STUDENT LEARNING & LIFE SKILLS GROWTH

Several students became more confident as a result of the project presentations. Said one volunteer, during a focus group discussion: "One particular student used to be an introvert. She doesn't come forward to participate in anything. But [now], she is one of the first members to finish the project and send a video in the group. She is very active these days."
Students also began to reflect more. Many students in Bihar and Chhatisgarh, for the first time, discovered their own personal identity as different from the collective or community identity and learned how to express their own preferences when making their ID cards for a project.

OTHER IMPACT

COMMUNITY ENGAGEMENT

Because the projects allowed for (and encouraged) the student to interact with their family and community— for example in Population Census or Making ID cards—students began to develop deeper relationships in the community. At times, learnings from the projects had a direct impact on the community: in the COVID-19 project, for example, students took their knowledge of safety and hygiene practices to their families and villages.

In many cases, this increased engagement of the community in their children's learning helped the organisations work more closely with parents and other members of the community.

BEHIND THE SCENES

In this section, we break down how the intervention reached our students and created the impact it did. This section includes a brief description of the operational models used to reach students, as well as insights and learnings from the translation and content development process. We also examine volunteer and student response to the IFERB projects and overall learnings from the pilot.

HOW DID WE REACH STUDENTS?

Realising that relying solely on online self-learning modules was not going to be a suitable model for continuing education for students in rural, tribal and other digitally disconnected areas, the organisations in the EAA collective began to look towards the community for support. The volunteer response was immense: about 950 volunteers, consisting of both teachers and members of the community willing to engage in educational activities, were on-boarded across the 12 states. Community volunteers included private tuition teachers, school alumni, college students, as well as stay-at-home mothers.

This model took on different forms during the course of the pilot: in some places, volunteers would conduct in-person lessons with small groups of students - in school premises or community centres. In other cases, especially if COVID-19 regulations made group gatherings difficult, lessons would be conducted over the phone. Often, volunteers had to be creative and use resources available around them in order to facilitate lessons for the students—in Rajasthan, for example, volunteers painted parts of the lesson on walls and the floor, maintaining social distancing but communicating the concepts to the children at the same time.

Although organisations chose their models based on the availability of community volunteers and contextual needs, the core concept driving the operations remained the same across all the organisations: **to leverage community volunteers and the available infrastructure to bring project-based learning to children cut off from learning.**

In our report titled "A Community-Based Learning Model", we trace the process steps, best practices and challenges associated with using this model, highlight the differences within the phone and in-person methods, as well as mention contextual differences in the implementation of IFERB resources where relevant. While the report focuses on our experience with IFERB projects specifically, many of the insights can be extrapolated to use with other kinds of learning resources as well.

RESOURCE DEVELOPMENT

The organisations in the collective were spread across 12 states and worked with 6 languages in total. The IFERB projects were translated and contextualised into all 6 languages: Hindi, Kannada, Tamil, Marathi, Assamese and Punjabi.

INDICATOR	ACHIEVED
NO OF PROJECTS TRANSLATED AND CUSTOMIZED	23
NO. OF AV (AUDIO-VISUAL) RESOURCES CREATED	87
NO. OF SUPPORTING ASSETS CREATED (WORKSHEETS)	54
NO. OF SUPPORT CALLS AND TRAININGS DELIVERED	89

RESOURCES DEVELOPED

Apart from direct translations, **IFERB** projects were also adapted into worksheets and video resources. Below are a few samples:

Video resources developed by the team: ABC By Me in Hindi (L) and Paper Figures in Tamil (R)

Worksheet in Hindi, developed based on the My Pop-up Restaurant project.

GETTING CREATIVE: REFLECTIONS FROM OUR CONTENT CREATORS

Content creators from the collective share their experiences and reflections on adapting IFERB projects into their respective languages.

While one essential building block of the EAA collective were our frontline workers—volunteers and teachers working daily with children and communities on the ground—the other building block was the content itself. Our response to the contextual gap in the IFERB was to form a pod of content creators who each represented one of the 6 languages in the collective: Kannada, Tamil, Assamese, Punjabi, Marathi, and Hindi.

The content creators were themselves from the participating organisations in the collective, which meant they had firsthand access to the lived realities of the children they were working with. This content creator pod was in charge of translating and contextualizing the IFERB projects into resources (video, worksheets, and lesson plans) that their students could easily understand and their volunteers could easily use.

