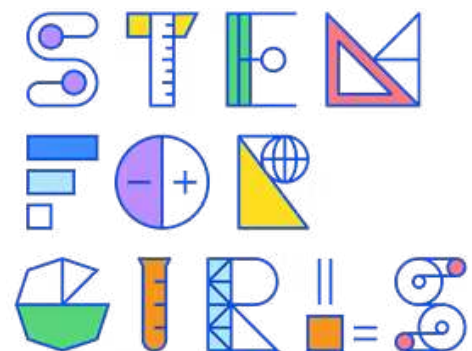# ANNUAL REPORT IBM STEM FOR GIRLS 2021-22

STEM FOR GIRLS

Brief about NEAID

North East centre for Equity Action on Integrated Development (NEAID) is a registered non-profit organization based out of Guwahati, Assam. NEAID is a not-for-profit, apolitical, indigenous philanthropic organization led by people of the region to support sustainable development through integrated approaches. NEAID is working primarily in tribal and rural areas focusing on Quality Education, Health, Water & Sanitation, and Disaster Relief. The intervention areas of NEAID aims to achieve sustainable development goals (SDGs) 2, 3, 4, 5 & 6 in Northeast India. NEAID programs are designed in such a way that it complements the existing system and empower the stakeholders of government machinery for larger impact and sustainability. NEAID believes that education, good health, and gender empowerment are interconnected and can bring a family out of poverty and uncertainty.
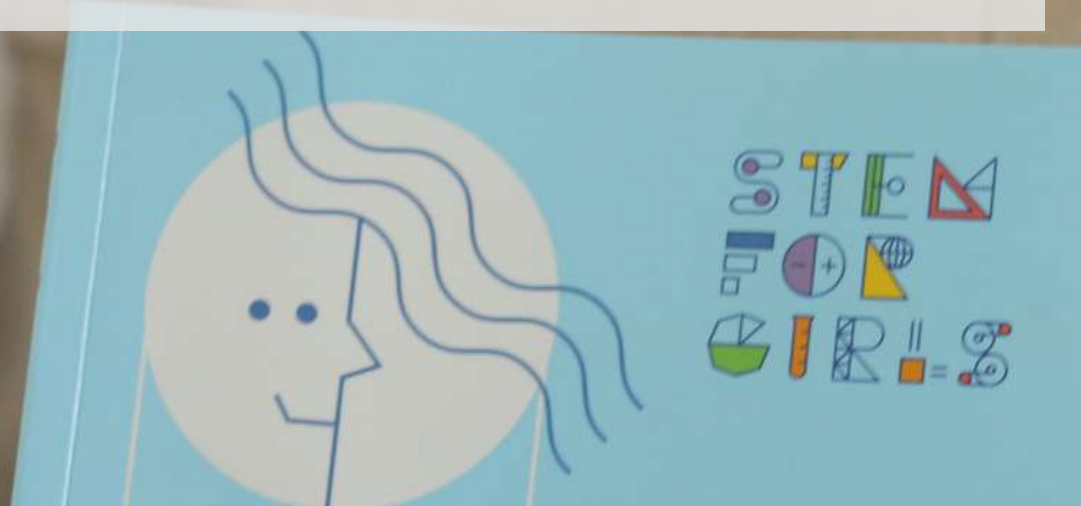
STEM for Girls

STEM for Girls is an overall development program intended to develop 21st-century skills (life & career), digital literacy, coding, and gender sensitivity in the students from 8th to 10th standards in the Government Secondary Schools, especially for the girls.

Through this program, it has tried to build and enhance a transforming learning ecosystem with the help of certain skills. Here the emphasis is given on the 21st-century skills like knowing about self, communication, relationship building, problem-solving skills and the skills for life, preparation for a career, digital fluency, and self-employment. A planned responsible educational teaching process is introduced to work on the above-mentioned skills in the secondary schools under STEM for Girls.

