



Larsen & Toubro Infotech

Impact Assessment of e-Vidyaloka Program

Final Report

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Thinkthrough Consulting Pvt. Ltd.

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Executive Summary

Larsen & Toubro Infotech (LTI) as part of its CSR initiatives across India, partnered with e-Vidyaloka in 2017 to launch the Digital Classroom Program, to improve learning outcomes for children in under-resourced government schools through digital learning. The idea was to provide children access to innovative learning models supported by a class assistant, who was mostly from the local community and augmented with teaching content which facilitated critical thinking. The sessions were supported by volunteers from Larsen & Toubro Infotech as well as volunteer teachers from the community, who have a passion for teaching. The program was implemented in 75 rural schools across Karnataka, Andhra Pradesh, Maharashtra, Tamil Nadu and Uttarakhand, particularly for students enrolled in the 5th to 8th grades. In March 2020, the rampant spread of COVID-19 forced governments to impose strict lockdown measures, the Digital Classroom Programme came to an abrupt halt, being re-commenced on 20th April 2020.

Thinkthrough Consulting (TTC) Private Limited was hired by LTI to conduct an Impact Assessment of the Digital Classroom Program. The aim of the impact assessment was to assess the continuation of the program through the COVID-19 pandemic, with the key assessment framework being adopted from the OECD DAC criteria. Herein, the key objectives included verification and analysis of the program relevance in lieu of the pandemic restrictions; effectiveness in terms of operational functioning and stakeholder engagement; efficiency in mitigating challenges and mobilizing volunteer field cadres; impact in terms of continuing student engagement and maximizing stakeholder outreach; and sustainability in terms of ensuring stakeholder interest. In line with these objectives, this Impact Assessment Report presents key findings as part of the assessment and provides key recommendations for the long-term sustainability of the program.

Relevance

The relevance of the eVidyaloka program stems from its focus on ensuring children in under resourced government schools have continued access to enhanced ways and means of learning despite challenges brought forth by the COVID-19 pandemic. This included lack of student access to digital devices, accessible internet, geographic remoteness and inaccessibility, conversion of government schools into COVID facilities among others. Through continuous pilots across states in close association with volunteer assistants and teachers, the program was adapted into a multi-delivery approach to ensure continuation in education for the intended student target population. The multi-modal approach of the program proved to be crucial in ensuring that children across states had continued access to education.

Effectiveness

The program has been effective in terms of pivoting itself into a completely digital delivery model to account for the pandemic induced disruption. According to a Social Return on Investment assessment, the Virtual Classroom program has been successful in creating value for its beneficiaries, owing to the program structure; use of digital mediums for pedagogy; staffing strategies of taking local personnel as class assistants. Additionally, the presence of volunteers and class assistants puts pressure on the school system to deliver and function. These are tacit elements that the program also impacts. The effectiveness of the program is especially highlighted in the achievement of learning outcomes, with students witnessing a 30-50% gain in learning in Mathematics, English and Science **as per eVidyaloka's** internal assessments. The strategy of having local personnel as class assistants has enabled the program

to coordinate effectively with all parents and get classes scheduled based on availability of the digital devices at home. This basically ensured that the program was able to constantly keep in touch with children while sensitizing parents about the key role **their support will play in their child's learning** journey.

Efficiency

The efficiency of the Digital Classroom program is established due to the efforts of LTI and eVidyaloka in moving the program into a completely virtual mode. This is in consideration of the inherent infrastructural challenges which were mitigated such that it ensured retaining the number of children due to the grassroots mobilization by class assistants, sensitization of parents and building alternate pathways. The manner in which the class assistants were able to mobilize themselves, establish closer rapport with parents and the program was able to ensure that all other elements operate in close coordination, makes a case for the assessment team to state that program despite disruptions in the external environment continued to deliver.

The disruptions herein were caused by the mandatory lockdown measures imposed due to the rampant spread of the COVID-19 pandemic, thus including closure of schools; conversion of government schools to COVID facilities; and the overall hindrances caused by inaccessibility to digital infrastructure and geographical locations. In order to overcome these challenges, a robust mechanism was adopted, such that with continuous pilot tests and feedback loops, a multi-delivery model could be implemented to ensure continuation of class transactions.

Impact

As part of this study, the key impact areas of the program included its outreach; continuation of the learning focus for children; volunteer engagement and parent involvement. The adaptability of the program during the COVID-19 pandemic was successful in creating a significant impact in these areas. Having achieved an outreach of 10,000 students in March 2021, the program, as reported by nearly 74% of the assessment sample, allowed students to understand and grasp concepts more clearly than they would otherwise through purely physical classroom interactions. This was possible due to the manner in which the local volunteer network was established and developed, with 256 community volunteer teachers and 65 LTI volunteers being part of the ground efforts.

The program was able to instill within children a sense of awareness regarding the differences between offline and online class transaction, thus allowing them to distinguish between different models of delivery and also develop a preference towards the kind of pedagogy approach required going forward with this program. Results indicate that 70% of the students have a preference towards a model combining regular classroom and audio-visual content. Parent Interactions have also revealed that children appear to be more involved and confident, while children feel that the program has enabled them to approach learning in a more engaged manner. Nearly the entire student sample reported an increase in confidence while answering questions in class. While nearly 98% of them felt that they could approach teachers and facilitators in case of any learning challenges, 89% of the students reported that they received help from class assistants during assignments.

Sustainability

Sustainability of social development programs needs to be seen in terms of the stakeholder ownership of the program; perception of value the program brings in; ability of stakeholders to discern the differentiated program offerings and a dotted line linkage between the program and its end objectives. Seen from this lens, the assessment has revealed that the program is seen as valuable by parents, students and teachers alike. The program value has been especially enhanced during the lockdown and school closure period when nationally there have been widespread fears on loss of learning outcomes for children across grades. The program has through its myriad efforts, enabled students to continue learning. This is especially important, given that due to the pandemic, eVidyaloka adapted not only its program but also its outcome indicators to include student attendance.

Furthermore, students are now in a position to compare and articulate the model of learning they would prefer going forward. The ability to discern and make a choice is a favorable outcome, arising out of efforts to induce behavior change at the student and parent level, particularly in relation to how the program adaptations are viewed and received by beneficiary stakeholder. In this regard, parent sensitization has led them to **become more engaged with their children's learning journey and as children speak more and more about their experiences at home, parents have a unique opportunity to see their children learn and grow.**

Key stakeholder interactions with the eVidyaloka leadership have revealed that there is an effort to define sustainability through a stakeholder capacitation perspective. There is a plan being developed to focus on training of teachers on the eVidyaloka platform in a way that they do not need class assistants in the near future. This model will be applicable to schools supported for over 4-5 years by LTI. Additionally, while a focused capacity building plan for school management committees is understood as a focus area, a structured plan to define the goals of the same are on the anvil, for the time being.

Recommendations

- eVidyaloka program may want to build on the foundational efforts that have ensured that children do not drop out and remain connected with the program. This is particularly important considering that children are moving grades despite disruptions in academic calendars due to the pandemic or allied factors. It will be useful to have visibility on learning levels of each child, across platforms so that a learning level appropriate plan of action can be put in place.
- Assessment of the skill levels of class assistants is important as their roles and expectations may see a change if another academic year gets disrupted. This will help eVidyaloka to plan a structured capacitation effort for their community cadre.
- It is important for eVidyaloka to define program sustainability from a system strengthening perspective. This can be done by identification and capacitation of key stakeholders like school management committees and parent groups to understand their roles and responsibilities towards the education of their children and to make the school a completely functional and effective unit. It will be useful to engage with SMC and parents on Right to education aspects, which makes the SMC responsible for the school development plan. In this way, a closer parent school engagement can be fostered which may contribute to greater teacher interest towards their teaching and nurturing responsibilities.
- LTI volunteers may benefit from a structured knowledge sharing platform as this will allow them to discuss ideas and approaches. It will standardize delivery styles across languages and states, while also enabling them to learn from each other.
- LTI may also need to define sustainability from such interventions in a time bound manner. The MOUs with partners on such projects need to clearly define a capacity building time frame which

will contribute to an exit plan as well. Given that education projects have a longer gestation period and may need greater investments towards broader stakeholder engagement, it will be useful to develop a comprehensive school focused program in the future. This will enable closer government collaborations and greater recognition of the efforts being made by the project.

1. About the Project

Larsen & Toubro Infotech (LTI) undertakes CSR initiatives across India, with particular focus on community empowerment and capacity building. Every year, LTI leverages technology as part of its Corporate Social Responsibility (CSR) endeavors, with major focus being given to education. Within the ambit of these initiatives, LTI seeks to provide quality education to children belonging to marginalized communities studying in rural government schools **and make them ‘future-ready’ by investing in digital education**. In line with this vision, LTI partnered with eVidyaloka- a public charitable trust working in the education sector, to launch and utilize the Digital Classroom Program. As a catalyst to connect children in remote villages in India with passionate volunteer teachers using virtual learning tools, thus addressing issues like shortage of teachers in government schools, enhancing pedagogical curriculums and improving learning experiences for students. The partnership has been ongoing since the last several **years and the assessment focused on the program’s impact during the pandemic year, while also trying** to understand the foundational aspects that enabled the program to continue in line with its objective. The Digital Classroom Program was implemented in 75 rural schools in Karnataka, Andhra Pradesh, Maharashtra, Tamil Nadu and Uttarakhand, with the aim to establish virtual classrooms for the 5th to 8th grade classes.