Over the course of the pilot, the creators developed many strategies to create effective and contextual content. As we continue to operate in a COVID-19 model of education that relies heavily on online and distance-friendly learning content, **here** are some lessons, reflections and strategies from our content team on creating resources for 100,000 children in 6 languages.
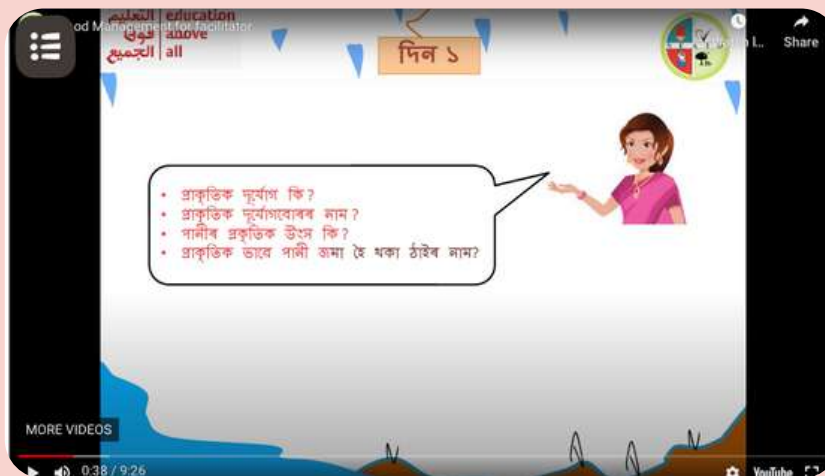
HOW WAS THE CONTENT RECEIVED?

A QUICK GLIMPSE AT VOLUNTEER AND STUDENT SATISFACTION WITH IFERB PROJECTS.

INDICATOR	ACHIEVED
% OF VOLUNTEERS SATISFIED WITH THE EASE OF FACILITATING PBL RESOURCES	70%
% OF VOLUNTEERS SATISFIED WITH STUDENT LEARNING FROM PBL	100%
% STUDENTS SATISFIED WITH LEARNING FROM PBL RESOURCES	98%

BREAKING IT DOWN:
STUDENT SATISFACTION

STUDENTS ON LEARNING, EASE AND ENGAGEMENT FROM THE IFERB RESOURCES.

Every student in the intervention engaged with 12 projects on average, selected by the implementing organisation. Each project took about a week to complete—although there were many logistical and COVID-delays— and at the end of each week, feedback from a small sample of students was collected. The survey forms were design to be as simple as possible, so that volunteers would be comfortable administering them, and students would not have to give complex answers. Out of the total of 5 questions, 4 are multiple choice or yes/no questions.

The purpose behind collecting this data was to understand how relevant, easy and engaging students found the various projects. The feedback from these weekly surveys has helped make revisions to the IFERB as well as to the organisations' contextualisation and implementation strategies.

The following graphs show us this feedback data aggregated across projects and regions. As seen in Fig. 12 and 13, students rated IFERB projects as highly easy and engaging, and 98% of the students indicated that they had learnt something new from each project. One of the things that may have brought about the relative variance in the students' rating on ease is age: in general, younger students (ages 5-7) found the projects more difficult than older age groups did.

Across projects, students highlighted(in their subjective answers to the survey) that they were learning 21st century skills as well as foundational academic skills. In the project ABC By Me, for example, where students had to create an alphabet book, much of the student feedback was about growth in letter recognition and vocabulary—but an equal amount of students mentioned skills such as creativity, bookmaking, drawing and colouring as the skills learnt. In addition, encouraged by their facilitators, many students began to create extra books for their siblings or to sell to younger kids in their neighbourhood.
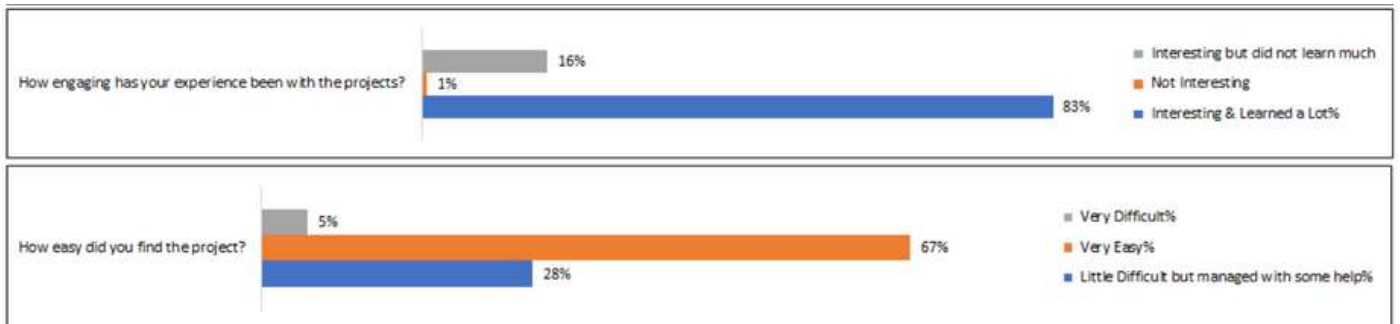
BREAKING IT DOWN: STUDENT SATISFACTION