North East Centre for Equity Action on Integrated Development (NEAID) has implemented the STEM for Girls program in 100 schools across 27 districts of Assam with technical support from Quest Alliance and sponsored by IBM in the 2021-2022 academic year.

Under this program, there are Adarsha Vidyalaya, DoE Schools, and as well as Kasturba Gandhi Valika Vidyalaya where fellows are provided with adequate training to help the students, parents and teachers in schools. A curriculum of 40 hours on themes like Self, Gender. Computational Thinking has been facilitated in all the schools through classroom engagement. To accelerate outreach, NEAID has conducted various events like Role Model Interaction, Webinar, Ideathon & Hackathone, Workshops and many more.

Our Reach

SCHOOLS
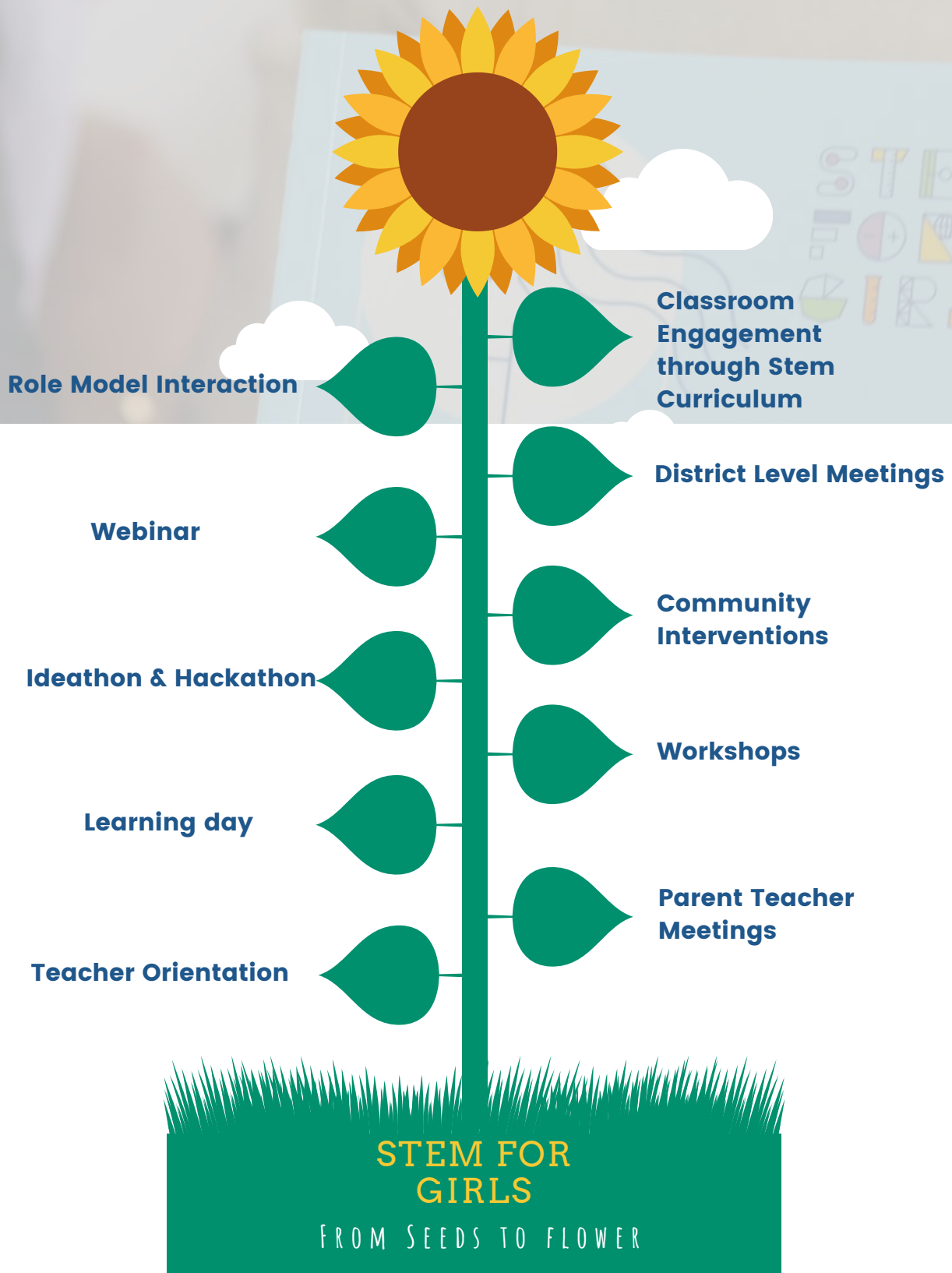100

TEACHERS
212

DISTRICT
27

STUDENTS
BOYS AND GIRLS

4283 GIRLS
1525 BOYS

FELLOWS
16

Various activities conducted under STEM for Girls

Classroom Engagement through Stem Curriculum

Role Model Interaction

District Level Meetings

Webinar

Community Interventions

Ideathon & Hackathon

Workshops

Learning day

Parent Teacher Meetings

Teacher Orientation

STEM FOR GIRLS

From Seeds to flower

Role Model Interaction

Role Model Interaction has been an enriching space all throughout for the students, especially the girls. The role models inspired and motivated the young students sharing their life stories. Students could resonate with these stories and reflect upon them connecting it to their own life. It provided students with hope, perspective and a mindset that helped them to think in the right path. The role models not only shared stories from their lives but also supported them by exposing them to various career paths.