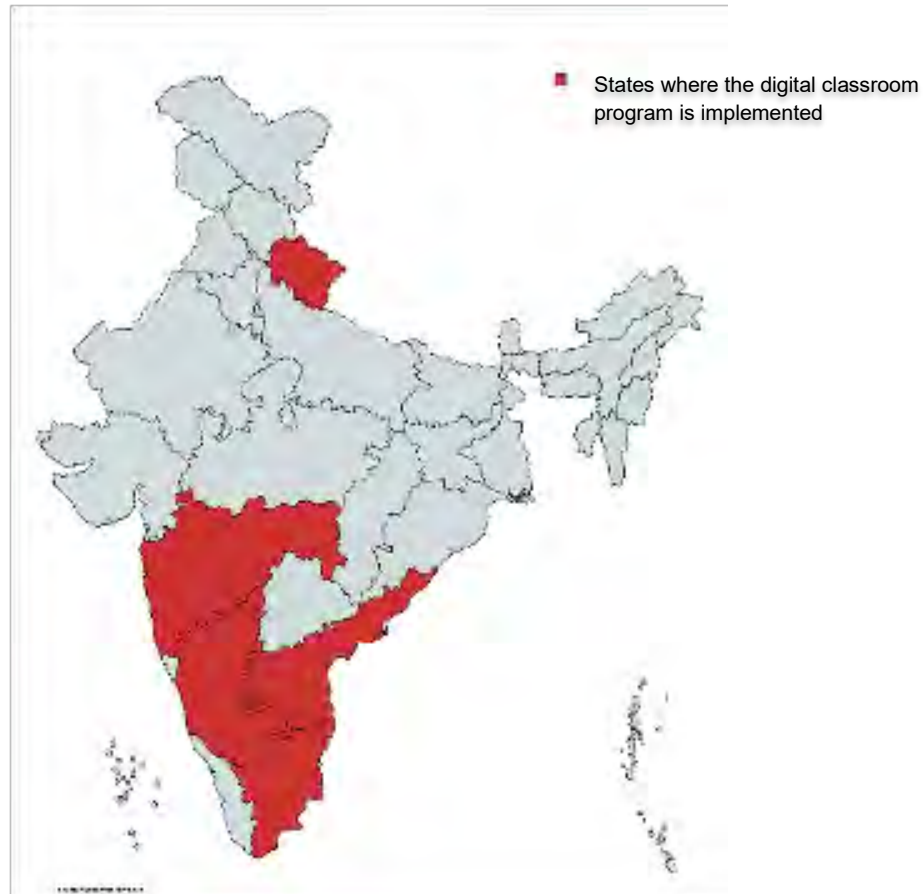


Figure 1 Geographical spread of the Digital Classroom Program

The primary objectives of the program were in accordance with the Sustainable Development Goals related to **“Quality Education and Reduced Inequalities”**. Herein, while the former focusses on ensuring

free, equitable and quality access to primary and secondary education; early childhood development and care for girls and boys, the latter promotes reduction of inequalities within and among countries, thereby focusing on empowering and promoting inclusion of all within the social, economic and political realms. In line with these goals, the program objectives included promotion of education attainment of children enrolled in government schools; ensuring regular school attendance; and increasing pass percentage while simultaneously reducing dropout percentage. The actualization of the program occurred to alleviate the shortage of teachers in government schools and enhance the overall learning experience for children.

On March 15, 2020, all schools were subject to national lockdown guidelines, owing to the rampant devastation caused by the COVID-19 pandemic. As a result, the initial offline interactions of the Digital Classroom Program, spearheaded by local facilitators and teachers came to an abrupt halt. This was furthered by challenges including inequality in access to digital infrastructure between urban and rural school children; inaccessibility to detailed student records; conversion of government schools to quarantine centers; and geographic remoteness of target locations across the country.

In lieu of such challenges, LTI, along with eVidyaloka, undertook pilot adaptations of their digital program to assess the feasibility of different models, in due consideration of the diversity of the on-ground situations during the pandemic. The eVidyaloka program therefore developed multiple outreach modes which reflected the specific digital exclusion scenarios across geographies. The launch of the Learn from Home (LFH) pilot in Karnataka in April 2020, and its success resulted in the first phase of the revised delivery approach. Focusing on foundational learning, revision of key concepts in English, Mathematics, Natural Sciences, Health and Hygiene, and appropriate usage of devices, the LFH multi-model delivery approach included live classes through smartphones and audio classes through keypad phones. Furthermore, the model has been supported by the Jupiter platform-an internal tracking and monitoring system- which has been used for verifying the progress status of LFH classes.

The success of the LFH model is reflected in its outreach, having engaged 3,277 students across 75 schools with the help of LTI volunteers¹, along with the support of 244 volunteer teachers, who undertook and completed learning sessions with over 3277 students, thus completing over 3,26,700 learning hours by March 2021. Furthermore, a combination of field cadres, including class assistant and delivery-coordinators have ensured effective communication with parents and local community members, thus providing a better understanding of the on-ground realities. For students lacking access to digital infrastructure in Maharashtra and Uttarakhand, the program outreach has been adapted to yet another model, with the LTI and eVidyaloka field teams reaching students through worksheets. The focus has been on foundational learning of three subjects, namely English, Mathematics and Science, with class assistants (CAs) being in charge of worksheet distribution, data collection and providing guidance to students. Similarly, for students in Dharwad and Andhra Pradesh, CAs have helped facilitate offline classes in the midst of COVID-19 restrictions, keeping in mind all safety and social distancing norms.

Given the geographical inaccessibility of several areas, LTI and eVidyaloka have also developed and successfully completed a pilot of the Teaching through Television (TTT) model, wherein air recorded videos have been developed in support with volunteer teachers to achieve learning outcomes for Science and Mathematics. Soft pilots across multiple locations have provided useful insights regarding program feasibility, outreach and accessibility, with a 22.9 lakh viewership as of March 2021.

¹ eVidyaloka Annual Report 2020-21

For effective monitoring of the program, eVidyaloka submits weekly, quarterly and yearly reports to LTI, providing information on student outreach, volunteer participation, and the achievement of and obstacles to learning outcomes. Regular parent-teacher meetings, as well as volunteer-student interactions are also used for gaining regular feedback and encouraging overall involvement of key stakeholders.

The illustrative below captures the progression of the program in light of pandemic and the shift in delivery model, the mitigation methods and finally the outcomes that have been seen. These aspects have been developed basis the assessment and the TTC team has used a mixture of qualitative and quantitative approaches to arrive at these conclusions.

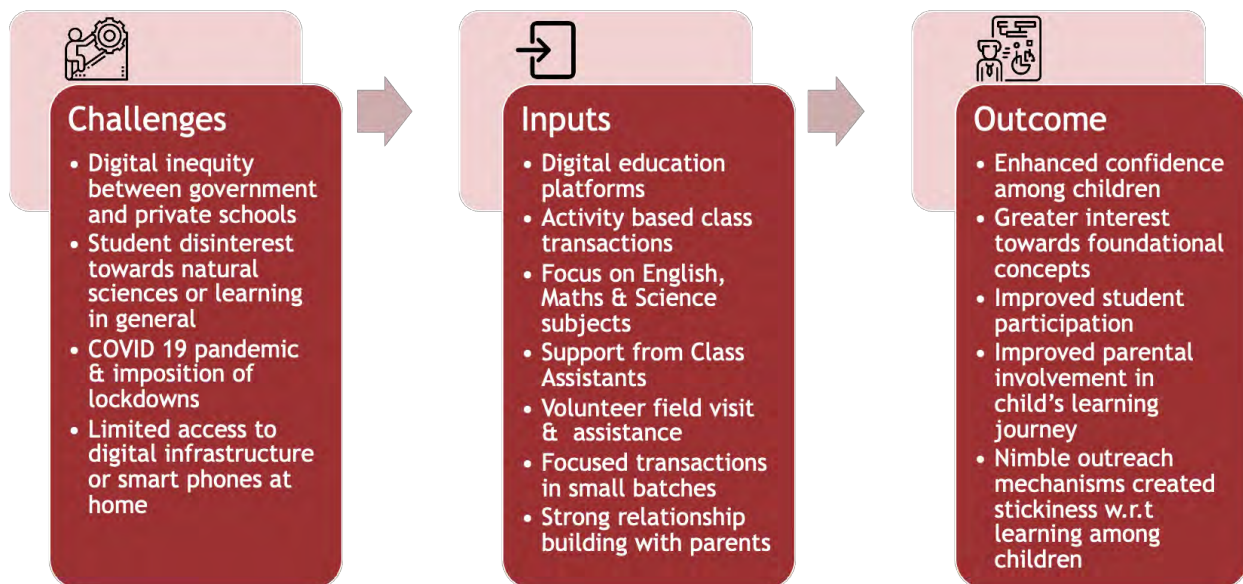


Figure 2 Intervention's Theory of Change based on Interactions and Reviews

2. Assessment Design, Approach and Methodology

This chapter expounds upon the assessment approach and methodology adopted for data collection and analysis, while also highlighting the overall scope and objective of the assessment conducted. The following sections will provide a comprehensive overview of the same.

2.1. Context of the Assessment

As mentioned above, the COVID-19 pandemic and its global impact led governments around the world to impose stringent measures to curb the spread of the virus. While the measures adopted differed as per the local context, most countries witnessed complete or partial closure of social, political and economic institutions, thus impacting every aspect of human life. Given these disruptions, and with the program having moved online last year, a completely virtual mode of data collection was adopted. The assessment design was of a mixed methods nature and both qualitative and quantitative parameters were explored to assess the impact/change the program was creating among the intended target group. All interactions were carried out virtually with children and parents, due to the schools remaining closed. At the later stage of the assessment when schools did open virtual focus group discussions with children in a school setting were carried out.

2.2 Assessment Design & Data Collection

The assessment design focused on gathering diverse perspectives from all major stakeholder groups **making the insight generation effort effective. Given the program's running duration and adaptations** made, stakeholder conversations have focused on adaptation and utility in times when schools stood disrupted due to the pandemic. The assessment design is therefore cross sectional and focusses on capturing perspectives of stakeholders and the adaptation each one of them have had to make in order **to ensure that children's learning journey** continues without disruptions. It was also important for the assessment team to understand if children have been able to see the value and the differentiated offering of the program.

The assessment followed key phases of literature review to understand the program's **genesis and adaptations** made. It was followed by identification and mapping of key stakeholders, followed by development of the assessment framework and the key research questions. The assessment tools were subsequently developed, tested and deployed. The assessment based on the stakeholders identified then focused on conducting structured interactions to obtain essential program perspectives.

