inqui-lab foundation

Annual Report
2022-23

From the Co-founders

Think of it - school students not just eating corn but also utilising waste corn cob to produce sustainable hard boards; students not just observing parents toiling in fields during seeding season but also designing tools to eliminate their suffering!

In the last academic year we have seen thousands of students come up with innovations that cut across areas like agriculture, mining, public health, food processing, education, and so much more.

In the latest edition of **School Innovation Challenge**, the team of Talla Bhavya, Kasula Harini, Peddi Sanvi, and P Sai Madhav designed an ***emergency medicine vending machine*** to improve access to medicine in rural areas. On providing basic inputs, the machine dispenses medicine for generic issues such as fever and cold along with the recommended dosage for different ages.

Under the Youth For Social Impact (YFSI) program, a group of girls got inspired to problem-solve for coal miners and improve their working conditions. The team of Grahya, Vignaya, Pravali and Deepika from BVRIT Hyderabad College of Engineering for Women, designed **Suraksha** - a smart safety jacket that tracks miner's positions, health vitals, harmful gases and triggers communication, reducing the reaction time for rescue operations.

While being deeply rooted in addressing prevalent problems in communities, these innovations show the potential our students have to innovate and solve problems.

The past year was the first year back in schools for Inqui-lab Foundation after two years of mostly online interventions. With programmatic scaling to 4 states in India (Telangana, Tamil Nadu, Karnataka, Andhra Pradesh) and international partnerships with

"Empowering students with the understanding and agency to engage with problems is our guiding light."

Suraksha - Smart safety jacket for coal miners

Maldives and Bhutan, we had the privilege of witnessing student ingenuity across multiple geographies.

We reached over 3,00,000 students in the last year through our programs, delivered online and in person. Fine-tuning both models of delivery is essential to reach every child and each model has proven to have its own merits in terms of delivery, engagement and impact.

Apart from programs for children and youth, we also undertook capacity building training for teachers, district officials and master trainers in partnership with Governments of Tamil Nadu and Telangana to bring in a focus for problem solving and innovation in classrooms. The evolution of the aims of education, the potential of students as problem solvers and the new-age competencies that are built when students engage in problem solving were deliberated and widely acknowledged by stakeholders during these training sessions.

C Shiva Krishna preparing the idea submission box for students

C Shiva Krishna introducing the idea submission box - IDEASAT-D - in school assembly

Students pose as they submit ideas into the box

In our journey, *we met relentlessly passionate teachers and mentors.*

C Shiva Krishna is a government school teacher in TSMS Dharmaram in Peddapalli district of Telangana who is nurturing innovation in his school by encouraging students to share their innovative ideas through an exciting idea box that he installed in school. He then helps students find right opportunities where they could further develop their idea and compete.

C Shiva Krishna has mentored two student groups for the Telangana School Innovation Challenge (SIC). His students Shivani and Thamanna won the previous year's SIC for their eco-friendly medicine time-table bag for the illiterate and visually impaired. This year, another idea from a team from his school finished in the top 10 from more than 13,000+ ideas across Telangana. Teachers like Shiva Krishna not only believe in student potential but also figure out creative ways to support and nurture young minds.

To have a scalable impact in our work, we have **made concerted efforts to engage with stakeholders** and organisations working to bring about policy changes. A need felt by many of us in the innovation and skilling ecosystem in the past was brought to fruition in the last year with the constitution of **Y-HUB** by the Government of Telangana. Inqui-lab was involved in conceptualization, co-design of the Y-HUB framework. The Y-HUB will be exclusively for children and youth, on the lines of successful incubators like T-HUB and We-HUB and will aim to promote youth innovations in Telangana.

The success our alumni achieve is a true testament of our work. It was indeed a special moment when Abhishek, one of the finalists from the School Innovation Program got a chance to share his innovation and talk about his work at the UN House on the 10 year celebrations of Unicef-YUWAH. With a student gender ratio of **55:45** we are glad to note the active participation of the girl in our programs alongside winning of accolades wherein both the winners of the Telangana School Innovation Challenge and the Youth for Social Impact Program 2022 were women-led teams.