Fig. 12: Aggregated student feedback on ease and engagement of IFERB projects

Fig. 13: Aggregated student feedback on learning from IFERB projects

Similarly, with the COVID-19 project, students highlighted that their biggest learning was about the COVID-19, its symptoms, and safety measures. "We need to wash our hands. When we wash our hands the bacteria and germs will be away from us," said one student in response to a question about what they learned from the project. One of the highlights from this project was how students took the knowledge about the virus back to their families and communities—and continued to use this knowledge in the rest of their projects.

Students also often highlighted projects which allowed them to interact deeply with their family or community: in the project Make Your Own ID Card, for example, students mentioned that they "got to know about their own identity" as well as that of their family members.

In general, students' reflections on the projects revolved around the direct academic/life skill or concept learned—many times, in addition, it was accompanied by the students' thoughts on how they might use that skill or how the project enabled them to interact with those around them. Overall, students' response to project-based learning, which was new to a majority of them, was positive.

BREAKING IT DOWN: VOLUNTEER SATISFACTION

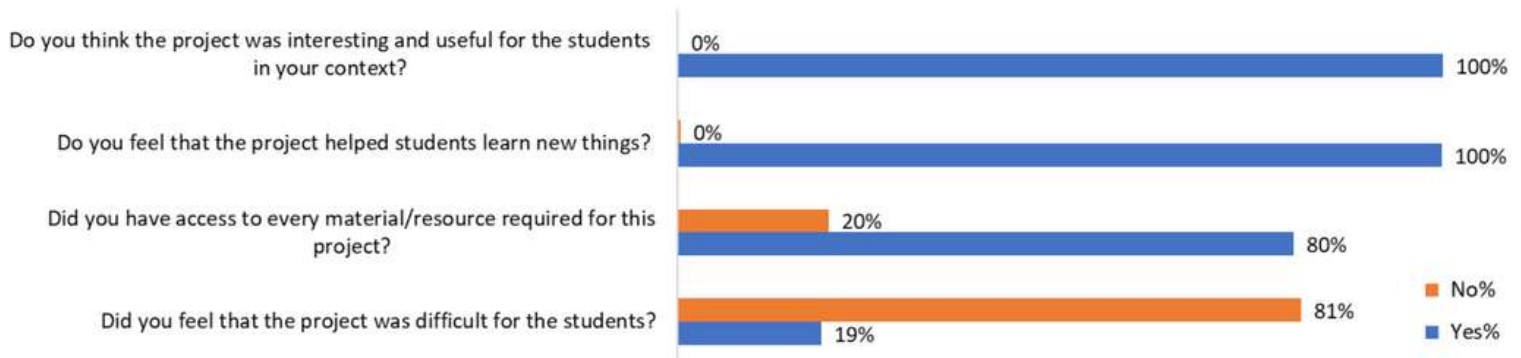**VOLUNTEERS ON LEARNING FROM, EASE OF AND ENGAGEMENT WITH IFERB RESOURCES.**

Fig. 14: Aggregated volunteer feedback on the IFERB projects

Similar to the students, volunteers were also asked to provide weekly feedback upon the completion of each project. While the surveys were designed to be simple and consisted mostly of multiple choice questions, many organisations also conducted focus group discussions alongside the surveys.

Volunteers generally rated projects high on student learning, engagement, and usefulness. 70% of volunteers on average found the projects easy to facilitate, with about 23% indicating that they were able to manage with some preparation. For each project, volunteers provided valuable feedback on both their own experiences with facilitating the projects as well as on how they thought the students engaged with the projects.

