

IMPACT ASSESSMENT CSR PROGRAMME LTIMindtree

2023-24



Prepared By





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Foreword

This report assesses the extent to which the CSR interventions by LTIMintree could achieve its intended results.

Any such assessment would not be possible without the support of the beneficiaries, implementing agencies, LTIMintree Foundation project managers. At every project site where the assessment team visited, the stakeholders were responsive, attentive and welcoming. To every person who gave his or her time, spoke to us and for the hospitality extended, we wish to put on record our appreciation and gratitude.

Impact assessment is both a science and an art. However, in the pursuance of generating data and statistics as evidence of an impact, evaluators sometimes forget the art of acknowledging that there are persons behind each metric. Every 'x' on a graph represents a person, with thoughts, feelings and experiences: an understanding of which is invaluable if we are to gain the deep and nuanced insights needed to make sense of the surface-level picture the statistics paint for us. This report attempts to synthesise evidence-based findings, socio-economic considerations and the community expectations into a coherent whole to inform decision-making.

Impact Assessment at best can ascertain 'what is', the answer to 'what should be' is the domain of the CSR managers and the community they serve. Hope this report helps make an excellent CSR Program even better.

Dr KK Upadhyay
*Professor and Chairperson,
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Executive Summary



1. Object of the Impact Assessment Study

Assess the extent to which project activities were implemented and contributed to achieving project goals. The assessment focused on the quality of technical assistance, feedback mechanism, timeliness, and project completion. Identify good practices and gaps in the project implementation in order to provide recommendations for program quality improvement and future replication purposes. The time period for the project is 2023-24. Birla Institute of Management Technology (BIMTECH) was retained to conduct the assessment study.

2. Assessment Framework

The Organization for Economic Cooperation and Development (OECD) criteria for project assessment was adapted for this study. Each project was seen through the lens of the following six criterion.

- **Coherence:** Check was made for (i) Internal Coherence: addresses the synergies of the intervention with the LTIMindtree CSR policy and the priority sub sectors. (ii) External Coherence: considers the consistency of the intervention with similar programs by the state or central government.
- **Relevance:** Does the intervention respond to the felt needs/priorities of the intended beneficiaries.
- **Effectiveness** The extent to which an intervention is achieving or has achieved its objectives.
- **Social Impact:** It answers the question as to what difference does the intervention make in terms of indirect, secondary and potential consequences.
- **Efficiency:** The focus was on economic and process efficiency in terms of leverage, improved implementation and delivery methods.
- **Sustainability:** Explores the question as to whether the initiative have financial, economic, social, environmental and institutional capacities needed for the likelihood of net benefits continuing over the medium and long term.

3. Methodology

The assessment team used a bouquet of techniques to elicit information and evidence to enable it to make a judgment on how an individual initiative has performed, which include (i) Semi Structured Interviews, (ii) Case Studies, (iii) Observation, (iv) Focus Group Discussion and (v) Secondary Data (where available). Based on the evidence and information, the team rated each project as high/medium/low for each element in the framework (coherence, relevance, effectiveness, efficiency, impact and sustainability). To keep the biases at bay, the field team assessment was reviewed by a senior team member and the impressions triangulated. The scoring for each criteria was done as per the following scale

Rating Scale

Score	Category
0-2	Low
2-4	Moderate
4-5	High

4. Projectwise Summary of Findings

4.1 Vocational Skills and Employment Development Centre

The project helped set up and support the operation of the Vocational Skills and Employment Development Centre (VS-EDC), which trains youth with intellectual disabilities in vocational skills through sheltered and supported employment pathways.

The project has been excellent in providing both occupational and life skills. Some of the drivers that contribute towards the quality of the training have been - (i) the training methodology is informed by global good practices (for instance, uses the BWAP tool to assess vocational competence, a comprehensive Pre-Vocational Training through Skill Training Unit attached to VS-EDC, focus on developing adaptive skills (favoring professional inclusion, sustenance, and autonomy and decreasing the need for assistance and support),

Summary of Findings

Project	Partner NGO	Coherence	Relevance	Effectiveness	Efficiency	Impact	Sustainability	Overall
A. INCLUSIVE EMPOWERMENT PROJECTS								
Vocational Skills and Employment Development Centre	SPASTN	5	5	2	4	4	4	4
Quizabled	Seva-in-Action	5	5	5	3.5	5	4	4.58
B. EDUCATION PROJECTS								
Introduction to Basic Technology Project (IBT)	Vigyan Ashram	5	5	5	4.5	4.5	2.5	4.41
Virtual Learning	eVidyaloka	5	5	4.5	4.5	4.5	3	4.25
C. YOUTH EMPOWERMENT PROJECTS								
Digital Sakshar	Pratham Infotech Foundation	5	5	4.5	2	4.5	4.5	4.25
Digital Skills Project	Lokbhati Education Society	5	5	4	4.5	4.5	4	4.5
D. WOMEN EMPOWERMENT PROJECT								
The Women Artisan Skill Enhancement Project	UNDP	5	5	2	2.5	4	3	3.58

maintaining a small batch size for individual attention, and regular monitoring of learning outcomes. The testimonials of the parents and employers allude to the quality of training. In terms of impact, the project has made the trainees relatively more independent in performing personal and social tasks as part of daily living, thereby requiring lesser supervision from the caregivers at home.

However, the project gets a low score on effectiveness primarily because of its inability to provide remunerative livelihood post-vocational training for the trainees, which was one of the project's main objectives. The project has placed a limited number of students in open employment, and those engaged in production at sheltered workshops get a limited remuneration. Through the project's duration, of the 74 students enrolled, 11 students have been placed in open employment, and 5 receive a stipend at the sheltered production centre. It is acknowledged that providing gainful employment to persons with intellectual disability is not easy. In developed countries (United States), the employment rate for persons with an intellectual disability is around 34% and may be considered a benchmark for the project. An improved placement percentage would reinforce the project's effectiveness and improve the overall assessment rating.

4.2 Quizabled

Quizabled was initiated in 2016 and is the first quiz in the country (and the world) for differently abled participants (Intellectual disability, Autism, Cerebral Palsy, Visual impairment & Hearing impairment).

The rising popularity of Quizabled is a testimony to its success. Starting from Karnataka, Quizabled is now held in 10 states with a corresponding increase in participating schools from 18 to 311. The participant numbers have gone up from 110 to 2968. Quizabled is now part of the curriculum in many institutions wherein year-long coaching of their students is conducted to help them excel in Quizabled. The online format of Quizabled has increased reach and has taken tremendous ingenuity to enable the digital mode. The initiative has received praise from participants, parents, teachers, and people at large. The project has received significant coverage in the media (Bing search on the term Quizabled revealed 3,70,000 search results). In terms of impact, Quizabled helps shape a positive public opinion about the potential of persons with intellectual disabilities.

While Quizabled scores high in most of the assessment parameters, it has been rated moderate in efficiency for two reasons: (a) Despite increased participation, the representation from government-run special and mainstream schools (which have a number of specially-abled students) needs to be higher. (b) The Quizabled portal also needs a relook and be so designed, curated, and promoted that it reaches out globally and helps encourage Quizabled format quiz competitions worldwide.

The initiative is rated high overall. Quizabled is a global innovation and a unique initiative that showcases the abilities of people with intellectual disabilities and dispels myths about their capabilities.

4.3 Introduction to Basic Technology Project (IBT)

The project was implemented in 15 secondary schools in and around Pune over five years (2018-19 to 2022-23). For classes VIII-X, IBT focuses on work-centered education wherein the STEM curriculum of the textbook is brought to life through

working models and prototypes. Under the project, IBT labs and instructors have been provided to target schools in engineering, energy/environment, agriculture/animal husbandry, food processing, and 3D printing.

The project has helped generate interest in science, as evidenced by many IBT school students taking science or technical courses after secondary school. In sampled schools, post IBT, on average, about 65% of the students after X grade opted for technical and science subjects. Before the introduction of IBT this percentage was around 20%. The IBT students also reach out to the community with technology-based solutions. While they are too numerous to mention, some notable ones include a compost crusher and sieving machine, a sugarcane cutter to reduce drudgery during harvesting, an intelligent stick to guide the elderly, eco-bricks from plastic bottles, UV disinfectant machine, fabricated hydroponic setup, groundnut roaster machine design, and development amongst others. Another positive has been that the IBT schools and students have received recognition and awards for the science projects and prototypes developed in IBT classes. This includes project demonstration at the prestigious National Science Congress. It was also reported that demand for admission to IBT schools has increased.

IBT scores moderately in the sustainability criterion, given that the program has recurring costs emanating from the salary of IBT instructors, project consumables, and additional machinery for executing sophisticated prototypes. Once LTIMindtree support ends, the cost will need to be borne by the students or the school, which can be challenging for schools catering to children from economically marginal backgrounds.

Overall, IBT is an excellent initiative that has helped improve learning outcomes in STEM for middle-grade school students.

4.4 Virtual Learning (eVidyaloka)

The project is positioned to address two fault lines in the state-run school education system- (i) Teacher shortage and (ii) Quality teaching. Hardware for distance learning was installed in classrooms in target remote rural schools. Enlisted volunteers from India and abroad took online English, Math, and Science classes in close collaboration with teachers in target schools.

The project has a positive impact on the learning outcome of students in remote and under-resourced rural schools through several pathways, which include - (i) Audio-video based teaching content, (ii) High student engagement, (iii) Regular assessment, (iv) Sharing of teaching load with regular teachers, (v) Targeted classes beyond the regular school syllabus (e.g., special scholarship coaching classes), (vi) Bringing new life experiences into the classroom through volunteer teacher and (vii) providing an opportunity to working professionals, retired persons, homemakers, and the community at large to be part of nation building effort. An improvement in learning outcomes is observed in the project schools, including high performance in scholarship exams. For instance, at the sampled school, the virtual classes have enabled 5-6 students every year to figure in the merit list of the scholarship examination for class V students conducted by the Maharashtra State Council of Education (MSCE).

While the project is meeting its mandate of improving learning outcomes, concerns need to be addressed regarding its sustainability. These emanate from internet connectivity issues at project schools (most are located in remote rural

locations) and the inadequate availability of volunteers to meet project schools' demands for more teaching hours from volunteer teachers. These two issues impact the project's sustainability score.

4.5 Digital Sakshar

The initiative aims to equip youth from socio-economically disadvantaged and underserved communities and sections of society with basic digital and employability skills.

The project has successfully seeded an innovative digital learning methodology wherein laptops are issued to a group of trainees to help practice outside the classroom. This helps transcend the issue of access to a digital device faced by most youth from lower-income households. It has also performed admirably well in student retention and placement. Upgrading some of the project's alums as trainers creates role models in the community. In the assessment year, the project was run at 58 centers across Pune and Mumbai (50 Mumbai and 8 Pune). Against the target of training 14200 persons, 17166 persons completed the course. The dropout rate was around 2%, which is low compared to 20% in Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 1.0, 2.0, and 3.0 skilling programs. Further, of the total job seekers (i.e., those who applied for placement) in the assessment year, 63% were placed. The placement rate is excellent compared to the 23% achieved in PMKVY. The project partnered with over 350 recruiters over the entire duration of implementation. The trainees also gave positive feedback..

While the project has much to recommend for itself, some issues impair its efficiency. This includes not using licensed software at the training centers, older versions of software being taught, performance issues with laptops issued to students, and including in the syllabus some advanced word-processing and spreadsheet skills.

4.6 Digital Skills Project

The project provides training in graphic and web designing and provide placements to underprivileged youth. Digi Skills has successfully introduced youth from low-income communities to IT/ITES-based jobs. High placement rates and approbation of the trainees on the usefulness of the training content evidence this. The course curriculum conformed to the National Skill Development Corporation (NSDC) guidelines, guaranteeing the program's quality. Of the 180 youth trained, 145 youth could be placed, which translates to a placement rate of 80%. The project could achieve a placement rate of 80%. This compares favorably to the placement rate of 44% for short-term NSDC courses. Regarding impact, the project challenges the trend of relatively few individuals from poor and marginalized backgrounds managing to secure positions as software professionals. It was suggested by the trainees that training on advanced topics would have aligned the course better to the market demand.

4.7 The Women Artisan Skill Enhancement Project (WASEP)

The program involves generating alternate livelihoods by skilling women from underprivileged communities in Mumbai and Thane districts of Maharashtra in Warli Art. The project is designed as a 'creator to consumer' initiative and fulfilled through four pathways: (i) creating empowered institutions at the cluster level; (ii) product improvisation concerning

workflow processes, quality, diversification, and new designs; leverage capital; and support marketing and sales. The first phase of the project spanned from 2017-18 to 2021-22,

The project has successfully targeted women from socially marginalized households (more than 90% of the beneficiaries belong to OBC, SC, and ST communities, 53% of the beneficiaries holding Antodaya or BPL ration cards), provided extensive training at scale (trained 2500 beneficiaries over the project period), helped establish the required institutional infrastructure (artisan collectives and a producer company), and assisted in procuring artisan cards (application of 1000 beneficiaries for the Artisan card was facilitated). It has also had secondary impacts by helping empower women through improved agency and challenging existing gender mores. The majority of the beneficiaries had never engaged themselves beyond household work, and the project helped them widen their horizon beyond the immediate.

With respect to the effectiveness of the project, it could have traversed more ground in generating livelihood for the women trained under the project. The field-level interaction with beneficiaries revealed that there was a spurt of demand during COVID-19, when the project sourced masks, making orders in large numbers from the project beneficiaries, with monthly income reaching up to Rs. 2000-4000/month; however, the orders have dwindled since. The beneficiaries suggested that more frequent contact between the implementing agency and the artisan clusters would help revive the order flow (both through the project and other external agencies) and improve the quality of execution. Further, only 10% of the trainees were graded Category A and received advanced training. Given that the handicraft quality is highly dependent on the artisan's skill, a high degree of proficiency is necessary for women to be remuneratively engaged. It was also observed that trainees had low knowledge of the cultural significance of Warli Art.

Concerning the 'moderate' score for efficiency, the project has been unable to develop high-throughput marketing channels. While the project has been able to generate institutional sales, retail sales have been relatively low. This includes the eCommerce portal listings, which were found to be dormant in most cases. Also, given the complexity and scale of operations, there is a scope to strengthen the project MIS.

Two Warli Artisan Producer Companies have been set up to make the project sustainable. However, the producer companies are currently in a nascent stage and require significant handholding support. For instance, one of the immediate issues producer companies face is their difficulty meeting compliance requirements, and they often default, attracting penalties. Also, the members' sense of belonging to the producer company could be more robust; presently, most women prefer to execute orders individually rather than through the collective. It was also reported that the producer companies have low throughput and are not self-sustaining entities. Significant investment in capacity building, infusion of working capital, marketing & design support, and handholding is required.

Given the aforesaid faultlines, the project has been rated moderate for effectiveness, efficiency, and sustainability.



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2021, 18:39

INTRODUCTION & METHODOLOGY

Contours of LTIMindtree CSR Program

LTIMindtree's CSR program aims to positively impact more than four million lives in the community by 2030 through three drivers for catalyzing social progress:



Education - Bringing quality education, digital learning and learning aids closer to the underserved.



Empowerment - Enhancing skills of marginalized youth and women, providing special education & skills for physically and intellectually challenged people.



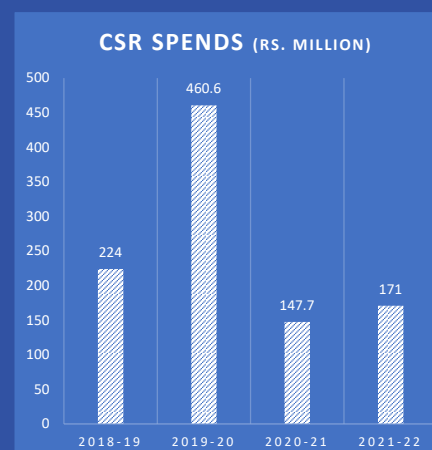
Environment - Creating solutions for protecting the earth.

CSR Delivery

The CSR projects are implemented in collaboration with credible NGOs, to address the felt needs of the communities served. Managers of LTI Mindtree provide support in terms of project planning, implementation strategy and reviewing its effectiveness.

CSR Spend

Every year, LTIMindtree, with the approval of its Board of Directors makes a non lapsable budgetary allocation for CSR and Sustainability activities/projects. The allocation is in consonance with the stipulations of the Companies Act 2013.

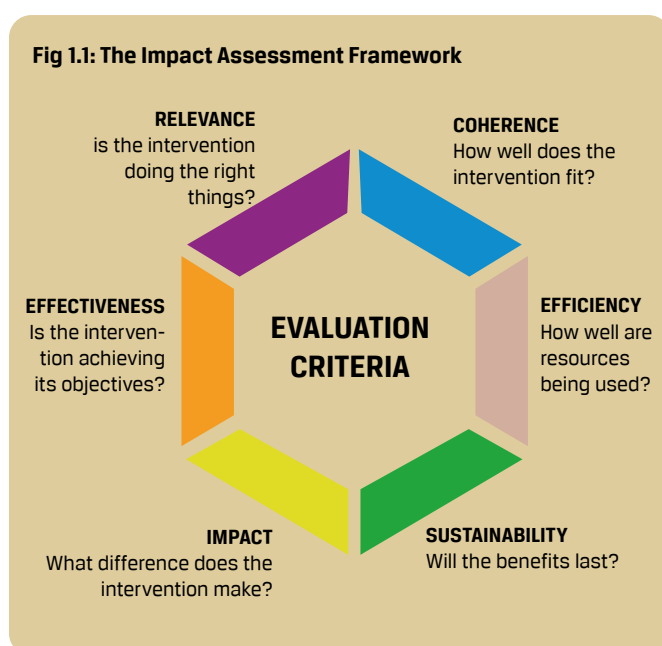


Object of the Impact Assessment Study

- Assess the extent to which project activities were implemented and contributed to the achievement of project goals, KPIs and strategic objectives.
- The assessment will focus on the quality of technical assistance, feedback mechanism, timeliness, and project completion as per the MOU FY22.
- Identify good practices and gaps in the project implementation in order to provide recommendations for program quality improvement and future replication purpose.
- In addition to the above, the impact assessment study should discuss:
 - Innovation and digitalization: In what aspects did the project manage to bring innovative and digital solutions to meet the needs of the target groups, provide unique solutions to demonstrate challenges, and break through approaches within the project.
 - Challenges: What are the key results, feedback from involved stakeholders, insights, stories, and messages learned from CSR programme, useful reporting to improve the design and implementation of the future projects.

Assessment Framework

The Organization for Economic Cooperation and Development (OECD) criteria for project assessment was adapted for this study. Each project was seen through the lens of the following six criterion.



- **Coherence:** The compatibility of the intervention with other interventions in a country, sector or institution. This was further checked for (i) Internal Coherence: addresses the synergies of the intervention with the LTIMindtree policy and the priority sub sectors. (ii) External Coherence: considers the consistency of the intervention with similar program by the state or central government.
- **Relevance:** Does the intervention respond to the felt needs/priorities of the CSR catchment. The relevance

Table 1 : Projects Assessed

Project	Partner NGO	Project Objective	Geographic Reach
Digital Sakshar	Pratham Infotech Foundation	Enable the youth from socio-economically disadvantaged communities with basic digital and employability skills.	58 centers in Mumbai, Navi Mumbai, Thane, and Pune benefitting 17166 youth
Introduction to Basic Technology Project (IBT)	Vigyan Ashram	The program focuses on work-centered education instead of book-centered education. It links school education/curricular subjects to day-to-day activities and makes education meaningful.	15 secondary schools in and around Pune implemented for 8th std to 10th std, benefitting 5603 school students.
Quizabled	Seva-in-Action (SiA)	Special quiz competition conducted exclusively for children with special abilities.	Special and regular schools across Karnataka, Tamilnadu, and Maharashtra in FY 21-22 reaching 1000+ children.
Blended Learning	eVidyaloka	Students attend live sessions with volunteers online to bridge learning gaps.	4406 students benefitted
Vocational Skills and Employment Development Centre	SPASTIN	Vocational skills and employment development for people with disabilities through both sheltered and supported employment pathways.	55 students trained in 2021-22
The Women Artisan Skill Enhancement Project (WASEP)	UNDP	Developing capacities of women from underprivileged communities to generate livelihoods through Warli and terracotta art.	Mobilizing 300 new artisans and organizing them into groups. Advanced design and Training of 2200 artisans.
Digital Skills Project	Lokbhati Education Society	Web Designing and Graphic Designing	180 youth from marginalized communities around Navi Mumbai

is context specific to the geography / culture in which the intervention is being implemented.

- **Effectiveness** The extent to which an intervention is achieving or has achieved its objectives. This includes whether an intervention has attained its planned results, the process by which this was done, which factors were decisive in this process and whether there were any unintended effects.
- **Impact:** This criterion captures the "so what?" question of an evaluation. It examines the significance of the intervention and its higher-level results, meaning how much it mattered to those involved.
- **Efficiency:** The assessment focused on economic efficiency in terms of leverage and unit costs of outputs.
- **Sustainability:** Does the initiative have financial, economic, social, environmental and institutional capacities needed for the likelihood of net benefits continuing over the medium and long term.