NEAID hosted four Role Model Interactions reaching out to students across Assam. In this process, NEAID identified five distinguished personalities from a diverse field of work and had the opportunity to interact with them creating a learning space for its students.

Dipshikha Baruah, the first woman from Assam to become an International Referee in Taekwondo was invited as the first guest; where 516 students and many teachers from 13 schools participated in NEAID's first Role Model Interaction.

Role Model Interaction

Dr. Nivedita Deka, Head of Department, Agricultural Economics, of Assam Agricultural University was the second prestigious guest. Different career opportunities in the field of Agriculture were explored by the students in this RMI event. We reached out to 494 students from 13 schools along with teachers.
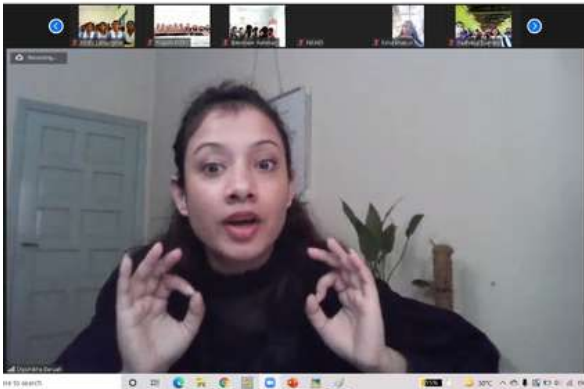
NEAID invited Madhumita Kar, an Assamese entrepreneur as its third Role Model where 121 students from 6 schools and many teachers were inspired by her hardship-overcoming journey.

Bahni Telangana, the first woman to qualify for UPSC examinations from a tea tribe community from Assam, currently working as an IRS was invited to the fourth Role Model Interaction event; where 258 students from 14 schools along with the teachers participated in the event through active interaction.

Role Model Interaction

IBM STEM for Girls
Role Model Interaction with
Dipshikha Baruah
TGT of Physical Education,
The Indian School of Bahrain

Dipshikha Baruah is a Research Scholar of Physical Education at Lovely Professional University (Punjab). She currently works as a Trained Graduate Teacher (TGT) of Physical Education at The Indian School of Bahrain.
Certified by World Taekwondo, she is a Level 2 International Coach of Taekwondo. She is the first woman from Assam to become an International Referee in Taekwondo, and has represented Bahrain in China and Australia.

Join Us!