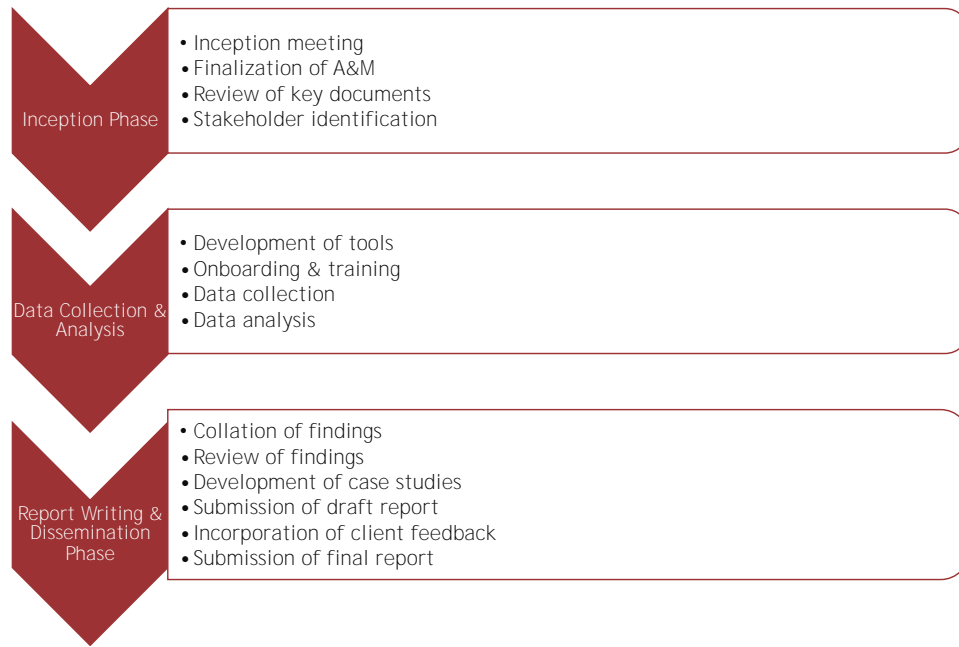


Figure 3 Steps undertaken in an impact assessment

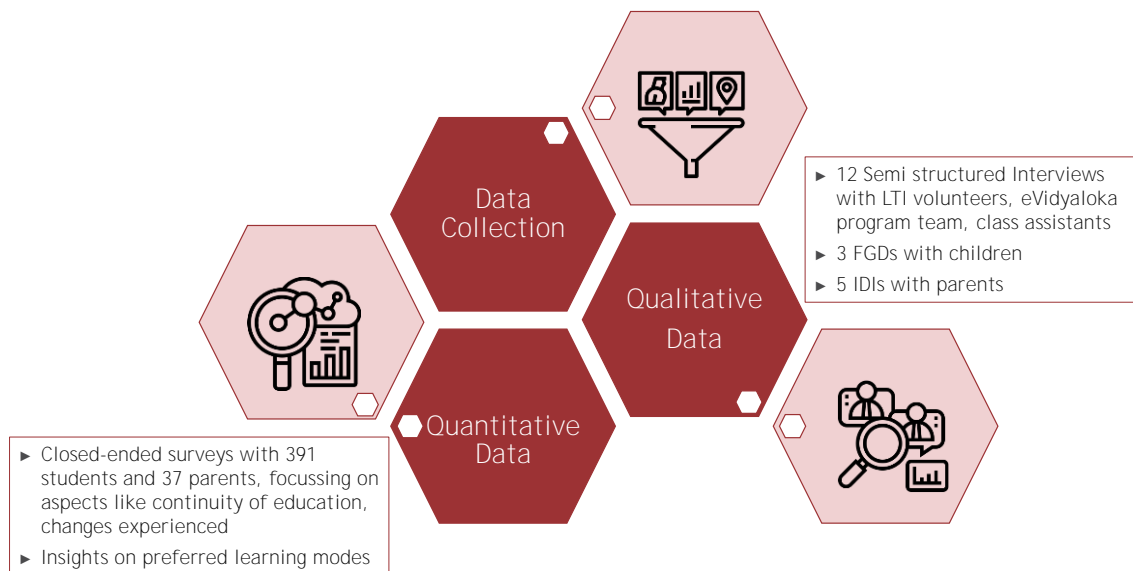


Figure 4 Data collection methods

2.3 Objectives

As part of the efforts to monitor and evaluate efforts towards digital learning, the objectives of the assessment were as follows:

1. Analyse the relevance, effectiveness, efficiency, impact and sustainability of the LTI eVidyaloka Digital Classroom Program, as adopted from the OECD DAC Network on Development Evaluation (EvalNet)

2. Provide insights and recommendations regarding the way forward, which enable the continuity of the program in the long run

2.4 Scope and Limitations of the Survey

Sampling Strategy: The assessment proposed to have a random multistage selection process for student interaction. However, the assessment team did not receive enough phone numbers of students to create a sampling frame. The assessment team would have ideally needed two to three times of the total number identified as sample for the study, from where the final sample could have been picked from. Hence the final distribution of the sample under assessment was driven by convenience and availability. It may therefore not be always representative of the actual proportion of children being covered state wise by the program. The assessment therefore focusses on providing aggregate program level insights and does not delve into state level program performance. In order to reach closer to the final sample numbers, the assessment team then coordinated with the eVidyaloka team to organise children at the school and conduct sequential interviews with them, when the planned sessions with the class assistants would take place.

The focus of the assessment was *not to comment on the learning outcomes of the children* but was primarily to see whether the program has continued to remain effective in terms of its ability to maintain connectedness with beneficiary students.

1. Finalization of the assessment area: The proposed sample of 400 stakeholders for quantitative data collection-including children and parents-was spread across the states of Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu and Uttarakhand. For qualitative interactions, 12 semi structured interviews were proposed with LTI volunteers, eVidyaloka program team and class assistants while 3 focus groups discussions were proposed to gain insights from student beneficiaries. 5 in depth interactions with parents were also carried out.
2. Online survey: Online closed ended surveys were conducted with 391 children and 37 parents, with focus on aspects like continuity of education, changes experienced, and insights on the preferred mode of learning. The online mode of interaction was necessitated due to continuing travel restrictions as well as closure of schools.

2.5 Target Group

The primary target group of this assessment were students belonging to the 5th to 8th grade classes, in government schools located in rural areas across the Karnataka, Andhra Pradesh, Maharashtra, Tamil Nadu and Uttarakhand. With the data being collected online, the distribution of the student sample differed across states, based on accessibility to digital infrastructure, phone calls getting through and available support of LTI and eVidyaloka field teams. The final student sample comprised of 391 students, distributed across states as shown in Figure 5.



Figure 5 Final Student Sample Distribution based on Geographic Location

Similarly, the above-mentioned factors also affected and guided the distribution of the final sample size for parents of children enrolled in said schools. While originally, a target of 30 quantitative interactions was proposed, the final sample included a total of 37 parents for quantitative data collection and 5 parents for qualitative interviews. Parent interactions were initially not a part of the assessment design but were brought in later especially in the case of children from class 5th who were found to be shy and would not speak up clearly over phone. In such cases parent perception of their wards was focused upon. In some rare cases if the children from higher grades were not available, then parent feedback was also captured, but these incidences were rare.



Figure 6 Final Parent Sample Distribution based on Geographic Location

2.6 Assessment Approach

The TTC team adopted a participatory, consultative and appreciative view of the assessment. This has been necessitated on account of the fundamental shift the program has had to make on account of the pandemic induced disruption. The participatory research aspect involved gaining key qualitative insights from local stakeholders, who have been associated with the program in varying capacities. The aim was to bring out the reality of the program-as understood by local participants-with particular focus on operational functioning, stakeholder involvement, and the overall challenges and opportunities. The particular approach was undertaken, in order to document realities from a local viewpoint, which would help assess, analyse and transform program policy and practice in the long run².

The assessment was carried out in a completely virtual format and phone numbers of parents whose children are being covered under the program were sourced, treated with the highest degree of confidentiality and were interacted with. This assessment was carried out using a structured closed ended questionnaire. Children who are in classes 6th, 7th and 8th were interacted with directly while those in class 5th were interacted with through their parents. In line with the mixed methods assessment design, the TTC team also conducted qualitative interactions with implementation partner, eVidyaloka as well **as the LTI team looking into the program's implementation. The objective was to understand the program evolution and to obtain both strategic and operational perspectives.** The assessment, both qualitative and quantitative was carried out across multiple states and through multiple stakeholder lenses, the program was interpreted, and the value delivered by the program was better understood.

2.7 OECD DAC Criteria

The Organization for Economic Co-operation and Development (OECD) is an international organization that works in the policy development sector. The organization, through its pool of expertise has defined six evaluation criteria under the OECD DAC Network on Development Evaluation (EvalNet), to include relevance, coherence, effectiveness, efficiency, impact and sustainability. These criteria are guided by two key principles, which include careful consideration of the evaluation purpose and the application of criteria for supporting high quality evaluation, thus provide a basis for determining the worth of an intervention³.

² Macbeth, S. (n.d.). Research and analyse. Participatory Methods | People working together around the world to generate ideas and action for social change. <https://www.participatorymethods.org/task/research-and-analyse>

³ <https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>



Figure 7 Key Indicators of the OECD DAC Criteria

3. Relevance

As part of this study, the relevance of the eVidyaloka program has been analyzed, based on achievement of program objectives despite pandemic restrictions; meeting the current needs of the target population and the continuous improvements and updates of the training modules used. Based on these factors, the overall relevance of the eVidyaloka program stems from its focus on ensuring that children enrolled in under-**resourced government schools have access to enhanced ways and means of learning. The program's** relevance is further strengthened by the manner in which it has ensured children remain connected with learning despite certain challenges and obstacles.

3.1 Target Group

The LTI eVidyaloka Digital Classroom, since its inception has focused its efforts towards addressing challenges faced by children enrolled in government schools in rural Karnataka, Andhra Pradesh, Maharashtra, Tamil Nadu and Uttarakhand. These children primarily belong to economically and socially disadvantaged backgrounds, residing in erstwhile remote areas with limited access to improved ways of learning. In terms of family background, the target beneficiary children are often left behind by their parents with other relatives, given that most parents are required to work as manual laborers and hotel workers in urban cities. Figure 7, as given below provides examples of socio-economic backwardness and geographical inaccessibility of certain regions, as part of this program⁴.