As the new academic year 23-24 rolls in, we are working with renewed fervour towards our vision of nurturing the problem solving capacity of every child, adolescent and youth. Empowering them with the understanding and agency to engage with problems around them and become confident and active drivers of change in their communities is our guiding light.

On July 4th this year, **we celebrated our 6th anniversary**. As we march ahead, we will continue to be driven by innovation, strategic collaborations, and an undying commitment to create value for young people. We express immense gratitude to every student, teacher, headmistress, parent, department official, partner, donor, mentor and volunteer who have been a part of our journey.

Our Work

Through our programs, we work to foster a problem-solving and innovation mindset in school and college students and empower them with 21st century skills and learnings. The process of FLIPP : Find, Learn, Ideate, Prototype and Present forms the basic learning methodology of all programs. Each program is tailored to meet the specific needs of students of different age-groups and geographies while attaining a common goal - better 21st century learning, problem solving and innovation mindset. The year saw promising outcomes in terms of participation and learning among students across all our programs.

Think & Make

Our flagship program, Think & Make, is run in classrooms across public and private schools for students of classes 7th to 9th. Students participate in weekly peer-led classroom sessions and complete the program over a two-year period.

In the academic year 2022-23, year 1 of the program was successfully conducted for 3280 students across 42 schools. Year 1 was divided into 2 units. Unit 1 of the program was run from August to November 2022 and Unit 2 was implemented from December 2022 to March 2023 with support from 40 teachers and 160 student leaders. We organised two residential training sessions for teachers and student leaders to help them facilitate the program for all participating students.

At the end of Year 1, students:

Identified 6500 problem.

Generated 4700 ideas

And made 1380 prototypes of their solutions

Student leader playing Lego during a recharge break at the Think & Make training
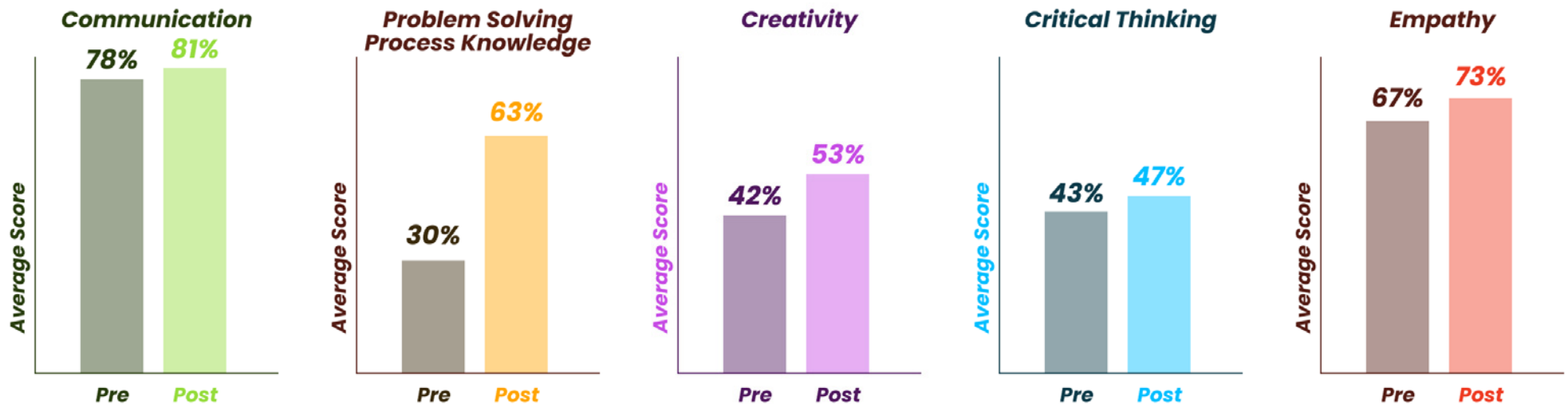
Students' proficiency in short term outcomes such as creativity, critical thinking, and empathy were measured based on the observation data collected throughout the program.