IBM STEM for Girls
Role Model Interaction with
Dr. Nivedita Deka
Professor and Head
Department of Agricultural Economics
Assam Agricultural University, Jorhat

Dr. Nivedita Deka is a Ph.D holder from International Rice Research Institute (IRRI), Philippines in 'Determinants of Instability and Efficiency in Rice Production in Hills and Plain Zones of Assam'. She is honoured with Best Teacher Award in 2017 by Assam Agricultural University for her untiring efforts in teaching.

Dr. Deka has been extensively involved in teaching UG, PG and Ph.D students and guiding them in their research works and many more since 1990. She has been a key voice in advocating women empowerment through projects in agricultural development and natural resource management.

IBM STEM for Girls
Role Model Interaction
Madhumita Kar

Madhumita Kar is an entrepreneur from Assam who founded the Aradhana Girls PG in 2009, situated in Guwahati, Assam.

She is a supportive wife, a nurturing mother of two and a homemaker who ideated, planned and implemented her own innovative business idea and became a successful entrepreneur within a few years.

She has an immense love for cooking which she eventually transformed into a skill and there forth capacitating other people with this skill to run and manage a substantial and quality paying guest.

IBM STEM for Girls
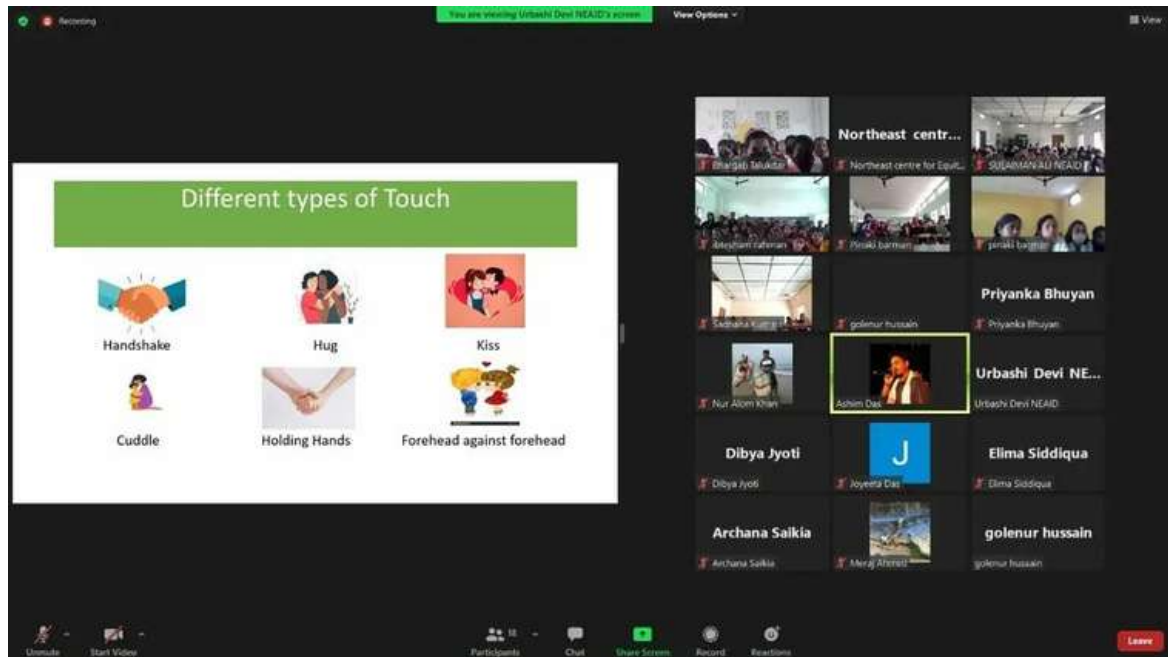Role Model Interaction
Bahni Telenga

Bahni is from the Indian Revenue Service (IRS) 2018 batch. She did her schooling from St. Mary's School Guwahati and higher secondary from Cotton College. She has completed her graduation from NIT Durgapur, where she got the gold medal in Metallurgical and Materials Engineering. She worked for 2 years in Rashtriya Ispat Nigam Limited.