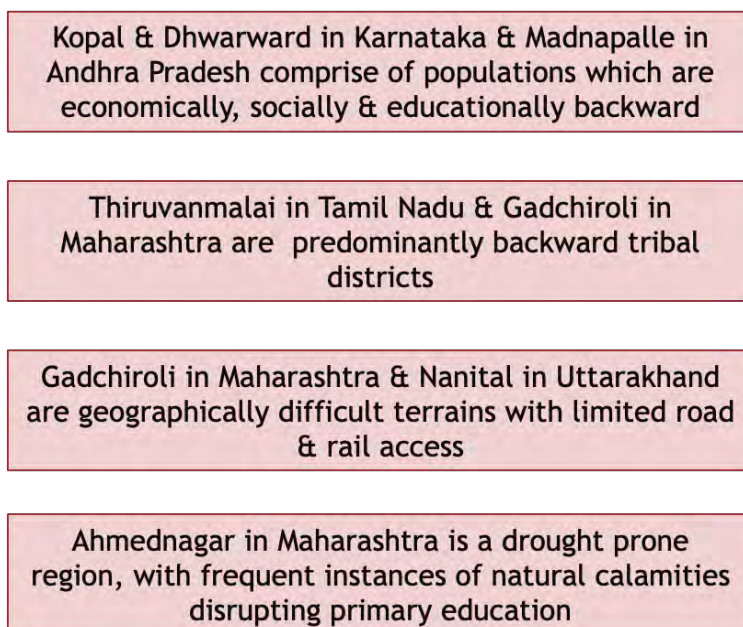


Figure 8 Examples of Socio-economic Backwardness and Geographic Remoteness

3.2 Covid-19 Pandemic

⁴ eVidyaloka Needs Assessment FY 2021

On 15th March 2020, schools across India were shut down with the onset of the COVID-19 pandemic, thus **leading to an initial “collapse of the whole educational system of primary and tertiary levels”**⁵. The lockdown particularly revealed the existing vulnerabilities of the education systems, further exacerbating the issues faced by schools going children, teachers, learning modules and infrastructural facilities. According to a UNESCO case study of India⁶, the closure of schools and the transition from offline face to face to distant online learning has unearthed vast inequalities in terms of capacity of teaching staff; learning outcomes; provision for digital infrastructure and access to technological inputs.

Contextualizing these challenges to the Digital Classroom Program, it was observed that while children belonging to urban schools were able to successfully transition to online classes, children belonging to rural areas were unable to do so, due to their socio-economic family background, limited availability of digital devices, inaccessibility to internet services, geographical remoteness and the conversion of government schools to COVID quarantine facilities.

With respect to access to phones, findings related to this assessment reveal that in Andhra Pradesh, there was significant lack of access to phones for both male and female students across all grades. On the other hand, in Karnataka, there was an evident increase in inaccessibility with grade progression seen for female students, with 83.3 % female students in grade 6 lacking access, while the same number coming up to a 100% for grade 9 female students.

Similarly, for access to televisions, findings reveal that for the female students in Karnataka, as part of the assessment sample, there was an increase in inaccessibility with grade progression, with 33% of grade 6 female students lacking access, this increasing to 46% for grade 9 students. Maharashtra has also shown gender skewness in this regard, given that for both grade 6 and grade 7 classes, male students had greater access to phones than their female counterparts. However, there was observed an overall decrease in inaccessibility with grade progression, with there being a 19% reduction in inaccessibility for male students and a 35% decrease for female students of grade 7. These are factual trends and could not be qualitatively validated. These trends need to be revisited at a later date to understand if there is any linearity about them.

In order to address these challenges, the LTI and eVidyaloka teams developed and implemented a multi-delivery approach, keeping in mind accessibility to digital infrastructure, geographical spread and remoteness and student ability to use digital devices. Through this approach, the program has been able to pivot itself into a digital delivery model to account for the pandemic induced disruption. This has been possible due to the revised program structure, involving a combination of learning models as shown below in Figure 8.

⁵ Shyam, T., & Das, S. C. (2021). *Impact of Covid-19 on education scenario and digital divide in India*. *Eurasian Chem. Commun.*, 700-705.

⁶ UNESCO. (2021). *India case study: Situation analysis on the effects of and responses to COVID-19 on the education sector in Asia*. <https://www.unicef.org/rosa/media/16511/file/India%20Case%20Study.pdf>

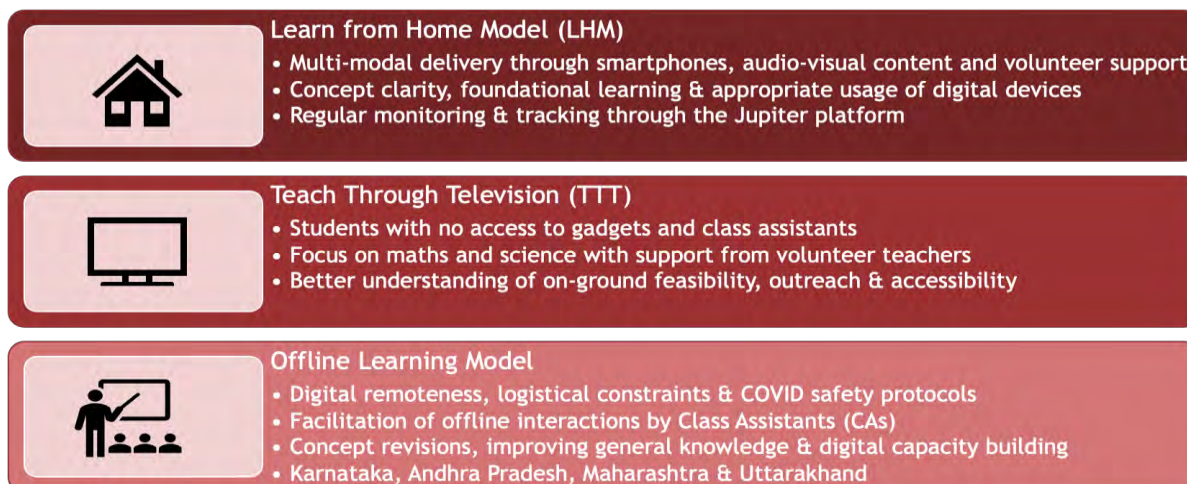


Figure 9 Delivery approaches utilized during the COVID-19 pandemic

3.3 Community Engagement & Field Cadres

Furthering the program adaptability, are staffing strategies of taking local personnel, maintenance of close contact with parents and the overall efforts of the dedicated field cadres, which have augmented the program relevance over the last two years. Efforts in this regard have included regularity of parent teacher meetings, robustness of feedback mechanisms and strong relationship building with parents and communities to maximize student engagement during the pandemic.

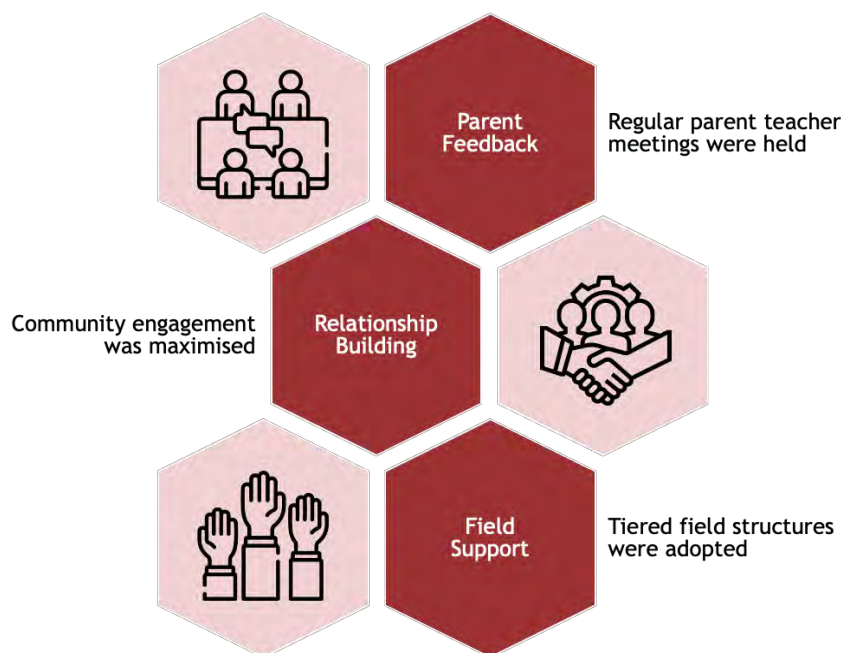


Figure 10 Key Cornerstones of Community and Volunteer Engagement

With respect to field cadres, a tiered program implementation structure was adopted such that it lent resilience to its implementation. The top-tier consisted of the eVidyaloka and LTI leadership, which was responsible for the overall supervision of the program operations and overseeing the training needs of class assistants. The program adaptations also increased participation at the community level, thus

deeming it an increasingly volunteer driven initiative. Including both the LTI and eVidyaloka field teams, as well as local community members, the volunteer cadres comprised both teachers and class assistants, who contributed to overall learning outcomes and program outreach.

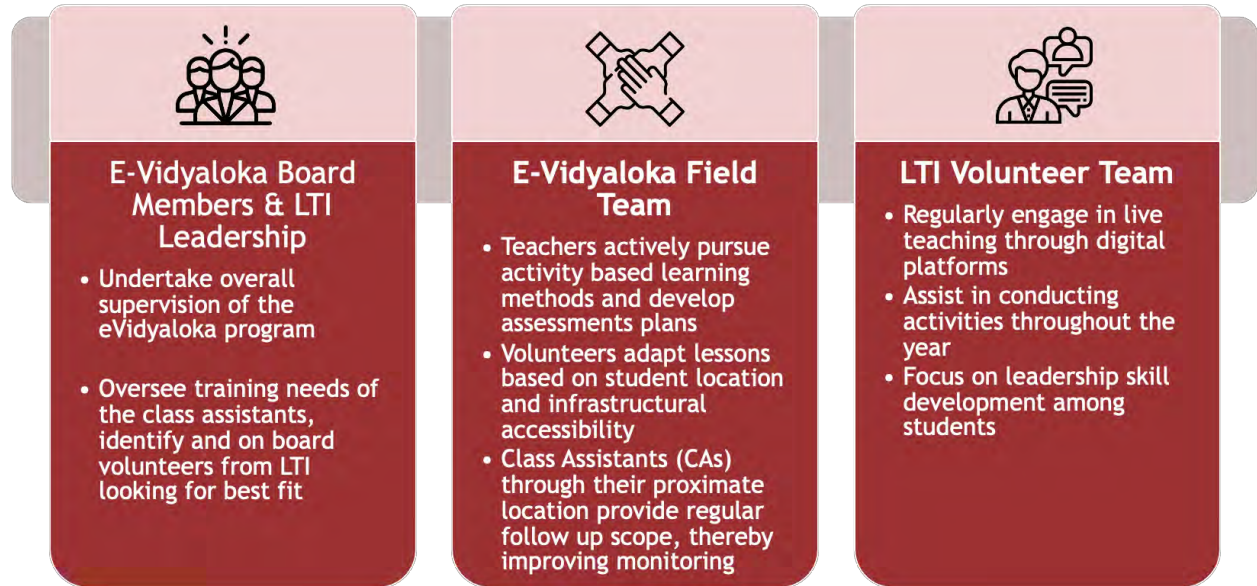


Figure 11 Tiered Implementation Structure

4. Effectiveness

Effectiveness of the eVidyaloka program needs to be seen in light of the ability of the program to continue delivering and whether the program was able to create value among the stakeholders. It is therefore important to review the foundational elements of the program. TTC had carried out an earlier assessment on the social return investment potential of the program and many of the findings from that report, have been validated through this assessment. This chapter delineates the overall effectiveness of the program in reference to operational efficacy; delivery of outcomes; engagement with parents and skill enhancement of the teaching staff. The sections below provide a detailed account of the same, with focus on the challenges faced throughout the duration of the program and the approaches adopted in order to address these challenges.

