# IMPACT ASSESSMENT OF FOCUSED DEVELOPMENT PROGRAM: PUBLIC EDUCATION REVITALIZATION

**Final Report** 

**HDFC-** Assessment of Education Project P0525

Submitted to:

**HDFC Bank** 





# GAME CHANGERS

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It has been our privilege to conduct this assessment, recognizing that the findings will illuminate the impact of the project and inform future expansions.

We would like to take this moment to express our gratitude to all those who contributed their views and experiences, which are reflected throughout this report.

We want to extend our heartfelt thanks to the HDFC team for their invaluable support and guidance. Their insightful inputs were instrumental in providing clarity on the implementation of the project and significantly influenced the development of the assessment tools.

We wish to express our deepest gratitude to all our respondents for their invaluable time and thoughtful responses.

We anticipate that the findings from this assessment will enrich the understanding of how digital resources are utilized in education, the impact of digital education on teachers and students, and provide insights to improve future interventions in this field.

#### **Ipsos Public Affairs Research Team**

# **ABBREVIATIONS**

3D	:	3 Dimensional
ASER	:	Annual Status of Education Report
BLI	:	Bridge Language Inventory
CATI	:	Computer Aided Telephonic Interview
CSR	:	Corporate Social Responsibility
DND	:	Do Not Disturb
FDP	:	Focused Development Project
FLN	:	Foundational literacy and numeracy
IDI	:	In-Depth Interview
NIPUN	:	National Initiative for Proficiency in Reading with Understanding and Numeracy
ΝΙΤΙ	:	National Institution for Transforming India
NRBC	:	Non-Residential Bridge Course
NSSO	:	National Sample Survey Office

# **EXECUTIVE SUMMARY**

The significance of education in advancing sustainable development is widely acknowledged, as reflected in Sustainable Development Goal 4, which strives to ensure inclusive and quality education for all, while fostering lifelong learning opportunities. India, with its vast population, holds a crucial role in achieving the 2030 Agenda. Since gaining independence, successive Indian governments have addressed numerous educational challenges through the implementation of various policies and schemes.

In 21st-century education, traditional methods have transformed into digital learning approaches like blended learning, flipped classrooms, and internet-based learning. These methods integrate digital tools such as personal computers, tablets, and augmented reality with conventional teaching. Blended learning, especially, combines face-to-face instruction with digital elements, offering flexible and personalized learning experiences. This fusion enhances student performance and engagement compared to traditional methods.

India's digital education landscape faces several challenges, including a shortage of trained teachers, limited access to digital education, exacerbated by the digital divide, and deficiencies in foundational literacy and numeracy. Despite initiatives like the NIPUN Bharat program, bridging these gaps and ensuring effective digital education implementation remains a significant task.

HDFC Bank's 'Parivartan' CSR project aims to contribute to India's development by empowering communities sustainably. It covers areas like education, skill development, livelihood enhancement, and healthcare. In Jharkhand's West Singbhum district, it focused on improving education quality through digital interventions. The project majorly included distribution of tablets to aid digital education from December 2021 to March 2022, targeting students in government schools from 1st to 8th standard across sixteen blocks. The initiative included tablet user orientation, access to teaching materials via the Diksha App, and promoting local language and culture through the Bridge Language Inventory. Additionally, it aimed to mobilize communities to ensure enrollment of eligible students in the school and to get the students who had dropped out back to school.

Ipsos Public Affairs was engaged to conduct an assessment to evaluate the relevance and effectiveness of using tablets to improve access to education among students. It sought to assess teachers' proficiency in utilizing tablets for teaching purposes and to gauge the program's impact on students' learning outcomes. Additionally, the study aimed to evaluate whether the program had an influence on reducing the dropout rate and increasing the enrollment rate.

The study design incorporates a mixed-methods approach which includes:

- Structured CATI survey: Conducted with NRBC teachers, learning facilitators, and youth volunteers via CATI. Aimed to gather perspectives on usage of tablet in teaching, students' response, impact on learning, and challenges.
- In-depth Interviews: Conducted with key stakeholders to understand their involvement, opinions, challenges, and recommendations for improvement.

The study included a total of 309 CATI interviews with NRBC teachers, learning facilitators, and youth volunteers. Additionally, 6 qualitative interviews were conducted, covering one NRBC teacher, two learning facilitators, one youth volunteer, one community mobilizer, and one block resource person.

Quantitative data collection was done from February 20<sup>th</sup> to 27<sup>th</sup>, 2024 by a team of 16 interviewers, while qualitative interviews were conducted concurrently by a team of two field researchers.

#### Key findings of the assessment

• The survey predominantly comprised female participants (69.9%), with an average age of 36 years, many holding graduate or post-graduate degrees.

#### A. Project Activities

• Key project activities included distributing tablets to teachers, conducting training sessions for stakeholders, organizing children's festivals, and providing digital learning materials. To enhance enrollment of students in the schools, initiatives such as parent interaction and community education showcases were implemented.

#### **B.** Tablet Usage and Digital Learning Materials

- Teachers and learning facilitators using tablets daily, while youth volunteers utilized them slightly less frequently. Tablets were primarily used for tasks such as lesson planning, student assessment, and delivering lectures.
- Majority (84%) survey participants reported receiving digital learning materials by teachers/schools. These resources encompass a diverse range of topics such as letter identification, colour recognition, and word formation, addressing foundational learning needs.
- Teaching sessions utilizing tablets were predominantly conducted in classes up to grade 3.
- Digital tools like the Diksha Application and YouTube were widely utilized.
- Half of the respondents solely depend on materials provided through the project.

#### C. Training - Participation and Satisfaction

- The majority (85%) of respondents received training through the project, with a significant proportion attending multiple sessions.
- Training focused on utilizing the Diksha app and tablets, followed by accessing learning materials and BLI.
- Satisfaction levels were remarkably high (94%). However, there is a perceived need for further training among 77% of respondents.

#### D. Perception, Effectiveness and Relevance of Digital Education

- Majority (97%) study participants affirming the positive impact of digital tools on student performance, and 99% stating that students enjoy learning via tablets and digital resources.
- Perceived benefits include ease of use, multimedia engagement, and improved understanding of concepts.

- Around 95% viewing tablet-based teaching as highly effective or effective, and an equal percentage perceiving digital education as very positive or positive for students' overall learning experiences.
- Nearly 57% rated the relevance of using tablets and digital resources in education delivery as extremely relevant or very relevant.
- 90% and 78% of respondents reported a significant increase in class attendance and enrollment rates respectively. Around 40% increase in attendance and a 32% increase in enrollment rates were reported.
- Decrease in drop-out rate was reported, of around 24%.

#### E. Challenges and Suggestions

- Respondents highlighted challenges perceived by students on integration of tablets and digital resources into education such as difficulty in comprehending digital learning material, frequent internet disconnections and eye strain. Based on interactions with students, respondents noted that students enjoy multimedia learning and participate more in class.
- Majority respondents (62%) reporting no challenges in teaching through digital tools. However, internet connectivity, technical difficulties and expensive internet plans were reported as few challenges. To address these challenges, initiatives such as additional training programs, IT support hiring, and teacher-peer support were implemented.

#### F. Recommendations

Based on the findings, recommendations to enhance digital education initiatives include regular training programs to improve digital proficiency, refresher trainings to keep stakeholders updated, diversification of digital learning materials for comprehensive learning, increased tablet allocation to schools for widespread access, provision of projectors to aid visual learning, specialized technical training for IT personnel, and integration of digital tools in community meetings for effective communication. These measures aim to address challenges, improve access, and enhance the overall effectiveness of digital education initiatives.

# **1. INTRODUCTION**





## 1. INTRODUCTION

#### Education and Sustainable Development:

The importance of education in the journey towards sustainable development is universally recognized. This importance is encapsulated in Sustainable Development Goal 4, which aims to guarantee **inclusive and equitable quality education**, while promoting lifelong learning opportunities for everyone.

India, with its significant population, plays a key role in the achievement of the 2030 Agenda. Since its independence, various Indian governments have tackled numerous educational challenges by implementing new policies and schemes. These include the 'Sarva Shiksha Abhiyan', 'Rashtriya Madhyamik Shiksha Abhiyan', and 'Right to free & compulsory Education Act', all of which are a part of the country's development agenda.

#### **Digital Learning:**

Education in the 21st century has evolved from the traditional, teacher-centric model to incorporate **blended learning**, **flipped classrooms**, **and internet-based learning**. These approaches **leverage digital and multimedia tools** such as personal computers, tablets, multimedia projects, sound systems, 3D models, and augmented reality, integrating them with lectures and conventional modules. Studies show that these modern methods have a **positive impact on student academic performance and perception** compared to traditional teaching methods.

**Blended learning,** in particular, is a significant development in modern education. It represents a combination of traditional face-to-face instructional methods and digital elements, involving the integration of digital and multimedia equipment like personal computers, tablets, multimedia projects, sound systems, 3D models, and augmented reality with lectures and traditional modules. This approach allows for a more flexible and individualized learning experience, accommodating various learning styles and paces. The fusion of digital tools and traditional teaching methods in blended learning offers an enriched educational environment that encourages active learning and engagement.<sup>1</sup>

#### Gaps and Challenges around digital learning in India:

India's digital education landscape has several challenges that need to be addressed to realize its full potential. One of the primary issues is the **shortage of trained teachers** adept at integrating technology into their teaching methods. As per a report, India is short of approximately 11 lakh teachers, especially in rural areas. Notably, nearly 89% of the country's 1.2 lakh single-teacher schools are situated in these regions, underscoring the severity of the shortage.

Another significant hurdle is the **lack of awareness and limited access to digital education**. In the context of India's digital divide, National Sample Survey Office (NSSO) data reveals that while 66% of Indians reside in villages, a mere 15% have access to the internet. In contrast,

<sup>&</sup>lt;sup>1</sup> <u>https://link.springer.com/article/10.1007/s10639-022-11265-4</u> : Sustainable Development Goal for Quality Education (SDG 4): A study on SDG 4 to extract the pattern of association among the indicators of SDG 4 employing a genetic algorithm

the internet penetration rate in urban areas is significantly higher at 42%. This digital divide is further exacerbated by the fact that almost 60% of school children in India are unable to access online learning opportunities, as per a 2021 study by the Azim Premji Foundation. This lack of access to digital education particularly impacts underprivileged students, contributing to widening educational inequalities.

Additionally, the **lack of foundational literacy and numeracy (FLN) in Indian primary schools** adds another layer of complexity to the challenges confronting the Indian education sector. According to a World Bank study, approximately 56.1% of Indian children under 10 years old struggle with reading common words. Annual Status of Education Report (ASER) studies also highlight deficiencies in areas such as reading and simple subtraction. To address these issues, the National Education Policy 2020 introduced the NIPUN Bharat program, aiming to achieve 100% FLN competencies for grade 3 students by 2027.<sup>2</sup>

Despite these initiatives, much work remains to be done to bridge these gaps and ensure the effective implementation of digital education across the country.