Methodology

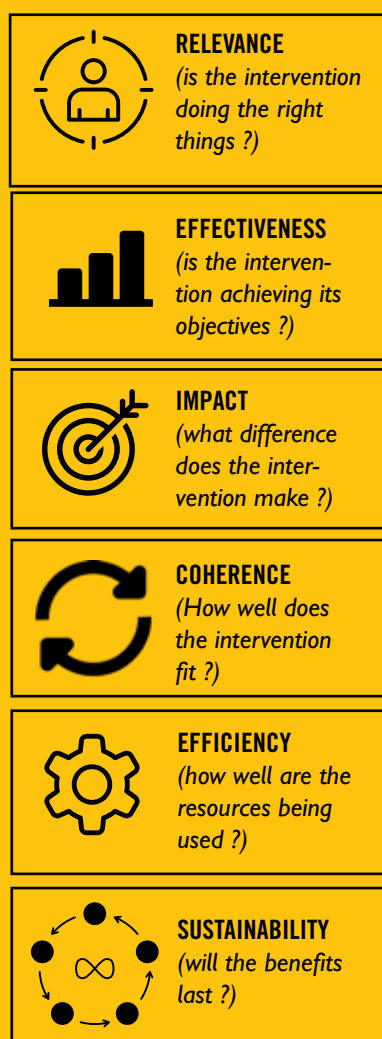
The assessment team used a bouquet of techniques to elicit information and evidence to enable it to make a judgment on how an individual initiative has performed, which include (i) Semi Structured Interviews, (ii) Case Studies, (iii) Observation, (iv) Focus Group Discussion and (v) Secondary Data (where available). Based on the evidence and information, the team rated each project as high/medium/low for each element in the framework (coherence, relevance, effectiveness, efficiency, impact and sustainability). To keep the biases at bay, the field team assessment was reviewed by a senior team member and the impressions triangulated.

Rating Scale

Score	Category
0-2	Low
2-4	Moderate
4-5	High

Fig 1.2 Methodology used in the study

DIMENSIONS



Tools

- Semi Structured Interviews
- Case Studies
- Observation
- Focus Group Discussion
- Secondary Data (where available)

Respondents

- Beneficiaries
- Implementing Agencies
- Program Managers

Rating

- High
- Moderate
- Low





A. INCLUSIVE EMPOWERMENT PROJECTS

Vocational Skills and Employment Development Centre *(in partnership with SPASTN)*



Support the vocational skills training program in Chennai, in partnership with The Spastics Society of Tamil Nadu (SPASTN), to train specially-abled youth with vocational skills, boosting employability. The Vocational Skills and Employment Development Centre (VS-EDC) provides both sheltered and supported employment pathways. The students gain valuable experience at the VS-EDC to follow routines, work habits and self-management skills. The work they do consists of projects and small contract work that service providers secure from various organizations to provide real work environment so that it may possibly transit to their future employment prospects.

Quizabled *(in partnership with Seva In Action)*



A unique and first of its kind initiative in India where children and youth with disabilities are given an opportunity to showcase knowledge and learning abilities. The main purpose of this program is to provide a platform for knowledge development, to raise awareness by dispelling myths about the potentials of children and youth with intellectual and developmental disabilities, besides enabling participation of the differently abled in quizzing events and even take part in competitive exams in the future.



ASSESSMENT

A.1 Vocational Skills and Employment Development Centre (VS-EDC)

The Vocational Skills and Employment Development Centre (VS-EDC) for persons with intellectual disabilities provides three tracks: (i) Training and Development Track, (ii) Sheltered Workshop/Production Track, and (iii) Open Employment/Supported Employment Track.



A. Training and Development Track (Pre-vocational training) - 14-16 yrs

Trainees aged 14 to 16 come into the Skills Training Unit (STU) where the focus is on behavior regulation, pre-vocational skills, health/ leisure/ recreation, and exposure training to different trades in the program. From STU, the students move into Vocational Skills Training for advanced training in the sheltered/enterprise tracks or open/supported employment.



B. Sheltered Workshop- 16-18 yrs

Students receive vocational and personal/social training to move on to special projects, social enterprises, or open employment. Students are mainly engaged in contract work.



C. Production Track - 18+ yrs

VS-EDC has partnered with the Special Needs Employment Hub (SNEH), which provides contract work orders, guidance, and training in areas of product development and finds markets for the products developed. Subcontract work in the sheltered workshop includes packaging, tagging of products, paper bag making, assembly, candle, diyaa painting, bag stitching, shell varnishing, etc. Sheltered workshops provide training by simulating real work environments to the maximum extent possible.



D. Open Employment/ Supported Employment - 18+ yrs

The focus is on helping students find competitive jobs in the community and providing the support they need to succeed in the workplace. This includes - (i) Assessment of vocational potential, (ii) Vocational counseling, (iii) Networking and liaison with prospective employers, (iv) Job-related training and placement, (v) Continued support for six months.

Summary

The project has been excellent in providing both occupational and life skills. The training methodology is informed by global good practices and the testimonials of the parents and employers alludes to the quality of training imparted. However, the project has been able to place a limited number of students in open employment and those engaged in production at sheltered workshops get a limited remuneration. Through the project's duration, of the 74 students enrolled, 11 students have been placed in open employment, and 5 receive a stipend at the sheltered production center. It is acknowledged that providing gainful employment to persons with intellectual disability is not easy. The employment rate for persons with disability is around 34%, and may be considered as a benchmark for the project to achieve.

Rating of VS-EDC Project

Assessment Criteria	Rating	Score
Coherence	High	5
Relevance	High	5
Effectiveness	Low	2
Efficiency	High	4
Impact	High	4
Sustainability	High	4
Overall	Moderate	3.9

A. COHERENCE

RATING : HIGH

A.1 External Coherence

The project is in sync with the national and state-level imperative of providing employment opportunities to persons with disabilities, which includes those with intellectual disabilities.

- i. The Rights of Persons with Disabilities Act, 2016 (RPwD Act) states that the government should create schemes and programs to support vocational training and self-employment for people with disabilities. The Act also mentions that exclusive skill training programs for persons with disabilities with active links with the market, for those with developmental, intellectual, multiple disabilities, and autism needs to be promoted (sec 19.c)
- ii. The National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation, and Multiple Disabilities runs a scheme (VIKAAS) under which funding is provided for setting up day care centers for persons with autism, cerebral palsy, mental retardation, and multiple disabilities, for enhancing interpersonal and vocational skills. The trust also supports a program focused exclusively on vocational training for persons with intellectual disabilities (Gyaan Prabha).
- iii. Department for the Welfare of Differently Abled Persons, Government of Tamil Nadu, in its policy

note 2021-22 (<https://www.scd.tn.gov.in/pdf/52--POLICYNOTE-DIFFERENTABLED-ENG-1.pdf>), reiterates the need for provisioning vocational training and employment for persons with disabilities.

A.2 Internal Coherence

The project is in concurrence with the 'empowerment' driver of the LTIMindtree CSR Program.

B. RELEVANCE

RATING : HIGH

The total persons with intellectual disability in India stands at 24.21 lakhs while the corresponding figure for Tamil Nadu is 1.4 lakhs.

	Total disabled persons	Persons with intellectual disability
Tamil Nadu	11,79,963	1,44,295 (12.2%)
India	2,68.14.994	24,21,710 (9%)

Source: Persons with Disabilities - NSS 76th round (July –December 2018). Note: The number of intellectually disabled is probably higher, the population projections are based on 2011 census

According to the Declaration on the Rights of Persons with Intellectual Disabilities, people with intellectual disabilities have the right to economic security and a decent standard of living. They also have the right to perform productive work or engage in any other meaningful occupation to the fullest extent of their capabilities. With adequate training, people with mild, moderate, and severe intellectual disabilities can successfully compete

Factsheet

A. Trades

- Block Printing
- Wood work and Carpentry
- Tailoring
- Weaving - Japanese mat weaving
- Weaving - Foot mat weaving
- Baking
- Art work- Candle making, paper bags, decorative items

B. Age Group

Upto 14-35 years

C. Pre Vocational Skills

- Personal And social Skills
- Attendance & Punctuality
- Dress & Hygiene
- Work Behaviors
- Self Regulation
- Relating with others

D. Number of Beneficiaries (2021-22)

- Total no. of specially abled enrolled = 57
- No of students trained = 55 (74 over the entire project period)
- 5936 hours of training provided with in-house and remote learning

E. Disabilities Addressed

- Cerebral Palsy
- Multiple Disability
- Autism Spectrum Disorder
- Intellectual Disability

G. Project Bottomline

A person with disability can lead a life with dignity

for jobs. Some people with mental retardation may need vocational training in sheltered workshops before entering the competitive job market. While there are no definite estimates of the unemployment status of persons with mental disabilities, independent small-sample research studies have put the figure at around 95%¹.

C. EFFECTIVENESS

RATING : LOW

The project has excelled in providing comprehensive vocational training to the students. However, there remains significant scope in improving the placement rate of students in open employment and for providing remunerative livelihood option at the sheltered workshop(C.9).

C.1 Scientific basis for categorising students with intellectual disability for vocational competence

Students are assessed based on standardized tests, which are recognized as valid instruments for gauging cognitive abilities. Based on the scores, students are assigned to a specific developmental track. **Screening of students is not left to guesstimates or personal perceptions, but the scientific tool is used to put students on the right vocational track.** This ensures providing the proper support to influence the (i.) Personal traits (e.g., hygiene, attendance, and punctuality, (ii) Work Behaviour (e.g., attentiveness), and (iii) Self Regulation (e.g., workplace discipline).

Score (Cognitive + Motorable)	Development track
100-75	NIOS curriculum, which takes them on gaining academic qualifications- mostly children with autism and mild intellectual disability make the grade
75-45	Upper quartile- Supported Employment
	Middle Quartile- Low support sheltered workshop
	Lower Quartile - High support sheltered workshop
0-45	Children with severe and profound intellectual disability are not admitted to the vocational training program.

Beckers Work Adjustment Profile(BWAP)

SPASTN extensively uses the BWAP tool to assess the vocational competence of children and helps decide on which development track a student will be put on. BWAP is operationally defined as a qualitative statement about the work adequacy (functioning) of persons who have a learning disability. The focus of vocational competence is directed at the desired work behaviors a person typically displays when performing vocational tasks. The tool contains 63 items distributed within four domains and a composite or total score called Broad Work Adjustment (BWA). The domain and total scores are listed as follows:

- Work Habits / Attitudes - HA
- Interpersonal Relations - IR
- Cognitive Skills - CO
- Work Performance Skills -WP
- Broad Work Adjustment - BWA

C.2 High approval rating from parents

The parents of the students enrolled in vocational training were administered a questionnaire to rate the services(on a Likert scale) provided to the students under the vocational training supported by LTIMindtree. The analysis of the response reveals that parents are satisfied with the support provided to their children in both occupational and life skills. The written feedback by parents also talks of the positive impact of vocational training on their children(summarised in the adjacent page).

Response of parents to the services received by their children under the vocational training program

	Poor	Fair	Good	V. Good	Excellent
Training by VTC trainer	0%	2%	13%	33%	52%
Skills covered during the course	0%	0%	22%	54%	24%
Practice given during the course	0%	0%	13%	52%	35%
Counselling provided	0%	0%	35%	35%	30%
Personality development	0%	4%	28%	43%	24%
Assistance to enhance livelihood	0%	2%	17%	48%	33%
Overall program rating	0%	0%	7%	54%	39%

C.3 High Stress on Pre-Vocational Training through Skill Training Unit

After completing basic schooling at SPASTN, the students on the vocational track attend pre-vocational training for two years at the Skill Training Unit (STU). On successfully finishing the pre-vocational phase at the STU, the student enters the vocational training program provided through sheltered workshops. In the pre-vocational phase, the emphasis is on (i) Extended educational program in 3R and general knowledge, (ii) Socialization and group behavior, (iii) Use of art and craft to facilitate motivation and creativity, improve social skills, (iv) Recreation, (v) Health education, (vi) Self-help skill development, (viii) Pre-work training like knowledge of tools, work discipline, basic work skill training, etc. **Good quality and intense pre-vocational training prepares the student for vocational training and ensures higher retention in open employment and quality output in in-house production.**

C.5 Market linkages established

The vocational centre has established market linkages for the items produced at the production center. The details of the items made and marketed in 2021-22 are given in the table below. **It was reported that there is a lack of steady order and, therefore, unutilized capacity at the production unit.**

¹ Rashi Juneja, Anuja Kapoor and Rashmi Pandey. Employment Status of Mental Health Patients in India. Biomed J Sci & Tech Res 46(3)-2022. BJSTR. MS.ID.007346.

Parents Feedback

I am happy with the skills provided to my child including weaving, tailoring and baking.

KS Sailesh Kumar

He has learnt independent living, able to do physical activity and play

E. Parthiban

He has improved his communication skill, able to engage in interpersonal interaction and shopping skills.

Rogan Raghav

The vocational teaching is good especially handson training. His communication skills have improved.

M Kamlesh

The instructors are very good , they bond well with the child and encourage the child

S Yuthika

My child is more attentive and helps with household work.

Sriram

She has learned handmade doormat. She has learned dust-bin, and learned household work.

Sneha

He is now able to sit attentively for one hour at a stretch. He has learned stacking and shifting boxes in work area.

Thanigai Velam

My child has gained occupational skills including mat weaving, and tailoring.

Subash Vijai

My child has attained proficiency in communication, physical exercise and weaving

S. Ashok Kumar

My child has been placed in a job, I am happy about it.

Vijai Vishnu

My child has acquired skills in weaving and tailoring

Pranesh K.

My child has experienced improvement in speech and communication and physical activities.

Diwakar

My child has developed communication, baking and weaving skills.

Thangaraj

I really appreciate the skills developed in communication, skill development and mat weaving

S. Radhika

I really commend the individual care and attention, polite approach, physical activities

R. Krishna Kumar

My child has learnt diya painting, sorting coloured clothes for weaving, play activities.

V. Dharunika

My child now works independently, he understands what we say and he is very active.

S. Vignesh

I really appreciate dedication of teachers, skills training, and one to one training.

Jovin Cyril

Training is of high quality, and my child's communication and ability to do unaided tasks has improved.

S. Touheed Taqee

Teacher's communication is excellent, and training is good.

S. Manikandan

His quality of work has improved. He can do many tasks independently and manage himself well.

A, Jaisridhar

Vocational training is very good, socialisation skills improved, and has developed good manners.

A. Praveen

I am really happy with her ability to work independently, her quality of work has improved.

K Abhinaya

My child has learnt to help and respect others.

A. Shanthi

My child has learnt to be obedient, disciplined, and socialize.

S. Muthiya

She has started to extend help with household chores, She is good at tailoring.

Sandhiya

Better anger management. Improvement in diet.

Arun Pandiyan

Goods manufactured at production unit at vocational centre (2021-22)

Name of the orgn	Details of order	No. of orders	No of youth
Nivesh Foundation	Woven Fabric	101 mts	4 youths
Nivesh Foundation	Gada clothes printing work/ One meter long printing Clothes. (all over printing)/ Potli bag	104 meters	4 youths
		767nos	5 youths
Nivesh Foundation	Potli bag	252+	
Nivesh Foundation	Candle holder	107	4 youths

Nivesh Foundation	Cell phone stand	117	5 youths
Inner wheels club	Tailoring, Potli bag sticking	60 nos	3 youths
Hope Foundation	Potli bag	12 nos	3 youths
Nivesh Foundation	Bamboo ring half inch [cutting and scrubbing]	405 nos	6 youths
SPASTN school parent	Modified chair, Corner chair	6	4 youths
Nivesh Foundation	Diyas, painting (small, medium, punchamugi)	420 nos	10 youth
SPASTN in-house sale	cookies and cup cakes	12 kg	6 youths



Comprehensive Pre- Vocational Training Provided At Skill Training Unit

- *Handmade Paper bags* – Skilling students in tasks like folding, pasting, bunching, and knotting to acquire fine skills
- *Housekeeping* – Activities include dusting, sweeping, moping, dry moping vacuum cleaning, Bed making
- *Weaving* – Activities include winding, warping, drawing in/ drafting, denting, looming, tying, weaving, grey fabric
- *Door mat* – Activities include warping, weaving, effecting trimming, Knotting
- *Packing* – Activities include Counting, Rolling, Tying, Stacking
- *Generic skills @ home* - Self care (nail, hair, grooming) Laundry, Washing clothes(Hand/Machine), Drying, Ironing, Folding, Food Preparation, Vessel cleaning, Vegetable cutting
- *Disinfectants and Cleaner Preparation* - Items include phenyl and soap oil. (Collecting, Measuring, Mixing, Pouring)
- *Jewellery making* - String beads, Ear ring, Bangle, Necklace, Pendant
- *Functional Math skill* - Basic Addition, Billing, Money exchange, Use of Calculator
- *Standard and Non Standard Units of Measurement* – Concepts such as foot and hand span, Cups etc..are taught
- *Terracotta Painting* – Activities include Handling, washing, Painting, Drying, Packing
- *Art activity* – Activities include hairdo, practicing mehendi on paper and palm of volunteer hands
- *Fine motor Activity*- Activities include unscrewing, screwing, lacing board, coating, scooping,
- *Occupational Therapy* – Work out regime to improve muscle strengthening, stamina, endurance Eye-hand coordination, Eye-foot coordination using Perdue Peg board,
- *Paper Quelling* - Rolling paper strip using slotted quelling tool. Making Flowers, Leaf, Pasting,
- *Recreation through play*- Activities like running & playing throw ball, basketball etc



No Shortcuts

Ms. Tamilarasu is the instructor at the tailoring production centre. She is in charge of training the children in tailoring and is also responsible for the delivery of stitching orders. She is incredibly astute in checking the quality of output produced by the children and rejects pieces even if she spots minor defects. This ensures repeat orders for the centre. Currently, the tailoring workshop has nine students, two of whom are proficient. Her daughter is a student on the academic track at SPASTN. She has been an instructor for the last 2.5 years. She received her training in tailoring at a program organized by the Association for the Welfare of Differently Abled.

Most orders are placed during festival times. It may however be mentioned that the youth at the production facility are not subject to 8 hour shifts as in regular production units but their work is staggered over 45 minute slots in a day over thrice a week.

C.7 Employee volunteering

It was reported that employees from LTIMindtree, Chennai office volunteered for two days through the year at the vocational centre.

C.8 Open employment facilitated

Under the project 11 students have been placed in open employment. Specifically for 2021-22, four students were placed namely:

- Shri. S,Vishnu was placed on June 2021 at a city restaurant, Writers Café Egmore.
- Ms. M. Kavitha was placed on July 2021 at Higginbotham in Taramani
- Shri. Ronak Thakkar was placed on August 2021 at Shree Jee collections in Royapuram
- Shri. Vishnu Ram Pandi was placed on January 2022 in Vijay Pharmacy at Adambakkam.

The process followed by SPASTN for placing students in open employment include the following:

- Initiate open employment programmes for mild and some moderately retarded individuals. The vocational competence is gauged using the Beckers Work Adjustment Profile(BWAP) score
- Understand the job profile and match the candidate accordingly especially in terms of (i) Work Habits / Attitudes, (ii) Interpersonal Relations, (iii) Cognitive Skills, (iv) Work Performance Skills -WP
- Inform the employer and co-employees regarding the abilities of the intellectually disabled student(s).
- Give importance to the employer's angle and incorporate his/her suggestions
- After placement follow up for six months and gradually fade support
- Select jobs that do not require frequent changes in daily routine and are not socially challenging.

There is very low attrition of students placed in open employment by SPASTN.

C.9 Possibility for more students to get pecuniary returns from vocational training needs to be explored

Through the project's duration, of the 74 students enrolled, 11 students have been placed in open employment, and 5 receive a stipend at the sheltered production center. While acknowledging it is a challenge, the project may consider getting more students into open employment and making the sheltered centers generate enough volumes to provide a remunerative livelihood. SPASTN is an excellent training institution, but it may consider putting additional emphasis on placement and procuring work orders. While it is difficult to provide gainful employment to persons with intellectual disability, the employment rate rates for such persons in the developed world is around 34%, and may be considered as a benchmark for the project to achieve

Employment snapshot of persons with intellectual disability (ID) in United States

Indices	%age ID	%age without disability
Labour Force Participation Rate (those who are currently employed or unemployed (out of work but looking for employment))	44%	86%
Employment Rate (the proportion of working-age people who are currently employed)	34%	76%
Competitive Setting	18%	
Sheltered Setting	13%	
Other Setting	3%	
Unemployment Rate	21%	
Out of labour force	56%	
Formerly employed	28%	
Never Employed	28%	
<i>Gary N. Siperstein, Robin C. Parker and Max Drascher National snapshot of adults with intellectual disabilities in the labor force, Journal of Vocational Rehabilitation 39 (2013) 157-165, DOI:10.3233/JVR-130658, IOS Press</i>		

D. EFFICIENCY

RATING : HIGH

D.1 Small batch sizes: The project ensured small batch sizes so that individual attention could be given to each student:

Unit	Students/instructor
Skill Training Unit	15
Tailoring	9
Block Printing	5
Machine based doormat	8
Japanese doormat	2
Baking	6
High support sheltered workshop	13

D.2 Tested methodology used: The tools and methods used are tested and proven. For instance - Beckers Work Adjustment Profile (BWAP) to assess vocational competence, adapting verbal and written materials, feedback - reinforcement, pacing, task analysis, teacher assistance - prompts, behaviour management strategies, etc.

D.3 Leverage existing expertise and infrastructure: SPASTN has worked in special education for over three decades. This expertise has been transferred to the design and implementation of the vocational training program. Further existing facilities have been leveraged for the vocational program. For instance, physical exercise is an integral part of the vocational course, and the existing gym with SPASTN has been made available to the vocational program students.