4.1 Multimodal Delivery Approach

According to the World Economic Forum, nearly 320 million children have been negatively impacted due to the COVID-19 pandemic and the transition to digital learning⁷. The primary factors of influence herein include but are not limited to lack of student access to online learning opportunities; limited digital resources within households; socio-economic and gender disparities related to access; and geographical remoteness.

In order to address these challenges, the LTI and eVidyaloka teams developed and implemented a pilot delivery approach called the Learn from Home (LFH) model, in Karnataka in April 2020, which resulted in the adaptation of the model in the other four states. Through this approach, the program was able to utilize smartphones and audio visual content to achieve learning outcomes in STEM based subjects, with regular monitoring and evaluation through the Jupiter platform-an internal monitoring platform devised to track internally selected parameters.

For regions without access to any digital devices, the program was adapted such that a dedicated team of class assistants made it possible to regularly hold offline classes with students in Maharashtra, Uttarakhand and Andhra Pradesh, while taking cognizance of government mandated safety protocols amidst the pandemic situation. Similarly, for students where larger field teams were available, it was possible to use worksheets as the primary mode of learning, particularly for solidifying concept clarity in Mathematics, English and Science. Experience with worksheets was however a mixed one, as class assistants were not always sure if the child actually filled it in or whether the child had any help. Nevertheless, for areas where there was no option and especially in the initial days of the disruption, worksheets were found to be crucial.

Yet another phase of adaptation was carried out for regions located in severely remote locations, with complete lack of access to digital inputs and availability of field cadres. Herein, multiple soft pilots of the Teach through Television (TTT) model were completed, with support from volunteer teachers who in partnership with the implementing agencies developed and aired recorded material through televisions. The pilots also provided a better understanding about the on-ground situation, long term feasibility and accessibility, having achieved a viewership of 22.9 lakh students, **beyond the project's** intended geographical outreach, by March, 2021.

⁷ World Economic Forum. (n.d.). How COVID-19 deepens the digital education divide in India. <https://www.weforum.org/agenda/2020/10/how-covid-19-deepens-the-digital-education-divide-in-india/>

4.2 Procedural Challenges

Despite the implementation of the aforementioned delivery approach, the program has been subject to continuous challenges including lack of access to digital infrastructure; delay in procedural approvals; discrepancies in lockdown measures across the country; geographical spread of children and lack of information regarding the on-ground situation. Prior to the development of the LFH model, the class assistant cadre, like that in Uttarakhand, took the initiative to collect contact information of parents, in order to understand the availability of mobile phones and televisions and verify the feasibility of conducting online sessions with children.

Furthermore, qualitative stakeholder interactions with on-field class assistants provided key insights on challenges faced while transitioning to online learning modules. On several occasions, children were unable to join virtual classes due to lack of access to digital resources; inadequate network connectivity in villages; and a resource constraint given that most parents took with them the only mobile devices available during their work hours. Furthering these challenges was parent hesitancy in terms of providing their children access to smartphones for attending classes. In states like Maharashtra and Tamil Nadu, several other obstacles were faced, including lack of awareness among parents and students regarding online education; lack of teacher support and irregularity in electricity supply.

In cases where children lacked access to either phones or televisions, careful planning allowed for sharing of devices, thus maximizing outreach of online classes. Similarly, to alleviate parent hesitancy, class assistants often held television-based classes within their homes, while following proper safety protocols. Parents were also engaged through informative interactions, thus making them knowledgeable about the benefits of online learning. This allowed effective usage of parental locks on mobile devices, which would **provide access to children to engage in online learning, while also reassuring parents about their child's safety.**

Thus, the eVidyaloka team, in association with LTI volunteers was able to sensitize parents on the need to make alternate modes of learning available to children. They were able to align the class schedules based on availability of mobile devices at the house, especially since adults of the household had to leave for work. This required significant coordination and liaising which was made possible due to the community level cadre of the program.

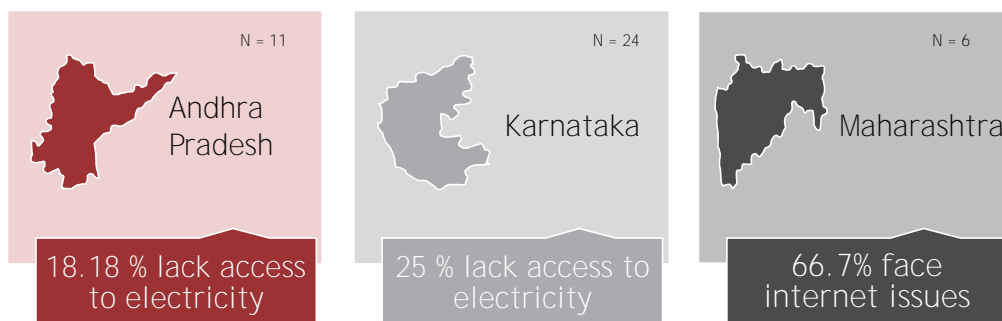


Figure 12 Access status across key building blocks of Digital Infrastructure

4.3 Learning Outcomes

According to a UNESCO-World Bank Report ⁸, the global disruption of educational systems caused by the COVID-19 pandemic is without parallel, with school closures affecting more than 1.6 billion learners. With respect to India, the negative impact of the pandemic on learning during the year 2020-21 has translated into a loss of approximately 3 months of the full academic year⁹. This entails serious implications for learning outcomes, as highlighted by a UNICEF report¹⁰, which states that while 60% students in India have used at least one form of remote learning, nearly 80% have reported that they are learning less or significantly less than they would through offline mediums of teaching.

According to the eVidyaloka monthly report for the month of February 2021, nearly 1,829 sessions were completed through the LFH class delivery approach, covering over 3,000 students. The annual report of the same year further highlighted the delivery of learning outcomes, with students witnessing a 30-50% gain in learning in Mathematics, English and Science. These gains were possible due to focus on sub concepts using real life examples and the individual attention provided by teachers to smaller batches of students. Given the virtual nature of the assessment and difficulties in conducting learning level assessments, these learning outcomes could not be verified by the assessment team.

While attention was given to conventional learning outcomes, the Digital Classroom Program went beyond to target a more holistic development of its beneficiaries. Here, the second edition of the V-Gyana quiz competition is important, which was successfully conducted in 2021, with over 1,750 participants hailing from Andhra Pradesh, Tamil Nadu, Telangana, Jharkhand, Karnataka and Maharashtra. Further, a Leadership Curriculum (LC) program was planned for students having access to smartphones, with the aim to direct students towards goal setting and confidence building. This program has been well received by children and LTI volunteers who know about this effort see a lot of value in it and would like it to be scaled up across schools.

4.4 Program's social return on investment

Commencing with 5 schools as key beneficiaries, the LTI, eVidyaloka Virtual Classroom program engaged with 75 schools across 5 different states by 2020, benefitting nearly 5,500 students in the year 2019-20. The dedication and continuous efforts of LTI and eVidyaloka teams have allowed the program to effectively achieve its main objectives including mitigation of shortage of teaching staff and reducing dropout rates of government schools in rural areas. The program has also improved the knowledge, confidence, and communication skills of students, whilst also instilling in them a sense of interest and discipline towards education. An SROI exercise conducted by Think Through Consulting Private Limited, in 2020 further provides a quantifiable benefit analysis of the program.

⁸ UNESCO, & World Bank. (2021). *The state of the global education crisis: A path to recovery*. <https://www.unicef.org/media/111621/file/%20The%20State%20of%20the%20Global%20Education%20Crisis.pdf%20.pdf>

⁹ Jena, P. K. (2020). *Impact of pandemic COVID-19 on education in India*. *International journal of current research (IJCR)*, 12.

¹⁰ UNICEF. (2020). *Rapid assessment of learning during school closures in the context of COVID*. UNICEF India Country Office. <https://www.unicef.org/india/media/6121/file/Report%20on%20rapid%20assessment%20of%20learning%20during%20school%20closures%20in%20context%20of%20COVID-19.pdf>

According to the study, the Virtual Classroom program has been successful in creating value for its beneficiaries, such that for every unit of currency invested by LTI, a potential for creating 3.21 units worth of socio-economic value per beneficiary has been achieved. The analysis further reveals that the program has created more value than can be measured quantifiably. This includes increase in motivation to learn, an aspect which has been validated by the current assessment as well. In case of the field cadre, it has been documented that the program has created positive outcomes for volunteer career opportunities whilst simultaneously impacting happiness, social skills, and health conditions, such that it has brought additional value to volunteering individuals. Qualitative interactions conducted with eVidyaloka on ground team validates an increase in skill and confidence, especially as the program has continued to remain functional in an otherwise disrupted year. Continued efforts throughout the COVID-19 pandemic, have allowed for continued value addition, thus benefitting target beneficiaries and stakeholders, in terms of learning outcomes; social and mental well-being and providing a means to earn a livelihood in the long run. These aspects identified by the SROI assessment also testify to the strong foundation the program has built upon and has enabled its quick transformation to a completely virtual mode, while retaining its connectedness.

5. Efficiency

The efficiency of the LTI eVidyaloka program is viewed from the lens of local manpower used for ensuring effective program implementation. Factors taken into consideration include effectiveness of local volunteers and class assistants in mobilizing and sensitizing the local communities towards program objectives and liaising with key stakeholders and beneficiaries to conduct adapted versions of the program.

Here, the first element of assessing program efficiency is the hiring strategy adopted within the program, particularly with respect to local field cadres. Focusing on community engagement and participation, the LTI eVidyaloka teams emphasized upon identification, recruitment and training of local community leaders and members. This would result in strong relationship building, ensure access to students and parents during the lockdown period, and enable implementation of various alternate models for maximizing learning outcomes.