#### About the Program:

HDFC Bank's 'Parivartan' is aimed at contributing to India's economic and social development. This Corporate Social Responsibility (CSR) project is designed to empower communities in a sustainable manner. The scope of Parivartan's interventions is wide, encompassing areas such as rural development, education, skill development, livelihood enhancement, healthcare, hygiene, and financial literacy.

One of the key objectives of Parivartan is to facilitate equitable and quality secondary education. This objective was pursued through a Focused Development Project (FDP), designed to improve the quality of education for school children.

This project was implemented in the West Singbhum district of Jharkhand. Recognized by NITI Aayog as an aspirational district, it was ranked 70th out of 101 such districts, indicating a need for educational interventions. The project aimed to enhance the quality of schooling and ensure access to quality education for all children through digital education.

The project covered sixteen blocks in West Singbhum district, with the support of HDFC Bank and implemented by Tata Steel Foundation. A key part of the initiative was the distribution of tablets to 923 stakeholders to aid in delivering digital education across the district. This digital education intervention, which was implemented from December 2021 to March 2022, targeted students from the 1st to 8th standard in government schools across 16 blocks.

The digital education program encompassed user orientation for the tablets, access to teaching materials via the Diksha App, and the use of the Bridge Language Inventory in six major tribal languages. This aimed to promote local language and culture, and users were also trained on the use of Google search and YouTube.

The project also aimed to **mobilize communities** and **raise awareness to ensure school enrollment** for students who are irregular, have dropped out, or have never been enrolled.

<sup>&</sup>lt;sup>2</sup> <u>https://aif.org/digital-education-in-india-avenues-and-challenges/</u>

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# 2. APPROACH AND METHODOLOGY



## 2. APPROACH AND METHODOLOGY

## 2.1. Objective

The objective of this study was to assess the relevance and effectiveness of using tablets as a tool to enhance access to education among students. It aimed to evaluate the proficiency of teachers in utilizing tablets for teaching purposes. Additionally, the study aimed to assess the program's impact on students' learning, and its influence on reducing the dropout rate.

## 2.2. Study Design

The study design for this assessment incorporates a mixed-methods approach, comprised of the following components:

#### Structured CATI survey:

These interviews were conducted with non-residential bridge course (NRBC) teachers, learning facilitators, and youth volunteers engaged in the project. The interviews were facilitated via Computer Aided Telephonic Interview (CATI) using a structured tool. The aim was to gather their perspectives on the relevance and effectiveness of tablet use and other digital learning materials in their teaching methodologies. Additionally, their insights on students' response to the digital learning initiative, its impact on their learning, performance, and school attendance were also recorded. The interviews also aimed to identify any challenges, the types of training involved in the project, and their suggestions for improvement. The average length of the interviews was 26 minutes.

#### In-depth Interviews:

These interviews were conducted with key project stakeholders, including learning facilitators, NRBC teachers, youth volunteers, and community mobilizers. Discussion guides were prepared for each stakeholder group to facilitate the interview process. The primary objective was to gain a deeper understanding of their involvement in the project, their opinions on the processes and benefits of the intervention, any challenges faced, and their recommendations for enhancements.

## 2.3. Sample Size Considered for the Study.

A total of 309 CATI interviews were conducted with (NRBC) teachers, learning facilitators, and youth volunteers engaged in the project.

The sampling database was provided by the Tata Steel Foundation. Upon receipt, the database containing 1451 records underwent a preliminary review. This review involved checking all contact numbers for validity, Do Not Disturb (DND) registration, and potential duplicates. Following this validation process, 1429 contact numbers were deemed valid and usable for the study.

From the validated database of 1429 records, which included 1351 youth volunteers, 47 learning facilitators, and 31 NRBC teachers, the following numbers of interviews were conducted:

#### Table 1 Sample Size Covered in the CATI Survey

Stakeholder	Targeted sample	Sample Covered
NRBC Teachers	25	9
Learning facilitators	25	26
Youth volunteers	250	274
Total	300	309

The targeted sample size for NRBC teachers was not fully realized due to various issues, including non-responsive calls, dropouts, interview refusals, and incorrect contact details.

Despite efforts from the project implementation team to reach the targeted sample size for NRBC teachers, the goal was not met. After consulting with the HDFC team, the remaining sample size was completed through the youth volunteers' database.

A total of 6 qualitative interviews were conducted telephonically, the details of which are in the below table:

Stakeholder	Targeted sample	Sample Covered
NRBC Teacher		1
Learning facilitator		2
Youth volunteer	6	1
Community Mobiliser		1
Block Resource Person		1
Total	6	6

#### Table 2 Sample covered through IDIs

#### 2.4. Data Collection Tool Development

Considering the study design, a structured questionnaire was prepared for the CATI survey and discussion guides for IDIs with following a systematic approach:

 Discussion with the HDFC team: Inception discussion with HDFC team and discussion with project implementation team to understand the expectations from the study, discuss areas of information, programme implementation processes and selection criteria for respondents.

- Preparation of questionnaire: In alignment with the objectives and areas on information questionnaire was prepared. Instructions for scripter and interviewers were included in the questionnaire.
- Scripting of the questionnaire: The final approved questionnaire by HDFC team was used for the scripting. The questionnaire was scripted on Ipsos's iField platform. Researchers checked the logic and required instructions for interviewers in the scripts to ensure systematic administration of questionnaire.
- Translation of questionnaire: As per the requirement, the questionnaire was translated in Hindi. Researchers reviewed the translation to ensure the validity of translated questionnaire.

## 2.5. Data Collection Methodology

The data collection methodology incorporated both quantitative and qualitative approaches, utilizing distinct teams for each.

Quantitative data collection was conducted through Computer Aided Telephonic Interview (CATI). The data collection process took place between February 20th and 27th, 2024. Several interviewers were briefed on the program's background, the objective of the assessment, the questionnaire, and the protocols, and subsequently deployed for the calling process.

The interview process began with the interviewers introducing the study to the respondents. They discussed the clauses of confidentiality and voluntary participation. Upon securing consent from the participants, the interview was conducted.

In addition to the quantitative data collection, the qualitative interviews were conducted by a team of two field researchers concurrently with the CATI survey.

To ensure the quality of data collected, researchers listened to the recordings of the interviews during the initial days. This review process allowed them to provide feedback to the team, aiming to minimize errors and biases in the interviews.

### 2.6. Analysis

The data analysis process began with a thorough data check, which included verifying bases, non-response, demographic data, and conducting logical checks.

Following this, a comprehensive analysis plan was developed for quantitative data analysis. This plan outlined the specific statistical tests and cross-tabs to be used in the analysis.

The dedicated data processing team at Ipsos then generated the tables using SPSS and Quantum software, adhering to the analysis plan provided by the research team.

For qualitative data, researchers analysed the information in conjunction with the quantitative findings. This approach aimed to deepen the insights derived from the quantitative data.

Upon completion of the data analysis, a topline report based on partial data, followed by a full PowerPoint report, was shared with the HDFC team. This report presented a comprehensive analysis of the data. After receiving approval from the HDFC team, the narrative report was accordingly developed.

## 2.7. Limitations

Understanding and documentation of limitations helps in correct interpretation of the data presentation as well as future assessment planning. Some of the limitations of the current assessment are outlined as below:

- Since the database majorly included the youth volunteers, the majority of our respondents were youth volunteers, with a smaller representation of NRBC teachers and Learning facilitators. In addition to that, the study experienced challenges with the NRBC teachers' participation due to dropout, refusals, and network connectivity issues. To achieve the targeted sample size, the study had to rely more heavily on youth volunteers. The perspectives of the youth volunteers, due to their greater representation, might predominantly shape the results.
- While CATI interviews enable in reaching out to a greater number of respondents in quick time, it has its limitation with regard to length of interviews and use of simulation or prompts to aid responses from the respondents. The survey thus relied on asking direct questions about the project.

# **3. RESEARCH FINDINGS**



## **3. RESEARCH FINDINGS**

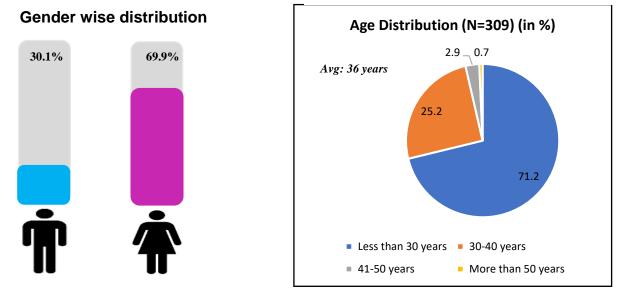
## **3.1 Respondent Profile**

This section provides an overview of the demographic characteristics of the survey participants, encompassing their age distribution, gender composition, and educational background.

**Gender:** Across all respondent categories, there is a significant predominance of females, constituting 70% of the total respondents, while males account for 30%. In the youth volunteer category specifically, females comprised 74% of the respondents. Among surveyed teachers and learning facilitators, males predominated, with 5 and 17 individuals, respectively.

Figure 1 Gender wise Distribution

Figure 2 Age Distribution



**Age:** Majority of respondents, 71%, are under 30 years old, followed by 25% in the 30-40 years age bracket. Among the nine teachers surveyed, eight were below 30 years of age. On an average, youth volunteers reported an age of 37 years, while teachers and learning facilitators averaged at 35 years old.

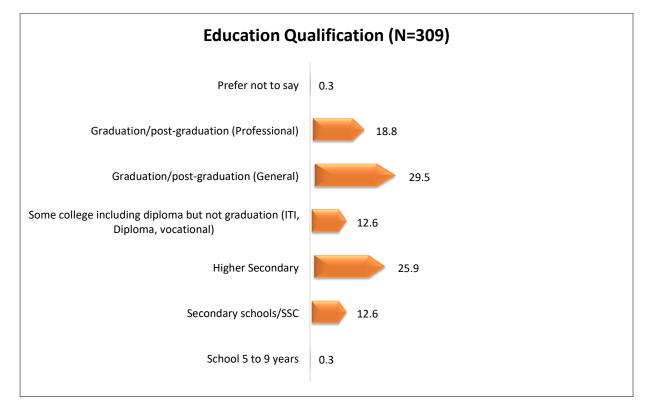
Table 3 Age and Gender Composition (By Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Gender Distribution			
Male	5 (55.6%)	17 (65.4%)	71 (25.9%)
Female	4 (44.4%)	9 (34.6%)	203 (74.1%)
Age Distribution			
Less than 30 years	8 (88.9%)	17 (65.4%)	195 (71.2%)
30-40 years	1 (11.1%)	9 (34.6%)	68 (24.8%)
41-50 years	0 (0.0%)	0 (0.0%)	9 (3.3%)
More than 50 years	0 (0.0%)	0 (0.0%)	2 (0.7%)
Average	35	35	37

**Education:** Nearly half of the respondents hold graduation or post-graduation degrees, with 19% having professional qualifications. Specifically, 26% have achieved a higher secondary

education, while 13% have pursued some form of college education, including diploma and vocational courses.