A lot of rich insights also emerged from the clear qualitative feedback that we received through our focus group discussions. Volunteers, overall, saw great value in project-based learning for their students. They frequently mentioned that students were developing skills such as communication, confidence, and creativity, especially since many projects involved drawing and presenting work to other students. They also stressed skills such as teamwork, arising from projects such as My Pop-up Restaurant or Flood Management, where students worked together to run mini restaurants and create physical models of a flood-

-ed village together. They also saw students gaining in literacy and numeracy skills from projects such as ABC By Me and Jumping Math, even mentioning that they served as refresher courses for older students.

In detailing their own experiences, volunteers also commonly mentioned a few challenges that they faced in implementing IFERB projects. Chief among them was parental resistance, which came as a result of COVID-19 related restrictions as well as the unfamiliarity of play-based learning. This resistance manifested in students not being allowed to come to the lessons or parents not willing to supporting their children's learning or not allowing the use of their phones for lessons. While many organisations were eventually able to build a more positive relationship with parents, they continued to face other challenges. For one, on-and-off COVID-19 restrictions made it difficult to have consistent in-person lessons for many. For another, despite the low resource requirements of the projects, volunteers struggled to procure basic stationery items for their students.

Many of these challenges were directly related to circumstances caused by COVID-19. Some volunteers struggled to make the level-1 projects relevant for older students (only level 1 projects, designed for ages 4-7, were translated and adapted). Others, using level 1 projects, still struggled to engage 4-6 year old students, who found it difficult to follow the project and complete the activities. In general, one big training need that emerged was for differentiation strategies in a multi-level, multi-age learning environment.

Given that it was the first time many volunteers were working with project-based learning materials, they took a few weeks to get used to the lessons. Overall, however, they believed in the value of such learning experiences for their students, whom they saw gain valuable academic and practical skills, and experience joyful learning for the first time.

IMPACT ON VOLUNTEERS

A glimpse at how volunteers navigated a new kind of teaching and what they took away from the intervention.

INDICATOR	ACHIEVED
% VOLUNTEERS FEELING CONFIDENT IN FACILITATING PROJECTS AGAIN	100%
% VOLUNTEERS INTENDING TO CONTINUE WORK IN THE EDUCATION SPACE	96%

VOLUNTEER FEEDBACK:

From the focus group discussions, one theme that emerged was that volunteers enjoyed this new way of teaching. Many said that they did not want to go back to the "old way" of teaching and highlighted that through the projects, learning had become fun and interesting.

Volunteers also saw benefits in their own skillsets, particularly in interpersonal skills. Said one volunteer: "Yes, [my] patience, understanding level has ... increased. It is a difficult task to manage so many children at a time but the feeling of giving and sharing knowledge with those children who are far away from education and activity-based learning make everything easier and make us all happy."
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Volunteers also began to feel confident about their own successes with the children: "At the start, we were having a problem getting the students in the class," said one volunteer, "but once we started the class, the kids enjoyed so much that they came by themselves. Most of the time attendance was more than 95 percent which is really good."

PARENT ENGAGEMENT: A STORY FROM THE FIELD

THE STORY OF HOW SOME OF OUR ORGANISATIONS DEALTH WITH ONE OF THE BIGGEST CHALLENGES ON THE GROUND—PARENTAL RESISTANCE.

In the months of July and August 2020, as 15 organisations rolled out the IFERB pilot countrywide, facilitators across states began to face one big challenge: parental resistance. Facilitators found it difficult to reach students and parents, particularly in the beginning stages of the pilot.

Apart from the COVID restrictions acting as a barrier, some parents were also reluctant to share their contact details: when asked for student data, or their names and phone numbers, they would relate it to cyber phishing. Many of them said, "Nowadays people can steal money from your phones, we won't give you our numbers."

While initially difficult with regard to engaging parents, the situation gradually changed: several organisations in the collective were able to gain the trust of parents and engage them meaningfully in project-based learning. **Here** are the stories of two such organisations who were able to support their facilitators in empowering parents to become an important part of their children's learning journey: Happy Horizons Trust in Bihar, and GramUrja in Maharashtra.

CHALLENGES AND LEARNINGS

In our regular calls with the organisation as a collective, there were several on-field challenges that we tried to solve as the intervention progressed. A few of these challenges and the learnings from our responses are documented below.