As seen in section 4.1, the continuous challenges faced in implementing the program, owing to the disruptions caused by the COVID-19 pandemic have been met with regular adaptations of the program delivery models. These have varied, depending upon factors like access to digital infrastructure and electricity; willingness of students and parents; and developing on-ground situations during the pandemic among others.

A crucial step towards the success of the program during this turbulent period has been the efforts of local volunteers, to collect, maintain and regularly update the household database, with focus on information regarding availability of digital devices for students; digital resource sharing intricacies between household members; and the specific local needs and challenges in terms of program adaptation and implementation.

**A lot of children did not have smart phones at their houses, some did not have television. In such cases it was difficult to plan sessions. We used to identify these children and make them attend classes through shared devices or televisions. Since it was covid time, we had to request parents who had TVs at their houses to allow other children to also come and attend these classes. We faced a lot of resistance before, so used to call them to our house itself.
~Class assistant, TamilNadu**

Similarly, the close proximity of class assistant and volunteer teachers, having risen from within the local communities itself allowed for effective student mapping, understanding of parent concerns and partnering with local enforcement agencies to carry out necessary interventions. This ensured program continuity through an omni-channel approach, thus leading the program to not incur major costs, but rather leverage existing assets in the field.

In September 2020, we decided to shift online classes from CA home to an open space i.e. a temple nearby student residences, which would allow students to travel safely without any problem. Initially we didn't get permission to run the classes in the temple, but after much discussion and convincing, the local community & SDMC members allowed us to run the classes and we even got permission from parents to allow students to attend the online classes while following all safety precautions.

~Class assistant, Karnataka

Efforts of the local volunteer groups were further highlighted by their personal involvement in ensuring maximum access for students to attend classes. From lending their own homes for taking classes to holding door-to-door house visits, the field teams managed to extinguish student-parent concerns, provide information on revised delivery approaches, and engage students in LFH and TTT classes.

The eVidyaloka field teams even provided occasional mobile recharge facilities to ensure that student learning would not halt at any point. Such measures were undertaken in a manner which would not create dependency upon parents, but rather would sensitize parents and students towards such gestures and **encourage them to participate in the program's scholastic interventions**. These served as useful indicative efforts.

In order to conduct online classes, house visits had to be conducted to explain students about the LFH-Live classes, and with 2 weeks of continuous follow ups, we got 5 students online and started Live-LFH classes for the 8th grade Students. We were also able to start LFH-Reading classes for the group of students by following COVID-19 norms.-Class Assistant, Andhra Pradesh

Overall, the eVidyaloka team was able to sensitize parents on the need to make alternate modes of learning available to children. They were able to align the class schedules based on availability of mobile devices at the house, especially since adults of the household had to leave for work. This required significant coordination and liaising which was made possible due to the community level cadre of the program. Continuity of the program in such a manner will serve to be crucial in ensuring effective use of social capital at the household and community level, thereby acting as a supplementary catalyst to achieving program learning outcomes¹¹.

¹¹ Iyengar, R. (2021). *Rethinking community participation in education post Covid-19. Prospects*, 1-11.

6. Impact Case Studies

Conventionally speaking, education for decades has been utilized as a stimulant of social change. This belief system stems from various theories related to human development, which have emphasized human welfare, development of skills and knowledge, and socio-economic equity. Based on such belief systems, nation states across the world developed their education system, in line with Article 26 of the 1948 UN universal declaration of human rights, in which the right to free and compulsory education for all was recognized¹².

I have nearly 22 years of experience as a math teacher. During COVID, I had to sit at home for over a year, with nothing meaningful to do. While looking for opportunities, I came across the eVidyaloka program and submitted my resume to join as a volunteer teacher. I wanted to use the skills that I had acquired over the years and apply them to help people that required help. The program gave me a platform where I could support the education of children belonging to rural areas. The program also gave me a renewed sense of purpose in my life. My only suggestion for the program is to try and hold more regular class interactions between the same set of students and teachers, so that they are able to grasp the concepts more clearly.

-Volunteer Teacher, Tamil Nadu

Within India, the education system has emerged as a “great movement, both in terms of resources allocated and the number of persons involved, these including teachers, students and the administrators”. However, over the years, the shortfalls of the conventional education system in the country have come to surface. These include deprived pedagogy models; fiscal resource constraints; exclusion of modern digital infrastructure; inadequacy of teaching facilities; and excessive focus on rote learning, which curbs original thinking and creativity among students¹³.

It has been four years since I joined the program as a math teacher. Previously I was an army schoolteacher, where I gained nearly 30 years of teaching experience. Once I retired, it felt like my teaching days had come to an end. Because of this program, I got the opportunity to continue teaching children. While I was able to teach children a lot of concepts, the program allowed me to learn how to conduct online interactions. It even provided a more engaging and fun for me to interact with children through games and puzzles. I did face some challenges because of language barriers in the initial months, but gradually, with the help of online lessons and class assistant help, I was able to overcome this challenge.

-Volunteer Teacher, Tamil Nadu

In this context, the impact made by the Digital Classroom Program has been analyzed, based on factors including continuity of education; student learnings and perspectives; preference of teaching methods; and sensitization of parents and community members. The following sections provide an in-depth overview of the same, including both intended and unintended impact points.

¹² Chimombo, J. P. (2005). *Issues in basic education in developing countries: An exploration of policy options for improved delivery*. *Journal of international cooperation in education*, 8(1), 129-152.

¹³ Kapur, D. R. (2018). *Problems in the Indian Education System*.

6.1 Program Outreach

Impact made by the Digital Classroom Program can be linked with its effectiveness and efficiency, in lieu of the challenges arising due to the COVID-19 pandemic, and the efforts towards mitigating the same. As seen previous sections, the LFH model has been a key instrument in ensuring the continuity of the program. While the initial pilot proved the success of using live classes for meeting learning outcomes, it simultaneously revealed certain limitations, especially with respect to student lack of access to smartphones. To mitigate this challenge, the LFH model was transformed into a multi model delivery approach, in order to ensure maximum inclusivity. This led to an increase in outreach from 1 school in April 2020, to nearly 200 schools in March 2021, as presented in the Annual Report 2020-21.

Similarly, the TTT soft pilots, were initiated across multiple districts, in partnership with a third-party, which helped in the identification of and coordination with local operators in airing recorded videos on STEM based subjects. This led to an increase from a 11.79 lakh viewership in November 2020 to a 22.9 lakh viewership in March 2021. Further efforts are being made by eVidyaloka, to understand and prepare for how the model can be continued with a more focused approach. Apart from class transactions, secondary activities like the V-Gyana quiz competition allowed furthering of student outreach to states like Jharkhand and Telangana, which are not part of the program's intended target states.

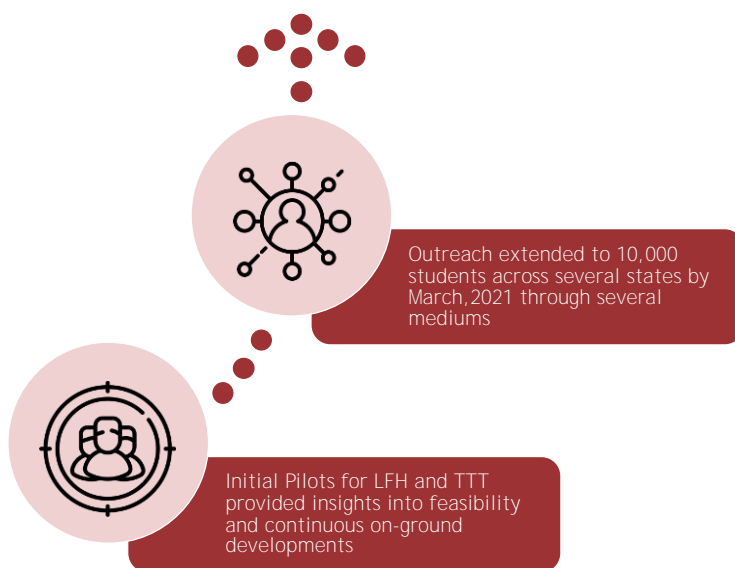


Figure 13 Student Outreach as on March, 2021

6.2 Concept Clarity

Proponents of distance education argue that it is better than conventional offline modes of teaching, owing to the ease with which students can access content at their own pace. For instance, in case of recorded lectures, students can pause and rewind the parts that they find difficult to understand in the first attempt, thus allowing them to absorb knowledge in a more convenient manner¹⁴.

¹⁴ Hassenburg, A. (2009). Distance education versus the traditional classroom. *Berkeley Scientific Journal*, 13(1).

In accordance with these beliefs, Figure 12 reveals that nearly 74% of the student sample was able to understand concepts more easily, as compared to physical classrooms. In the states of Maharashtra, Karnataka & Tamil Nadu, female students belonging to 7th, 8th & 9th grades significantly benefited from the ease of learning provided through audio-visual content, worksheets & teacher explanations in comparison to their male counterparts. Conversely, for male students located in Uttarakhand, the various modes of learning proved to be more beneficial in comparison to female students. This gender differential however requires further analysis to understand the causal effects.

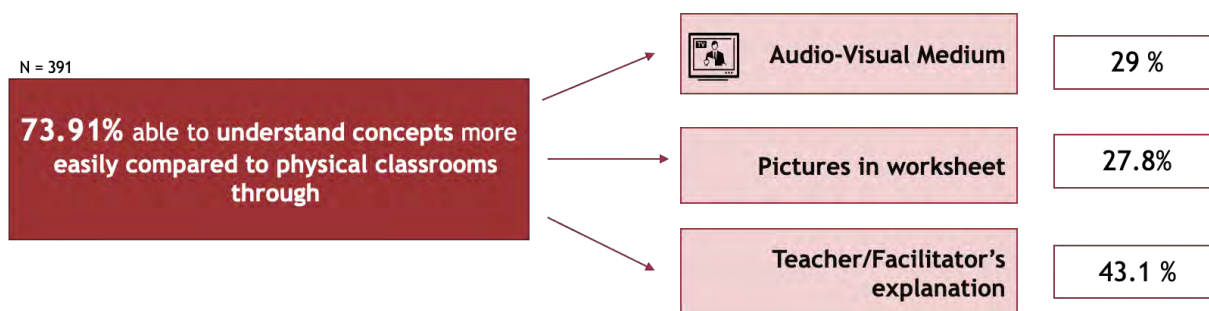


Figure 14 Concept clarity through Different Mediums

Looking at these findings from a critical lens, it is also plausible to argue that student awareness and reflection has been vital, for them to be able to compare pre COVID offline learning with the distant learning models adopted as part of the program during the COVID pandemic. It is through such a comparative exercise that is important to recognize the importance of students as codrivers of the Digital Classroom Program in the long run.