Figure 3 Educational Qualification



Among learning facilitators, the majority (18) possess professional qualifications, with a significant portion (12) holding professional degrees. In contrast, among teachers, only 2 have completed graduation or post-graduation studies. Three out of nine teachers have undertaken some college courses other than graduation, while another three have completed their higher secondary education.

Regarding youth volunteers, nearly 30% have achieved a graduation or post-graduation degree in general fields, with 17% possessing professional qualifications. Additionally, 12% have pursued some college education, including diploma and vocational courses.

Table 4 Education Qualification (by Respondent Category) (in numbers and percentages)

Education Qualification	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
School 5 to 9 years	1 (11.1%)	0 (0.0%)	0 (0.0%)
Secondary schools/SSC	0 (0.0%)	2 (7.7%)	37 (13.5%)
Higher Secondary	3 (33.3%)	3 (11.5%)	74 (27.0%)
Some college including diploma but not graduation (ITI, Diploma, vocational)	3 (33.3%)	3 (11.5%)	33 (12.0%)
Graduation/post-graduation (General)	2 (22.2%)	6 (23.1%)	83 (30.3%)
Graduation/post-graduation (Professional)	0 (0.0%)	12 (46.2%)	46 (16.8%)
Prefer not to say	0 (0.0%)	0 (0.0%)	1 (0.4%)

## **3.2 Project Implementation**

This section, we will discuss the project activities implemented under the project, initiatives aimed at enrolling students who were not attending school or had dropped out, and the respective roles of different respondent categories within the project.

### 3.2.1 Project Activities Implemented

All participants were asked to indicate the specific activities implemented as part of the project. Distribution of tablets to teachers (54%) was reported by the most followed closely by training sessions on tablet usage (44%).

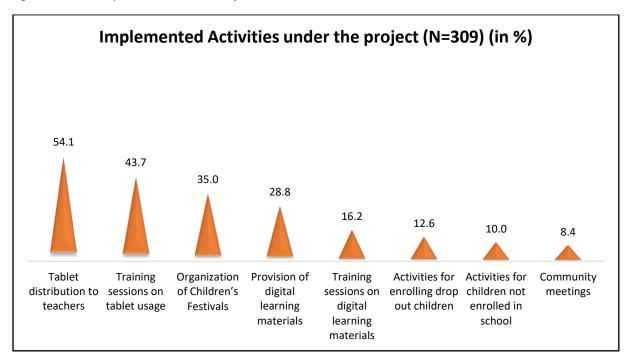


Figure 4 Activities Implemented under the Project

Other notable activities include the organization of Children's Festivals (35%), provision of digital learning materials to schools (29%), and training sessions on using digital learning materials (16%).

Additionally, activities aimed at enrolling dropout children (13%) and children not enrolled in school (10%) were also significant components of the project.

Implemented Activities	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Tablet distribution to teachers	4 (44.4%)	13 (50.0%)	150 (54.7%)
Training sessions on tablet usage	4 (44.4%)	11 (42.3%)	120 (43.8%)
Organization of Children's Festivals	2 (22.2%)	8 (30.8%)	98 (35.8%)
Provision of digital learning materials	2 (22.2%)	7 (26.9%)	80 (29.2%)
Training sessions on digital learning materials	0 (0.0%)	3 (11.5%)	47 (17.2%)
Activities for enrolling drop out children	1 (11.1%)	3 (11.5%)	35 (12.8%)

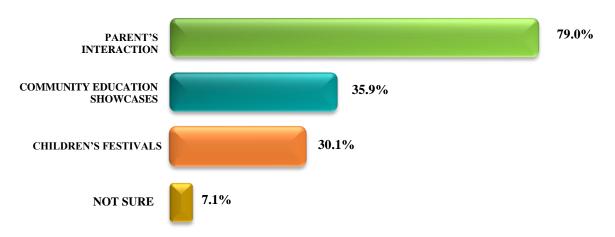
Activities for children not enrolled in school	2 (22.2%)	0 (0.0%)	29 (10.6%)
Community meetings	1 (11.1%)	4 (15.4%)	21 (7.7%)

During an In-Depth Interview (IDI), it was highlighted that Children's Festivals are dynamic events where students participate in a range of activities like rangoli, drawing, and clay modelling. These festivals also include competitions such as dance, drawing, and art & craft. Beyond mere entertainment, these gatherings provide valuable opportunities to bring children together and engage with their parents effectively. Through these engaging activities and interactive sessions, Children's Festivals play a vital role in fostering community involvement and emphasizing the importance of education.

#### 3.2.2 Initiatives to Enroll Students

Upon further inquiry regarding initiatives to enroll students not attending school or those who had dropped out, a significant majority (79%) highlighted interaction with parents. This underscores the significance of engaging parents in the education process for effective student enrollment and retention.

*Figure 5 Initiatives to Enroll Students* 



#### Initiatives to Enroll Students (N=309)

Organizing children's festivals and showcasing the importance of education in the community were also noted, with 30.1% and 35.9% of respondents, respectively. These activities likely contribute to raising awareness about the value of education and creating a supportive environment for student enrolment.

Table 5 Initiatives to Enroll Students (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Parent's Interaction	7 (77.8%)	19 (73.1%)	218 (79.6%)
Children's Festivals	3 (33.3%)	12 (46.2%)	78 (28.5%)
Community Education Showcases	3 (33.3%)	17 (65.4%)	91 (33.2%)

## 3.3 Roles and Responsibilities

The survey asked respondents to outline their roles within the project. Teaching students using tablets emerged as the predominant responsibility among all respondents, with 80% actively involved in this capacity. These findings highlight the critical role of tablet-based teaching in the project, with a significant majority of respondents actively involved in this aspect.

Additionally, 31% of respondents reported providing training to teachers, while 20% mentioned organizing Children's Festivals.

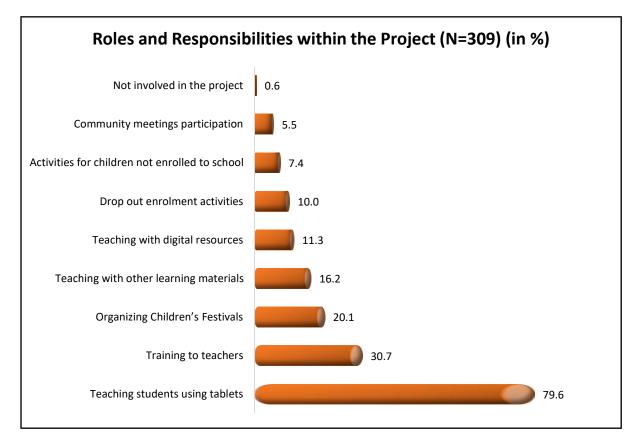


Figure 6 Roles and Responsibilities within the Project

Youth volunteers and teachers were primarily focused on teaching students using tablets, with 84% and 56% reporting this role, respectively. Among learning facilitators, 12 out of 26 reported providing training to teachers, while an equal number reported teaching students using tablets.

Roles in the Project	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Teaching students using tablets	5 (55.6%)	12 (46.2%)	229 (83.6%)
Training to teachers	4 (44.4%)	12 (46.2%)	79 (28.8%)
Organizing Children's Festivals	2 (22.2%)	3 (11.5%)	57 (20.8%)
Teaching with other learning materials	0 (0.0%)	2 (7.7%)	48 (17.5%)
Teaching with digital resources	0 (0.0%)	2 (7.7%)	33 (12.0%)
Drop out enrolment activities	1 (11.1%)	4 (15.4%)	26 (9.5%)
Out of school children's activities	1 (11.1%)	1 (3.9%)	21 (7.7%)
Community meetings participation	2 (22.2%)	5 (19.2%)	10 (3.6%)
Not involved in the project	0 (0.0%)	0 (0.0%)	2 (0.7%)

Table 6 Roles and Responsibilities within the Project by Respondent Categories (in numbers and percentages)

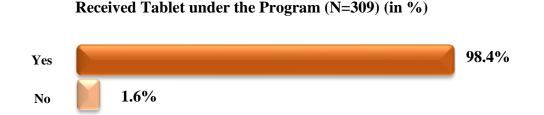
In an interview with one of the community mobilizers, he highlighted their role in raising awareness about the importance of education in the community, re-enrolling dropouts, and fostering social change. To achieve these objectives, the mobilizer organizes meetings and conducts community sessions aimed at raising awareness about the significance of education and promoting social change.

## 3.4 Tablet Usage and Digital Learning Materials

#### 3.4.1 Tablet Usage and Provision

Participants were surveyed regarding the receipt of tablets through the project. An overwhelming majority (98%) across all respondent categories indicated that they had received a tablet.





Notably, all teachers and learning facilitators surveyed had received the tablets, while 98% of youth volunteers reported the same. Conversely, only a small proportion (2%) of youth volunteers indicated not being provided with tablets through the project.

The high percentage of participants receiving tablets underlines the comprehensive distribution efforts of the project, ensuring accessibility to digital resources across all respondent categories.

Table 7 Received Tablets under the project (by Respondent Categories) (in numbers and percentages)

Tablet Provision	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Yes	9 (100.0%)	26 (100.0%)	269 (98.2%)
No	0 (0.0%)	0 (0.0%)	5 (1.8%)

#### 3.4.2 Frequency of Tablet Usage

The survey explored the frequency of tablet usage among respondents, revealing that the majority, accounting for 45% overall, reported using tablets daily. Additionally, 44% indicated using tablets 2-3 times a week. However, a smaller proportion, 7%, reported using tablets once a week, while 3% stated that they rarely or never use tablets.

Among teachers, a significant majority (8 out of 9) reported daily tablet usage, indicating a high level of integration into their teaching practices. Similarly, learning facilitators also showed a preference for daily tablet usage, with 22 out of 26 respondents Frequency of Tablet Usage (N=304) (in %)

following this pattern, while 3 used tablets 2-3 times a week.

In contrast, among youth volunteers, daily tablet usage was less prevalent, with 40% reporting this frequency. Instead, a higher proportion (49%) used tablets 2-3 times a week. Additionally, 7% reported using tablets once a week, and 3% reported rare usage.