C.6 Mother Educators Engaged

Almost all the instructors at the vocational training centre are mothers whose children are enrolled in SPASTN. Mothers with potential are identified, given requisite training, and inducted. This helps mothers with children with



Sandhya: Challenging Intellectual Disability One Stitch At A Time

Sandhya was diligently stitching a bag when we met her at the SPASTN production centre. She proudly told us that she is adept at stitching pouches, bags, masks, and window curtains. A lateral entry, Sandhya got her pre-vocational training at the skilling centre and then entered the sheltered workshop where she was trained in tailoring. She receives a stipend of Rs 500/month from SNEH. She is one of the mainstays of the tailoring production unit. Sandhya lives with her parents and younger brother. Her father drops her at the production centre every day. Sandhya is confident and extremely engaged in her work.



Manual Japanese Doormat

This unit was expanded through the support of LTIMindtree. Only two students are currently engaged, given that some of the machines were damaged during the recent flood. The training was provided by the machine vendor. At present, the unit makes mats and belts for SNEH. Four meters is woven in a day.



Leaving A Mark

Avinaya is a student at the block printing production workshop. The workshop was started in 2021-22 with support from LTIMindtree. The technical support was provided by the Kalashtra Foundation. Avinaya has achieved high proficiency in block printing and helps the production centre execute client orders. There are five students in the workshop. Avinaya is a lateral entry student. She is a stipend holder.



Machine based Doormat

Five manual doormat machines were installed with the support of LTIMindtree. Each machine is operated by two students. The waste cloth strands are procured from Tirupur and woven into doormats. The doormat unit engages eight students

intellectual disability to get gainful employment. Engaging mothers also check attrition rates.

C.4 Strategic partnerships help enhance effectiveness

- **NIFT:** Vocational instructors at SPASTN have been provided training by NIFT, which has its campus beside that of SPASTN. NIFT students also come for internships and help introduce new designs and processes. NIFT invites the students from the vocational centre on their annual day event to perform on stage, display their work, and also put up a stall.
- **SNEH:** Provides market linkages and job work to the vocational training centre production units. It also provides internships to vocational track students. Presently, five students from the vocational centre are receiving a stipend from SNEH.
- **LTIMindtree provides space for stall** twice a year at its campus to display and sell products during the festival season, generating revenue of around Rs. 5000.
- **Rotary club:** Have provided tailoring machines and also regulary places orders

E. IMPACT

RATING : HIGH

E.1 Adaptive skills have gone up: The discussion with SPASTN personnel and perusal of the feedback from the parents reveal that the adaptive skills have gone up with a notable reduction in the need for support. Vocational training contributed to the global development of persons, favoring professional inclusion, sustenance, and autonomy and decreasing the need for assistance and support. Parents reported improvement in (i) Conceptual skills: literacy, self-direction, and concepts of number, money, and time; (ii) Social skills: interpersonal skills, social responsibility, self-esteem, gullibility, naïveté (i.e., wariness), social problem solving, following rules, obeying laws, and avoiding being victimized, and (iii) Practical skills: activities of daily living (personal care), occupational skills, use of money, safety, health care, travel/transportation, schedules/routines, and use of the telephone. **In a nutshell, the quality of life of the students and their caregiver(s) has improved.**

E.2 A statement on the ability of the persons with intellectual disability: SPASTN's approach to placing its students is not only about putting them in the easiest jobs but also in complex work situations that require substantial skills. One example is placing students in cafes, which requires serving tables, making dishes, and understanding customer requests. The students have performed admirably well and have demonstrated that persons with intellectual disability can do much more than society thinks they can.

F. SUSTAINABILITY

RATING : HIGH

F.1 Given the nature of the project, the sustainability cannot be assessed on the ability of the project to self fund itself. The key is to garner resources for vocational training after LTIMindtree support ends. SPASTN is one of the fore-

most organisations in the special education space both in Tamil Nadu and the country and can be expected to garner resources to continue the project. Through LTIMindtree support four new trades have been started [block printing, mat making, and baking] for which substantial investment in capital and training has been done. In the near term only operation costs need to be covered. It may be mentioned that SPASTN has Credibility Alliance, Certification which is an assurance that it meets the required compliance standards. This would help in qualification for further CSR funding.

F.2 Fees can not be a stream of revenue given that most students come from economically underprivileged background.

F.3 It is expected tht student flow will continue to the vocational centre: The project has high ratings from parents, employers and other stakeholders in terms of quality of training provided and can be expected to continue attracting students.

OVERALL RATING

RATING : MODERATE

The project has been excellent in providing both occupational and life skills. The training methodology is informed by global good practices and the testimonials of the parents and employers alludes to the quality of training imparted. However, the project has been able to place a limited number of students in open employment and those engaged in production at sheltered workshops get a limited remuneration. Through the project's duration, of the 74 students enrolled, 11 students have been placed in open employment, and 5 receive a stipend at the sheltered production center. It is acknowledged that providing gainful employment to persons with intellectual disability is not easy. In developed nations (US), employment rate for persons with disability is around 34%, and may be considered as a benchmark for the project to achieve.

SUGGESTIONS

Improvement in placement numbers and /sheltered workshop volumes : Of the 74 students enrolled in the project(over the entire duration), 11 have been placed in open employment, and 5 receive a stipend at the sheltered production center. The project may consider making an effort to get more students placed either in open employment or make the sheltered centers generate enough volumes to provide a remunerative livelihood. A dedicated placement and job work liaison cell may be set up to aid this process.

Lobby for a share in government procurement : SPASTN has a representation in the Tamil Nadu Differently Abled Welfare Board, which the Hon'ble Chief Minister chairs. SPASTN can consider lobbying that a part of the state government's procurement of certain low-tech goods, like file covers, cleaning agents, mops, LED bulbs, etc., be sourced from organizations employing persons with disabilities. The ABILITY ONE program, which runs successfully in the United States, offers a template that can be customized to state specific conditions (<https://www.abilityone.gov/index.html>). If done, this would be the first in the country.



Tickling the Taste Buds

The baking unit was started in 2021-22 with funding from LTIMindtree, and currently, six students are learning to bake cupcakes and cookies. The unit receives orders from teachers and parents. Shweta is one of the trainees. A lateral entry, she is adept at baking cupcakes and is also adept at tailoring. She is a national-level badminton player and wishes to become a badminton coach. She offered the assessment team cupcakes she had baked, and we found them to be excellent.



Valuable Employees

The assessment team met with SPASTN students placed at the Writer's Cafe, Taramani, and took feedback from them and their Supervisors. Mr. Simon, the Manager of Writer's Cafe, mentioned that the SPASTN students were outstanding. Dinesh Kumar, placed by SPASTN, is an expert popcorn and pizza maker. Mukesh is adept at serving patients, and Shreedhar, a recent joiner, manages cutlery in the kitchen and serves tables. The SPASTN students get paid the same salary and have similar benefits as regular employees. Mr. Simon reiterated, "While the world might call them slow learners, we find them to be fast learners, diligent, honest, and dependable." Mr. Sreenivas, Head Chef, said that the children pick up making pizza, pasta, popcorn, etc., serve customers with a little handholding, and prove to be valuable team members. Stressing on this point, he said, "While initially, I thought it would be difficult to manage the youth with intellectual disability; now I know that they are as good and, in some cases, better than normal people. I am proud to be a partner in their journey". He mentioned that in rare case, a customer is unable to put across his/her requests to the server with intellectual disability and might complain. However, when told of Writer's Cafe's policy of employing persons with disabilities, the customer would applaud the initiative and thank the management for being humane. Employing persons with an intellectual disability not only brings in diligent employees but it is also good for brand image. Mr. Simon made a pertinent remark when he said, "In my experience, I can tell that while an intellectual person might have some aberration in the brain, God has compensated by giving them a big heart, and it shows in their work and interaction."





ASSESSMENT

A.2 QUIZABLED

Quizabled was initiated in 2016 and is a quiz competition conducted exclusively for children with special abilities. It is the first of its kind quiz in the country where differently abled participants (Intellectual specially abled; Autism, Cerebral Palsy, Visual impairment/Blind & Hearing impairment) were given an opportunity to showcase their knowledge and intellectual capabilities. The fieldwork for this assessment was done at SPASTN, Chennai, the Nodal NGO for Quizabled in Tamil Nadu.

Category A

Children With Intellectual Disability (13-21 years)

Category B

Children With Cerebral Palsy And Autism (13-21 years)

Category C

Children With Visual Impairment (VII to XI std)

Category D

Children With Hearing Impairment (VII to XI std)

State Nodal NGO

2016 onwards
Karnataka
Tamil Nadu
Maharashtra

2022 onwards
Kerala
Odisha
Andhra Pradesh
Telangana
Delhi
Uttar Pradesh
West Bengal

GROUP A & B

OFF LINE PAPER
BASED SEMIFINAL
(32 TEAMS)

STATE FINAL
(6 TEAMS)

ONLINE PRELIMS

GROUP C & D

STATE FINAL
(6 TEAMS)

NATIONAL FINAL
(13 TEAMS)

Seva in Action-
(Anchor NGO)

Quiz Companies
4edgequizzing and
Catalyst Quiz Corp

Summary

Quizabled is a global innovation and a unique initiative to showcase the abilities of persons with intellectual disabilities and dispel myths about their capabilities. It is felt that more students should benefit from this initiative both in India and globally. It is suggested that Quizabled engage more government schools and improve the representation of such schools in the Quizabled competition. The Quizabled portal also needs a relook and be so designed, curated, and promoted that it reaches out globally and helps encourage Quizabled format quiz competitions worldwide.

Rating of Quizabled Project

Assessment Criteria	Rating	Score
Coherence	High	5
Relevance	High	5
Effectiveness	High	5
Efficiency	Moderate	3.5
Impact	High	5
Sustainability	High	4
Overall	High	4.58

A. COHERENCE

RATING : HIGH

A.1 External Coherence

The project is in sync with the national and state level imperative of providing employment opportunities to persons with disabilities which includes those with intellectual disabilities.

- Sec 39.b of The Rights of Persons with Disabilities Act, 2016 (RPwD Act) states that the appropriate governments will advance recognition of the skills, merits and abilities of persons with disabilities.
- Convention on the Rights of Persons with Disabilities states "*Recognizing the importance of accessibility to the physical, social, economic and cultural environment, to health and education and to information and communication, in enabling persons with disabilities to fully enjoy all human rights and fundamental freedoms.*"

A.2 Internal Coherence

The project is in concurrence with the 'empowerment' driver of the LTIMindtree CSR Program.

B. RELEVANCE

RATING : HIGH

B.1 Need to lower attitudinal barriers: Persons with disabilities are often subject to prejudice and discrimination from society. Society often treats them with fear, pity, and contempt and makes elaborate decisions to avoid them.

"You know, no amount of smiling at a flight of stairs has ever made it turn into a ramp. Never. Smiling at a television screen isn't going to make closed captions appear for people who are deaf. No amount of standing in the middle of a bookshop and radiating a positive attitude is going to turn all those books into Braille,"

*Stella Young, Disability Activist
TED Talk*

Most barriers in this category arise due to a lack of understanding and misconceptions with no factual basis about individuals with a disability. Some examples of attitudinal obstacles include stigma, discrimination, prejudice, and stereotyping.

B.2 There is need for forums/events to showcase ability:

While there are events to showcase physical abilities, like the Special Olympics, where year-round training and activities for children and adults with intellectual disabilities are provided in more than 30 Olympic-style sports, including individual and team sports, none exists to showcase intellectual abilities. Quizabled helps bridge this gap.

B.3 There is need to change the lens of disability: The medical model views disability as a consequence of a health condition, disease, or accident that disrupts function. The model focuses on preventing or curing the condition. The social model of disability completely flips this perspective. It sees disability as the attitudinal, physical, systemic, communication, and technological barriers

Factsheet

A. Categories

- Category A :** Children With Intellectual Disability (13-21 years)
- Category B :** Children With Cerebral Palsy And Autism (13-21 years)
- Category C :** Children With Visual Impairment (VII to XI std)
- Category D :** Children With Hearing Impairment (VII to XI std)

B. Structure

State Level

Category A: Online prelim, Semifinal (written round-32 teams, onsite) , Finals 6 teams

Category B,C,D : Online prelim, Finals (on site 6 teams each category)

Note: Sign language provided for hearing impaired, volunteers to assist the quiz teams (Category A,B,C)

National Level

National Finals for category C & D

C. Implementation

Seva in Action: : Conceptualised and advocated the idea, identified NGO partners at state level, technical support, arranging quiz master, question bank, and project oversight and logistics

Quiz Companies: Catalyst Quiz Corp (for Tamil Nadu and Southern states,) 4edgequizzing (Karnataka and Northern States)

State Nodal NGO: Responsible for managing the quiz in respective states.

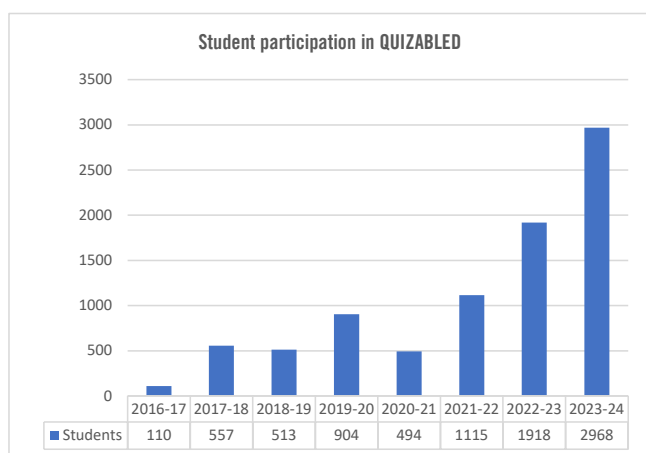
created by society. It seeks to put the responsibility on society to accommodate people living with a disability rather than expecting the individual to accommodate society.

C. EFFECTIVENESS

RATING : HIGH

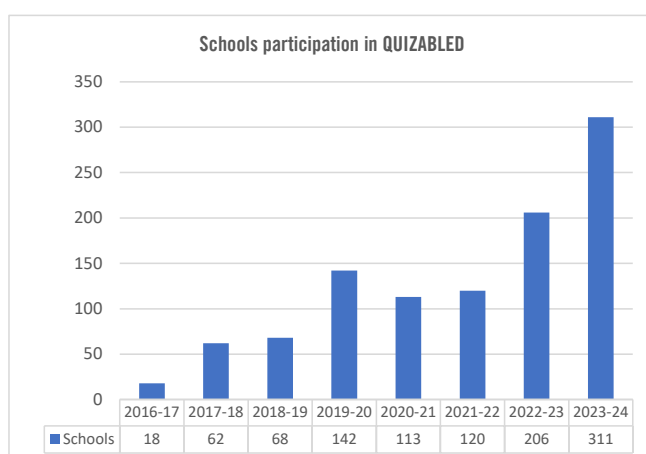
C.1 Quizabled has seen a increase in geographical spread and become pan India:

Starting from Karnataka in 2016, the project spread to two more states (Tamil Nadu and Maharashtra) by 2021-22 and currently is held over seven more additional states (Kerala, Odisha, Andhra Pradesh, Telangana, Delhi, Uttar Pradesh and West Bengal), thereby taking the total tally to ten states. Even within states that joined early, the spread across districts has increased. For instance, in Tamil Nadu, Quizabled started in 3 districts, and in the last edition (6th edition) of Quizabled, it stood at 13 districts.



C.2 Quizabled has seen an increase in number of participants and participating schools:

There has been a rise in the number of participants in terms of schools engaged and the number of students attending. Starting with 18 schools in 2016, the participating schools have grown to 311. The corresponding figure for student participation rose from 110 to 2968.



C.3 Quizabled has reinforced the counter intuitive: The general notion is that persons with disabilities (especially those with intellectual disabilities) have meager faculties to learn new information, communicate, cope, solve prob-

lems, and retain information. All these traits are required to be able to compete in a quiz. Quizabled challenges these assumptions and demonstrates that persons with disabilities can negotiate fairly complex quiz questions in a competitive environment through training, practice, and assistive reinforcement.

C.4 Parents now acknowledge the potential of the child

: It was reported by SPASTN staff that some parents have instilled in their children the habit of reading newspapers and seeing news channels. This is a move away from the practice of watching cartoon channels. Some of the parents also discuss general awareness and current topics at home.

C.5 Innovation to assist children to participate: As the Quizabled has progressed, innovations are seen to help ease the students' responses to the quiz questions. For instance, Vidyasagar, an NGO working with individuals with disabilities, devised a head pointer for one of their students affected by Cerebral Palsy so that she could effectively point to the responses on the mobile phone screen during the online preliminary rounds. Similarly, SPASTN provided QWERTY keyboards for group A and B category students during the state finals.

C.6 Quizabled part of the curriculum: One of the biggest impacts of Quizabled has been that quizzing culture has been established in many of the schools with special children. The assessment team spoke to teachers of two schools (Ms. Vijayshree, Sethu Bhaskara Matriculate School for Visually Impaired, Chennai, and Ms Laxmi Devi, Saint Joseph School for the Blind, Madurai) and the vice principal at SPASTN(Ms. Jemima) and all of them reported that they have initiated special classes for quiz preparation. This takes the form of special classes, discussion of current affairs in morning assembly, mock quizzes, and voice notes sent to students by their teachers, among others. A sense of pride in doing well at Quizabled has fuelled year-long preparation for excelling in Quizabled.

C.7 Creation of Networks: Quizabled provides a stage for teachers and students to interact, and this helps exchange ideas and good practices and create a reference resource not only for QUIZABLED but also for various topics of Special Education. In Tamilnadu, WhatsApp groups, created for managing the QUIZABLED logistics amongst participating institutions, remain active throughout the year as a platform for discussion and sharing of information and ideas. There are 77 teachers in the Category A&B WhatsApp group and 18 teachers in the C&D category WhatsApp group.

C.8 Enthusiasm amongst students for QUIZABLED : It was reported by SPASTN teachers and students that QUIZABLED has been very enriching, Some of the positives reported were (i) Quizabled has been their first experience of participating in a knowledge based competitive event alongside other CWD/PWD, (ii) Quizabled as an event has provided students a purpose to be more aware of current affairs, (iii) A number of students noted that participating in the event had made them more confident. The opportunity to be on stage has eased their stage fright, (iv) Students with visual impairment noted that Quizabled has provided the exposure that will be quite helpful for their preparation of competitive exams in the future. (v) Found confidence in their ability.



From L to R -
 Sharan, Category C, Runner-up, 2023, SPASTN
 Rijjaehom Thomas, Category C, State Runner up, 2022-23, SPASTN
 Wasim, Category B, Winner, 2018, Runner-up, 2019, SPASTN

D. EFFICIENCY

RATING : MODERATE

The project has been path-breaking in putting in place a methodology and framework for organizing quiz competitions for children with disabilities, especially those with intellectual disabilities. S.No. D.3-D.7 below outlines this unique approach. **However, the efficiency of the project to reach out to a larger catchment can be furthered if government school participation can be improved (D.1). It is also felt that Quizabled is a global innovation and should be accordingly showcased. This would help promote quizzes based on the Quizabled format globally and help make a pervasive statement on the abilities of persons with intellectual disabilities (D.2).**

D.1 Government schools participation low: While most participating schools are NGO-run institutions, effort has been made to encourage government-run schools to participate. For instance, three government-run institutions in Tamilnadu have joined in: GGHSS Chidambaram, Government Blind School, Davanagere, Government Higher Secondary School For Visually Impaired, and Poonamallee. However, the representation of government schools remains relatively low. For instance, there are 22 Government special schools in Tamil Nadu, among them, ten schools each are for the visually impaired and hearing impaired and one each for severe locomotors disabled and

intellectually challenged. In addition, there are mainstream government schools with children with intellectual disability. Representation of these schools needs to be higher.

D.2 QUIZABLED portal can be further improved: Quizabled is a global innovation, and it needs to be showcased accordingly. The portal design can be made more contemporary, with a blog section (which helps in Google organic search), videos, testimonials, research reports, a question bank, and a showcasing of the winners. Quizabled is an innovation for the world and should be presented likewise.

D.3 Specialist advice taken for designing of questions and format of the quiz: The Seva in Action team visited NIMHANS and numerous other special schools to interact with teachers/specialists and observe students. The data collected helped in framing questions, particularly for children with Autism and Intellectual Disabilities. After extensive research and feedback from teachers and other professionals, the team developed an exclusive and differentiated quiz format based on their abilities.

- Questions for children with intellectual disability and children with cerebral palsy and autism were based on Pictorial Reasoning. For instance, identifying animals, world-famous places, personalities, & musical Instruments, etc. The pattern of questions was in the form of multiple-choice and Yes/No types.



Regular Coaching For Quizabled In Schools

Ms. Jemima (in the picture) and her team of teachers are the backbones for the preparation of Quizabled at SPASTN. Special classes are held every Friday throughout the year, between 1 to 2 PM during school days. The SPASTN team has also developed a question bank of 400 questions to help students practice. The students have been divided into batches and are administered quiz tests using Google Sheets, assisted by a prompter(from HRDC) and a teacher acting as a quiz master. Post Quizabled, a new practice has been instituted in the school, wherein topics on current affairs are discussed at the morning assembly. The school has taken a long-term view, and the quiz preparation classes are undertaken for students above ten years and those below. The latter are the teams in waiting who step in when the current quizzers graduate from school. Students can be seen solving puzzles, crosswords, riddles, fitting missing blocks, etc. Voice notes on important topics are also sent to parents' WhatsApp groups. Similarly, Ms. Laxmi Devi, a teacher at Saint Joseph School for the Blind, Madurai, the Tamilnadu QUIZABLED Champions in Category C, mentioned that regular QUIZABLED coaching classes are held. Ms Laxmi and her colleagues consult current affairs books and YouTube videos to prepare notes for the students.