We saw the growth of an enabling environment for students as school administrations and communities encouraged current and new students to participate in problem-solving program activities.

Student leaders trying their hands at art during a break at the Think & Make training

Comparison of key skills and knowledge in students before and after participation in Think & Make

Communication
78% — 81%
Average Score
Pre — Post

Problem Solving Process Knowledge
30% — 63%
Average Score
Pre — Post

Creativity
42% — 53%
Average Score
Pre — Post

Critical Thinking
43% — 47%
Average Score
Pre — Post

**Empathy**
67% — 73%
Average Score
Pre — Post

UPSHIFT
powered by Unisolve

UPSHIFT is a global innovation curriculum designed to build transferable life and livelihood skills and create opportunities for young people. Together with UNICEF's Office of Innovation and YuWaah, we developed Unisolve - a blended learning portal based on the UPSHIFT curriculum - to help children grow into self-sufficient and highly employable individuals with knowledge and skills that are practical and relevant.

As a part of this program, students between the age groups of 10-15 years have the opportunity to learn, through a self-paced interactive online curriculum, skills such as critical thinking, creative problem-solving and design thinking. They are encouraged to put this newly acquired knowledge into practice to benefit the surrounding community around them, take part in the innovation challenge and be mentored, supported and recognized for their innovations.
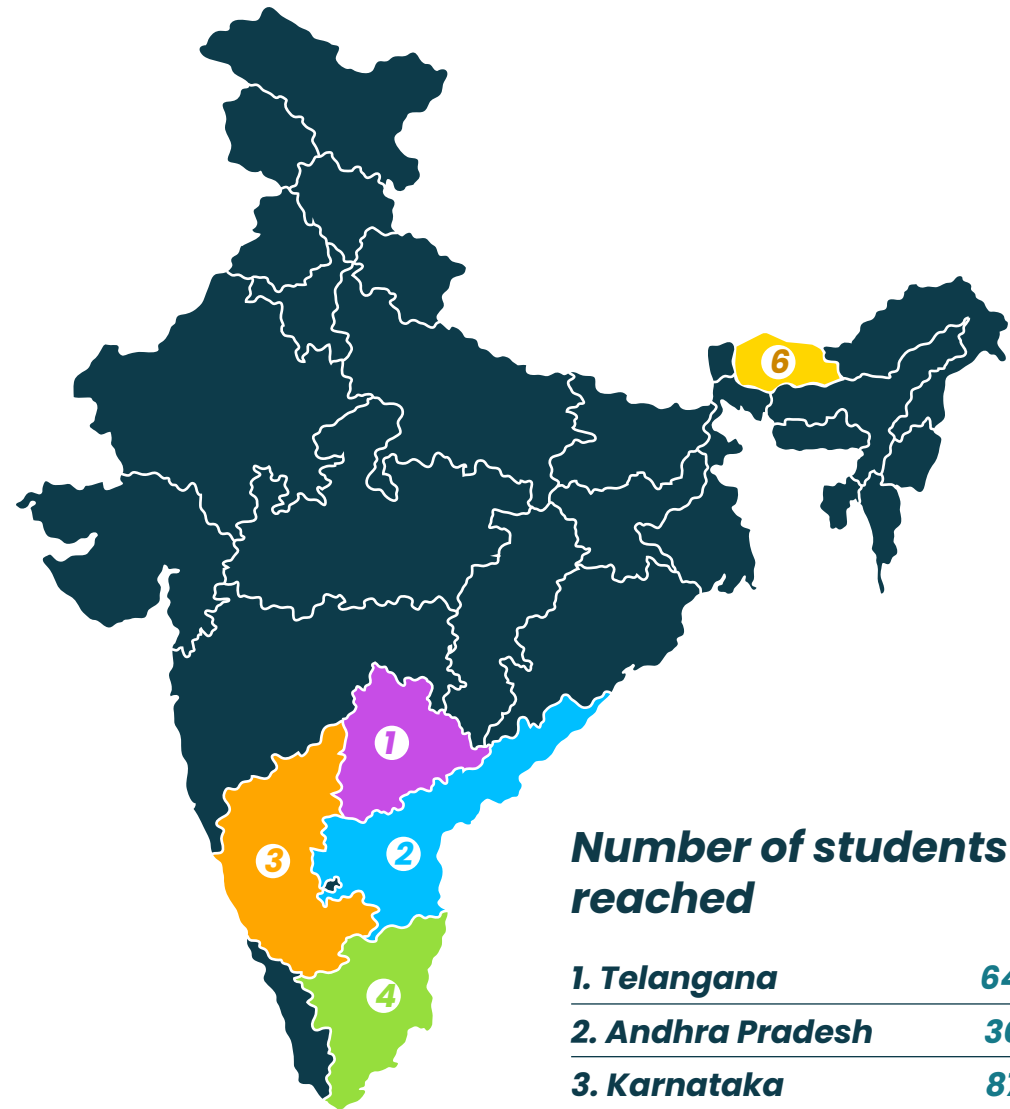
Number of students reached