 Table 8 Frequency of Tablet Usage (by Respondent Categories) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=269)
Daily	8 (88.9%)	22 (84.6%)	108 (40.2%)
2-3 times a week	1 (11.1%)	3 (11.5%)	131 (48.7%)
Once a week	0 (0.0%)	1 (3.9%)	20 (7.4%)
Rarely	0 (0.0%)	0 (0.0%)	7 (2.6%)
Never	0 (0.0%)	0 (0.0%)	3 (1.1%)

Figure 8 Frequency of Tablet Usage

#### 3.4.3 Purpose of Tablet Usage

The survey revealed that the majority of respondents (65%) utilize tablets primarily for planning lessons, with additional significant usage for evaluating student performance (40%) and delivering engaging lectures (38%). These findings underscore the versatile role of tablets in educational contexts, providing convenient tools for various teaching tasks.

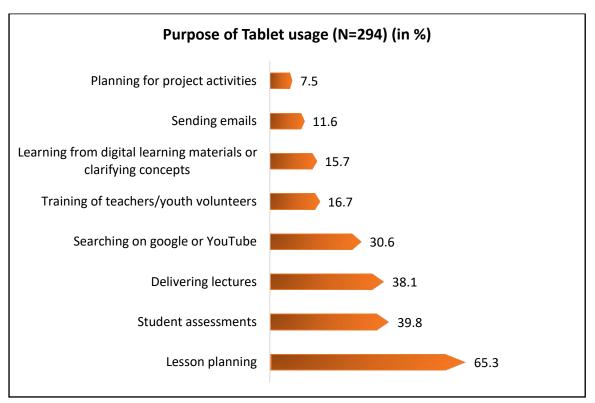


Figure 9 Frequency of Tablet Usage

Across all respondent categories, tablet usage was predominantly for lesson planning, with 5 teachers, 11 learning facilitators, and 68% of youth volunteers utilizing tablets for this task. Noteworthy is the prevalence of student assessments, particularly among teachers (4) and youth volunteers (41.7%). Additionally, two in every five learning facilitators reported using tablets for searching on Google or YouTube, while eight mentioned utilizing them for training teachers or youth volunteers. Delivering lectures was also significant, with 4 teachers and 39% of youth volunteers employing tablets for this purpose

 Table 9 Purpose of Tablet Usage (by Respondent Categories) (in numbers and percentages)

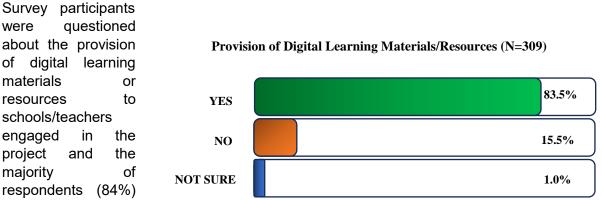
Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=259)
Lesson planning	5 (55.6%)	11 (42.3%)	176 (68.0%)
Student assessments	4 (44.4%)	5 (19.2%)	108 (41.7%)
Delivering lectures	4 (44.4%)	7 (26.9%)	101 (39.0%)
Searching on google or	2 (22.2%)	11 (42.3%)	77 (29.7%)
YouTube			· · ·
Learning from digital learning materials or clarifying concepts	1 (11.1%)	5 (19.2%)	40 (15.4%)
Training of teachers/youth volunteers	2 (22.2%)	8 (30.8%)	39 (15.1%)
Sending emails	2 (22.2%)	4 (15.4%)	28 (10.8%)

Planning for project	0 (0.0%)	7 (26.9%)	15 (5.8%)
activities			

One of the youth volunteers mentioned that she uses the tablet almost daily, primarily for taking attendance using Google Sheets. Additionally, they utilize the tablet to create weekly plans.

#### 3.4.4 Learning materials and Resources

Figure 10 Provision of Digital Learning Material



confirmed the provision of digital learning materials or resources to schools/teachers. Conversely, 16% of respondents reported that schools/teachers had not received such materials, with a small percentage (1%) expressing uncertainty regarding their provision.

Among the respondents, eight teachers and 24 learning facilitators reported receipt of digital learning materials or resources by teachers/schools, while 83% of youth volunteers indicated the same. These findings highlight the significant effort of the project to equip schools/teachers with digital resources to enhance educational activities.

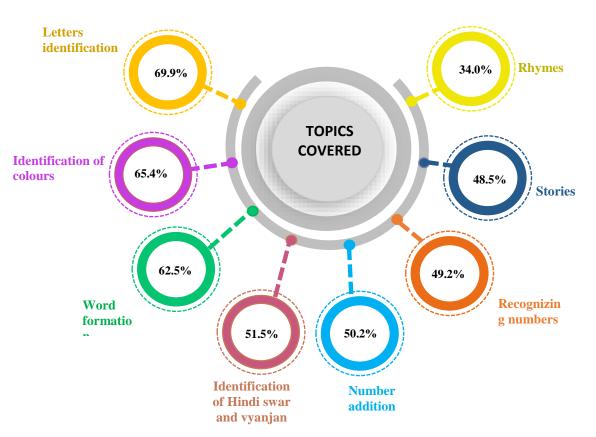
Table 10 Provision of Digital Learning Materials/Resources (by Respondent Categories) (in numbers and percentages)

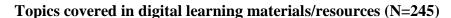
Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Yes	8 (88.9%)	24 (92.3%)	226 (82.5%)
No	1 (11.1%)	1 (3.9%)	46 (16.8%)
Not sure	0 (0.0%)	1 (3.9%)	2 (0.7%)

When questioned about the topics covered in digital learning materials, respondents across all categories reported a diverse range of topics. The most common topics included letters identification (70%), identification of colours (65%), and word formation (63%). Additionally, topics like identifying Hindi swar and vyanjan (52%), number addition (50%), recognizing numbers (49%), stories (49%), and rhymes (34%) were prevalent.

In-depth interviews revealed that digital learning materials encompassed topics such as forward and reverse counting in mathematics, along with the names and pictures of animals, fruits, and vegetables.

Figure 11 Topics Covered in Digital Learning Materials/Resources





Among teachers, the identification of colours and number additions were reported by majority (5). Learning facilitators mostly mentioned colour identification (22), stories (18), and letter identification (15). Similarly, youth volunteers emphasized word formation (64%) alongside letter (72%) and colour (64%) identification.

These findings suggest that digital learning materials are thoughtfully designed to enhance students' numeracy and literacy skills, effectively catering to their foundational learning needs.

Topics covered in digital learning materials/resources	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Letters identification	4 (44.4%)	15 (57.7%)	197 (71.9%)
Identification of colours	5 (55.6%)	22 (84.6%)	175 (63.9%)
Word formation	4 (44.4%)	13 (50.0%)	176 (64.2%)
Identification of Hindi swar and vyanjan	4 (44.4%)	12 (46.2%)	143 (52.2%)
Number addition	5 (55.6%)	9 (34.6%)	141 (51.5%)
Recognizing numbers	4 (44.4%)	8 (30.8%)	140 (51.1%)
Stories	4 (44.4%)	18 (69.2%)	128 (46.7%)
Rhymes	3 (33.3%)	13 (50.0%)	89 (32.5%)

Table 11 Topics Covered in Digital Learning Materials/Resources (by Respondent Categories) (in numbers and percentages)

During one of the interviews, it was highlighted that before the project, students were limited to the syllabus without any exposure to rhymes. However, the introduction of tablets has revolutionized this aspect, providing students access to rhymes and significantly enriching their learning experience. Students now thoroughly enjoy participating in singing along with the rhymes displayed on the tablets.

### 3.4.5 Frequency of Taking Classes

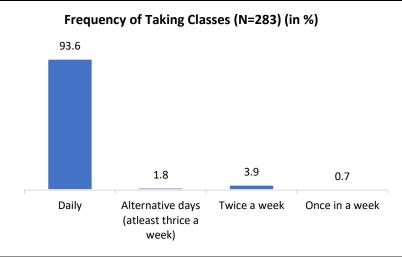
 Teachers
 and
 Youth
 Figure 12 Frequency of Taking Classes

 Volunteers
 were

surveyed regarding the frequency of taking classes, with the majority (94%) reporting daily classes.

A small proportion reported taking classes on alternative days (2%), twice a week (4%), or once a week (1%).

Among teachers, 8 out of 9 reported taking classes



daily, while among youth volunteers, 94% indicated the same frequency.

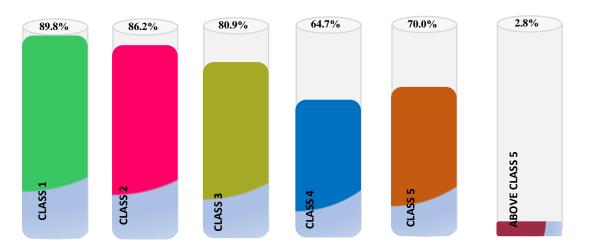
This high frequency of daily classes among both teachers and youth volunteers underscores a strong commitment to digital education.

Table 12 Frequency of Taking Classes (by Respondent Categories) (in numbers and percentages)

Particulars	Teachers (N=9)	Youth Volunteers (N=274)
Daily	8 (88.9%)	257(93.8%)
Alternative days (at least thrice a week)	1 (11.1%)	4 (1.5%)
Twice a week	0 (0.0%)	11 (4.0%)
Once in a week	0 (0.0%)	2 (0.7%)

When asked about the classes in which they conduct sessions using tablets, the majority conducted sessions in classes up to class 3, with 90% mentioning sessions in class 1, 86% in class 2, and 81% in class 3.

#### Figure 13 Classes Conducted Using Tablets



#### **Classes conducted using tablets (N=233)**

Additionally, 65% and 70% reported conducting digital sessions in classes 4 and 5, respectively. However, only 3% reported conducting sessions in classes above class 5. Interestingly, two out of nine teachers mentioned conducting sessions above class 5, while the corresponding figure for youth volunteers was just 2%.

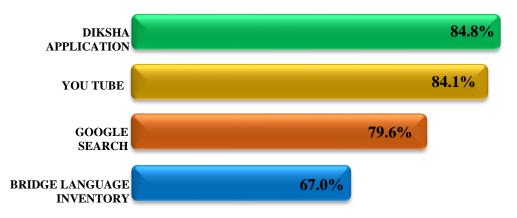
Table 13 Classes Conducted Using Tablets (by Respondent Categories) (in numbers and percentages)

Particulars	Teachers (N=9)	Youth Volunteers (N=274)
Class 1	7 (77.8%)	247 (90.2%)
Class 2	6 (66.7%)	238 (86.9%)
Class 3	6 (66.7%)	223 (81.4%)
Class 4	5 (55.6%)	178 (65.0%)
Class 5	5 (55.6%)	193 (70.4%)
Above class 5	2 (22.2%)	6 (2.2%)

#### 3.4.6 Usage of Digital Tools in Teaching

Survey participants were asked about their usage of digital tools in teaching, including the Diksha Application, Bridge Language Inventory (BLI), YouTube, and Google Search.