QUIZABLED Helps Convince The Judge

After Bharat cleared his matriculation exam, he applied for admission in the science stream for his senior secondary studies. He was denied admission due to his visual impairment. He filed a petition in the High Court and attached copies of his scholastic achievements including his participation in Quizabled. Bharat is a Quizabled veteran having participated in three editions of the competition with distinction. The court was convinced and ordered that Bharat be given admission in the science stream. Bharat took admission in standard XI in Sethu Bhaskara Matriculation Higher Secondary School and did well in his school leaving examination. Currently Bharat is enrolled in B.Tech(Information Technology) at Anna University. QUIZABLED not only helped him get his desired stream of study, it helped him turn into a confident person. Exposure to the big stage, the focus on keeping updated, familiarity with use of computer emanating from the practice for the online edition of the quiz and faith in his ability was attributed by Bharat to QUIZABLED.

Government School Teacher Goes the Extra Mile

During 2020-21, when the schools were under COVID-19 lockdown, Nirupa, teacher at Government Girls Senior Secondary School, Cuddalore reached out to the house of each student, mostly from economic and socially marginal backgrounds, who were eligible for participating in the quiz and urged the students and their parents to register. The response was overwhelming and almost all eligible students from GGHSS, Cuddalore registered. The parents helped arrange mobile phones for their wards so that they could participate in the online preliminary round. While GGHSS, Cuddalore might not have won, but a teacher, her students and their parents collectively made a statement that circumstances can be challenged and overcome.

- Children with visual impairment were asked questions on general knowledge topics, covering current affairs and static events related to history and geography. Patterns of questions were in the form of multiple-choice and Objective type questions.
- Questions were designed for children with hearing impairment to identify pictures of famous personalities, organization logos, and cartoon characters. Patterns of questions were in the form of multiple-choice and Objective type questions.

D.4 Experienced Quiz Masters : 4edgequizzing and Catalyst Quiz Corp manage the quiz competition helmed by Mr. Himadri Banerjee and Mr. Surya Narayan, respectively. Both are experienced quiz masters and have extensive experience in quizzing. A large part of the success of the Quizabled event rests on their shoulders, which ranges from setting up appropriate questions, conducting the quiz both online and offline, and, most importantly, adapting to the unique needs of the participants. In Quizabled, the quiz master must keep the quiz interesting and concurrently manage the contestants, prompters, volunteers, and sign language interpreters on stage. The skills of the quiz show hosts at Quizabled have played an essential role in its

success. Mr. Himadri Banerjee conceptualized Quizabled in collaboration with Seva in Action and continues to be associated with the program. Quizabled has also led to developing a quizmaster ecosystem to conduct quizzes for children with disabilities.

D.5 Three tier system has ensured reach and simplified the logistics: The Quizabled is managed through a three-tier system: (i) Seva in Action anchors the project, (ii) state nodal NGO mobilizes the local NGO and state-run schools and provides logistical support, and (iii) schools motivate the students to participate and prepares them for the quiz.

D.6 Hybrid mode ensures a bigger catchment : The Quizabled started offline, and during COVID-19, it shifted to online mode for the preliminary screening. The online mode has continued since and helped the quiz reach a large swathe, which otherwise would not have been possible. It took tremendous ingenuity to conduct the quiz online. For instance, sign language Interpretation and captioning were accommodated for participants with hearing impairment, and protocols were established on how students could be assisted without compromising fairness. Information and training were provided to participants/ volunteers & school authorities on the online quiz format.

D.7 It is ensured that Quizabled is held in accessible

venues: There is a checklist to ensure that the stage, toilets, food area, and quiz area are accessible. In some states, it can be a challenge to find a venue with accessible features. In Mumbai and Bhubaneswar, LTI Mindtree facilities were utilized. In some instances, e.g., City Montessori School. Lucknow provided the venue free of cost in solidarity with the cause.

D.8 Volunteers: A large number of volunteers from LTI-Mindtree participated in Quizabled and played an important part in conducting the quiz. They handled the registration desk, acted as pointers, and provided backstage logistical support. Enlisting volunteers was vital in getting quality resources for managing the quiz competition, especially the in-person events.

E. IMPACT

RATING : HIGH

E.1 First in the world : In the knowledge of the assessors and that of the program implementors, Quizabled is the first quiz competition for persons with intellectual disabilities in the world.

E.2 Changed the Paradigm: Quizabled was an eye-opener for every single special educator, parent, and well-wisher who thought children with cerebral palsy, autism, or intellectual disability would not be able to understand the ethos and process of quizzing or challenge the quiz masters to set higher standards. It has been a learning for parents/teachers and special educators that they haven't pushed the envelope enough.

E.3 Creation of an ecosystem for quizzing for person with disabilities: As Quizabled gains traction and extends its footprint across India, a group of quizmasters is developing who can manage quiz for persons with disability. Also there is an increased interest amongst parents and well wishers about the Quizabled format. Quizabled is also getting referred online, a BING search on the term 'Quizabled', returned approximately 3,70,000 results.

F. SUSTAINABILITY

RATING : HIGH

F.1 Given the nature of the project, the sustainability cannot be assessed on the ability of the project to self fund itself. Quizabled by its nature will remain a funded project. It will be difficult to charge a participation fee to cover all costs given the constituency it addresses.

F.2 The project has high ratings from parents, teachers and people at large and will continue to attract participants. If projected well, Quizabled has the potential to be a global movement towards acknowledging the ability of persons with disabilities especially those with intellectual disabilities. It reinforces the counter intuitive that persons with intellectual disabilities can do tasks which requires fairly complex mental faculties. Given its increasing popularity as evidenced by rising participation rates, it can be assumed that Quizabled will keep attracting students.

OVERALL RATING

RATING : HIGH

Quizabled is a global innovation and a unique initiative to showcase the abilities of persons with intellectual disabilities and dispel myths about their capabilities. It is felt that more students should benefit from this initiative both in India and globally. It is suggested that Quizabled engage more government schools and improve the representation of such schools in the Quizbled competition. The Quizabled portal also needs a relook and be so designed, curated, and promoted that it reaches out globally and helps encourage Quizabled format quiz competitions worldwide.

SUGGESTIONS

Increase participation from government schools: Most participating schools are NGO-run, while government-run institutions' representation remains low. For instance only three government-run institutions in Tamilnadu have joined - GGHSS Chidambaram, Government Blind School, Davanager, and Government Higher Secondary School For Visually Impaired, Poonamallee. There are 22 government-run special schools in Tamil Nadu; among them, 10 schools each are for the visually impaired and hearing impaired and one each for severe locomotor disabled and intellectually challenged. In addition, there are mainstream government schools with children with intellectual disability. Participation of government-run schools with children with disabilities be encouraged to make Quizabled truly accessible.

Scope for further improving the QUIZABLED Portal:

Quizabled is an innovation for the world and should be presented likewise. The portal design can be made more contemporary and have a blog section (which helps in Google organic search), videos, testimonials, a question bank, and research reports, amongst others. Some good sites for inspiration (not exhaustive) include:

- Regeneron ISEF: <https://www.societyforscience.org/>
- World Quizzing Championships : <https://www.world-quizzing.com/>
- The Davidson Institute : <https://www.davidsongifted.org/>
- Quiz bowl : <https://www.naqt.com/>



B. EDUCATION PROJECTS

Introduction To Basic Technology *(in partnership with Vigyan Ashram)*



Introduction to Basic technology (IBT) program was introduced in 15 secondary schools in and around Pune. The program focuses on work centered education. It links school education/curricular subjects to day to day activities to make education meaningful.

Virtual Learning *(in partnership with eVidyaloka)*



Support students from Grade 5 to Grade 8 in their scholastic achievements by having volunteers connect online via digital classroom set up in the government schools.



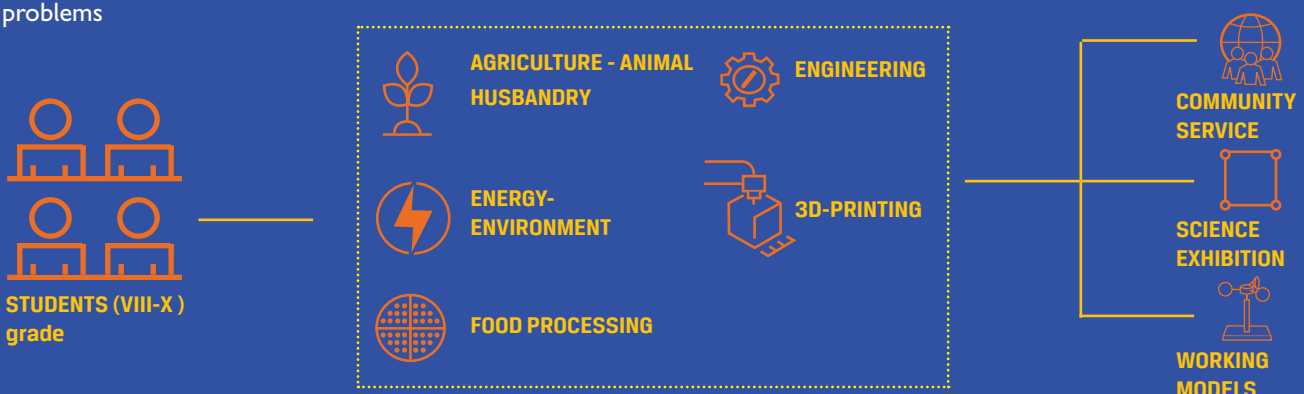
ASSESSMENT

B.1 Introduction To Basic Technology

Under this program, pre-vocational training targets schools with students in lower socio-economic strata in and around the Pune region. The fundamental building blocks of the program are:

- STEM (Science, Technology, Engineering, Mathematics)program in school
- Learning While Doing pedagogy in school
- Project based learning
- Students involved in Socially useful productive work (SUPW).
- Students provide various services to the community as part of their learning.
- Integration of 'Work Activity' with School curriculum

The premise behind the project is (i) Helps on developing intelligence of a child, (ii) Develops creativity, logical thinking, skills, values like dignity of labour, team building, gender equality etc., and (iii) connects education with the real life problems



Summary

The project has helped generate interest in science, as evidenced by many students from IBT classes taking science or technical courses after their secondary schooling. The IBT students also reach out to the community with technology-based solutions. Another positive has been that the IBT schools and students have received recognition and awards for the science projects and prototypes developed in IBT classes. However, the IBT program has a recurring cost in terms of the salary of IBT instructors, consumables for projects, and additional machinery for executing sophisticated prototypes. This cost will need to be borne by students or the school, which, in the case of schools catering to children from economically marginal backgrounds, would be challenging to meet.

Rating of IBT Project

Assessment Criteria	Rating	Score
Coherence	High	5
Relevance	High	5
Effectiveness	High	5
Efficiency	High	4.5
Impact	High	4.5
Sustainability	Moderate	2.5
Overall	High	4.41

A. COHERENCE

RATING: HIGH

A.1 External Coherence

NEP 2020 sets out the road map for STEM education in India. Some of the key features to which the project conforms include:

- Experiential and hands-on learning to play an important role in STEM education
- Emphasis on key concepts, ideas, applications, and problem-solving. Critical thinking and holistic inquiry-based, discovery-based, discussion-based, and analysis-based learning will be the focus

Emerging technologies to be introduced to students at school level

A.2 Internal Coherence

The project is in concurrence with the 'empowerment' driver of the LTIMindtree CSR Program.

B. RELEVANCE

RATING: HIGH

A research paper based on the study conducted on the present status of science education in secondary schools of Palghar district, Maharashtra¹ found that in most of the schools, students are not able to understand the concepts of science clearly and thereby are not able to relate applications of the concepts in the environment around

1 Remya VR, Chavan, Chetan, Present Status of Science Education in Secondary Schools, International Journal of Scientific Research and Engineering Development, Vol 5, Issue 1, Jan-Fen 2022

them. The study also noted that the way science is taught in schools cannot motivate students to learn science. The survey revealed that most students opined that if science is taught through activity, they understand concepts more clearly. Another study² puts forth some additional reasons why science is losing its popularity with schools students - (i) ill equipped labs, (ii) shortage of science teachers and elementary school teachers who have studied science at least till class XII level, and (iii) the existing science education in school takes a subject based approach and not a discipline based approach. Discipline based approach emphasises the need to teach science as a way of understanding the world, and comes with the view that knowledge of science—both the content and the method—is important as it informs our understanding of the everyday physical world which would not be available to us through common sense and everyday experience alone.

C. EFFECTIVENESS

RATING: HIGH

C.1 The students pursuing technical and science after X standard has increased:

Over period of IBT implementation (2018-19 to 2022-23) at the sampled school the percentage of students opting for science and technical streams after X standard has gone up. On an average about 65% of the students have opted for technical and science subjects after introduction of IBT. Prior to the introduction of IBT this percentage was around 20%.

2 Three Challenges Facing India School Science Education / Padma M. Sarangapani, <http://www.esocialsciences.org/> (accessed on 28 Jan 2024)

Factsheet

A. Location

Pune district- 15 schools (21-22) and 36 schools in (22-23).

B. Age Group

Grade VIII-X

C. Beneficiaries

Beneficiaries: Total 5603 beneficiaries (number of students). Total 2951 boys and total 2652 girls (2021-22)

D. Project Period

2018-19 to 2022-23

E. Students benefitted (2021-22)

5603 (2951 boys and total 2652 girls)

F. Domains under the project

- Engineering
- Energy/Environment
- Agriculture/Animal Husbandry
- Food Processing

G. Total Learning Hours: 18852 hrs

H. Learning Sessions: 6284

I. Fieldwork Location: Shri Dada Maharaj Natekar Panchakoshadharit School, Chikli

Students opting for science and technical education after X at Shri Dada Maharaj Natekar Panchakoshadharit School

Year	ITI	Dip in Eng	Poly-technic	Sci-ence	Com-merce	Oth-er	Tot
2018-19	2	-	2	2	2	6	14
2019-20	3	4	3	2	1	-	13
2020-21	3	3	3	1	6	1	17
2021-22	2	1	5	5	1	5	19
2022-23	1		2	4	1	3	11
Total	11	8	15	14	11	15	74
	65%			35%			100%

C.2 IBT curriculum has effectively engaged students in learning by doing :

The program prescribes nature as its syllabus. It broadly defines basic concepts and technologies to be taught and syncs with the academic syllabus. It is flexible and can be adapted to local conditions. The assessment team could see such activities in the sampled school. The assessment team spoke to the students and found they had felicity in crafting various technical processes and devices and knew the scientific theory behind them. The same is described in detail in the following pages of the report.

C.3 Recognized as a subject: IBT started as a formal subject with dedicated periods in the timetable with formal permission from the State Examination Board (SSC) in 1987. Vigyan Ashram led the program and kept on updating and experimenting with it. Formally, it was conducted under the monitoring and implementation mechanism of the State Education Department and Directorate of Vocational Education & Training. This helped demonstrate its importance in the government system, and it helped IBT become part of the core curriculum of Maharashtra state. It was reported that students with an IBT certificate get preference in ITI admission.

Community services provided: Under IBT students do science projects which addresses a community need. Students get real life training. At the sample school such community outreach was evident:

- i. **Checking for Blood Pressure:** The monthly blood pressure monitoring of inmates of the nursing home attached to the school is done by a student(s).
- ii. **Measuring height and weight:** Students can use a stadiometer and weighing scale to calculate BMI. They are also adept at plotting the result in standard reference charts. They provide their services to parents and other community members during the annual health camp organized by the school.
- iii. **Making nutritious snacks available in school:** Under IBT, the students have been taught how to make healthy snacks, including laddu, chikki, etc. Snacks are prepared daily by a batch of students (in rotation) and made available to the entire school at a cost price. This ensures the intake of key nutrients.
- iv. **Stitching of cloth bags:** Students stitch cloth bags from discarded clothes brought by themselves from home. Throughout the year, about 500 cloth

bags are made, which are given to parents and guests coming to school.

- v. **Composting:** The students help recycle waste from the school kitchen and campus and do waste collection drives during festivals at the immersion ghats. All this is turned into compost by the students. The compost is sold to the community at Rs. 30/kg and is also used in school vegetable plots.
- vi. **Making available farm fresh and organic vegetables:** The students grow vegetables on the school campus, part of which is sold to the parents and community through a shop on campus. The vegetables are in good demand since they are organic and taste better than those in the open market.
- vii. **Composter (Dry Leaves & Grass Grinder) and Seiving machine sold :** The students' devices fabricated at the IBT lab have been sold to a corporation, and a repeat order for a higher capacity machine was received from the same corporation. Five such machines have also been installed in neighboring schools that have also started doing composting on their campus after learning of the same from the sample school.
- viii. **Groundnut Roasting machine sold:** The roasting machine was sold to a sweetmeat maker; more orders are expected since the device has helped improve the customer's profits.
- ix. **Smart stick:** A walking stick for older people developed by students that has a torch and a sensor which gives an alert about obstacles on the walking path. The stick has been provided to the elderly at the old age home on the school campus.
- x. **Ecobricks help recycle plastic:** Sturdy building material built by stuffing plastic bottles with discarded plastic material (upto 200 gm) and the same used to build water tanks and bordering material in the school campus. The plastic is collected from the school and those in the community.
- xi. **Sugarcane cutting device:** A sugarcane-cutting device is under development to decrease farmers' physical labor in harvesting sugarcane. About six prototypes have been prepared.

C.4 IBT has helped the school earn awards and recognition:

The projects and activities by the IBT students has received recognition, some of which are listed below:

- i. **First prize in poster competition:** A poster made by the students on the results of water testing won them a prize from Marathi Vigyan Parishad.
- i. **IBT helped the school win a state-level award:** The work of the children in the preparation of land and managing a nursery got the school the Shramdaan Award, constituted by the Government of Maharashtra.
- i. **Invitation from research institutes:** Krishi Vigyan Kendra, Narayangaon invited the school to demonstrate the sugarcane cutter prototypes
- i. **Invited to "Made in 3D - Seed The Future Entrepreneurs":** The school has been invited to participate in the program. This entails students designing and manufacturing their dream product using



Home Science Lab

Food Processing & Home Science Stream under IBT at SDMN Panchakoshadharit School (sample school)

- i. **Blood testing:** Students learned how to test hemoglobin using a hemocytometer (provided under the project) and used their skills to check for anemia during annual health checkups. The students are proficient in testing, assessing, and interpreting the results. The school is considering procuring hemoglobinometers for students to test blood at scale. The students also learn to test for blood groups. After IBT introduced testing for Hb, the school did annual blood tests and gave IFA tablets as per government protocol. The incidence of anemia among school students has decreased from 40% to 28%.
- ii. **Checking for Blood Pressure:** Students have learned to check for blood pressure using a digital BP machine (provided under the project) and interpret the result. The monthly blood pressure monitoring of residents of the nursing home attached to the school is done by the students.
- iii. **Measuring height and weight:** Students can use a stadiometer and a weighing scale to measure height and weight, calculate BMI, and plot the result in standard reference charts.
- iv. **Water testing:** Using the water testing kit provided under IBT, students have done extensive water quality testing of water bodies in Pune, including the Mula River. A poster made by the students on the water testing results won them a prize from the Marathi Vigyan Parishad.
- v. **First aid kit:** Students were taught how to use a first aid kit for minor injuries. Students can now dress a wound themselves. They also check if the first aid kits in school have all the required medication and peripherals, a task that the teachers previously did.
- vi. **Making nutritious snacks available in school:** Under IBT, the students have been taught how to make nutritious snacks, including laddu, chikki etc. Snacks are prepared daily by a batch of students (in rotation), and the same is made available to the school's students at a cost price. This ensures the intake of key nutrients.
- vii. **Learn to make food jam jelly sauce**
- viii. **Preservation of food through drying technique:** Under the IBT, the students designed and fabricated a solar dryer. It is proposed to be used for drying vegetables grown at school vegetable plots.
- ix. **Make sanitizer, handwash, and dishwash:** During COVID-19, the sanitizer made by students was exclusively used. Hand-wash and dishwasher are used regularly at school.
- x. **Cloth bag:** Taught children to stitch cloth bags from discarded clothes. Throughout the year, about 500 cloth bags are made and gifted to parents and guests coming to school to discourage plastic bag use. Students from home bring the discarded clothes.

IMPACT

- Students can connect lessons in the syllabus on health, nutrition, WASH, etc, better having done practical work in these domains.
- The school has extended the IBT methodology as hobby classes in junior classes.
- The school has won recognition for projects done under the Home Science stream.
- The nutrition status of students has improved as a spinoff of IBT.
- Challenged gender roles, with boys taking an interest in cooking and stitching.



Nursery developed on the school campus under IBT project

Agriculture Stream under IBT at SDMN Panchakoshadharit School (sample school)

- i. **Composting:** The school is located on a four-acre campus and generates large amounts of organic waste both from its kitchen and organic matter from vegetation on campus. Previously, this entire waste was collected by the municipal solid waste vehicle. The IBT has introduced composting, and currently, one ton of compost is prepared at the campus in 5 compost pits, which the students manage. During festivals, the students collect garlands and other organic puja material from river ghat, which is then composted at the campus. The compost is sold at Rs. 30/kg and is also used in vegetable plots on the campus.
- ii. **Students have fabricated a compost crusher and sieving machine:** These machines have reduced the time required for composting and thereby helped achieve increased compost volumes.
- iii. **Managing a nursery :** The IBT students manage a nursery; the saplings from the nursery are planted on campus and are available for sale to the community. Innovations like using discarded milk pouches(brought from home by students) as seedling bags have been introduced.
- iv. **Students help grow plants in agri plots:** Medicinal plants and vegetables are grown on campus, and the produce is sold to parents and used in the campus kitchen. Organic pesticides are made from medicinal plants.
- v. **Hydroponic and grafting taught to students:** Students helped manage a small hydroponic setup to familiarize them with the technology. .
- vi. **Tree guards fabricated inhouse:** The engineering stream of IBT has fabricated tree guards to protect the saplings that are planted on the campus.
- vii. **Soil Testing:** Students got practical exposure to test soil using the soil testing kit provided under IBT and interpreted the result. The Vigyan Ashram field staff reported that soil testing has a huge spinoff for the rural community from IBT schools nearby.