1. Telangana	64583
2. Andhra Pradesh	30302
3. Karnataka	87487
4. Tamil Nadu	111811
5. Maldives	3138
6. Bhutan	3337

The program was implemented across multiple Indian states - Tamil Nadu, Telangana, Karnataka, Andhra Pradesh and in Bhutan and Maldives.

As of now the program has reached over 3 lakh students with an average completion rate of 77%. The platform enabled the program's uptake immensely - UPSHIFT being the program that reached the maximum number of students. Owing to the strong advocacy and outreach of the program, the government and stakeholders in these instances are taking Innovation and Problem Solving more importantly.

Telangana State Innovation Cell (TSIC), Govt. of Telangana, UNICEF, and Inqui-lab Foundation collaborated to launch School Innovation Challenge (SIC) 2023 in November last year. As implementing partners of the School Innovation Challenge in Telangana, we noticed first hand the enabling role that the platform plays in nurturing Problem Solving and Innovation at scale.

School Innovation Challenge 2023

4,564 schools from 33 districts participated

4,953 teachers trained to facilitate program

64,583 students signed up

49,083 students completed the course

17,806 student teams formed

13,670 ideas received

Under SIC, students completed a course on problem solving and applied their learnings to real-life problems and came up with solutions. Top 70 student teams were selected to participate at a state-level bootcamp, showcase, and Grand Finale in Telangana. The 2022-23 edition concluded with the awarding of the winners.

Under SIC Extended Opportunities, the program also provides continued mentorship, networking, and showcase opportunities to consistent performers. The top performers from the last two editions are undergoing specially

designed coursework to understand the business processes and align their ideas with the needs of the market. Students have also made their mark at events, showcases and competitions conducted by IIT-Chennai, Indian School of Business, T-Hub, NITI Aayog, and Dell.

Teachers attending a training session to facilitate program for students

> **"** I was scared initially but the mentors really helped us and guided us to get a better understanding about our idea. I have learnt so many new things by participating in the program like solving a problem, prototyping and interacting with a lot of people. **"**

> **— Harshitha, Student, ZPHS Nagunoor**

Youth for Social mpact

Youngsters, who are at the cusp of entering the formal job market, form an important age-group where building problem-solving skills and innovation mindset becomes essential. Youth for Social Impact (YFSI) is a step in that direction.

YFSI is an initiative of the Telangana State Innovation Cell developed in collaboration with UNICEF and Inqui-lab Foundation. The program is designed for youngsters aged 15-23 and runs through a self paced online learning platform. Once registered on the YFSI portal, students undergo training and pitch their ideas. After evaluation, a few select students are provided with focussed support to refine their ideas and present a working prototype at a state-level showcase.