Figure 14 Use of Digital Tools in Teaching



Use of Digital Tools in Teaching (N=245)

The majority reported using the Diksha Application (85%) and YouTube (84%), followed closely by Google Search (80%). However, there was less utilization of the Bridge Language Inventory across all respondent categories (67%). Notably, among youth volunteers, the usage of BLI was reported to be lower, with only 64% indicating its use.

These findings highlight the widespread adoption of digital tools, particularly the Diksha Application and YouTube, among respondents, emphasizing their role in enhancing teaching practices and accessing educational resources.

During an in-depth interview, a stakeholder mentioned the utility of the Diksha app, emphasizing its provision of content in local languages. This feature greatly aids in facilitating better learning outcomes, particularly in regions where languages like Santali, Mundari, Ho, and Kudmali are spoken. For instance, the app offers translations of animal names from Hindi into these local languages, enabling learners to grasp concepts more effectively. This localization of content ensures that educational materials are accessible and relevant to diverse linguistic communities, thereby enhancing the overall impact of digital education initiatives.

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Diksha Application	7 (77.8%)	25 (96.2%)	230(83.9%)
Bridge Language Inventory (BLI)	7 (77.8%)	24 (92.3%)	176(64.2%)
YouTube	8 (88.9%)	24 (92.3%)	228(83.2%)
Google Search	9 (100.0%)	24 (92.3%)	213(77.7%)

Table 14 Use of Digital tools in Teaching (by Respondent Categories) (in numbers and percentages)

Respondents were asked whether they or Figure 15 Use of Additional Learning Materials teachers use additional digital learning materials, aside from those provided under the project, to educate students.

The analysis indicates that nearly half of the respondents (49%). However, 51% of respondents stated that they solely use the materials provided under the project.

Nearly half of the youth volunteers (48%) and 15 learning facilitators reported using additional digital learning materials. However, this number is notably lower for teachers, with only 3 out of 9 teachers utilizing additional resources.



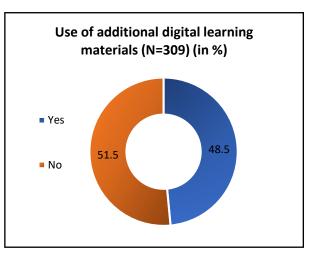


Table 15 Use of additional digital learning materials (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Yes	3 (33.3%)	15 (57.7%)	132 (48.2%)
No	6 (66.7%)	11 (42.3%)	142 (51.8%)

During an in-depth interview with one of the youth volunteers, they expressed that the digital content provided is ample. They never felt the need of additional resources. This insight emphasizes the project's success in delivering comprehensive educational resources, ensuring a well-rounded learning experience for participants.

## 3.5 Training participation and Satisfaction

#### 3.5.1 Training Participation

This section explores whether participants involved in the study underwent any training as part of the project. The analysis indicates a significant majority of respondents did receive training, with 85% reporting affirmatively. This suggests widespread participation in training sessions among the surveyed participants, emphasizing the project's focus on skill development.

Specifically, all teachers involved in the study received training as part of the project. Additionally, a substantial proportion of learning facilitators, with 24 out of 26 respondents (92%), and 84% of youth volunteers participated in training sessions.

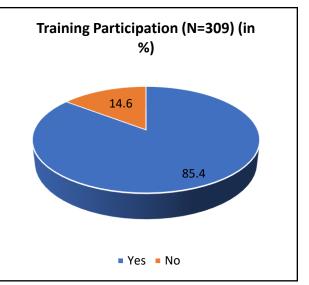


Figure 16 Training Participation

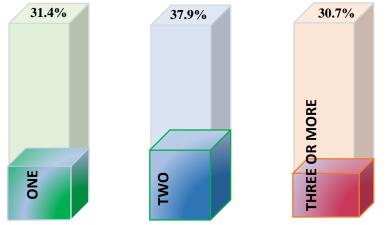
These findings underscore the comprehensive approach taken to equip participants with the necessary skills and knowledge to effectively contribute to the project's objectives.

Table 16 Training Participation (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Yes	9 (100.0%)	24 (92.3%)	231 (84.3%)
No	0 (0.0%)	2 (7.7%)	43 (15.7%)

The data on the number of trainings attended by the participants reveals that a significant proportion attended multiple sessions. Specifically, 38% reported attending two trainings, while 31% attended more than two trainings. Additionally, 31% of participants attended only one training program under the project.

Among learning facilitators, 15 representing a high proportion of 63%, attended more than two trainings and 4 Figure 17 Number of Training Sessions Attended



#### Number of Training Sessions Attended (N=264)

attended one training Similarly, among youth volunteers, the majority (40%) attended two sessions, while 33% attended one session and 27% attended more than two sessions. Among teachers, 4 attended one training while 5 attended two or more trainings.

The high percentage of participants attending multiple training sessions suggests that refresher trainings were conducted to ensure ongoing support and to address any challenges encountered by the participants. These sessions aimed to keep the participants updated with the latest knowledge and practices relevant to the project's objectives.

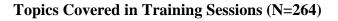
Particulars	Teachers (N=9)	Learning Facilitators (N=24)	Youth Volunteers (N=231)
One	4 (44.4%)	4 (16.7%)	75 (32.5%)
Тwo	2 (22.2%)	5 (20.8%)	93 (40.3%)
More than two	3 (33.3%)	15 (62.5%)	63 (27.3%)

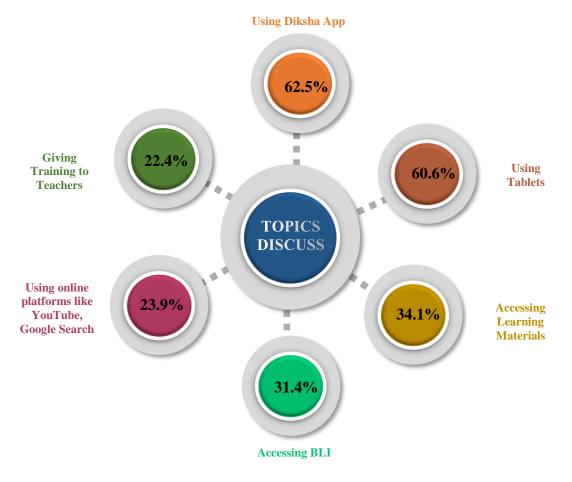
Table 17 Number of Training Sessions attended (by Respondent Category) (in numbers and percentages)

#### 3.5.2 Topics covered in Training Sessions

The majority of respondents reported receiving comprehensive training sessions, with a significant focus on utilizing digital tools effectively. Particularly, 63% mentioned being trained in using the Diksha app, while 61% received guidance on using tablets for teaching. Additionally, 34% of participants received training on accessing learning materials, and 31% were briefed on utilizing the Bridge Language Inventory (BLI).

Figure 18 Topics Covered in Training Sessions





Another 24% highlighted receiving guidance on using online platforms like Google Search and YouTube for accessing additional digital learning materials. Moreover, approximately 22% mentioned being oriented on training other teachers, indicating a cascade effect of knowledge dissemination within the project.

Particulars	Teachers (N=9)	Learning Facilitators (N=24)	Youth Volunteers (N=231)
Using Diksha App	3 (33.3%)	18 (75.0%)	144 (62.3%)
Using tablets	6 (66.7%)	12 (50.0%)	142 (61.5%)
Accessing learning material	2 (22.2%)	8 (33.3%)	80 (34.6%)
Accessing Bridge Language Inventory (BLI)	3 (33.3%)	12 (50.0%)	68 (29.4%)
Using online platforms like google search and YouTube	2 (22.2%)	3 (12.5%)	58 (25.1%)
Giving training to teachers	2 (22.2%)	8 (33.3%)	49 (21.2%)
Attending meetings	1 (11.1%)	3 (12.5%)	22 (9.5%)

Table 18 Topics covered in Training Sessions (by Respondent Category) (in numbers and percentages)

During an in-depth interview with a stakeholder, it was revealed that Samsung Tablets were distributed as part of the initiative. These tablets functions without a SIM card. In the training sessions, stakeholders were instructed on how to access the internet using mobile hotspots, enabling them to effectively utilize the tablets for educational purposes.

Learning facilitators play a crucial role in disseminating essential training to both teachers and youth volunteers. They were questioned about the topics they cover when they do trainings.

A significant majority, over three-fourths of them, reported providing training on using the Diksha App, underlining its importance as a fundamental educational tool. Additionally, half of the learning facilitators ensured participants were acquainted with accessing the Bridge Language Inventory (BLI). Moreover, approximately three in every 10 facilitators mentioned orienting participants to train other teachers, showcasing a cascading training approach aimed at multiplying the impact of knowledge dissemination. Notably, one-fourth of them emphasized training teachers on accessing and utilizing learning materials.

Table 19 Training Topics Provided to Teachers by Learning Facilitators (in numbers and percentages)

Particulars	Learning Facilitators (N=26)
Using Diksha App	20 (76.9%)
Accessing Bridge Language Inventory (BLI)	13 (50.0%)
Using tablets	12 (46.2%)
Using google search and YouTube	8 (30.8%)
Giving training to teachers	8 (30.8%)
Accessing learning material	7 (26.9%)
No training provided	1 (3.9%)

#### 3.5.3 Satisfaction with Training and Support

The satisfaction levels with the training and support provided by the project team were remarkably high, as expressed by the majority of participants across all respondent categories, with 94% indicating satisfaction.

Specifically, all teachers reported being satisfied or very satisfied with the training(s) they received. Similarly, 93% of youth volunteers reported being satisfied with the training, aligning closely with the sentiments of the teachers.

Moreover, except for one learning facilitator, all respondents expressed satisfaction with the training and support they received, indicating the overall effectiveness and positive impact of the project's training initiatives.

These high levels of satisfaction underscore the project's success in meeting the training needs of participants and providing them with adequate support to carry out their roles effectively.

Figure 19 Satisfaction with Training and Support

Satisfaction with Training and Support (N=264)

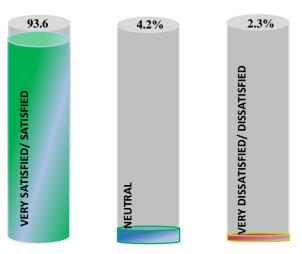


Table 20 Satisfaction with training and support (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=24)	Youth Volunteers (N=231)
Very Satisfied/ Satisfied	9 (100.0%)	23 (95.8%)	215 (93.1%)
Neutral	0 (0.0%)	0 (0.0%)	11 (4.8%)
Very Dissatisfied/ Dissatisfied	0 (0.0%)	1 (4.2%)	5 (2.2%)

#### 3.5.4. Perceived Need for Additional Training

In this section, the perceived need for additional training among participants is examined. A significant majority of respondents, comprising 77% of the overall participants, expressed a desire for further training to enhance their skills and knowledge.