IMPACT

- Students understand the cycle of plant growth and care required more intuitively.
- They get an appreciation of the hard work involved in agriculture. School reported based on observation it appears that food wastage in school has gone down.



1



2



3



4



6



5

1. Composter, 2. Adjustable sugarcane cutting device, 3. Line marking device, 4. Groundnut roaster, 5. Windows fabricated by students, 6. Compost sieving device (compost beds can be seen in the background)

Engineering Stream under IBT at SDMN Panchakoshadharit School (sample school)

- i. Skill imparted to handle complex machines: An engineering workshop has been set up with tools and equipment for welding, cutting, drilling, drawing, filing, etc. Safety gear was provided to students, including gloves, aprons, and goggles.
- ii. A number of devices and products have been designed and fabricated by the students under guidance of the IBT instructor, this includes
 - » **Composter machine:** A motor-driven grinding device that helps make the composting material more granular, thereby aiding in the decomposition
 - » **Sieving machine:** Helps sieve the compost before packaging so that any foreign matter like pebbles is removed
 - » **Sugarcane cutter:** An adjustable sugarcane cutter was developed (presentation made to Krishi Vigyan Kendra)
 - » **Line maker machine:** A mechanical contraption helps put straight lines chalk lines in the sports field
 - » **Podium fabricated and welded** as per design specification for use in school
 - » **Furniture repair:** The students have repaired and painted old classroom desks.
 - » **Fabricating sliding windows:** The students have fabricated all the windows in the new school wing (under construction).
 - » **Study table assembly:** The students assembled about 250 knocked-down desk kits purchased by the schools. This saved Rs. 50 per desk as assembling charges.
 - » **Shoe stand:** The shoe stand at the school has been fabricated at the workshop
 - » **Roasting machine:** A machine that uniformly roasts groundnuts, etc, has been made. Orders from groundnut and sesame-based sweetmakers were received, and one device has already been supplied.
 - » **Smart stick:** An intelligent stick for older people developed by students with a torch and a sensor that gives an alert about obstacles on the walking path.

IMPACT

- Students have learned how to use complex machines.
- They can relate how machines work, how they are designed, and the importance of machines in enhancing productivity.
- Understand key concepts in the syllabus like a lever, mechanical advantage, pulley, screw, idea of simple and complex machines, etc.



1



2

1. Tank made from eco bricks. 2. Eco bricks kept in classroom (students deposit waste plastic in the bottles)



Home Science Lab

Energy and Environment Stream under IBT at SDMN Panchakoshadharit School (sample school)

- i. **Ecobricks:** Sturdy building material built by stuffing plastic bottles with discarded plastic material (upto 200 gm) and the same used to build water tanks and bordering material in the school campus. received from sweetmeat makers)
- ii. **Circuit making:** Students are exposed to various circuits- simple circuit, parallel circuits, godown wiring, one way and two-way switch, fuse repair, and earthing.
- iii. **Solar installation** maintained by students at school: Includes cleaning the panels, battery maintenance and checking the wiring.
- iv. **Weather station** made and maintained by students: It has been made by the students which measures rainfall, temperature, and humidity. The students maintained the records and interpreted the same. The vocabulary of the students has changed; e.g., other than saying more or less rain, they mention rainfall in millimeters.
- v. **Windmill model developed:** To understand how wind is converted to energy, the students have designed a windmill that can light one electric bulb.
- vi. **Diwali lights:** Students helped string Diwali lights, which were used to decorate the school
- vii. **UV disinfectant machine:** Students made a UV box, which was used to disinfect vegetables and fruits in the school kitchen.

IMPACT

- Students can well correlate the lessons on energy and environment in their school syllabus with the practical work done in IBT classes



3D Printing under IBT at SDMN Panchakoshadharit School (sample school)

Under IBT, a 3D printing lab has been established. The students design 3D objects on Tinkercat software and print the design on 3 D printer. Students have printed Chandrayan model, molecular structure, key chain, name plates, etc.

Cognitive performance of IBT students

A controlled study was done to understand how IBT students(n=163) rate on cognitive ability compared to non-IBT(n=178) students. The sample was drawn from IX class. Test was carried out as per Bloom's Taxonomy. The results are summarized below:

	Information	Understanding	Apply	Analyze	Evaluate	Creativity
% increase in performance of IBT students over non IBT (overall)	11.71%	22.7%	36.28%	20.95%	55.30%	63.39%

Source: Finding were presented & published in a peer reviewed research paper at IEEE Global Humanitarian Conference 2012 held at Seattle, USA (refn: <https://vigyanashram.com/UploadedFiles/IBT%20Documents/impact%20assessment%20summary.pdf>)

specialized 3D design software and 3D printing technology. The project is anchored by Dassault systems.

- ii. **Won award at Technovision:** Technovision is a science exhibition organized by Vigyan Ashram and supported by LTIMindtree, where projects developed by IBT students are displayed. The Dry Leaves & Grass Grinder developed by the school for faster composting won an award.
- iii. **Project demonstrated at National Science Congress:** Of the 670 school projects exhibited at the National Science Congress, 30 projects were elected from Maharashtra, of which one belonged to the sample school.
- iv. **Demand for admission in IBT schools has increased:** IBT is a positive differentiator, and parents recognize this. On average, there has been a continuous rise in admission seekers to the IBT schools. For instance, for the academic year 2020-21, the new admissions at all IBT schools was 593, which increased to 1337 in 2021-22.

D. EFFICIENCY

RATING : HIGH

D.1 IBT classes a part of the school timetable: IBT has been integrated in the school schedule. For instance in the sample school IBT classes are held 3 days a week for 3 hours each.

D.2 Local Instructors: Implementing IBT needs skilled, technically qualified instructors, which is challenging, especially in rural areas. Hence, instead of specifying formal qualifications for instructors, IBT asks for instructors with 'demonstrable skills.' Young local entrepreneurs, such as electricians, masons, fabricators, etc., are selected and trained as instructors. This helps to create a sustainable local human resource.

D.3 Open Education Resources: Vigyan Ashram has started developing 'Open Education Resources (OERs) for the IBT in the last few years. These OERs are lesson plans that will help teachers integrate work and subject areas. These OERs are available at www.learningwhiledoing.in

D.4 Technovation to showcase talent in practical use of science: In order to recognize innovation by IBT students, LTIMindtree supports Technovation, an exclusive science and technology exhibition by students of IBT. Instituted in 2021, Technovation has provided a platform for showcasing talent and promote a spirit of healthy competition amongst IBT schools. All the shortlisted projects are featured in the Technovation web portal (<https://technovation.online/>). It also encourages volunteers from LTIMindtree to help organise the event. In 2021-22, 148 volunteers from LTIMindtree were associated with the event.

D.5 Expertise of Vigyan Ashram: Collaboration with Vigyan Ashram, the pioneer in IBT, has helped in efficient roll out of the project.

E. IMPACT

RATING : HIGH

E.1 Introduces a scientific temper in the school: While IBT is for VIII to X class students, the spill-off effect is that the entire school benefits. For instance, in the sample school, there was a demand from parents and students to introduce a program like IBT in other classes as well. IBT has now been extended to junior standards as a 'hobby class.'

E.2 Helps in future employment: In a study by Vigyan Ashram, out of 31% of IBT students who did not pursue higher studies after Class 10, only 15% remain unemployed. The rest are employed/self-employed or engaged in agriculture. The percentage of students starting their enterprise/becoming self-employed is almost three times higher than the control group. While livelihood promotion is not an immediate objective of IBT, the high employability of IBT students is a welcome externality.

E.3 Vigyan Ashram invited during consultation meetings for formulation of the New Education Policy 2023: The IBT model's success was noted, and Vigyan Ashram was invited to provide insights on how pre-vocational education can be introduced in schools. Many of the recommendations emanating from the IBT experience have been included.

E. SUSTAINABILITY

RATING : MODERATE

IBT requires recurring costs like instructor fee, purchase of consumables etc., which beyond the LTIMindtree support will need to be borne by the school. In the sample school it was reported that there is a demand from the parents to continue the IBT program. IBT is a differentiator and attracts students. The school management of the sample school is also keen to continue the program. While the school management did not appear to be sure on how they will continue funding the IBT program, some options were put forth - (i) Selling the products produced by IBT students, (ii) Parents with specific skills will be requested to help with the classes, and (iii) Request for CSR support. It was mentioned that charging a lab fee will not be possible given that students to the school come from economically marginal backgrounds. However, it is felt that making IBT self sustaining through sale of products produced appears unlikely, given that as on date the sale of products is not of high volume.

OVERALL RATING

RATING : HIGH

The project has helped generate interest in science, as evidenced by many students from IBT classes taking science or technical courses after their secondary schooling. The IBT students also reach out to the community with technology-based solutions. Another positive has been that the IBT schools and students have received recognition and awards for the science projects and prototypes developed in IBT classes. However, the IBT program has a recurring cost in terms of the salary of IBT instructors, consumables for projects, and additional machinery for executing sophisticated prototypes. This cost will need to be borne by students or the school, which, in the case of schools catering to children from economically marginal backgrounds, would be challenging to meet.

SUGGESTIONS

None

IBT Curriculum

AGRICULTURE - ANIMAL HUSBANDRY

Drip Irrigation, Sprinkler, Vermi-Composting, Humidity Chambers, Aqua Portal, Nursery Technique, Azolla Culture, Seeding Tray, Vaccination Poultry, Rice Cultivation, Crop Using SRI, Mulching, Silage, Food Concentrate For Animals, Pest Control, Soil Testing

ENERGY-ENVIRONMENT

Solar cooker, LED Lighting, Biogas, Soakpit, Watershed, Smokeless stove, Checkdam Construction, Earthing, Inverter, Computer applications, Plain table survey

FOOD PROCESSING

Solar drying, Food preservation, Drying of vegetables, Medicinal plant cultivation, Mosquito control (Gappi Fish breeding), Making Phenyl, Liquid Soap, Water Testing, Healthy Diet, Soya Milk, Hb Blood Testing

ENGINEERING

Ferro cement, Bamboo treatment, Different Agriculture Tools, Ventilation, Low cost housing, Toilet, Pedal power, Fabrication, Plumbing, Construction

3D-Printing

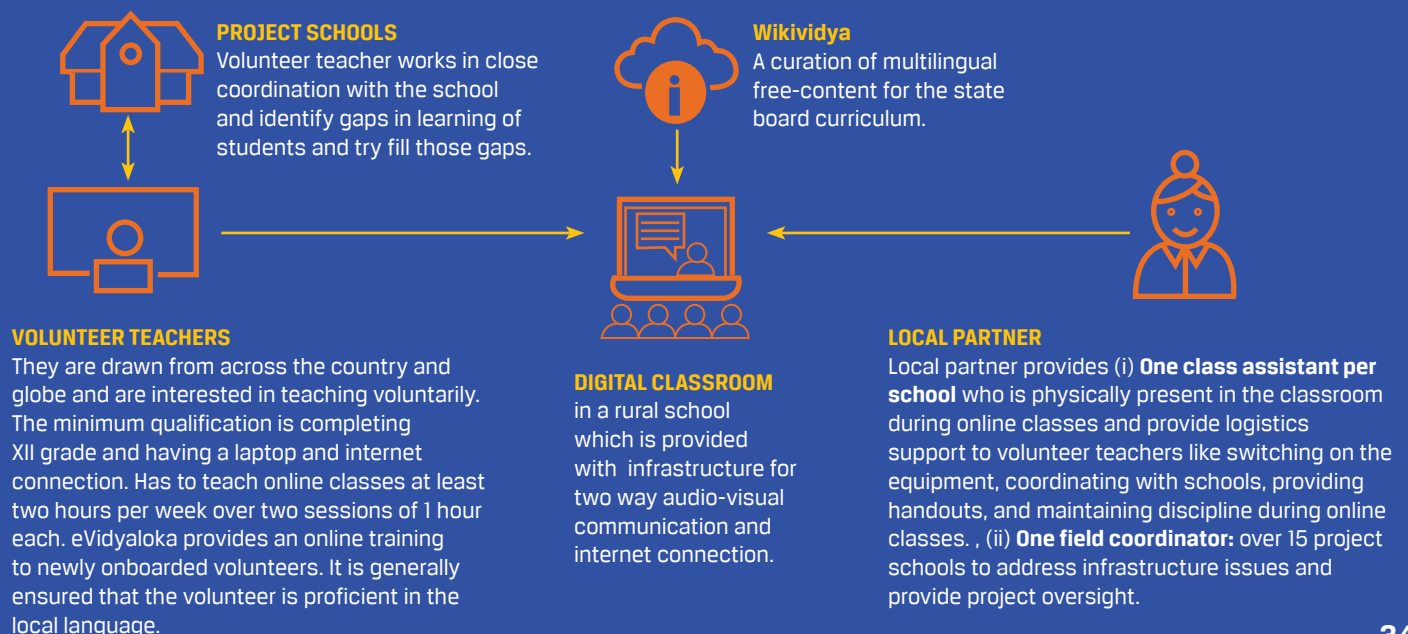
Design of 3D objects and printing them on a 3D Printer provided to each project school



ASSESSMENT

B.2 Virtual Learning

The project is positioned to address two fault lines in the school education system- (i) Teacher Shortage, (ii) Quality Teaching, This problem is most acute in rural government schools. To bridge this gap LTIMindtree in partnership with eVidyaloka has started digital classes in select government schools across five states.



Summary

The project has a positive impact on the learning outcome of students in remote and under-resourced rural schools through several pathways, which include - (i) Audio-video based teaching content, (ii) High student engagement, (iii) Regular assessment, (iv) Sharing of teaching load with regular teachers, (v) Targeted classes beyond the regular school syllabus (e.g., special scholarship coaching classes), (vi) Bringing new life experiences into the classroom through volunteer teacher and (vii) providing an opportunity to working professionals, retired persons, homemakers, and the community at large to be part of nation building effort. While the project is meeting its mandate, concerns still need to be addressed regarding its sustainability emanating from internet connectivity issues and the inadequate availability of volunteers to meet project schools' demands.

Rating of Virtual Learning Project

Assessment Criteria	Rating	Score
Coherence	High	5
Relevance	High	5
Effectiveness	High	4.5
Efficiency	High	4.5
Impact	High	4.5
Sustainability	Moderate	3
Overall	High	4.25

A. COHERENCE

RATING : HIGH

A.1 External Coherence

Under the NEP 2020, digital education will be integrated into the curriculum in a phased manner, starting from the primary level. At the high school level, students will have access to various digital resources, including interactive learning tools, simulations, and online assessments. eVidyaloka project is in sync with this roadmap.

A.2 Internal Coherence

The project is in concurrence with the 'education' driver of the LTIMindtree CSR

B. RELEVANCE

RATING : HIGH

(i) Teacher Shortage: As per the Right to Education Act, of 2009, there should be one teacher for every 30 students. However about 18% positions of teachers in government-run primary schools and 15% positions in secondary schools are vacant nationwide. About 9,00,000 elementary school teaching positions and 100,000 in secondary schools – put together a million are vacant¹.

(ii) Low Learning Outcomes: The 2021 National Achievement Survey (NAS) conducted by NCERT revealed a nation-wide decline in students' learning levels across all grades and subjects tested. The 2021 survey reported an average learning level of 59 per cent in grade 3, 49 per cent in grade 5, 42 per cent in grade 8 and 36 per cent in grade 10. This shows a trend of steady decline in learning

¹ According to data tabled in the Lok Sabha by the human resources development minister on December 5, 2016.

level as one moves from lower grades to higher grades. Such a trend is also observed for all subjects across all grades -- for instance there is a massive 25 percentage point difference in mathematics scores from grades 3 to 10.

C. EFFECTIVENESS

RATING : HIGH

C.1 The extremely good performance of the sample school (Zila Parishad School, Pimpalgaon Khauda, Nagar Tehsil, Ahmednagar) in scholarship exam was attributed to eVidyaloka: The sample school has been returning excellent performance in the Maharashtra State Scholarship examination held for class V students, conducted by Maharashtra State Council of Education (MSCE). Of the 50 schools under the Nagar Tehsil (Taluka) ZPS, Pimpalgaonkhoda is rated first based on its scholarship examination performance. Every year about 5-6 students from the school figure in the scholarship merit list. In 2021-22 during the COVID, 11 students (50% of the total strength of 22 students) were figured in the scholarship merit list, given that the continuity of education during the COVID lockdown was ensured through eVidyaloka. The teacher in charge attributed this success to the scholarship exam classes organized by the eVidyaloka project. He mentioned that previously, some students would pass the test but did not figure in the merit list. Before eVidyaloka classes, there was no scholarship holder from school. He listed out several reasons how eVidyaloka has contributed to the success:

- **Various exam giving tricks taught:** The volunteer teacher introduced the students to shortcuts

Factsheet

A. Location

Pune district- 15 schools (21-22)

B. Grade

V-VIII std (in Maharashtra middle school is from V-VII) from rural government schools

C. Beneficiaries

4406 students were benefited from 14482 sessions with an average attendance percentage of 84. 382 Volunteer Teachers were involved in teaching

D. Project Period

2017-18 to 2021-22

F. Subjects under the project

- English
- Math
- Science

G. Total Learning Hours: 362050 hrs

H. Fieldwork Location: Shri Dada Maharaj Natekar Panchakoshadharit School, Chikli

in solving math problems, strengthened their vocabulary and grammar using the pattern of the previous year and model question papers, strategies to complete the test within the stipulated time, how to eliminate wrong answers, etc. The sample school students were better prepared to take the exam.

- **Helped orient students to mental ability test:** Since mental ability is not a subject at school, the students had difficulty on fathoming the type of questions that could be asked and how to solve them. The eVidyaloka teacher guided them in solving different types of mental ability questions.
- **Capacity of school teacher(s) improved to train for scholarship test:** The scholarship test syllabus requires the students to be taught at a higher standard than that is done in regular school classes. The eVidyaloka teacher helped the school teachers get oriented on how test preparation is done and how complex topics are made easy for the students.
- **Volunteer teacher sent competitive exam books:** Ms. Vishaka Pathak, the scholarship class volunteer teacher from eVidyaloka, couriered competitive test books for each student from her online class. Ms. Vishaka has been associated with the school as a volunteer teacher for over five years and has recently opted out due to health issues. The school, HM, praised her for her dedication and gave her complete credit for the turnaround of the school result in the scholarship exam.

C.2 eVidyaloka class aids in improving school attendance:

It was reported by the HM of the sample school that video-based classes are a novelty for the students. It breaks the monotony of the regular classroom 'chalk and talk' methodology. The students like doing educational activities, listening to stories, and watching educational videos. This attracts students to the school. The digital-based teaching of eVidyaloka is acknowledged by the parents as a major upgrade never before seen in remote rural schools. The parents insist that their wards attend the school and benefit from technology-aided teaching. The HM also added that when parents see the eVidyaloka equipment they feel assured that the school is well equipped to deliver good quality education.

C.3 Number of admission seekers have gone up : In the sample school, the student strength has increased from 118 students in AY 2018 to 145 in AY 2023. This has to be seen in the context of declining enrollment in most government schools in the region. The reputation of the sample school has increased after the eVidyaloka introduction, especially with its students' consistent stellar performance in the scholarship exam (class V). The HM mentioned that students from distant villages like Sahajapurgaon, who used to attend private schools, have shifted to the sample school despite the distance.

C.4 eVidyaloka helps improve school infrastructure: The sample school faced frequent electricity outages, resulting in eVidyaloka classes remaining suspended. To overcome this, a solar power system was installed through the project. Now, not only the eVidyaloka classroom but the entire school is electrified by solar power.

C.5 Quality of participation of students in science exhibition has increased: The quality of science projects from the school for science competition have improved in terms of idea and presentation. Volunteer teachers suggest topics and mentor students to construct the model. Some of the projects supported by eVidyaloka volunteer teachers which found mention from school HM include models on water conservation and windmill.

C.6 Going beyond the school syllabus: The project tries to give exposure to students beyond the academic syllabus at school and introduce lessons that help in the all-round development of the students. Some such initiatives include (i) Career guidance, (ii) the National Student Innovation Challenge, (iii) the Leadership Curriculum, and (iv) the Quiz Competition.



C.7 Reaching the most vulnerable communities: The sample school has children from poor farming families. Among the poorest are the 47 (out of a total strength of 145) students who belong to the Pardhi tribe. The Pardhi are a denotified tribe who were branded as a 'criminal tribe' by the British colonial government in 1871 for rebelling against the regime. For eighty years thereafter, they were booked under the Criminal Tribes Act and were segregated and forced to live in camps outside the village limits, facing extreme poverty, displacement, and discrimination. They continue to live on the margins of society and face extreme poverty. The 'criminal' tag refuses to go away, making their integration into society quite precarious. The eVidyaloka project at the sample school helps take quality education to students from the Pardhi community.