She is the first woman from the tea tribe community of Assam to clear the coveted civil services examination. Bahni is presently posted as Assistant Commissioner Income Tax, Delhi.

Webinar

NEAID conducted two very significant and crucial Webinars to support students' growth and mindset building. Gender-based concerns and emotional well-being of students post-Covid 19 crisis were addressed by our resource persons.

Two specialized resource persons working in these sectors were invited to provide the young students a platform to explore self-awareness on safe and unsafe touch and on Mental health well-being. Ashim Das led the session on "Safe and Unsafe Touch" and Angeline P Alex facilitated the session on "Mental Health Wellbeing" where students got the exposure to learn about the dynamics of mental health on stress management, anger management, time management and also awareness on depression and anxiety.

Webinar

IBM STEM for Girls

Webinar on - "Safe and Unsafe Touch"

Ashim Das

Ashim Das is currently working in Assam Sishu Kalyan Sadan as a Case Worker. He has been working for child protection, child rights of orphan, abandoned & destitute child for five years. He also voluntarily worked for Operation Smile India. He does basic counseling, adolescent career counseling, emotional and psychological development with his own initiative.

He is a Nipun in Hindustani classical vocal, Visharad in Tabla and 'Rashtrapati Scout' award reciever from President of India in 2012.

Join Us!
Date: 29th December, 2021
Time: 11 AM to 12 PM

STEM FOR GIRLS

#TheFutureisMine

IBM STEM for Girls

Webinar on - Mental Health

Angeline P Alex

Angeline is currently working with Gyananda School for girls, Dehradun as a Counselor and she was a PGT Psychology and Counselor for Podar group of Schools. She has been actively working in the field of Mental Health for the last three and a half years. Her contribution to the field of Mental Health during Covid times was recognised by the state govt. of Madhya Pradesh. She loves working with students and differently abled talents. She aims at making Mental Health a dinner table talk in every household.

She loves to spend time with animals, read books and admire the sounds of mother nature in her free time.

Join Us!
Date: 24th March, 2022
Time: 12 PM to 1 PM

Ideathon and Hackathon

Ideathon and Hackathon has been the most important event where the prominent intend of the program was driven through it reflecting the inputs put forward during the whole year to drive a shift in mindset. This initiative to provide students with an opportunity to solve some of the pressing challenges in our immediate surroundings, which we face in day-to-day life basis through the two-phased Ideathon and Hackathon was reflecting the actual outcome of the program. It inculcated a culture of product innovation and a problem-solving mindset in the young minds.

NEAID conducted the rigorous Ideathon and Hackathon process in 13 schools across the State of Assam reaching out to 361 students. In this process, Akikaran fellows closely worked with the students, where the students identified a challenge close to their heart, that they wanted to find a solution to as they were deeply connected to it, through a mind-mapping activity. Once the problem was identified, students made a sketch model working on the probable solutions. In this process, students had identified eco-friendly resources which are easily available in their surroundings to make the prototype cost-effective. In the "Do-Stage" (Hackathon Day), students worked on a prototype using the resources in the guidance of the mentors and the facilitators. During the Hackathon, students made prototypes such as bicycles, washing machines, water sedimentation filter models and more such prototypes which they presented to the larger group. In the presentation students shared how they identified their problem statement, how they worked on the sketch model and how they came up with a solution to solve the problem statement.
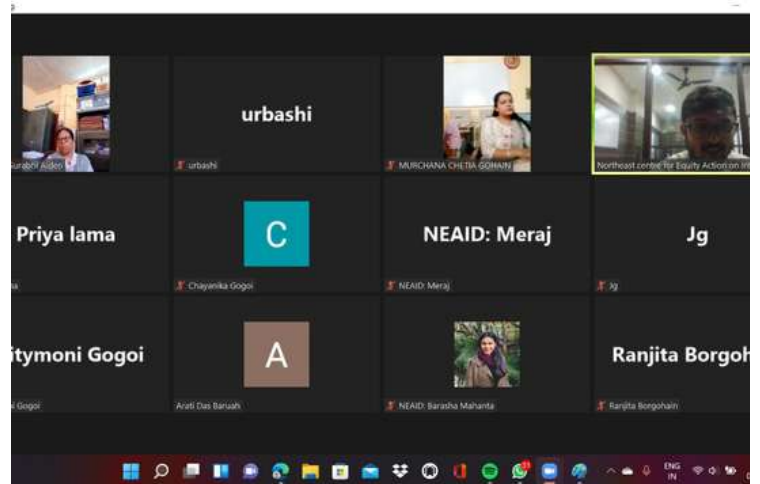
Ideathon and Hackathon