Figure 20 Need of Additional Training



#### Need of Additional Training (N=309)

Among teachers, 8 out of 9 felt the need for further training. A majority of youth volunteers (76%) acknowledged the requirement for additional training while 20 learning facilitators shared the same sentiment.

The need for further training underscores participants' proactive stance towards selfimprovement and the recognition of continuous learning's value. It reflects a strong demand for ongoing professional development, emphasizing the significance of continuous training in supporting their roles effectively.

Table 21 Perceived need of Additional Training (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Yes	8 (88.9%)	20 (76.9%)	209 (76.3%)
No	1 (11.1%)	6 (23.1%)	65 (23.7%)

The respondents' expressed desire for training encompasses a diverse range of topics, including Maths, Hindi, and English, signalling a keen interest in enhancing both subject knowledge and pedagogical skills. Moreover, there is a notable emphasis on specific tools and resources such as the Diksha app, tablets, Google, and YouTube, highlighting a requirement for digital literacy and proficiency in utilizing educational technology.

#### 3.6 Perception, Effectiveness and Relevance of Digital Education

## 3.6.1 Perception of Digital Tools

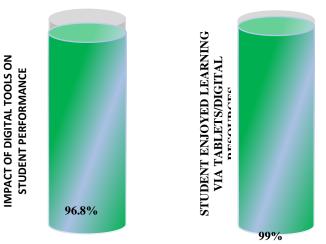
The respondents were asked about their perceptions regarding the impact of digital tools on student performance and whether students enjoy learning through tablets and digital resources.

Overall findings indicate a high level of consensus among participants regarding the positive impact of digital tools on student performance. An overwhelming majority across all groups, with 97% of all respondents, affirmed that using digital tools has indeed improved student performance.

Similarly, the sentiment regarding student enjoyment of learning via

Figure 21 Impact of Digital Tools on Students

Impact of Digital Tools on Students (N=309)



tablets and digital resources was overwhelmingly positive, with 99% expressing agreement that students enjoy this mode of learning.

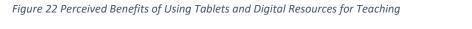
Table 22 Perception of Digital Tools Impact on Student Performance and Enjoyment (by Respondent Category) (in numbers and percentages)

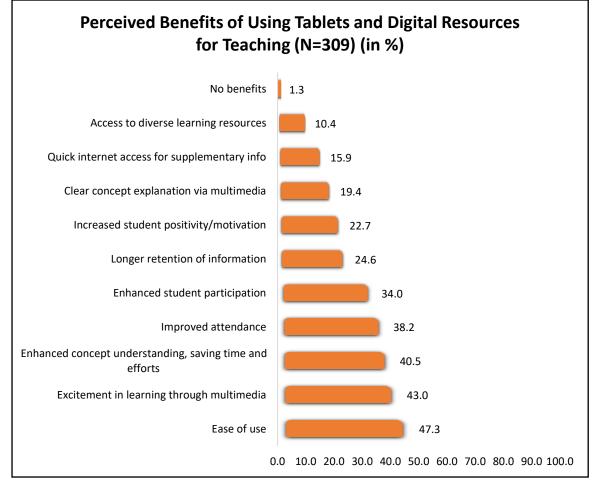
Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=309)
Impact of Digital Tools on Student Performance	9 (100.0%)	26 (100.0%)	299 (96.8%)
Student Enjoyed Learning via Tablets/Digital Resources	9 (100.0%)	26 (100.0%)	307 (99.4%)

Analysis further reveals that all teachers and learning facilitators acknowledged the positive impact of digital tools on student performance, reporting that students enjoy learning via tablets and digital resources. Similarly, the vast majority of youth volunteers (96%) recognized the beneficial effect of digital tools on student performance, while an overwhelming 99% of them affirmed that students find learning through tablets and digital resources enjoyable. This unanimous consensus underscores the efficacy of digital tools in enriching student learning experiences, making education more engaging and effective.

#### 3.6.2 Perceived Benefits and Challenges

In exploring the perceived benefits of utilizing tablets and digital resources for teaching, participants highlighted several advantages. Overall, ease of use emerged as the most prominent perceived benefit, with 47% of all respondents acknowledging it.





Additionally, the incorporation of multimedia elements sparked excitement among students, acknowledged by 43% of respondents. Furthermore, 41% of participants recognized that digital tools enhance students' understanding of concepts, indicating their efficacy in facilitating comprehension and knowledge retention. Improved attendance (38%) and increased student participation (34%) were also cited, suggesting that digital tools contribute to a more interactive and inclusive classroom atmosphere. Moreover, 25% of respondents noted the longer retention of information facilitated by digital resources.

Table 23 Perceived Benefits of Using Tablets and Digital Resources for Teaching (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Ease of use	5 (55.6%)	8 (30.8%)	133 (48.5%)
Excitement in learning through multimedia	5 (55.6%)	9 (34.6%)	119 (43.4%)
Enhanced concept understanding, saving time and efforts	3 (33.3%)	11 (42.3%)	111 (40.5%)
Improved attendance	5 (55.6%)	13 (50.0%)	100 (36.5%)
Enhanced student participation	3 (33.3%)	12 (46.2%)	90 (32.9%)

Longer retention of information	3 (33.3%)	6 (23.1%)	67 (24.5%)
Increased student positivity/motivation	2 (22.2%)	4 (15.4%)	64 (23.4%)
Clear concept explanation via multimedia	2 (22.2%)	3 (11.5%)	55 (20.1%)
Quick internet access for supplementary info	3 (33.3%)	3 (11.5%)	43 (15.7%)
Access to diverse learning resources	2 (22.2%)	3 (11.5%)	27 (9.9%)
No benefits	0 (0.0%)	0 (0.0%)	4 (1.5%)

Analysing the data by respondent category, among teachers, benefits such as ease of use (5) and enhanced attendance (5) were prominent, while learning facilitators emphasized improved attendance (13) and increased student participation (12). For youth volunteers, ease of use (49%), excitement among students (43%), and enhanced concept understanding (41%) emerged as significant benefits. These findings underscore the multifaceted advantages of digital tools in education, from enhancing teaching efficiency to fostering student engagement and comprehension.

#### **3.6.3 Perceived Benefits of Using Tablets and Digital Resources: Student Perceptions**

Exploring student perceptions of using tablets and digital resources reveals a prevalent sentiment of enjoyment in learning through multimedia, expressed by 52% of respondents, indicating a positive engagement with interactive educational content. Additionally, there's a notable increase in student participation (38%) and a deeper understanding of concepts (38%) attributed to the integration of digital resources. The observed improvement in attendance (37%) suggests that students are more inclined to attend classes when digital tools are incorporated into the learning process.

Moreover, multimedia-enhanced comprehension (30%) underscores the effectiveness of visual and interactive learning aids in facilitating understanding and retention of educational content.

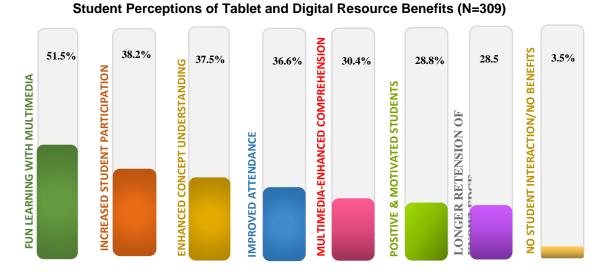


Figure 23 Student's Perception of Tablet and Digital Resource Benefits

Upon closer examination across respondent categories, it became evident that all groups identified fun learning experiences with multimedia as a key benefit perceived by students. Additionally, teachers and learning facilitators highlighted improvements in attendance, with 5 teachers and 11 learning facilitators reporting such enhancements. On the other hand, youth volunteers noted an increase in student participation as a notable benefit resulting from the use of digital resources.

Table 24 Student Experiences and Benefits of Using Tablets and Digital Resources (by Respondent Category) (in numbers and percentages)

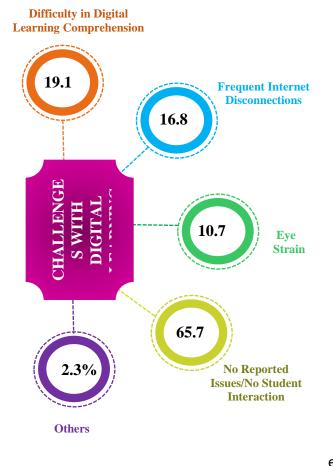
Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Fun learning with multimedia	5 (55.6%)	14 (53.9%)	140 (51.1%)
Increased student participation	2 (22.2%)	6 (23.1%)	110 (40.2%)
Enhanced concept understanding	5 (22.2%)	7 (23.1%)	104 (38.0%)
Improved attendance	5 (55.6%)	11 (42.3%)	97 (35.4%)
Multimedia-enhanced comprehension	3 (33.3%)	5 (19.2%)	86 (31.4%)
Positive and motivated students	3 (33.3%)	10 (38.5%)	76 (27.7%)

Longer retention of knowledge	1 (11.1%)	5 (19.2%)	82 (29.9%)
No student interaction/No benefits	0 (0.0%)	0 (0.0%)	11 (4.0%)

#### 3.6.4 Perceived Challenges with Digital Learning: Student Perceptions

Figure 24 Student's Perception on Challenges with Digital Learning





In this section, participants were about questioned the challenges students encounter with the utilization of digital resources for education. Overall, the findings indicate that 66% of respondents either reported no challenges related to digital resource usage or stated they do not have interactions with students.

Amona the identified challenges, comprehending difficulty in digital learning material was notable, with 19% of all respondents expressing this concern. Additionally, frequent internet disconnections emerged as another significant challenge, noted by 16.8% of respondents. This issue can disrupt the continuity of online learning sessions, leading interruptions the to in educational process and hindering students' learning experiences.

Eye strain was also highlighted as a concern, particularly among students, with 11% of respondents mentioning it. Prolonged screen time and improper viewing distances can contribute to eye strain, affecting students' comfort and potentially impacting their ability to engage with digital learning materials effectively.

Among youth volunteers, 66% reported no reported issues or no student interaction. Difficulty in digital learning comprehension was reported as the primary challenge. Frequent internet disconnections were more commonly reported by learning facilitators.