C.8 Good quality volunteer teacher: The teachers and students of sample schools were unanimous in their opinion that voluntary teachers were skillful, engaging, humane, and have made quality contributions. There have been instances of teachers going beyond teaching; for instance, Ms. Vishaka Pathak, a volunteer teacher, entirely supported the cochlear implant for Shradha, a student of class VII (then in class V) with a hearing disability. Ms. Viskaha also visited the school to meet with her online class personally.

C.9 Employee Volunteering: LTIMindtree employees contributed towards a mix of teaching, content development and one-time event volunteers. 9 volunteers taught through virtual learning programs and completed 362 teaching hours, benefitting 227 students overall. 160 volunteers participated in creating exemplar activity and 146 volunteers participated in creating assessment sheet activity to develop content - Non-Scholastic, Math Question Bank and Science Worksheets. In V-Gnyana 29 LTIMindtree volunteers helped with V-Gnyana Semifinals. For NSIC one LTIMindtree volunteer mentored students.

Going Beyond The School Syllabus (2021-22)

NATIONAL STUDENT INNOVATION CHALLENGE (2021-22)



National Student Innovation Challenge (NSIC) nurtures talent and leadership for Grade 6, 7 & 8 students. It is a unique PAN-India contest **powered by LTIMindtree** and conducted by eVidyaloka. NSIC was started five years ago to celebrate the rural and urban spirit. This is done by pairing children from rural India with their urban counterparts under a volunteer mentor. Together, they work on a project that helps address one of the UN's Sustainable Development Goals (SDG). For NSIC season 5 (2021-22), 130 registrations were received from pan-India. Topics chosen by students were based on eradicating poverty, good health & well-being, clean water & sanitation, and responsible consumption &

production. Phase 2 was the final round, where the finalist teams were further regrouped into 21 teams based on joint problem statements. Based on the evaluation from LTIMindtree jury panels, ten teams emerged as winners.

LEADERSHIP CURRICULUM (LC)



Leadership Curriculum (LC) developed by eVidyaloka in conjunction with LTIMindtree is a three-month program aimed at grooming students who show extra spark of curiosity about learning. The experience of eVidyaloka has caused students to emerge confident individuals and exhibit leadership qualities. During the preparatory stage, students set goals and start working towards achieving them. Towards the end, they present their goals in the form of ted-style talks. In 2021-22, 105 students from 8 states participated in Leadership Curriculum and they were mentored by 30+ volunteers. A panel of 20+ jury members evaluated the ted-talks, of which five students emerged as winners.

V-GNYANA



V-Gnyana, the flagship quizzing event of eVidyaloka, co-created with LTIMindtree, started in 2020 to expose children of rural India to the concept of competitive quizzing. 2475 students from 140 schools from seven states participated in teams of 3 students. Top-performing 95 teams from all seven states qualified for the semi-finals. The finals were conducted live over Zoom.

D. EFFICIENCY

RATING : HIGH

D.1 Regular assessment to keep track of learning

outcomes: The assessment of the performance of the volunteer teachers is done on the basis of the learning outcome of students on topics taught by the volunteer teacher. In a year, two assessments are done (*Term 1: Oct-Nov and Term 2: March*). In 2021-22, no assessment was done due to a series of COVID-19 lockdowns. If the progress of some students is not satisfactory, the same is informed to the school, and special classes are recommended. In some cases, the voluntary teacher offers to take remedial classes.

D.2 Coordination of voluntary teacher and school teacher to avoid overlap:

The syllabus topics to be taught by the volunteer teacher are decided in consultation with the class teacher. Regular conversation is maintained, and progress in the completion of the syllabus, the performance of students, and reinforcement from school and parents is discussed.

D.3 Training and support to Volunteer Teachers

- **A repository of carefully curated content has been a big enabler for voluntary teachers:** One of the project's strong points has been content availability in videos, games, lesson plans, activities, and worksheets. This collection is available on the Wikividya portal. The volunteer teachers used this content extensively to make the classes engaging.
- **Classroom Assistant:** The project provides an assistant to the volunteer teacher who is physically present in the classroom during online classes. The classroom assistant helps handle the video conferencing equipment, maintain class discipline, and distribute educational resources.
- **Keeping the equipment in working order:** The field coordinator attends to equipment breakdown and gets the same rectified so that the online classes do not suffer.
- **eVidyaloka learning app:** A learning app has been developed for students to continue their studies at home on mobile phone device. Also in locations where there is connective issue, the eVidyaloka app is a substitute.
- **Training of volunteer teacher:** Orientation is provided to the volunteer teacher and supported through the entire tenure.

E. IMPACT

RATING : HIGH

E.1 Democratising education: Reaching quality content with volunteer teachers who are external to the students' environment brings new ideas, greater exposure, and a worldview into the classroom in remote rural schools.

E.2 Decoupling learning from rote: Activity-based teaching, which is the prime focus of eVidyaloka, helps students to develop foundational learning blocks.

E.3 Decoupling money from merit: The students in rural schools cannot afford after school coaching or tuition especially for competitive exams like the scholarship test. eVidyaloka gives the students a level playing field, placing them at par with students who can afford the coaching, and in a way, supports the government's goal of educational equity.

F. SUSTAINABILITY

RATING : MODERATE

F.1 The project will depend on external funding: Rural government schools do not have the budget to fund eVidyaloka. The project will always depend on CSR or related funding.

F.2 Connectivity issues: In many remote rural areas, the Internet connectivity could be better. For instance, there is no 5G connectivity in the sample school, and the existing 4G signal also occasionally drops (as witnessed by the assessment team). This interferes with the smooth conduct of online classes.

F.3 Inadequate availability of volunteer teachers: While there is a demand from project schools for more teaching hours from volunteer teachers, this entire demand cannot be fulfilled due to a lack of the required number of volunteers. For, in the sample school, while the HM wished to have more than two hours per week of classes from a volunteer teacher, the same could not be provided.

OVERALL RATING

RATING : HIGH

The project has a positive impact on the learning outcome of students in remote and under-resourced rural schools through several pathways, which include - (i) Audio-video based teaching content, (ii) High student engagement, (iii) Regular assessment, (iv) Sharing of teaching load with regular teachers, (v) Targeted classes beyond the regular school syllabus (e.g., special scholarship coaching classes), (vi) Bringing new life experiences into the classroom through volunteer teacher and (vii) providing an opportunity to working professionals, retired persons, homemakers, and the community at large to be part of nation building effort. While the project is meeting its mandate, concerns still need to be addressed regarding its sustainability emanating from internet connectivity issues and the inadequate availability of volunteers to meet project schools' demands.

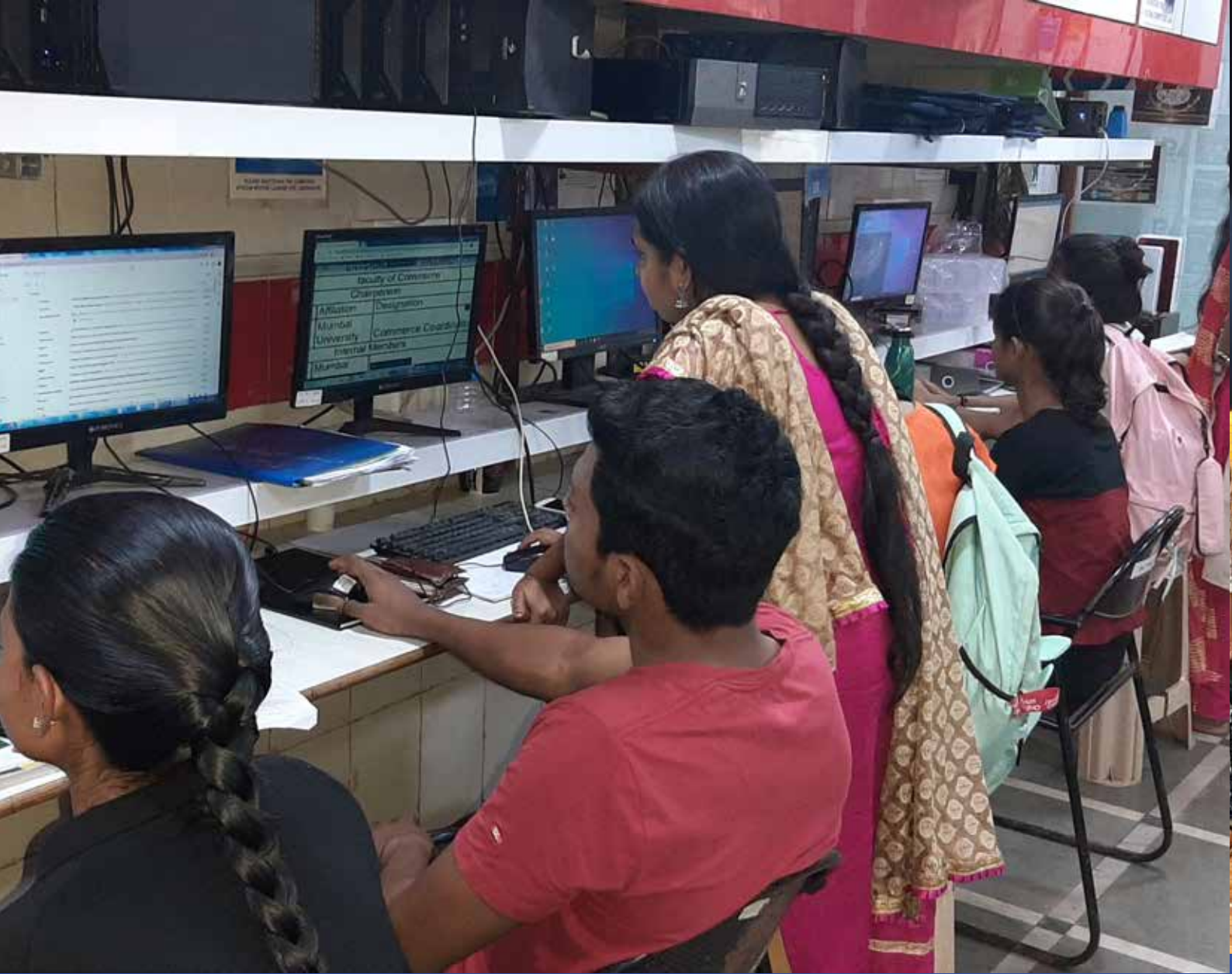
SUGGESTIONS

Consider technical solution to boost weak internet

connection : Wherever technically feasible, install signal boosters or other enabling devices with steady and strong signal strength.

Step up volunteer recruitment: Some strategies that may be considered for online volunteer recruitment include- (i) Volunteer recruitment platforms-VolunteerMatch, Engage, VolunteerLocal, Mobilize, Catchafire, Civic Champs, POINT, iVolunteer (the list is not exhaustive), (ii) Word-of-mouth marketing, (iii) Social media channels (such as Facebook, Twitter, LinkedIn, and, Instagram), (iv) Community events (online), (v) Email campaigns, (vi) Corporate volunteers and sponsorships, (vii) Print advertising, (viii) Paid media (examples: digital banners, commercials, pay-per-click advertising), (viii) Contact local associations like Rotary club.

Note: The assessment team did not look in detail the strategies eVidyaloka is using to mobilize new volunteers, some of the aforesaid strategies might already be under deployment.



C. YOUTH EMPOWERMENT PROJECTS

Digital Sakshar (in partnership with **Pratham Infotech Foundation**)



The Digital Sakshar initiative aims at strengthening the capacity of youth with fundamental digital and employability skills. The initiative aims to significantly enable the youth belonging to socio-economically disadvantaged communities and underserved sections of society with basic digital and employability skills.

DIGI SKILLS (in partnership with **LOK BHARTI EDUCATION SOCIETY**)



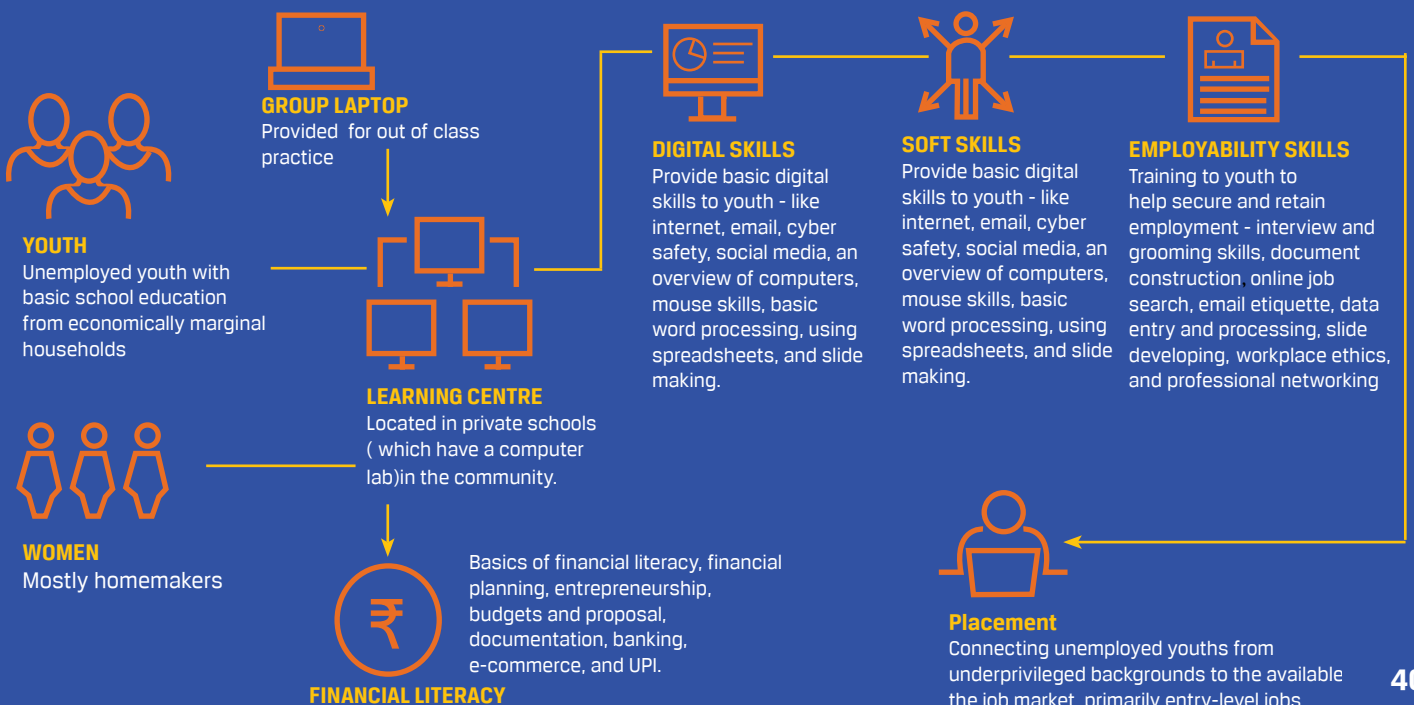
Provide web and graphic designing skills to youth from under privileged communities. The project also helps with placement so as to ensure remunerative employment in the formal sector.



ASSESSMENT

C.1 Digital Sakshar

Digital Sakshar's emphasis is on providing youth with basic IT literacy and employability skills and help them access gainful employment. The project also imparts digital and financial literacy skills to women, mostly homemakers.



Summary

The project has successfully seeded an innovative digital learning methodology wherein laptops are issued to a group of trainees to help practice outside the classroom. This helps transcend the issue of access to a digital device faced by most youth from lower-income households. It has also performed admirably well in student retention and placement. Upgrading some of the project's alums as trainers creates role models in the community. While the project has much to recommend for itself, there are some issues that the project may consider overcoming, which include the use of licensed software at the training centres, upgrading the versions of software taught, maintenance of laptops issued to students, and include in the syllabus some advanced wordprocessing and spreadsheet skills which are much in demand in entry-level jobs in the IT/ITES industry.

Rating of Digital Sakshar Project

Assessment Criteria	Rating	Score
Coherence	High	5
Relevance	High	5
Effectiveness	High	4.5
Efficiency	Moderate	2
Impact	High	4.5
Sustainability	High	4.5
Overall	High	4.25

A. COHERENCE

RATING : HIGH

A.1 External Coherence

India is a country of youth, with nearly 37.5% of the population in the 15-29 age group. The government's commitment to ensuring that young Indians are ready to compete in the labour market is demonstrated by the breadth of skilling programmes. The Pradhan Mantri Kaushal Vikas Yojana (Skill India Mission) is MSDE's flagship scheme to enable young Indians to take up industry-relevant skills training and improve their employability. Investing in skills for vulnerable groups can make economic and employment growth more inclusive.

A.2 Internal Coherence

The project is in concurrence with the livelihood driver of the LTIMindtree CSR Program.

- Only 26.7% can send an email with attachment
- Only 20.9% can find, download and install a software
- Only 19.9% can transfer data between computer and other devices
- Only 12.7% can connect and install new device
- Only 10% can use basic formula in a spreadsheet
- Only 8.6% can create electronic presentation with presentation software
- Over 70% of Indian youth aged 15-29 cannot send emails with files attached
- Only 2.4% can write a computer programme

The shortage of digital skills coexists with a rapidly evolving job market: As more and more services move online, there is a growing demand for workforce with digital skills.

B. RELEVANCE

RATING : HIGH

Status of Digital Skills of Young India is Worrisome: In 2020-2021, the National Sample Survey Office (NSSO) conducted a survey on digital skills among Indian youth aged 15-29. The survey found that only 27.5% of the population were considered "digitally skilled". The other key findings are summarised below:

- Only 41.7% can copy or move a file
- Only 39.4% can use copy and paste to duplicate or move information in a document

C. EFFECTIVENESS

RATING : HIGH

C.1 Course enrollment targets achieved: In the assessment year, the project was run at 58 centers across Pune and Mumbai (50 Mumbai and 8 Pune). Against a target of training 14200 persons, 17166 persons completed the course. **The dropout was around 2%. The dropout rate is low as compared to the dropout rate of 20% in PMKVY 1.0, 2.0, and 3.0 skilling programs** (refn 'Implementation of Pradhan Mantri Kaushal Vikas Yojana (PMKVY, The Standing Committee on Labour, Textiles and Skill Development September 5, 2022)

Factsheet

A. Location

Mumbai, Navi Mumbai, Thane and Pune

B. Age Group

Youth: 18-35 yrs

Women: 18+

C. Beneficiaries

17166 persons completed the course

D. Project Period

2016 - 2022

E. Subjects under the project

- Digital Skills
- Soft skill
- Employability skill
- Financial skill

F. Fieldwork Location: Pratham Infotech, Mumbai

Enrollment and Course Completion (2021-22)

Location	Target	Enrolled	Completed	Dropout
Mumbai + Thane+ Navi Mumbai	12500	15241	14981	2%
Pune	1700	2239	2185	3%

C.2 Placement rates are good: Of the total jobseekers (i.e., those who applied for placement), 63% were placed. It may be mentioned that not all participants enrolled were looking for jobs; this includes homemakers who attended a financial literacy course and a number of regular students who took up the course to enhance their digital skills and make it part of their resume when they actively start looking for jobs in the near future. The placement rate of the project is extremely good compared to the placement rate of 23% achieved in PMKVY. The project partnered with over 350 recruiters over the entire duration of the project.

Placement Performance (2021-22)

	Mumbai + Thane+ Navi Mumbai	Pune
Target	12500	1700
Enrolled	15241	2239
Job Seekers	9812	2185
Placed	6353	1136
Placed %	64.7%	52%
Joined	4925	1008
Joined %	50.2%	46.1%
Job Fairs	20	19
Recruiters	62	30

Initially the project focus was on quality training, but as the project progressed LTIMindtree requested Pratham Infotech Foundation to strengthen the placement effort. The project was able to successfully accommodate the same,

C.3 High female participation: Of the total participants, 64% were women.

C.4 Starting salaries are below minimum wages: As of January 1, 2023, the minimum wage in Maharashtra is Rs.12,699 per month for unskilled workers. The minimum wage for skilled workers is Rs.14,310 per month. While the starting salaries for majority of the candidates was below the minimum wages, in most cases the candidates were trainees and the company invested in their training. It was reported that if the candidates stuck to the job there was substantial rise in salary over a year or two as their skill levels improved with experience. It may also be mentioned that the remuneration are market based and competitively determined.

Average Starting Salary (2021-22)

	Below 5k	5k -10k	11k-15k	16k above
Mumbai	4%	54%	35%	7%
Pune	2%	57%	32%	8%

C.5 High rating about the project from the beneficiaries: A focus group discussion on the efficacy of the training was held with the beneficiaries. There was an affirmation that

the project has been beneficial. The positives included (i) getting placements, (ii) a hike in salary, (iii) help with college coursework, and (iv) getting a career path to a digital skill-based job. The opinion of the trainees is summarised on the adjoining page. The suggestions from the trainees included - (i) Individual Laptops for Practice, (ii) Enhance Group Activities, (iii) Facilitate Knowledge Sharing Sessions, (iv) Concerns with the quality of the laptop provided for home assignments, (v) Upgradation of the syllabus with advance topics in spreadsheet and word processing.

C.6 Alumni Support: Alumni can reach out to Pratham for sustenance of employment. This may include loss of job or search for an alternate job. The project placement cell assists with such requests.