6.2 Student Interest and Initiative

A hallmark of any education program is its ability to achieve desired learning outcomes, while simultaneously building up student confidence and interest. It is the latter elements that are highlighted in this subsection. According to the findings presented in Figure 13, nearly the entire student sample feels more confident in answering questions in class. This not only demonstrated the improved learning abilities of students, but also their ability to overcome hesitancy in attempting to participate in the classroom.

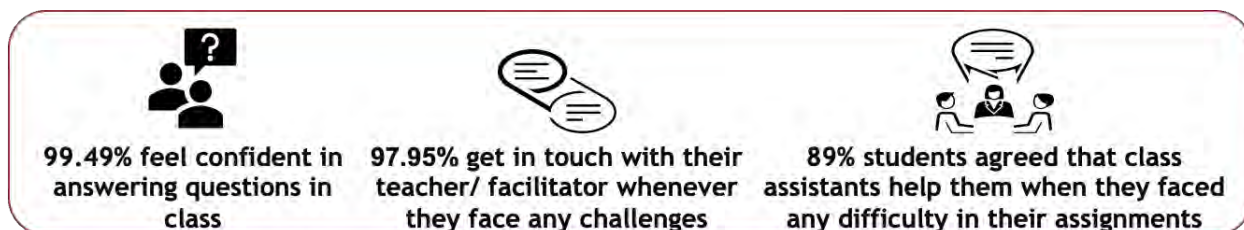


Figure 15 Student perception towards program impact

Similarly, almost 98% of the sample admits to getting in touch with teachers/facilitators when they face challenges. This finding yet again highlights student initiative to maximize on the learning opportunities available to them within the program implementation structure. Further insights are provided in the next subsection regarding the impact made by class assistants and teachers in engaging students.

Children have become very excited about studies. We felt that when schools resume there would be a lot of catching up to do, but children have remained engaged. We are grateful to the support from e vidyaloka.
~Class teacher, Uttarakhand

Another parameter which is important to understand the impact made upon students is through their performance in assessments. This is visible through Figure 14, through which it is evident that over 80% of both male and female students belonging to the sample have shown an improvement in conceptual understanding and application of educational learning in their assignments.

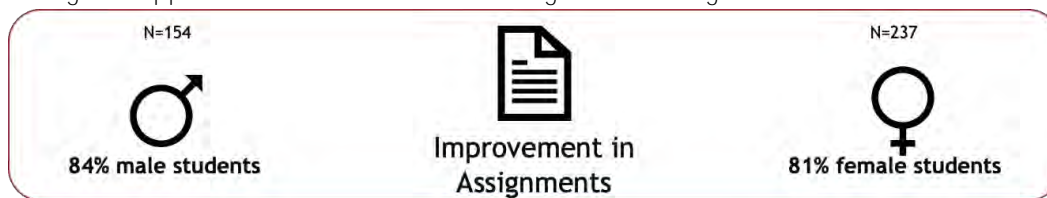


Figure 16 Gender-wise performance in assignments

6.3 Class Assistant Approachability

As seen before, the class assistants have been crucial in verifying the feasibility of and actualizing the dissemination of the program throughout the pandemic. While during the pre-COVID period, class assistants were merely responsible for interfacing in some areas, their roles and responsibilities changed and rather increased manifold, such that they were the key drivers in rapport building at the community and household level. Even at the student level, as seen in Figure 13, 89% of the student sample agreed that class assistants provided their guidance and aid during assessments.

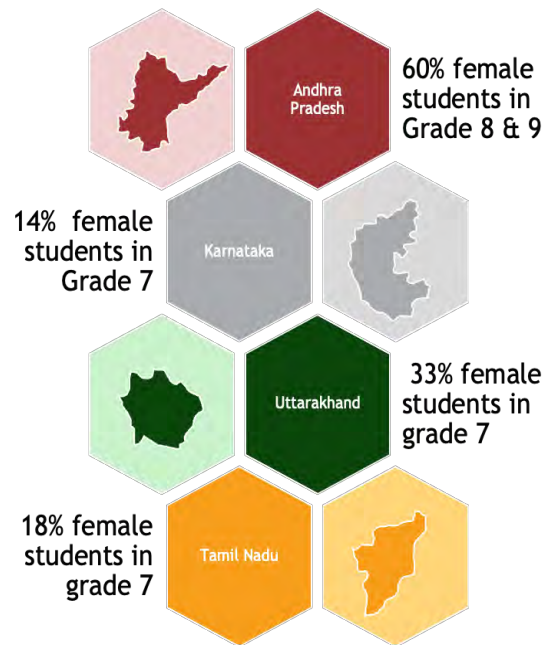


Figure 17 Girl child view on class assistant inapproachability

Some concerns did emerge in this area, particularly with respect to female students, as seen in Figure 15. Across various states, female students of grades 7, 8, and 9 argued that class assistants were inapproachable when it came to the concerns and challenges faced by them. Despite this gender differential, a holistic view of class assistant involvement, based on the above findings and in-depth qualitative interactions with various stakeholders does reiterate the importance of the role played by class assistants throughout the duration of the program.

6.4 Volunteering and Community Engagement

Adding to the previous subsections, the significance and impact of the Digital Classroom Program also finds their basis in the volunteering network that has been established and continuously developed throughout the last two years. As suggested by the eVidyaloka monthly report of February 2021, 244 volunteer teachers helped complete a total of 1,829 sessions through the online LFH model across various batches, thus benefiting around 2,944 students and with almost 80,560 child learning hours.

Herein, while the impact of volunteer engagement upon program implementation comes out clearly, it is important to highlight some other critical nuances of the same. A key impact point within volunteer engagement has been the possibility for retired teaching professionals and people with a passion for community service to enroll themselves as volunteer teachers. This includes both eVidyaloka and LTI volunteers, the latter coming up to 65 individuals over the last year.

‘I always wanted to teach children and wanted to make some time. The e-vidyaloka program provided me that platform and I was able to relive my dream to teach children. I prepare diligently for the classes, look for examples and make presentations that I hope will help children the most’

~LTI Volunteer, part of the program since 3 years

Inclusion of community members also has significance in lieu of the far-reaching effects of the pandemic upon mental, emotional and physical wellbeing. For many individuals, COVID-19 has proved to be a period of unemployment or lack of gainful employment, thereby adding to the existing perils of everyday life. Under such circumstances, the volunteer network of the eVidyaloka program provided a fresh sense of purpose for many, allowing them to not only engage in meaningful community service, but also engage themselves in meaningful lifestyle choices. This has also provided impetus to both local and external community members to adapt this program as their own, thus bringing about an involvement on a personal level.

My husband had a work related transfer, because of which I had to sit idle for more than a year. My son was looking for opportunities for me when he came across the eVidyaloka program. I submitted my resume and after going through an interview round I was shortlisted. I then went through one orientation where I was given a session on how to take a class on Skype and Google meet and was taught how to conduct online models. I was depressed since I had to sit at home for 1 year but due to this program I feel better, especially since I am able to help children.
~ Volunteer Teacher, Tamil Nadu

6.5 Parental Sensitization and Involvement

As per a Government of India report on digital education, the role of parents is crucial in bridging the gap between digital devices and children, in order to optimize the implementation and success of online learning¹⁵. Keeping this in mind, eVidyaloka class assistants ensured that through regular communication and rapport building, parents of beneficiary students were able to grasp the importance of online education during COVID-19.

A key challenge in this area was parent hesitancy in allowing access to digital devices to their children to attend online classes. This was possibly due to concerns surrounding excessive use of such devices, threat of exposure to explicit and harmful content, visual health of children and the limited number of digital devices present in the household. Through the dedicated efforts of field volunteers and class assistants, such hesitancies were removed with utmost patience and understanding, thus allowing parents **to become more involved in their children's digital education.**

We did not observe any difference in attitude among parents when it came to giving children access to their phones. We trained parents on parental locks so that children can pursue safe browsing. This boosted confidence and today we don't see children being denied access to phones.
~Class assistant, Uttarakhand

Further parental concerns were related to access to basic infrastructure, which would hamper their **children's formative learning years.** Figure 16 reveals the various challenges faced by households in

¹⁵ Department of School Education and Literacy. (n.d.). PRAGYATA- Guidelines for Digital Education. Ministry of Human Resource Development, Government of India.
https://www.education.gov.in/sites/upload_files/mhrd/files/pragyata-guidelines_0.pdf

providing access to the virtual classroom, this ranging from erratic internet services; unaffordability of internet; irregularity in power supplies; and the lack of knowledge regarding usage of digital devices.



Figure 18 Challenges posed to Online Learning as per Parents

Despite the above challenges, parents observed significant developments of their children. Figure 17 provides valuable insights in this regard. It is evident that over 20% of the parent sample saw a positive impact on their child due to this program, especially with respect to interest in studies, performance in assessments, building up of curiosity towards learning and overall willingness to discuss and deliberate upon concepts. The continuous sensitization of parents and the observable difference in child development has led them parents to become more engaged and interested in their child's education.

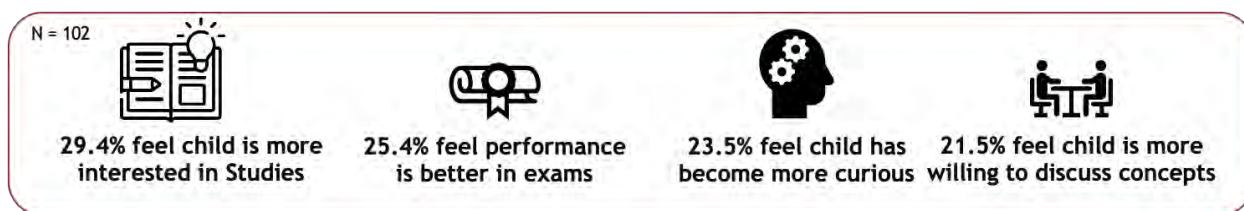


Figure 19 Parent perception on Child Development and Learning

'I did not take much interest in my child's studies, but now I am very curious when my child sits and does all his school work in the online class. He takes a lot of interest and has become very responsive at home as well'
 ~Parent of a Child studying in class 7th, Tamil Nadu

6.6 Student Preference

Concluding the section on program impact, this subsection provides valuable insights into student preference towards certain learning models, which have been reviewed and analyzed as part of this study. As per Figure 18, around 25% of the student sample will prefer a traditional classroom environment as their go to source of learning, while almost 5% will prefer using audio-visual mediums to receive educational content on a regular basis. What is most interesting is that a majority of the sample, i.e., nearly 70% will prefer a blended mode of learning-involving both offline classroom and audio-visual interactions as the way forward, regardless of whether the COVID-19 pandemic becomes manageable in the long run.