Table 25 Student-Reported Challenges with Digital Learning (by	y Respondent Category) (in numbers and percentages)
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Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Difficulty in digital learning comprehension	1 (11.1%)	2 (7.7%)	56 (20.4%)
Frequent internet disconnections	1(11.1%)	9 (34.6%)	42 (15.3%)
Eye strain	1(11.1%)	0 (0.0%)	32 (11.7%)
No reported issues/No student interaction	7 (77.8%)	14 (53.9%)	182 (66.4%)

#### Other

### 3.6.5 Effectiveness of Tablet-based Teaching

Participants were surveyed to gauge the effectiveness of tabletbased teaching, with results indicating a robust consensus across all respondent categories. Remarkably, 95% of respondents rated tablet-based teaching as highly effective or effective, while only 2% expressed neutrality and a mere 1% considered it to be highly ineffective or ineffective.

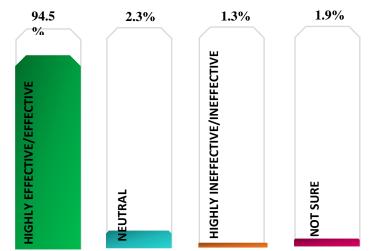
Upon analysing the data by respondent category, consistent perceptions emerged. All teachers and learning facilitators, along with 94% of youth volunteers, perceived tablet-



Figure 25 Effectiveness of Tablet-Based Teaching

#### Effectiveness of Tablet-Based Teaching (N=309)

2 (7.7%)



based teaching as highly effective or effective. This widespread agreement underscores the positive impact attributed to the use of tablets for teaching purposes.

Effectiveness of Tablet-Based Teaching	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Highly effective/ Effective	9 (100.0%)	26 (100.0%)	257 (93.8%)
Neutral	0 (0.0%)	0 (0.0%)	7 (2.6%)
Highly ineffective/Ineffective	0 (0.0%)	0 (0.0%)	4 (1.5%)

#### 3.6.6 Perception of Digital Education Impact on Learning Experience

Participants were surveyed to assess the impact of digital education on students' overall learning experience, revealing a predominantly positive perception.

Notably, 95% of respondents described the impact as very positive or positive, with only 4% expressing neutrality and a mere 1% viewing it as very negative or negative.

Upon further analysis by respondent category, it is apparent that all learning facilitators and the majority Impact of Digital Education on Students' Learning Experience (N=309) (in %)
 1.3
 4.2
 94.5
 94.5
 • Very Positive/Positive
 • Neutral
 • Very Negative/Negative

Figure 26 Impact of Digital Education on Student's Learning Experience

of teachers (7 out of 9) shared the perception of digital education as very positive or positive. Similarly, 95% of youth volunteers perceived digital education positively, with only a few expressing negative sentiments.

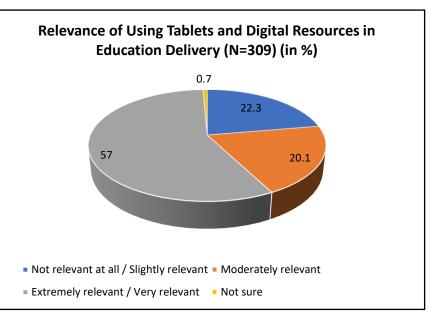
Table 27 Impact of Digital Education on Students' Learning Experience (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Very Positive/Positive	7 (77.8%)	26 (100.0%)	259 (94.5%)
Neutral	1 (11.1%)	0 (0.0%)	12 (4.4%)
Very Negative/Negative	1 (11.1%)	0 (0.0%)	3 (1.1%)

#### **3.6.7 Relevance of Using Tablets and Digital Resources in Education Delivery**

Participants surveyed to evaluate the relevance of using tablets and digital resources in delivering education, revealing a diverse range of perspectives. Overall, the findings demonstrate a strong consensus, with 57% of respondents rating the relevance as extremely relevant very or relevant.

However, around 22% considered it not relevant at all or slightly



Were Figure 27 Relevance of Using Tablets and Digital Resources in Education Delivery

relevant, while 20% perceived it as moderately relevant.

When examining the responses by respondent category, it becomes apparent that the majority of teachers (6), learning facilitators (19), and a significant portion of youth volunteers (55.1%) rated the relevance of tablets and digital resources highly.

Table 28 Perception of Relevance of Tablets and Digital Resources in Education (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Not relevant at all / Slightly relevant	2 (22.2%)	1 (3.9%)	66 (24.1%)
Moderately relevant	1 (11.1%)	6 (23.1%)	55 (20.1%)
Extremely relevant / Very relevant	6 (66.7%)	19 (73.1%)	151 (55.1%)
Not sure	0 (0.0%)	0 (0.0%)	2 (0.7%)

#### **3.7 Impact of Digital Education**

#### 3.7.1 Changes in Class Attendance

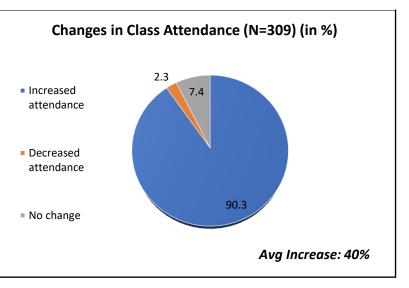
Participants were asked whether they observed any changes in class attendance since the introduction of tablets or digital resources in education.

Overall, the findings indicate a significant positive impact on class attendance, with 90% of respondents reporting increased attendance. A mere 2% noted decreased attendance, while 7% observed no noticeable change in attendance.

Figure 28 Changes in Class Attendance

Further analysis bv respondent category reveals consistent trends. All teachers and learning facilitators reported increased attendance, emphasizing the positive influence of digital resources on student engagement. Among youth volunteers, 89.1% also reported increased attendance.

Furthermore, out of the 279 respondents who reported increased attendance, they were asked to specify the



percentage increase. On average, they reported a 40% increase in attendance. It's evident that integrating digital tools into education has effectively engaged students and encouraged their participation in classroom activities.

Table 29 Impact of Tablets and Digital Resources on Class Attendance (by Respondent Category) (in numbers and percentages)

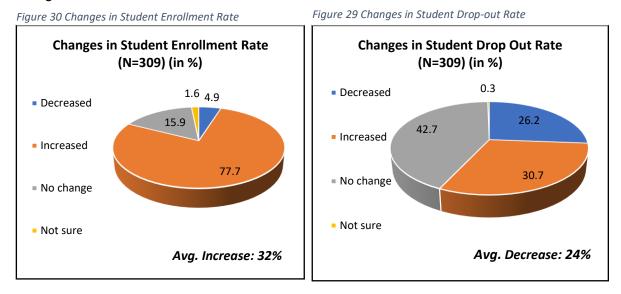
Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Increased attendance	9 (100.0%)	26 (100.0%)	244 (89.1%)
Decreased attendance	0 (0.0%)	0 (0.0%)	7 (2.6%)
No noticeable change in attendance	0 (0.0%)	0 (0.0%)	23 (8.4%)

Moreover, insights from an in-depth interview (IDI) with one of the teachers further substantiate these findings. According to the teacher, there has been a noticeable improvement in students' attendance. Previously, students tended to be absent more frequently, particularly before and after holidays. However, since the introduction of digital tools, students are taking fewer leaves and exhibiting increased regularity in attending classes.

#### 3.7.2 Changes in Enrollment and Dropout Rate

Respondents were also asked about the changes in student enrollment and dropout rates since the implementation of the project.

Overall, the majority reported positive changes in student enrollment, with 78% indicating an increase, averaging at 32%. Conversely, only 5% reported a decrease, while 16% noted no change.



Regarding dropout rates, 31% reported an increase, but a larger proportion (43%) noted no change. Encouragingly, 26% observed a decrease in dropout rates, with an average decrease of 24%.

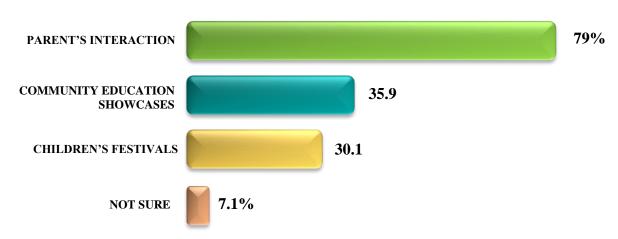
Table 30 Impact of Tablets and Digital Resources on School Enrolment and Drop Out (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Change in School Enrolment			
Increased	8 (88.9%)	24 (92.3%)	208 (75.9%)
Decreased	1 (11.1%)	0 (0.0%)	14 (5.1%)
No change	0 (0.0%)	2 (7.7%)	47 (17.2%)
Not sure	0 (0.0%)	0 (0.0%)	5 (1.8%)
Change in School Drop Out			
Increased	2 (22.2%)	5 19.2%)	88 (32.1%)
Decreased	3 (33.3%)	17 (65.4%)	61 (22.3%)
No change	4 (44.4%)	4 (15.4%)	124 (45.3%)
Not sure	0 (0.0%)	0 (0.0%)	1 (0.4%)

#### 3.8 Initiatives to Enroll Students

Respondents provided insights into the initiatives undertaken to enroll students who were not enrolled or had dropped out of schools.

Figure 31 Initiatives to Enroll Students



#### Initiatives to Enroll Students (N=309)

Interaction with parents emerged as the most commonly reported initiative, mentioned by 79% of respondents. Organizing children's festivals and showcasing the importance of education in the community were also notable initiatives, cited by 30.1% and 35.9% of respondents, respectively.

Table 31 Initiatives to Enroll Students (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Parent's Interaction	7 (77.8%)	19 (73.1%)	218 (79.6%)
Community Education Showcases	3 (33.3%)	17 (65.4%)	91 (33.2%)
Children's Festivals	3 (33.3%)	12 (46.2%)	78 (28.5%)

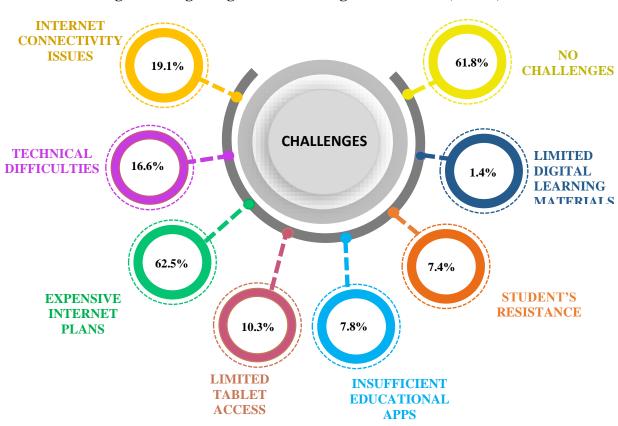
#### **3.9 Challenges and Suggestions**

#### **3.9.1. Challenges in Integrating Tablets and Digital Resources**

Teachers and youth volunteers were surveyed to identify challenges encountered in integrating tablets and digital resources into teaching methods. Surprisingly, 62% of the respondents did not report any challenges, indicating a relatively smooth transition to digital tools

However, among the reported challenges, internet connectivity emerged as the most prevalent issue, accounting for 19% of respondents. This issue can cause delays in lesson delivery and hindering the flow of classroom activities. Teachers may need to pause or modify their teaching methods to accommodate these interruptions, impacting the overall efficiency of the learning process.