Learning day

Learning Day events were organized after completion of each module where students reflected upon what they learnt, unlearned and discussed what they can take forward in their life through its knowledge and by practicing those mindsets. It is a celebratory event of the learnings and take aways among the students held in all the 100 schools of 27 districts of Assam. Various activities like poster making, narration of their individual learnings, Focused Group Discussions, role plays were conducted to understand student learnings after each module during these learning day events.
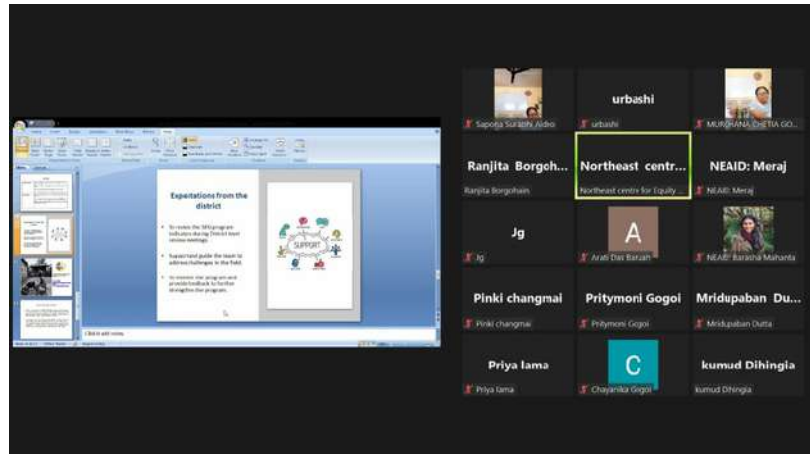
Teacher Orientation

Teacher orientation took place at two levels. One by the core team through online platforms where teachers were acquainted with the main ideas of the program for better coordination and cooperation. At the next level, each fellow cum facilitator conducted teacher orientations in all their schools where they introduced the program and facilitated sessions on each module for the teachers to have better understanding and knowledge of the curriculum the fellows were imparting through classroom engagement. These orientations helped NEAID to reach out to the teachers who are the key stakeholders of the education system. Their support increased as these orientations took place and the program was effectively implemented thereafter.

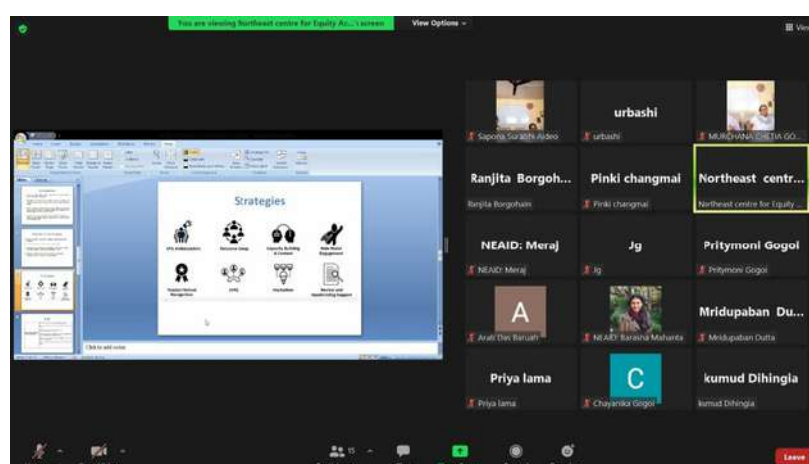# Classroom Engagement through STEM Curriculum