- Organisations across the country struggled to reach students, conduct the baseline assessment, and collect data regularly due to logistical difficulties. In many areas, frequent lockdowns made it difficult for volunteers to move around and reach children. In certain areas, the lack of proper network meant that data had to be collected on paper first and then organised online. Such conditions led to delays in data processing and analysis. Moreover, a few regions in the North and the North East experienced devastating floods at the start of the intervention, which paused operations as the organisations engaged in relief work. While unavoidable, these challenges were extremely difficult for organisations to navigate at the beginning of the pilot, when there was a lot of uncertainty around COVID-19 and a sense of unfamiliarity with PBL.

- As demonstrated by the logistical issues in the 21st century skills assessment, data collection was a recurring challenge. Apart from physical restrictions, volunteers also faced issues with digital literacy, making data collection at a large scale difficult. One key learning here is to have conducted a stronger needs analysis for volunteers, and designed the tools accordingly. Another learning is also that using qualitative methods such as interviews or FGDs with volunteers who are not comfortable with surveys can be a rich source of data.

- As many of the lessons took place in multi-age and multi-level groups, volunteers struggled to adapt the level 1 resources for older students. This was especially a challenge as a student needs analysis had not been conducted before the pilot. Differentiation emerged as a strong training need throughout the intervention.

- A few organisations found themselves unable to procure basic resources (such as kitchen items or stationery) to facilitate the project. This affected the learning and enjoyment from the project. Sometimes, this issue stemmed from volunteers being unable to move around to buy supplies; other times, the material in question was simply unavailable with the volunteer or students.

FINAL REFLECTIONS AND CONCLUSIONS

One of our grounding questions for this project was whether PBL resources are suitable for low-resource regions such as those in the collective. From an analysis of the volunteer and student feedback we received, the answer to that question is yes. While there have been challenges with implementation, the resources themselves have been highlighted as helpful and relevant for students from low-resource or difficult backgrounds, with not much access to schooling. In fact, the projects have played an important role in getting children interested in schooling and learning activities.

The translation and contextualisation of the projects into multiple languages was a major factor in making these resources accessible to the students. In particular, volunteers stressed that the usage of multiple media was an advantage in reaching students with different levels of access: examples include worksheets (for self-learning) and video resources to assist volunteers and students in understanding the project better. The additional resources were also helpful as guides for volunteers who were not comfortable or familiar with teaching or facilitating projects.

Overall, students and volunteers found great value in engaging with EAA's IFERB projects. One key learning from their reflections on the projects is that they recognise the academic as well as the 21st century skill-related learnings. Volunteers also expressed strong interest in continuing to teach and be involved in project-based learning.

Apart from academic and 21st century skill learning, students and volunteers both recognised the social impact of the projects. This included stronger engagement with the community, which in turn encouraged parents to keep sending at-risk students to the lessons, as well as greater awareness about gender. One big learning, especially for a next iteration, is to empower students and volunteers to reflect on societal aspects (gender stereotypes, for example) throughout the run of the projects.

LOOKING AHEAD

As the pilot came to an end, the organisations in the collective began to explore how to take project-based learning and IFERB forward. Some integrated the projects into their regular work with children, while others formed new, scaled-up partnerships (with government departments, for example) to take the idea further.

When thinking about sustainability and the road ahead, we also realised that the project bank was finite. Having the ability, as members of the collective, to design develop our own projects could be a powerful way to take project-learning forward. Thus, as part of the closing of the pilot, EAA organised a workshop with all the organisations to help them develop their own projects.

The workshop, conducted in the weeks of early January, helped the participants in many ways. The organisations were able to understand the design process of PBL, get hands-on experience in developing projects, and participate in review and brainstorming processes with EAA. They also received additional resources to continue their efforts and integrate PBL into their regular, ongoing work. By the end of the workshop, all participants had created a blueprint of a project relevant to the learnign needs of their learners (the introduction of project created by a participant is shown below).

MY CALENDAR (LEVEL-1)

Ages 4 to 7 (Level 1)

Description:	Learners will create their own Calendar, thinking through categories, numbers, shapes, signs, seasons and noting down the important events such as birthdays and festivals!
Leading question:	Can you tell when your birthday is?
Age group:	4 -7years
Subjects:	Maths and social science
Total time required:	2hrs 10 min in a month
Self-guided / Supervised activity:	Supervised
Resources required:	Cardboard sheet, plain sheets, colour pens, pencil, scale, glue, thread/spring to assemble monthly calendars.

GLIMPSES FROM THE GROUND

STUDENTS AT WORK