C.7 Good ratings from recruiters: The assessment team interacted with two manpower placement agencies associated with the project- (i) Source ITT (Mr. Nagnath) and (ii) Solugral (Mr. Ashok). The discussion is summarized below:

- The candidates from the Digital Sakshar come with training unlike other freshers they recruit, which gives these candidates an edge.
- The placements have been in a variety of domains which include back office, tele-callers, data entry operators, loan verifiers, retail, etc.
- The recruiters look for communication skills and confidence, which gets about 50% weightage in selection. Most Digital Sakshar candidates have been found to be good in communication skills.
- About 70% of the candidates who are offered jobs take up the offer.
- The project provides trained candidates in bulk, which is attractive for recruiters.
- There have been no complaints regarding the quality of candidates placed from Digital Sakshar.
- Though the entry salary might be low, there is a substantial jump once the candidates learn the industry-relevant skills on the job and gain experience. Salary jumps mostly come within a year.

The recruiters made the following suggestions

- The course may introduce advanced Excel and Tally. This will significantly improve the starting salary and give candidates a fast-track career.
- The training program should constantly align itself with the market demand. For instance, the current industry standard for typing is 30 words per minute with 85% accuracy. Meeting the industry standards will make the candidates more employable.
- During mock interview training, recruiters may be invited to give the trainees a feel of a real-world interview. Students tend to get familiar and comfortable with the trainers but, on many occasions, fumble when they encounter a stranger at the interview.

D. EFFICIENCY

RATING : MODERATE

The project has put in place robust systems and processes to roll out an innovative digital learning methodology. However there remain certain faultlines which include (i) Need to upgrade the software versions used in training

Feedback From Trainees

The assessment team had an extensive discussion with the trainees which is summarized below

Name	Location	Qualification	Status before training	Status after training
Abhishek	Mulund	XII	Working with McDonalds on average salary of Rs. 10000/ month. No digital skills which hindered his progression to supervisory level	Was placed through the project at One Point Call centre. Subsequently, I shifted to BTC, a coffee chain, as a cafe supervisor with a salary of Rs. 20000/ month. Knowledge of basic digital skills was one of the requirements for the current job.
Gaurav	Govandi	Pursuing Bachelor in Management	No digital skills. Pursued the course during drop year after school	Digital skills help in doing college coursework, especially word processing and spreadsheets. Interest generated after attending the program has prompted the purchase of a computer at home to learn advanced skills.
Chiranjeev	Govandi	B.Com	No digital skills, was in college	Got placed with Mobile Finance and shifted to HiProcess in credit card sales. He reported that the communication skills developed during the project training were beneficial in performing his job well.
Roshini	Thane	XII	Comes from a very poor family, had never touched a computer	Got placed in an insurance selling company where she has to generate leads. She has to use a computer to make Excel reports, do Tele-calling, and explain the product's benefits to customers over Tele-calling. The communication skills and digital literacy provided at Digital Shakshar have been an asset.
Nitisha	Mulund	Pursuing final year B.Com	She could hardly follow the lessons on computer usage at college	(i) Practical exposure and hands-on training have helped diminish the fear of computers, (ii) Her grades in college in subjects where digital knowledge is required have gone up, (iii) Intends to take up graphic design (computer-related) as a profession, (iv) Communication skill classes at Digital Sakshar has given her the confidence to take up mono acting seriously, and she has given a few stage shows in college
Siddhi	Mulund	B. Com	Had done a MS-CIT (Maharashtra State Certificate in Information Technology) course. Had no practical knowledge, only theoretical training was provided.	Exposure to hands-on training on a computer. Took admission in a graphic design course and is now a logo maker in a tech company.
Sanjana	Mulund	Pursuing B.Com	Could not follow computer classes in college. Given the high load at college computer lab, did not get opportunity on hands-on use of computer	Under the project, the availability of a laptop for personal use helped gain practice on a digital device. Now proficient in spreadsheets. Continues to use the Digital Sakshar app to revise lessons and concepts.
Abdul Rahman	Manpur	Graduate	No digital skills	Employed as a document verifier at HDFC Bank
Anjali	Thane	XII	Lack of familiarity with basic computer operations	Employed with a firm in Chembur and handles online billing
Shruti	Thane	XII	No digital skills	Post-training, Shruti secured a part-time position at Unnati, an NGO where the newly acquired digital skills came in handy. Currently she is pursuing graduation full time.

Name	Location	Qualification	Status before training	Status after training
Radheshyam Sharma	Thane	XII	No exposure to computers	Works at a café where he takes care of billing using Excel and handles emailing tasks.
Rinky Panday	Thane	XII	At school limited computer resources hindered computer proficiency.	The project placed Rinky in a BPO company. The training helped elevating her confidence to communicate effectively with customers and handle computer related tasks.
Muskan Khan	Wadala	Graduate	A teacher in an NGO	Post-training, Muskan leveraged her newfound skills and confidence to make a significant career move. She transitioned to a role at Axis Bank, successfully applying the lessons learned at Digital Sakshar.
Indu Kanojiya	Thane	Graduate	Couldn't pursue a job due to family responsibilities and raising small kids.	Joined Pratham Infotech as a trainer. Currently, she provides digital and employability training at a Pratham training center.

(D.14), (ii) Use of Licenced software (D.15), (iii) Include advanced level topics as per market relevance (D.16), (iv) Maintenance & upkeep of hardware (D.17)

D.1 Issuing laptops to participants has improved access and thereby learning outcomes:

Not having access to a digital device outside the training center meant the candidates could not practice the lessons they learned or do home assignments requiring a computer. Digital Sakshar has introduced a process innovation wherein a laptop is issued to a group of 5 students who, by turn, keep the machine at home and can practice or do group work. The laptops were returned on completion of the training.

D.2 The hybrid learning methodology aided flexibility, engagement and access: The project introduced a number of methodologies to facilitate learning. The hybrid method had three components

- *Classroom learning:* 90 min lectures plus practicals at the learning centre
- *Group learning:* Encouraged peer-to-peer learning, wherein a group of 5 students each is given an assignment, and they meet at a time convenient and complete the project. Once a week, the trainer visits each group at the community site to supervise their progress with the assignment
- *Self learning:* As discussed above, a laptop has been issued to each group. Each member, in turn, gets to keep the laptop with him or her at home and practice in self-paced mode. All lessons are loaded onto the machine for easy reference.

High emphasis is put on learning by doing through hands-on sessions at the learning center and home-based group assignments.

D.3 Small batch size ensured individual attention: Each center caters to 60 students divided into batches of 15 each. Separate 90-minute sessions for two batches were

held a day, three days a week.

D.4 Lessons on the go: Participants were asked to download and install the 'DIGITAL SAKSHAR' app on their mobile devices. The app had the entire course material, which the student could access and revise the lessons at any time. Pratham Infotech Foundation leveraged its already existing Digital Sakshar app for the project and did not require additional investment from LTIMindtree. Also, all the course material is available on YouTube for students who have low-end mobile phones. Printed workbooks were also provided with relevant course material.

D.5 A dedicated placement cell: The project has a dedicated placement cell; all trainees desirous of placement apply on a dedicated portal, 'AdoreJobs,' operated by the project placement cell. A pre-placement session is held at every centre, where details on jobs available, skills needed, minimum qualification, and expected remuneration are detailed. The recruiters are also invited to some of the sessions. Job fairs are held at a zonal level, where about 10-15 recruiters are present with job offers and interview the students. In addition, the placement cell personnel visit the companies near the operation area and scour through job sites to shortlist offers for the project trainees.

D.6 All required expertise inhouse: Pratham Infotech Foundation has ensured good backend support for the program. It has in-house expertise in developing training methodology, designing content, and managing the IT infrastructure.

D.7 Learning content benchmarked to good practices: The content has been designed considering the students' capability, the infrastructure available, and the job market's needs. It was reported that the content design team extensively consulted online material on digital literacy and soft skills (paid and free) and incorporated the best practices.



D.8 Cluster approach helps in lowering costs, provide ease of access and manageable logistics: The disaggregated approach ensures that the training centers are close to the residences of the students and is especially beneficial for working youth, girls, and homemakers.

- i. *Slum divided into contiguous geographical units* : The project team identified the slum pockets and divided it into contiguous zones. Ten centres are established in each zone, each manned by a trainer.
- ii. *Training centres are established in local private schools:* Learning centres are located in local private schools. The selection criteria include (i) availability of at least 7 computers for practical training, (ii) clean toilets, (iii) availability of the classroom for theory classes, and (iv) drinking water. The project pays the school a maintenance fee. The classes are held after school hours between 4- 8 pm. As a positive spin-off, the Digital Sakshar team would provide training to the teachers of the school where the learning centers were located through special classes on Saturdays. The teachers, in turn, would promote the project in the community.

D.9 Trainers recruited from the community: As part of the project design, it was ensured that trainers come from similar socio-economic backgrounds as the trainees.

This facilitated trainers to appreciate the student's circumstances, and the students could relate to the trainer. Having trainers from the community helped build trust in the program among the parents and community members. The project hired many of its alums as trainers, an evidence of the faith in the ability of its graduates.

D.10 Community Engagement ensured: Laptop distribution to trainees is done in the presence of local community leaders. This ensures community buy-in. The community helps by providing a space for conducting mini-placement drives and smoothing any teething troubles at the community level that might crop up. During the completion of certificate distribution to the trainees, prominent community members are invited.

D.11 Regular Training the Trainers: The trainers undergo a two-day core training course and refresher training every quarter. Training spans digital, soft, employability, financial literacy, and mobilization skills. A trainer (called a fellow) is responsible for all training, administrative activities, and Student mobilization at the center. He/she is assisted by a community connector, overseeing ten centres.

D.12 IT based MIS system: The data for the monitoring of the key performance indicators is done through the Jaankari portal. Each center updates the data weekly. LTI Mindtree can access the data through a sister app called Sahyogi. This helps provide timely updates, close

monitoring, and transparency in operations.

D.13 Efficient Mobilisation : One of the critical elements of the project is the mobilization of the students to attend the course. All the trainers in a zone (11 nos.) go out as a team and move door to door, informing youth about the project, the key features, and the location of the training. They highlight the three selling points, namely (i) Providing a laptop for home use, (ii) Free training, and (iii) Placement. Pamphlets are provided. . The mobilization of a batch of 60 students is done within 6-7 days. The trainers reported no resistance or uncomfortable situations in the community during mobilization.

D.14 Upgrade to newer software versions: Given the speed with which software gets obsolete, it is suggested that the program works with recent versions. For instance the study booklet on operating system given to trainees talks of Windows 7 which is a 2009 release.

D.15 Licensed software: While the laptops given to students use open-source software, the software loaded in PCs at the learning centers, which includes Windows operating system, PowerPoint, and Word, is often not licensed. It is suggested that either open-source software be used in these machines or software at a discounted price provided by Microsoft for nonprofits is procured.

D.16 Include advance level topics: It was reiterated by recruiters and trainees that advanced topics in Word processing (e.g., mail merge) and spreadsheet (e.g., vLookup) be introduced. This is in sync with market demand and will help get better starting salaries. Also, the project needs to remain topical with industry standards; for instance, the current industry standard for typing is 30 words per minute with 85% accuracy.

D.17 Maintenance problems with some of the laptops issued to students for project work: In the initial phase of the project, the Vidyut Express Notebook was provided to the participants for use at home and group work. Subsequently, since FY 21-22, LTIMindtree supported with 493 new iBall laptops with latest Windows version. At the same time old existing project laptops were also in use. **Beneficiaries reported during FGD that laptops tended to hang and overheat.**

E. IMPACT

RATING : HIGH

E.1 LTIMindtree supported development of a unique model for digital inclusion: The approach to improving access to digital equipment and a hybrid training system is innovative. It was reported that the project processes are well documented and can be provided to any agency that wishes to replicate it. Currently, Pratham Infotech Foundation is replicating the model in 78 centres across India. Developing a replicable model is a long and sustained effort, and the support from LTIMindtree has been invaluable.

E.2 Help in reducing economic marginalisation: The trainees come from marginal backgrounds and need skills to secure a job in the organized sector. The project positions them with the requisite skills and helps them placed with a regular job. The earnings help improve the financial.

F. SUSTAINABILITY

RATING : HIGH

F.1 Permanency of livelihood: The project has made the youth employable and placed them in jobs. It is expected that they will gain experience and gather additional job-specific skills, which will help them in job retention and career growth along with a concomitant increase in remuneration.

F.2 High replicability of Digital Sakshar model: The model on training in digital skills and employability supported by LTIMindtree is being replicated across India by Pratham Infotech Foundation.

OVERALL RATING

RATING : HIGH

The project has successfully seeded an innovative digital learning methodology wherein laptops are issued to a group of trainees to help practice outside the classroom. This helps transcend the issue of access to a digital device faced by most youth from lower-income households. It has also performed admirably well in student retention and placement. Upgrading some of the project's alums as trainers creates role models in the community. While the project has much to recommend for itself, there are some issues that the project may consider overcoming, which include the use of licensed software at the training centres, upgrading the versions of software taught, maintenance of laptops issued to students, and include in the syllabus some advanced wordprocessing and spreadsheet skills which are much in demand in entry-level jobs in the IT/ITES industry.

SUGGESTIONS

Include advance level topics: It was reiterated by recruiters and trainees that advanced topics in Word processing (e.g., mail merge) and spreadsheet (e.g., vLookup) be introduced. This is in sync with market demand and will help get better starting salaries. Also, the project needs to remain topical with industry standards; for instance, the current industry standard for typing is 30 words per minute with 85% accuracy.

Upgrade to newer software versions: Given the speed with which software gets obsolete, it is suggested that the program works with recent versions. For instance the study booklet on operating system given to trainees talks of Windows 7 which is a 2009 release.

Licensed software: While the laptops given to students use open-source software, the software loaded in PCs at the learning centers, which includes Windows operating system, PowerPoint, and Word, is often not licensed. It is suggested that either open-source software be used in these machines or software at a discounted price provided by Microsoft for nonprofits is procured.

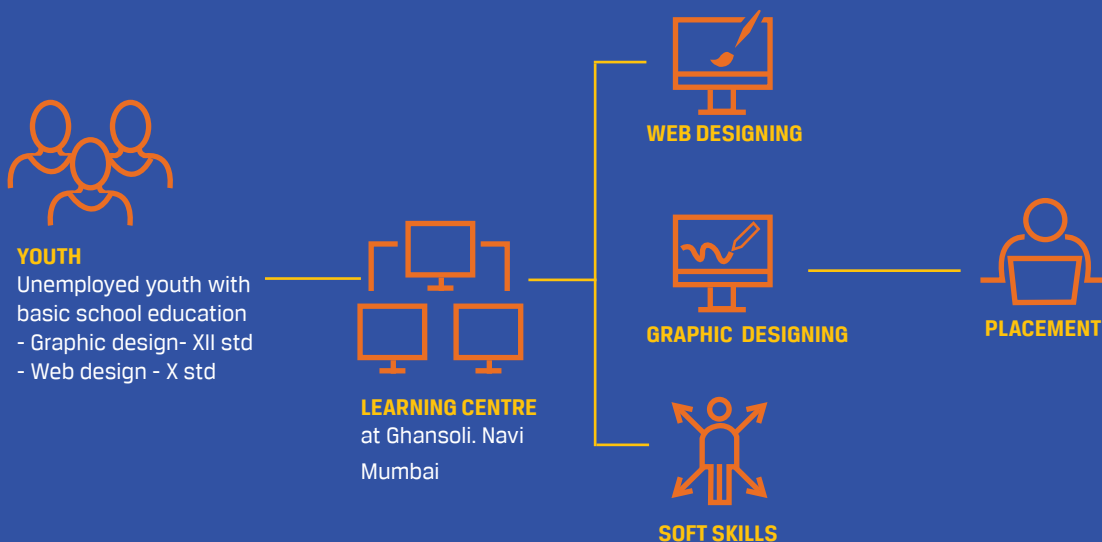


Representational Image

ASSESSMENT

C.2 Digi Skills

LTIMindtree initiated project 'Digi Skills' as a CSR Initiative to provide training of youth in graphic and web designing and provide placements to underprivileged youth with remunerative livelihoods.



Summary

Digi Sakshar has successfully introduced youth from low-income communities to IT/ITES-based jobs. This is evidenced by high placement rates and approbation of the trainees on the usefulness of the training content.

Rating of Digi Skills Project

Assessment Criteria	Rating	Score
Coherence	High	5
Relevance	High	5
Effectiveness	High	4
Efficiency	High	4.5
Impact	High	4.5
Sustainability	High	4
Overall	High	4.5

A. COHERENCE

RATING : HIGH

A.1 External Coherence

The government's commitment to ensuring that young Indians are ready to compete in the labor market is demonstrated by the breadth of skilling programs. The Pradhan Mantri Kaushal Vikas Yojana (Skill India Mission) is MSDE's flagship scheme to enable young Indians to take up industry-relevant skills training and improve their employability. The premise is that investment in skills for vulnerable groups can make economic and employment growth more inclusive.

A.2 Internal Coherence

The project is in concurrence with the 'livelihood' driver of the LTIMindtree CSR Program.

B. RELEVANCE

RATING : HIGH

The shortage of digital skills coexists with a rapidly evolving job market: As more and more services move online, there is a growing demand for workforce with digital skills. The youth need to be proficient in digital technologies to engage with this evolving job market. The project trains youth in high demand digital domains:

- **Webdesigners:** India has witnessed a massive digital revolution in recent years, fuelled by increasing internet penetration, smartphone usage, and government initiatives such as Digital India. This transformation has led to a surge in online businesses, e-commerce platforms, and the need for captivating web designs. The growing number of internet users and the rise of social media platforms have created a fertile ground

for web designers to showcase their creativity and technical skills.

- **Graphic Design:** The job outlook for graphic designers in 2024 is exceptionally promising. As businesses recognize the importance of visual communication in brand building, there is a consistent demand for skilled graphic designers across various industries

The total market size of web designing market is growing at the rate of 8% / annum

C. EFFECTIVENESS

RATING : HIGH

The main highlights of the project has been its effectiveness in terms of achieving its enrolment targets (C.1), high placement rate(C.2), and conforms to NSDC norms (C.3-C.5). One minor critique of the program has been that the class composition was heterogenous (X/XII to B.Tech/MCA/MBA), leading to different course expectations (C.8).

C.1 Course enrollment targets achieved: The project has achieved its target for the number of youth to be trained

Enrollment and Course Completion (2021-22)

Target	Mobilized	Completed
180	245	180

C.2 Placement rates are good: Of the 180 youth trained, 145 youth could be placed which translates to a placement rated of 80%. The project could achieve a placement rate of 80%. This compares favourably to the placement rate of 44% for short term NSDC courses¹.

¹ Refn: <https://skillsip.nsdcindia.org/sites/default/files/kps-document/>

Factsheet

A. Location: Navi Mumbai

B. Beneficiaries: 180 youth

C. Graphic Designer

- **Course Duration :** 160 hours over 40 days of classroom training
- **Min Qualification:** 12th pass
- **Age :** 18-25 yrs

D. Web Designer

- **Course Duration :** 160 hours over 40 days of classroom training
- **Min Qualification:** 10th pass
- **Age :** 18-25 yrs

Placement Performance (2021-22)

Location	Trained	Placed	Placement Rate
Web design	90	71	78%
Graphic Design	90	74	82%

C.3 NSDC certified certificate given on completion to students: The implementing partner, Lokbharti, is recognised as a training partner through Lok Bharti Skilling Solutions Private Limited (LBSS). The National Skill Development Corporation (NSDC) issues certificates to certify that an individual has the skills and knowledge to do a job. NSDC certificates are recognized by employers across India, including government organizations and leading companies. The candidates were certified by the NASSCOM Foundation, a third-party assessor.

C.4 Course Curriculum as per NSDC guidelines: The course curriculum conformed to the NSDC guidelines, an assurance about the quality of the program.

C.5 Trainers as per NSDC norms: The project engaged trainers as per the qualification and experience norms set out by NSDC. This ensured quality training.

C.6 Training on industry standard software: The project trained students on industry standard software like Word-press, Canva, CorelDraw and PHP coding language.

C.7 Employability skills provided: The trainees were provided with employability skills including overcoming shyness, vocabulary building, self-esteem, team work, workplace ethics, smart job search, work from home, etiquettes-Do's and Dont, powerful english words etc.

C.8 While the trainees have found the program to be useful, more advanced level topics would add value: The assessment team contacted 13 beneficiaries over the phone to elicit their response on the quality and usefulness of the training. However, only seven trainees responded with their opinions. There was a general consensus that the training was useful. However, a number of respondents reported that training on advanced topics would have aligned the course better to the market demand. While the course was designed for youth with minimum qualifications for X and XII, many youth with B.Tech and MCA degrees joined the course and found a mismatch between course objectives and their expectations. The trainees suggested that the batch be segregated depending on the educational attainments and pre-existing IT skills of the trainees and the syllabus commensurately designed. The summary of the responses from the respondents to the telephone survey is listed on the following page.

C.9 Starting salaries are below minimum wages: The average starting salary received by trainees on placement is Rs. 10,000. As of January 1, 2023, the minimum wage in Maharashtra is Rs.12,699 per month for unskilled workers. The minimum wage for skilled workers is Rs.14,310 per month. While the starting salaries for majority of the candidates was below the minimum wages, in most cases the candidates were trainees or interns and the company invested in their training subsequent to recruitment. As the candidates gain experience and perform well, the salary rise is substantial.

D. EFFICIENCY

RATING : HIGH

D.1 Availability of access to digital device a prerequisite: One criterion used for screening candidates for admission to the course was the availability of a digital device at home or within easy reach of the candidate. This is important because mastering digital and graphic design technologies requires constant practice to master as well as regular upgradation of knowledge. A computer lab was made available for students for practical work during the course.

D.2 Direct liaisoning with the employer for placement: The placement was not through manpower companies but through direct connections with the employers. This cut short the time for recruitment. The topics of project work during the training were tuned to the needs of the employers, like integrating API or a payment gateway.