Figure 32 Challenges in Integrating Tablets and Digital Resources



Challenges in Integrating Tablets and Digital Resources (N=283)

Technical difficulties were reported by 17% of respondents, encompassing issues with hardware, software, or connectivity that impede the smooth implementation of digital learning initiatives. Moreover, the cost of internet access was mentioned by 13% of respondents, highlighting the financial barrier to leveraging digital resources effectively.

Insufficient availability of tablets was reported by 10% respondents, underscoring the importance of sufficient hardware availability for digital learning initiatives. Furthermore, concerns regarding the availability of educational apps (8%) and student resistance (7%) were also noted.

Particulars	Teachers (N=9)	Youth Volunteers (N=274)
Internet connectivity issues	0 (0.0%)	54 (19.7%)
Technical difficulties	1 (11.1%)	46 (16.8%)
Expensive internet plans	1 (11.1%)	36 (13.1%)
Limited tablet access	0 (0.0%)	29 (10.6%)
Insufficient educational apps	0 (0.0%)	22 (8.0%)
Student's resistance	0 (0.0%)	21 (7.7%)
Limited digital learning materials	0 (0.0%)	4 (1.5%)
No challenges reported	7 (77.8%)	168 (61.3%)

Among teachers, the majority (7) reported no challenges, with only two mentioning technical difficulties and expensive internet plans. In contrast, among youth volunteers, over 60% did not report any challenges. However, for those who did, the most common obstacles were internet connectivity issues (20%) and technical difficulties (17%), followed by expensive internet plans (13%) and limited tablet access (11%).

During an In-Depth Interview (IDI), a significant issue regarding the distribution of tablets was highlighted. It was emphasized that while digital education has positively impacted student performance, the current practice of providing only one tablet per school falls short, considering the average student population of 200-250 per school. The respondent suggested that providing tablets to all students would be more beneficial. This approach would ensure that every student has access to digital resources, maximizing the potential benefits of digital learning.

*Furthermore, a community mobilizer highlighted the challenge of low attention during meetings. They proposed addressing this issue by providing films, pictures, or videos on tablets to engage participants effectively.* 

## **3.9.2 Strategies to Address Challenges in Using Tablets and Digital Resources**

In this section, we examine the strategies and solutions implemented to tackle the challenges encountered in the utilization of tablets and digital resources for educational purposes.

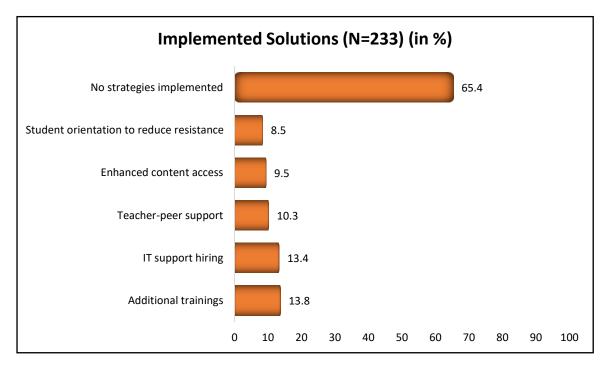


Figure 33 Solutions Implemented to Address the Challenges

A key solution implemented to address the challenges related to digital education was the organization of additional training programs. These programs, reported by 14% of respondents, aimed to enhance digital literacy and proficiency among teachers and volunteers, thereby equipping them with the necessary skills to effectively integrate digital tools into teaching practices.

Another significant strategy employed to tackle challenges in digital education was the hiring of dedicated IT support staff. This solution, reported by 13% of respondents, involved recruiting personnel to promptly resolve technical issues and ensure the smooth operation of digital learning systems.

To address challenges effectively, teacher-peer support initiatives were implemented by 10% of respondents. These initiatives underscored the value of collaborative learning and knowledge sharing among educators. By facilitating peer-to-peer support networks, educators were able to exchange insights, strategies, and best practices for effectively utilizing tablets and digital resources in their teaching approaches.

Recognizing the importance of diverse educational resources in enriching digital learning experiences, around 10% of respondents emphasized the implementation of strategies to enhance access to content. This involved ensuring that students had access to a wide range of educational materials and resources through digital platforms.

Addressing student resistance to digital learning tools was another focus area, with approximately 9% of respondents mentioned organizing orientation programs for students. These programs were designed to familiarize students with digital learning tools and cultivate a positive attitude towards technology integration in education.

Table 33 Strategies Implemented to Address Challenges in Using Tablets and Digital Resources (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Youth Volunteers (N=274)
Additional trainings	1 (11.0%)	38 (13.9%)
IT support hiring	2 (22.2%)	36 (13.1%)
Teacher-peer support	2 (22.2%)	27 (9.9%)
Enhanced content access	2 (22.2%)	25 (9.1%)
Student orientation to reduce resistance	1 (11.0%)	23 (8.4%)
No strategies implemented	4 (44.4%)	181 (66.1%)

#### 3.9.3 Suggestions for Future Projects

In this section, we will discuss the Figure 34 Suggestions for Future Projects suggestions and recommendations provided bv participants potential for modifications or enhancements to future projects involving the utilization of tablets and digital resources in education.

Interestingly, a notable proportion of respondents (17%) did not provide any suggestions for future projects, indicating satisfaction with the current approach.

When considering all respondents collectively, the most commonly suggested enhancement was the provision of refresher trainings,

**Suggestions for Future Projects** (N=245) (in %) 100 90 80 65.7 70 60 50 40 34.0 26.5 30 17.5 20 10 0 Refresher On demand Enhanced No suggestions trainings technical access to digital support materials/apps

with 66% of participants recommending this approach. This indicates a strong desire among participants for ongoing professional development to maintain and enhance digital literacy and teaching skills.

Table 34 Suggestions for Future Projects (by Respondent Category) (in numbers and percentages)

Particulars	Teachers (N=9)	Learning Facilitators (N=26)	Youth Volunteers (N=274)
Refresher trainings	6 (66.7%)	18 (69.2%)	179 (65.3%)
On demand technical support	3 (33.3%)	8 (30.8%)	94 (34.3%)
Enhanced access to digital materials/apps	4 (44.4%)	14 (53.9%)	64 (23.4%)
No suggestions	1 (11.1%)	0 (0.0%)	53 (19.3%)

Furthermore, on-demand technical support was deemed necessary by 34% of respondents, highlighting the importance of readily available assistance to address technical issues promptly and ensure the smooth operation of digital learning systems.

However, suggestions for enhanced access to digital materials and apps were less prevalent overall, with 27% of respondents expressing this need. This suggests that while technical support and training are important, attention should also be given to the availability and quality of digital resources to enrich the learning experience.

# 4. SUMMARY AND CONCLUSION



#### **4. SUMMARY AND CONCLUSION**

The integration of tablets and digital resources into education has catalysed a transformative shift, reshaping the landscape of teaching and learning. From lesson planning to student assessment, respondents in this study showcased the multifaceted uses of tablets, underscoring their versatility and effectiveness in the educational process. The accessibility and engaging nature of digital learning materials have contributed to improved student attendance and heightened enjoyment of learning.

Efforts to enroll children in schools have yielded promising results, evidenced by the reported increase in enrollment rates and reduction in dropout rates. An overwhelming 95% of respondents unequivocally found digital learning to be effective, highlighting its ability to engage students and enhance the learning process. Moreover, a similar percentage expressed confidence in the positive impact of digital education on student performance, recognizing its pivotal role in driving academic success. Beyond effectiveness and performance, over 75% of respondents affirmed the relevance of digital education in today's educational landscape. Furthermore, 85% of participants benefited from training sessions focused on utilizing tablets and the Diksha App.

From the students' perspective, digital learning promises clear concepts, increased participation, and prolonged retention of knowledge. Through the dynamic use of multimedia elements, learning becomes not just accessible but engaging, fostering a deeper understanding of concepts. Study highlighted several challenges in the realm of digital education, including internet connectivity issues, technical glitches, high internet costs, and limited availability of educational apps.

Based on the findings, several recommendations can be proposed to enhance the effectiveness of digital education initiatives:

- 1. Additional Training: Regular training programs can be organized to enhance proficiency in utilizing digital tools and software. These initiatives aim to broaden knowledge and skills, fostering improved performance of students.
- 2. **Refresher Trainings:** Refresher training sessions can be organized to help teachers and other stakeholders to stay up to date with the latest advancements and changes in digital education. These sessions will reinforce their existing skills, tackle new technical challenges, and introduce them to innovative teaching methods or technologies.
- 3. **Diversifying Digital Learning Materials:** Enhance the variety of digital learning resources to cover a broader spectrum of subjects and topics, thereby enriching the educational journey for students. By expanding the range of available materials, students can access comprehensive learning content across various subjects, ultimately enhancing their academic performance and learning outcomes.

- 4. More Tablets to Schools: To enhance digital access across all classes, it's imperative to provide more tablets to schools. By equipping students with tablets, will not only facilitate online learning but also foster their digital literacy skills, enabling access to a diverse range of educational resources available through platforms such as Google Search and YouTube.
- 5. Enhancing Visual Learning with Projectors: Projectors can be given to schools to enlarge screen content, aiding students in comprehending the material more easily. This initiative will not only alleviate issues of eye strain but also enhances the overall learning experience by offering a clearer and more visually engaging presentation of educational content.
- 6. **Technical Training for IT Personnel:** Specialized training sessions can be organized for IT personnel in schools to equip them with the diagnostic tools and troubleshooting protocols to address hardware malfunctions, software glitches, network connectivity issues, and other technical challenges, ensuring prompt resolution of technical challenges and minimal disruptions to digital learning activities.
- 7. Integrating Digital Tools in Community Meetings: Teachers and mobilizers can be provided with digital content for community meetings. Utilizing digital presentations, videos, images, and other multimedia can effectively captivate participants' attention, enabling better comprehension and engagement with the message.

#### CONFORMITY TO ISO STANDARD SLIDE

- This work was undertaken in accordance with the standards laid out in ISO 20252:2019, ensuring a consistent quality of work to the highest standards in the industry. Ipsos's processes are annually audited by external certified to external accredited quality assessors.
- 2. Ipsos has over 18,000 plus employees across 90 markets and 5000+ clients.
- 3. Ipsos is member of most key market research bodies and we abide by their quality standards.



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