Here, it is important to note that this 70% sample includes 20% students in both Karnataka & Maharashtra who lack access to phones, as well as 8% and 27% students in Andhra Pradesh and Maharashtra respectively, who lack access to televisions. This is indicative of the predominance of preference over

access, which can be explained by research done on student preferences, revealing that learners now prefer a blended learning environment for several reasons. This is primarily due to the complementary nature of a blended model, which provides access to the best features of both face to face and online learning, including access to peer level interactions on one hand and availability of unlimited web-based resources on the other¹⁶.

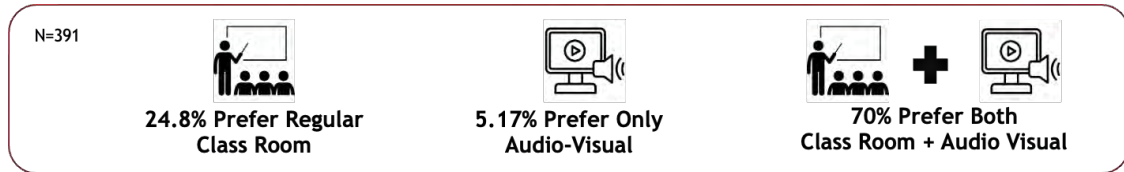


Figure 20 Student preference on Teaching Methods

¹⁶ Huang, Q. (2016). Learners' Perceptions of Blended Learning and the Roles and Interaction of f2f and Online Learning. *Ortesol Journal*, 33, 14-33.

7. Sustainability

Sustainability of social development programs needs to be seen in terms of the stakeholder ownership of the program, perception of value the program brings in, ability of stakeholders to discern the differentiated program offerings and a dotted line linkage between the program and its end objectives. Seen from this lens, the assessment has revealed that the program is seen as valuable by parents, students and teachers alike. The program value has been especially enhanced during the lockdown and school closure period when nationally there have been widespread fears on loss of learning outcomes for children across grades.

The program has through its myriad efforts, detailed in previous sections, enabled students to continue learning. This is especially important, given that due to the pandemic, eVidyaloka adapted not only its program but also its outcome indicators to include student attendance and level of achievement of learning outcomes. Furthermore, students are now in a position to compare and articulate the model of learning they would prefer going forward. The ability to discern and make a choice is a favorable outcome, arising out of efforts to induce behavior change at the student and parent level, particularly in relation to how the program adaptations are viewed and received by beneficiary stakeholder. In this regard, parent sensitization has led them to become more engaged **with their children's learning journey and as children speak more and more about their experiences**, parents have a unique opportunity to see their children learn and grow.

The assessment has highlighted gaps in access to digital devices but at the same time there are instances of parents ensuring that they are able to make devices accessible and class assistants going out of their way to find ways to ensure no child gets left behind. School management committees in places have taken a fresh look at the new roles they might be expected to play as covid induced disruptions become the norm. We are already seeing instances of SMCs and other parents encouraging each other to ensure that children remain connected with the program.

The volunteer teachers and the LTI volunteers are crucial stakeholders in the program. Their pro bono efforts and the amount of pre class work they put in to ensure that they are able to deliver their best to children is commendable. Class assistants have seen their digital skills getting augmented and in due course of time some may even become qualified teachers. Further capacity building initiatives are being planned by the eVidyaloka leadership, in consultation with LTI. Herein, the main focus will be to stimulate an upscaling of volunteer field teams, in terms of familiarity with the online platforms like Google meet and the eVidyaloka app content; volunteer representation during class interactions; and building up of volunteer communication skills to improve feedback mechanisms. These efforts will be part of the larger objective of ensuring a personalization of the program at the volunteer level, thereby making them aware of their importance in the overall program operation and sustainability. **The program's impact** will then be felt by students outside the immediate catchment area as well.

Key stakeholder interactions further reveal that efforts are being undertaken to map and identify several initiatives to improve program sustainability. These include teacher trainings on the usage of the eVidyaloka app in order to bridge the existing knowledge gap; review of infrastructural asset ownership modalities and usage within schools; development of a program handover plan; exploration of community fundraising via school management committees to take care of small operational costs; and increase structured engagement with SMCs.

8. Summary findings, Recommendations and Way Forward

8.1 Summary of findings:

At an overall level, given the pandemic induced disruptions, the program was able to deliver on its central mandate of ensuring that children continue to remain productively engaged with learning. To ensure this the program team from eVidyaloka made significant efforts to ensure that they understand digital readiness at the level of the households of the students both in terms of access and availability of digital devices. Additionally, the program team undertook outreach efforts with parents to ensure that they are able to provide access to their children to the available digital devices at home. This necessitated close coordination as each parent would have a specific time to leave the house and a specific time to come back. Wherever the digital approach did not work, the program was able to **find alternate ways by which it could ensure that children's learning journey continued with minimum disruption.**

This multi modal platform of delivery has proved to be resilient and multiple channels through which children have been provided access to structured learning, via class assistants who are often from the same local community, volunteer teachers who come with a lot of experience and finally LTI volunteers, who bring a lot of passion, has ensured that children continue to feel engaged. It has **contributed significantly to children's confidence which resonates in the assessment results as well.** The program has also established a closer relationship with the parents of the children, and this augurs well in terms of greater parental involvement creating a more nurturing environment at home.

8.2 Recommendations and Way Forward:

a. With the spurt in Covid cases in the current year, it seems that we are looking at another disrupted academic session. The eVidyaloka program has been focusing on ensuring that children continue to remain connected, do not drop out and therefore learning continues. It will now be important for the program to think from a learning outcome standpoint, as academic disruption due to a combination of natural and man-made factors is a foregone conclusion. It will be useful for the program to carry out an assessment of the learning levels of children, understand if there are any gender specific or grade specific trends emerging. Basis that it would be useful to define the thrust areas for the program going forward. This is going to be important considering that children are going to move up another grade despite it being a disrupted year. Even the effort on foundational aspects needs to be deepened so that its purpose as a building block for future skills is tested. It will be useful for the program to track every child who is part of the program, platform wise, to see how they are **responding to the program's inputs.** It will be **useful to have documentation on program's ability towards retention, enrolment** and transition across grades.

b. The pandemic year and the interactions with parents and teachers has revealed the criticality of the role played by the class assistants. The program has thus far been supporting them with important digital skills which has improved their ability to deliver value. It will be important to now assess the skills of the current batch of class assistants and prepare them for enhanced responsibilities, which will enable them to take the effort beyond the foundational focus that has been the mainstay of the effort. eVidyaloka may want to evolve a structured development program for class assistants as many of them have aspirations to become full-fledged teachers and in many cases possess the necessary skill sets as well. This will enable the program to have the necessary readiness for the upgraded efforts that may now be needed to ensure that grade appropriate learning levels are reached.

c. The program presently does not engage with elements of socio emotional learning in the manner and scale it may want to. It is also important for the program to make the target group of children who are being exposed to digital technologies at a scale like never before, sensitive to the perils of technology as well. Responsible browsing and sensitizing parents on parental controls over their devices may help prepare the base for an engaged and aware target group as they move into higher grades. It will also be useful to have structured programs which focus on gender dynamics, appropriate behavior, good touch/bad touch, bullying and other aspects which will enable children transition responsibly into higher grades. LTI and its internal competencies on POSH may be suitably contextualized to deliver on these requirements in close collaboration with local sensitivities. Additional aspects like menstrual health management often do not receive structured guidance in a typical school setting and a pandemic year along with the pressures of completing the syllabus may further push such critical topics to the back burner. eVidyaloka may want to look at existing content or incentivize creation of local content on these themes to ensure that these subjects continue to receive the necessary attention.

d. eVidyaloka needs to review sustainability and therefore review the outcome indicators that the program should achieve going forward. It is important for the program to have a systems view of sustainability by looking at the entire school and parent ecosystem together. Schools may suffer from under resourcing or under staffing issues, but the bigger issue is a demobilized community of parents. eVidyaloka may want to build upon the parent engagement they have managed to secure during the pandemic phase of the program to create a group of engaged parents across schools they are working in. This will enable them to build on the programmatic gains and goodwill they have developed over the intervention years. It is important to pay closer structured attention to school management committee capacity building and intensify parent engagement. This will ensure that parents and SMCs understand provisions under right to education better and are able to lobby with local authorities to improve facilities, teacher availability and quality of education.

d. LTI volunteers form an important support element for the program. It was good to see LTI volunteers have a long-term engagement with the program, however it would only be prudent to ensure that these volunteers are able to train and mentor more staffers within LTI to participate in the program. There should be a common experience sharing platform available across regions for LTI volunteers through which they could engage with each other, exchange best practices and become ambassadors for the program. A similar engagement platform for volunteer teachers should also be made available so that experience sharing, and best practices can be understood and cascaded, to enhance the learning experience for children.

e. LTI may want to define the time period of engagement at a school level for programs of this nature. This is especially important considering that education remains an under resourced theme and the number of years of investment at a school level only needs to be intensified on a year-on-year basis. For this to happen, LTI may want to define the modalities of engagement from a year-on-year perspective. For instance, if parent involvement is found to be low, there should be focused parent engagement efforts that need to be prioritized. Similarly, if schools are under resourced then class assistants can provide a fill up while school management committees are motivated and strengthened to lobby for teachers through the education department. If STEM is an area of focus, then digital classrooms can be focused upon and can supplement the efforts of a program like eVidyaloka. The objective should be to identify root causes and work towards addressing them through a structured programmatic intervention. The NGO partner should therefore be encouraged to submit a detailed needs assessment report for the areas they would want to focus on and the yearly MoUs and budgets need to follow a clear target-based approach towards the achievement of those identified objectives.



Thank you