D.3 Nesting Digi Skills in the NSDC framework: The training program is accredited by NSDC and thereby follows an efficient methodology in terms of course curriculum, trainer selection and assessment of skill learned by the trainees.

E. IMPACT

RATING : HIGH

There is overwhelming evidence^{2,3,4} that relatively few individuals from poorer households or rural backgrounds have managed to secure positions as software professionals; and that "the social profile of information technology workers is largely urban, middle class. Digi Sakshar is an attempt to challenge this trend by introducing youth towards making a career in the IT/ITES domain by providing core software and employability skills. This potentially focuses towards demonstrating that the youth from low income and slum communities can be transformed into a talent pool for software companies to draw quality and affordable workforce. The social mobility that projects like Digi Sakshar provides for youth from marginalised communities is indeed welcome.

F. SUSTAINABILITY

RATING : HIGH

From a financially sustainable view point, the project will have to be run by external funding. Such training program on a fee based model might go beyond the means of youth from economically marginalised households. At a functional level the project has made the youth employable and placed them in jobs. It is expected that they will gain experience and gather additional job specific skills which will help them in job retention and career growth along with concomitant increase in remuneration.

2 Krishna, A. and V. Brihmadേശam. (2006). What Does it Take to Become a Software Professional? *Economic and Political Weekly*, July 29, pp. 3307-14.

3 Upadhyaya, C. (2007). Employment, Exclusion and 'Merit' in the Indian IT Industry. *Economic and Political Weekly*, May 19, pp. 1863-8.

4 Fuller, C.J. and H. Narasimhan. (2006). Engineering Colleges, 'Exposure,' and Information Technology Professionals in Tamil Nadu. *Economic and Political Weekly*, January 21, pp. 258-62.

Feedback From Trainees

The assessment team contacted telephonically all of the thirteen alumni of the Digi Skill Program, provided by Lokbharti of which seven persons responded

Name	Qualification	Status before training	Status after training
Sonal Nivrutti Mhatre	BE	Student	She found the training to be beneficial. Currently, Sonal is employed as an associate consultant at Atos, an information technology company. She found the training basic and suggested that the topics be more advanced and in technologies tuned to the industry requirement.
Asifkha Yusuf Pathan	MCA	Student	Currently employed with Irage Pam Solutions as a trainee. Mentioned that the course needs to be upgraded to meet industry requirements. However, the foundational knowledge is good and, when paired with the candidates' existing advanced qualifications, helps secure a remunerative job. .
Koyal Sarjerao Chavan	Currently in final year of Bachelor of Arts	Student	She is currently in her final year of graduation and works in a BPO part-time. She mentioned that graphic and web design did not interest her. She, however, mentioned that her personal lack of interest should not be attributed as a statement on the quality of the course.
Mayur Rajendra Raut	BA	Student	Currently runs his own business in graphic designing and printing. His business covers a range of services, including printing bill books, visiting cards, etc. After completing the training, Mayur was placed as a graphic designer at the Change Your Life Foundation. After gaining requisite experience, he branched into starting his own business.
Arti Bhagawan	BE	Student	She emphasized that while the course is very useful for beginners, students with prior knowledge should be identified by the trainer and grouped into a separate batch for advanced-level web designing. Additionally, the placement opportunities should be strengthened.
Revansidha Annappa Savle	B.E	Senior software engineer with 13 years of experience	Found the training as a good refresher of the basics. Emphasized the importance of advanced-level training in JavaScript, a key tool in current web development required skill set.
Sajjan Kumar Shah	BE	Trainee at Tata consultancy Services	Joined in response to a suggestion during job interview on the importance of engineers possessing digital skills, specifically in graphic and web design. Found the training to be informative and beneficial. He recommended that printed reading material be provided to aid the retention and application of the learned concepts in the future.

OVERALL RATING

RATING : HIGH

Digi Sakshar has successfully introduced youth from low income community into the IT/ITES based jobs,. This is evidenced by high placement rates and approbation of the trainees on the usefulness of the training content.

SUGGESTION

Include advance level topics : It was reiterated by some trainees that more advanced topics be included in the course syllabus.

Divide trainees into batches as per their pre-training digital skills:

The training batches clubbed XII or X pass outs with an MCA and B.Tech qualified trainee. Matching the expectations and skill sets of such a heterogeneous batch is difficult in the same classroom.



D. WOMEN EMPOWERMENT PROJECTS

The Women Artisan Skill Enhancement Project *(in partnership with UNDP)*



The program involves women from underprivileged communities in Mumbai and Thane districts of Maharashtra with the aim to generate livelihoods for women in the area by reviving Warli and Terracota art. The purpose was to give impetus to the revival of an ancient Tribal art, Warli painting, along with skilling the underprivileged women in the artform local to their area. It enables women to work from the comfort of their homes while maintaining the high quality of products that is the demand of the market. It also aims to promote entrepreneurship.



ASSESSMENT

D.1 The Women Artisan Skill Enhancement Project (WASEP)

The Women Artisan Skill Enhancement Project (WASEP) is a partnership between United Nations Development Programme (UNDP and Charities aid foundation along with LTIMindtree. The program involves women working in underprivileged communities in Mumbai and Thane districts of Maharashtra with the aim to generate livelihoods for women in the area by reviving Warli art.



WOMEN ORGANISATION

Self Help Group (10-12 women)

Artisan Group (50 women approx)

Federated in Producer Company
(2 for Worli cluster)

Built capability and competence of 2660 underprivileged women beneficiaries in Mumbai and Thane to produce a wide range of high quality Warli products

CREATOR TO CONSUMER

[2017-2022: UNDP, Charities Aid foundation TISER
2022 onwards: TISER]



INSTITUTIONAL

Creating an empowered institution which is accountable in cluster- can handle money, handle business, manage production etc. This is done through cluster office manned by cluster coordinators, cluster manager each covering 30 SHGs



DESIGN & DEVELOPMENT

Product improvisation in terms of processes, quality, diversification, and new designs. Design team interfaces with women artisans.



FINANCIAL

Provision working capital, training on making invoice challan, financial and digital literacy. Created a team of business sakhies who help clusters execute orders.



MARKETING & SALES

Online, B2B, Exhibition, TISER stores

Summary

The project has done well in training non-artisan women in the intricate Warli art form. It has also been able to leverage resources and establish good institutional sales. However, it needs to improve the quantum of livelihood generation for the beneficiaries, make more women achieve professional grade skills, enhance retail/online sale performance, and increase the capacity of the producer companies established for the Warli artisans trained under the project.

Rating of WASEP

Assessment Criteria	Rating	Score
Coherence	High	5
Relevance	High	5
Effectiveness	Moderate	2
Efficiency	Moderate	2.5
Impact	High	4
Sustainability	Moderate	3
Overall	Moderate	3.58

A. COHERENCE

RATING : HIGH

A.1 External Coherence

The National Handicrafts Policy Report, April 2017, by the Ministry of Textiles, Government of India, gives specific interventions to make the handicraft sector competitive:

- Improve livelihood and socio-economic conditions of handicraft artisans by developing their capacities
- Provide an enabling environment for the growth of the crafts sector by supporting the establishment and development of artisan-based enterprises
- Create a differentiation for hand-crafted products, leading to higher and more significant profit and market share by supporting and facilitating effective marketing and branding for the sector
- Enhance artisan well-being by designing and facilitating effective schemes
- Preservation of traditional crafts heritage by ensuring continuity of traditional handicrafts traditions across generations and promoting awareness among the wider public

A.2 Internal Coherence

The project is in concurrence with the 'livelihood' driver of the LTIMindtree CSR Program.

B. RELEVANCE

RATING : HIGH

The project did not work with traditional Warli artisans but trained women, mostly homemakers in Warli art. Warli was positioned as a skill to generate livelihood. 29.4% of women (aged 15-59) are part of India's labour force, as compared to 80.1% of men. Employment of women empowers not only through additional income but also

increases women's sense of self-worth; their right to have and to determine choices; their right to have access to opportunities and resources; their right to have power to control their own lives, both within and outside the home; and their ability to influence the direction of social change.

C. EFFECTIVENESS

RATING : MODERATE

The project has been successful in targeting the women from socially and marginalised households (C.1 & C.2), provided training in large numbers (C.3), helped to put in place the required institutional infrastructure (artisan collectives), and assist in issuance of artisan cards (C.4). However, it could have traversed more ground in generating livelihood for the women trained under the project (C.5), assisted more women to get professional level skills (C.6), and provided the trainees more inputs on the cultural significance of Warli Art (C.7).

C.1 Most Beneficiaries are from marginal social status:

The project has reached the most vulnerable social segments/ More than 90% of the beneficiaries belong to OBC, SC, and ST communities.

Enrollment and Course Completion (2021-22)

General + Others	OBC	SC	ST
9%	63%	15%	13%

Source: Project MIS

Based on data of 1372 beneficiaries for whom the caste data was available

C.2 Most Beneficiaries are from poor economic

backgrounds: The project has reached the economically marginalized, with 53% of the beneficiaries holding Antodaya or BPL ration cards.

Factsheet

A. Location

- 2017-22: Mumbai and the Thane districts, Warli art
- 2022 onwards: 7 states, 10 art forms

B. Beneficiaries

- 2660 women trained in Warli art
- 50 Self Help/ Producer Groups organised

C. Livelihood

1000 person days of work generated (in 2021-22)¹

D. Business Sakhies Trained : 30 nos.

2017-18 to 2021-22

E. Community Facility Centre established at Padgha

G. Warli Artisan Producer Company: Two

H. Project Implementation Partners [2017-2022: UNDP, Charities Aid Foundation, TISER | 2022 onwards: TISER]

H. Fieldwork Location: Asnoli, Vajreshwari

¹refn: Project closure report

Economic Status of Trainees

Antodaya	APL	BPL
18%	47%	35%

Source: Project MIS
Based on data of 1168 beneficiaries for whom the HH ration card type is available

C.3 Project has achieved impressive training numbers:

Over 2017-18 to 2021-22, the project has started from 250 to 2500 beneficiaries.

C.4 Artisan card: The application of 1000 beneficiaries for the Artisan card was facilitated under the project. The card gives handicraft artisans access to government schemes.

C.5 Livelihood Generation Low: The livelihood generation facilitated directly through the project has been low, as per the data made available to the assessment team.

Income generated by beneficiary clusters (Dec 2018-Jan 2019)

	Women mobilised	Type of products made	No. of women engaged (cumulative)	Total Business Generated through project orders
Aangaon (Bhiwandi)	Stitching batch - 20 Warli batch - 40	10 products	140	24742
Awale (Bhiwandi)	31		73	7140
Aarey colony	96		107	17162
Asnoli	19		38	11650
Saibaba Nagar	41		103	19307

Source: Cluster Report, Warli Art, 2019

The field-level interaction with beneficiaries revealed that there was a spurt of demand during COVID-19, when the project sourced masks, making orders in large numbers from the project beneficiaries, with monthly income reaching up to Rs. 2000-4000/month. It was reported that LTI-Mindtree sourced masks from the project, some of which were shipped to LTI-Mindtree offices worldwide. However, after COVID-19, the orders have dwindled. The beneficiaries suggested that more frequent contact between the implementing agency and the artisan clusters would help revive the order flow (both through the project and other external agencies) and improve the quality of execution. It was suggested that such monitoring would also reduce the dropout of women from the cluster(s). The beneficiaries expressed concern that sometimes the orders received through the project have very steep deadlines, which the artisans have difficulty meeting.

C.6 Low number of high proficiency (Grade A) trainees:

All the project beneficiaries are provided with 45 days of basic training. Post the basic training, the trainees are graded into 'Category A' and 'Category B' based on their daily performance and tests on ideation, theme, color coordination and combination, finesse, and finishing. The Category A trainees are provided advanced product design

and development training. **Only 10% of the trainees got graded Category A and received advanced training¹.** Given that the handicraft market is highly dependent on the artisan's skill, a high degree of proficiency is necessary for the women to be remuneratively engaged. An increase in the number of women with Category A proficiency level needs to be considered.

Skill rating of trainees

Category A	Category B & C	Total
278	1355	2660
10%	90%	100%

Source: Project Closure Report

C.7 Low appreciation on the cultural significance of Warli Art:

During focus group discussion the trainees could not reflect much on cultural relevance and importance of Warli art. The project may consider investing more time on building understanding of the culture from which the Warli art originates. Such an appreciation helps in preserving the uniqueness and individuality found in traditional handcrafted artworks. This also helps avoid what anthropologists term as 'cultural appropriation'².

D. EFFICIENCY

RATING: MODERATE

Project has been immensely successful in leveraging working capital and infrastructure (D.1) from third party agencies. It has also put in place a cadre of Business Sakhies (D.2) to mentor the artisan collectives and help them interface with the project implementing agency. **However, while the project has been able to generate institutional sales, the retail sales have relatively been low. This includes the eCommerce portal listings which in most cases were found to be dormant (D.3). Also there is a scope to strengthen the project MIS, given the complexity and scale of operations (D.4).**

D.1 High Leverage: The project has been successful to leverage resources

a. Leverage of working capital: In Phase I of the project (2017-18 to 2021-22), there was no provision for providing working capital to the clusters. In Phase II, however, such a provision has been made. The project has been successful in leveraging working capital from external sources, the notable being:

- **SAMHITA:** Rs. 22 lakhs for working capital and training of business Sakhies.
- **RangDe:** Rs.25 lakhs loan to Warli clusters, implementing agency provided collateral in terms of providing back to back orders so as to enable beneficiary clusters to return the loan.

¹ Low skill acquisition should be seen in the context that women who received training are not traditional Warli artisans and some of them might not have the aptitude to master the artform upto professional standards. The project might consider screening potential trainees for aptitude for art before enrolling in the training program.

² Individuals who are not from the Adivasi community and are actively replicating Warli art may contribute to cultural appropriation, wherein elements of Warli art are taken out of context and used for profit without proper acknowledgement or understanding of the culture from which they originate. Such overexposure in the commercial market can lead to the art being seen as a mere decorative element rather than a reflection of tribal life and spirituality.

b. Leverage in kind:

- Warli training nested in Mahila Arthik Vikas Mahamandal (MAVIM) created SHGs
- TISER stores housed at MAVIM shops at Juhu and Babulnath
- Access to infrastructure of Community Managed Resource Centres(CMRC) which are collective of SHGs at the Taluka level supported by MAVIM.
- SELCO Foundation is helping do energy audits of the handcraft production processes in arts supported under the project.

D.2 Creation of a cadre of Business Sakhies has been positive: Women (30 nos.) who demonstrated business acumen and strong work ethics were chosen to become Business Sakhies. Post-training, the Business Sakhies were engaged in supervising productions in different clusters. A few of them also conducted the Covid awareness sessions. Business Sakhies help maintain the contact of the project with the artisan clusters. The project beneficiaries appreciated this mechanism.

D.3 The project has developed multiple marketing channels, : The project has been successful in institutional sales. However, the retail sales through outlets or online sales remain comparatively low:

- **TISER SAMAGRI Vertical:** Sustainable interiors executed by project beneficiaries under the supervision of the TISER(Implementing agency) design team. Some examples include - (i) LTI office cafes in Hyderabad, Pune, and Bangalore, (ii) Art installations at LTI offices(45 nos.) including three interactive art pieces, (iii) City Mural, Hyderabad, (iv) Painting at US Counsel General office, (v) 800 art installation over seventeen floors of Standard Chartered office in Gurgaon (ongoing), (vi) Office chambers of government bureaucrats.
- **Event planning vertical:** Decoration at events, customised gifts , cards etc. executed with help of women artisans.
- **Handicraft Toys Vertical:** Make DIY toys , waste to wealth toys and eco-friendly toys all manufactured through the women clusters of Warli art and other art clusters under the project.
- **Corporate Gifting Vertical:** Tieup with large corporates like LTIMindtree, Hindalco etc.
- **TISER shops:** There are five retail shops managed by the implementing agency where handicrafts made by the women beneficiaries of all LTI-supported art forms (including Warli) are sold. The sixth store at the LTI campus, Bhubaneshwar, is proposed to be started. It was mentioned that these stores are yet to break even.
- **Online sale:** It was reported not much sales is generated through this mode. Many of the ecommerce channels, started for selling products produced under the project, were found to be non-functional.

Status of product availability in eCommerce sites where project products were listed

e Commerce Site	Products listed	Staus
GoCoop	37 product lister	all sold out
https://gocoop.com/collections/tisser-artisans		
My-e-Haat	10 products listed	available
https://www.myehaat.in/en/store/my-e-haat/product/tisser-atisans-handpainted-long-shoulderstrap-leather-laptop-bag		
Shopclues	No listing found	
Loopify	No listing found	
Amazon	No listing found	
Flipkart	No listing found	
<i>Note: eCommerce sites as mentioned in the project closure report 2021-22</i>		

D.4 Project MIS needs to be strengthened to track impact: Given the scale and complexity of the project, it is proposed that a more robust MIS be designed. For instance, the livelihood generated, primarily through non-project sources, needs to be recorded. Also, granular data would help track the extent to which the project benefits are reaching each individual trainee. Similarly, the data on trained women who have dropped out would help stem attrition.

E. IMPACT

RATING : HIGH

The secondary consequence of the project has been the empowerment of beneficiaries who are women. The case studies documented by the project and the interaction with the beneficiaries during fieldwork reveal the following:

- **Agency of Women:** Awareness about an art form, acquiring new skills, and additional earning builds self-confidence and self-worth.
- **Societal structures:** The project provides an opportunity to learn together in a group, build solidarity, and gives confidence to move out of home and negotiate with the world.
- **Relationships:** Appreciation from family members, decision-making about the use of income generated through the project.

E. SUSTAINABILITY

RATING : MODERATE

Warli Artisan Producer Companies setup under the project needs handholding: To date, five producer companies have been established under the project, of which two are for Warli artisans. Organizing the artisans into a collective gives them a voice, helps them access credit, markets, a sustainable supply chain and puts an institutional structure in place for sustenance of livelihood generation in place. However, currently, the producer companies are in a nascent stage and require significant handholding support. For instance, one of the immediate issues the producer companies face is their difficulty in meeting the compliance requirements, and they often get into default, attracting penalties. Also, the members'

sense of belonging to the producer company could be more robust; presently, most women prefer to execute orders individually rather than through the collective. Producer companies are liable to charge GST for every sale, lowering price competitiveness. It was also reported that the producer companies have very low throughput and, presently, are not self-sustaining entities. Significant investment in capacity building, infusion of working capital, marketing & design support and hand holding is required.

DISCUSSION

OVERALL RATING : MODERATE

The project has done well in training non-artisan women in the intricate Warli art form. It has also been able to leverage resources and establish good institutional sales. However, it needs to improve the quantum of livelihood generation for the beneficiaries, make more women achieve professional grade skills, enhance retail/online sale performance, and increase the capacity of the producer companies established for the Warli artisans trained under the project.

SUGGESTIONS

Align training to National Occupation Standard: The National Skill Development Council, in collaboration with the Handicraft Carpet Centre Skill Council, has developed the National Occupation Standard for Traditional Painting Makers (Artisan) and has also developed a curriculum for training. The project may consider aligning with this framework. Implementing partner agency (TISER) may also consider becoming a training partner with the National Skill Development Council for the training of artisans, enabling it to provide NSDC-accredited course completion certificates (certified by a third party appointed by NSDC). The National Occupational Standards and Curriculum are for (i) Warli painting, (ii) Patachitra painting, (iii) Madhubani painting, (iv) Cheriya painting, (v) Phad painting, and (vi) Miniature painting.

Linking the producer company with NABARD assistance: NABARD assists in setting up the Off-Farm Producer Organisation (OFPO) for artisans involved in handloom and handicrafts. NABARD also supports eligible institutions for setting up Rural Business Incubation Centres (RBICs) to nurture early-stage innovative enterprises with high growth potential in off-farm business by adding value and linking to producers and markets.

Retail marketing channel needs strengthening: The project has been strong in the institutional marketing space, helped by LTI support and the existing network of the implementing agency. The retail segment needs to be strengthened for a constant flow of orders. As per global handicraft market trends, the residential sector represents the largest market share. The global handicrafts market was valued at US\$ 830.4 billion in 2023, of which about 20% comprise the handprinted textile and embroidered goods market. The global handicrafts market is projected to grow from \$1,007.07 billion in 2023 to \$1,972.32 billion by 2030, at a CAGR of 10.08%³. **This positions Warli Art prod-**

ucts in a conducive market environment that is seeing healthy growth. The existing handicraft marketing channel trends indicate that the project needs to strengthen its presence in the following marketing to generate adequate sales volumes:

- **Partnership with Mass Retailers and Exporters to reach the global market:** Some of the major players in the global handicrafts market include Asian Handicraft, Fakih Group of Companies, Shandong Laizhou Arts and Crafts Imp & Exp Co. Ltd., Ten Thousand Villages, Oriental Handicrafts Pte. Ltd., NGOC Dong Ha Nam, Minhou Minxing Weaving Co. Ltd., and Native Crafts and Arts Industries, etc.
- **Online Market Place:** It is suggested that the project may partner with established e-commerce sites or develop its own online store to facilitate easy purchase and delivery. Some of the big global handicraft e-marketplaces include Etsy (88.3 million buyers), Folksy (250,000 users per month), Amazon Handmade, Icraft, Authindia, Cratejoy, Spoonflower, World Wide Arts Resources, Storenvy, ArtFire, Shopify, iCraftGift, RebelsMarket, Zazzle, Aftcra, and Society6.

³ Global Handicraft market Trend Report, 2023-30, Fortune Insights



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