NEAID's Akikaran fellows regularly intervened through Classroom Engagement in all their allotted schools to deeply interact with students through the STEM Curriculum. The modules were systematically facilitated to the students one by one through different activities like group discussions, movie screenings, role plays, sharing in pairs or peer groups using different methods and resources making these modules interesting and fun. The knowledge and skills core to this program were effectively imparted on day-to-day basis for students to deep dive into the nuances of it and learn further. During these classroom engagements, the fellows tried to also engage teachers through co-planning and co-facilitation of the sessions for active student participation.

District level meetings

District officials are one of the crucial stakeholders in the program to be implemented smoothly. Their cooperation is required at every stance of the program to be successful. Hence, advocacy and liaising were the most important responsibilities. The core NEAID Team through physical visits and online meetings remained connected to the district education officials like District Program Officers (DPOs) and Inspector of Schools (ISs) sharing updates on the doings to keep them engaged by increasing their knowledge on the intent and happenings of the program.

NEAID organized a few district-level orientations as well where the IS, DPO, BDO and School head and nodal teacher participated. They were introduced and oriented on the program through these District Level Orientations at the beginning of the program.

Community Interventions

In an initiative to reach out to beyond students and teachers, NEAID actively did Community Interventions. Community Interventions triggered community stakeholder engagement through meetings, FGDs, awareness campaigns, home visits at community level. This has been a key activity during the program implementation as many stories have come up reflecting welcoming constructive changes in the society through community interventions.

We have conducted such interactions in 40+ rural communities covering around 30 schools, where the Akikaran fellows have involved parents, SMDC members, Panchayat members, leaders of influential groups and other community members to holistically implement the program. The discussions were held on the need and scope of education for girl child, what STEM for Girls is about, why is it important for students and especially girls, prevention of early marriage to secure sound health and future, and other such important topics.

Workshops

Workshops were taken up as a pilot for an innovative experiment. It was designed to cater to a greater number of students in a single setup creating it like an event rather than a regular everyday class, where students from different grades were brought together and fellows facilitated sessions along with teachers in an all-out activity mode.

NEAID conducted 4 workshops in 4 rural blocks in Goalpara and Tinsukia district of Assam where our primary focus was to include Kasturba Gandhi   Gandi Balika Vidyalaya School and Adarsha Vidyalaya School students. It was conducted through various self-exploratory and fun activities focusing on 'Self and Gender' in KGBV Matia, KGBV Hapjan, KGBV Itakhuli and AV Matia where district officials were also invited and present.

Parents teachers meeting

Parent Teacher Meeting is an essential part of student development. It shall not only be centered around discussing examination scores but also regarding how a student is coping and learning during the teaching-learning process at school. Hence, PTMs were given utmost importance, where fellows along with the school teachers discussed with the parents how their child's life looked like outside school, if the student was practicing things learnt in the school and if yes, how, if the parent(s) was able to engage with the child adding value to their child's education and life in general, what are the areas where the child might need extra care and focus and many more such conversations took place. Parents were also acquainted with the SFG program in a deeper level through these PTMs.

NEAID conducted Parents Teacher Meetings in all the 100 schools involving HMs, teachers and parents where the focus was on changing stereotypes, creating STEM mindsets and enabling parents to encourage their child, especially girls to pursue higher education and careers in STEM fields.

Video Documentary on STEM For Girls

A video documentary was prepared to capture the implementation and impact of SFG program in the state of Assam. The documentary contains the interviews of Co-founders, Fellows, Teachers, Students, Program Manager, etc to highlight their perspectives about the program and how they have overcome the challenges faced during the program implementation. Live moments of classroom teaching, Parent-teacher engagement, and teachers involved in the program are featured in the documentary.

Click here to play

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