The project was launched in Telangana State in 2022 and has, in the span of one year, reached 11,823 students from 490 colleges across the state. After the first phase of idea submissions and evaluation, 10 teams were shortlisted and provided with an exclusive one-on-one mentorship over four weeks.

490
Colleges Onboarded

11,823
students upskilled

The teams had the opportunity to re-work their ideas by using methods of "Human Centered Design" under the guidance of their mentors. By the end of mentorship students built a functional prototype or a proof of concept for their innovation while preparing to pitch their idea to industry experts. The teams then participated in a 3-day event comprising immersive boot camp, final pitch session and the grand innovation showcase at the T-Hub. Here students interacted with start-up founders and discussed realistic approaches to scaling up their innovations into ventures. The 3-day event culminated in prize distribution for the top performers.

Throughout the program, students proposed solutions for issues faced by their community members in diverse areas including agriculture, food safety, mining, and health care. The top performing teams also helped bolster the perspective that having a technical background was not a prerequisite to innovating.

The 3-day bootcamp experience was great! Through the program, we got to know about innovation ecosystems like T-Hub and received useful insights from mentors. We learnt about Innovation being a mindset, the importance of Networking and the importance of bringing a change to the society.

— Khushi Agarwal , Government Degree College for Women, Begumpet.

Collaborations for Ecosystem Impact

In addition to the year long projects, we collaborated with partner organizations working on similar projects to have a joint impact at the ecosystem level.

Champions for Change

In partnership with Tribes for Good, we implemented a 6-month fellowship program, **Champions for Change** (CFC), which aimed at equipping students with future-ready skills such as digital literacy and communication skills. Nine students completed this program where they learned to meaningfully use Email, Google Docs, Google Slides, Google Drive and Canva. For most of the students, this was their first exposure to these digital tools. Based on a self reported questionnaire administered at the end of the program, we observed that a majority of the students became more confident in using the digital tools independently.

Three students from CFC were offered a level-up program by Tribes for GOOD - The Global Challenges & Social Justice (GCSJ). GCSJ enables young individuals to meet the increasing demand for higher cognitive skills such as creativity, critical thinking, and decision making. As part of it, students undertook a program in financial literacy focused on various aspects of loans.

Hackathons and Workshops

We worked with Quest Alliance on 'Hack to The Future' hackathon as mentorship and knowledge partners for a multi-state residential hackathon. The hackathon focused on thematic areas such as Gender in STEM, Future of Technology and Green Lens (environment). The program was truly inclusive with participants from more than 8 states, across age groups, gender and demographics. Participants came up with solutions to their contextual challenges and built prototypes during the hackathon. With diverse partners and participants coming together, we left feeling empowered and motivated by the power of Collective Action.

Government Partners

Ecosystem Partners

Funding Partners

Financials

Revenues and Expenses

TOTAL FUNDS RAISED	FY 2020-21	FY 2021-22	FY 2022-23
Grants & Contributions	₹70,79,279	₹2,12,20,000	₹5,28,47,676

TOTAL EXPENDITURE	FY 2020-21	FY 2021-22	FY 2022-23
Program Design & Curriculum Development	₹26,63,510	₹10,87,200	₹83,79,800
Program Implementation & Monitoring	₹27,83,333	₹1,68,04,200	₹2,20,93,581
Learning Material, Technology & Innovation Kits	₹7,47,729	₹18,89,000	₹1,60,82,940
Training & Program Showcase	₹9,94,895	₹9,33,400	₹6,66,316
Office & Admin Expenses	₹2,62,741	₹9,46,000	₹12,02,321
Team Development and Capacity Building		₹68,000	₹16,69,232
Program Travel	₹26,560	₹3,47,000	₹6,78,004
TOTAL	₹74,78,768	₹2,20,74,800	₹5,07,72,194

#Partnership4Change

Creating environments where limiting stereotypes don't exist...

#InnovationForAll

#ExpertBlog

#LemonadeStandTest

#Summer2023

#Safety4CoalMiners

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