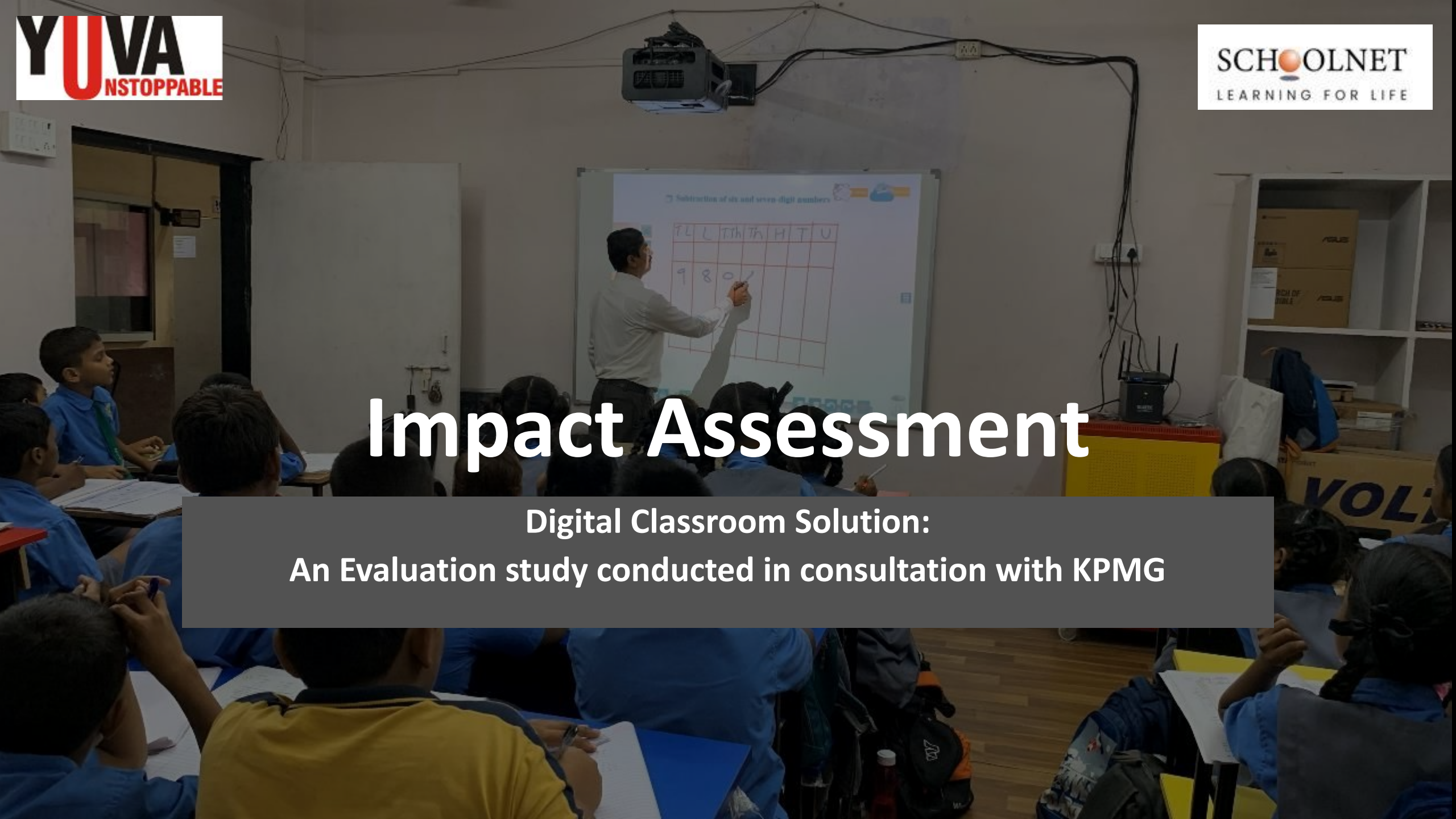


Impact Assessment

Digital Classroom Solution:

An Evaluation study conducted in consultation with KPMG

About the Impact Study

This impact assessment has been undertaken for the Digital Classrooms solution implemented by Schoolnet India Ltd in partnership with Yuva Unstoppable in 31 schools over Gujarat and Maharashtra

KPMG's role

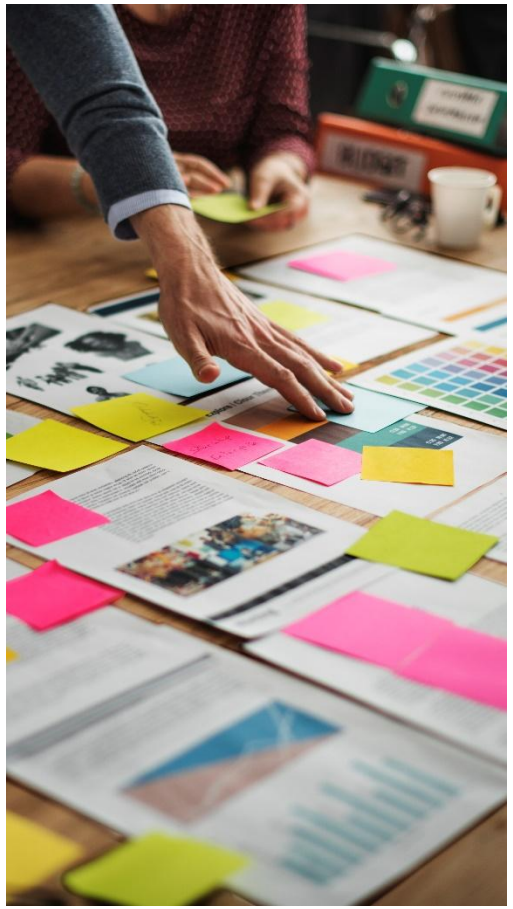
- The impact assessment framework was designed and executed in alignment with the objectives and indicators provided by KPMG.
- The instruments for data collection were designed by Schoolnet and validated by KPMG.
- The data analysis framework and the coding scheme was designed by KPMG.
- Periodic inputs were taken from KPMG on the oversampling of data, handling of outliers, inferential analysis, reporting, etc.

Specific to Impact Assessment, KPMG

Has conducted an audit, due diligence and validated the inferences provided in the report

Emphasizes that the realization of the benefits accruing out of the recommendations/insights set out within this report, is dependent on the integrative implementation of the product solution.

Key Implications



Adoption

The digital classroom solutions have been adopted extremely well in the study locations by the major stakeholders of the school ecosystem and across all school categories.

Teaching-learning practices

Teaching-learning practices that are both developed and influenced by the product solutions are the most progressive (creative-transformative) ones in the education domain.

Technology Integration

With negligible sustainability challenges, the study underscores a scalable model of technology integration in education to power up schools and teaching-learning processes

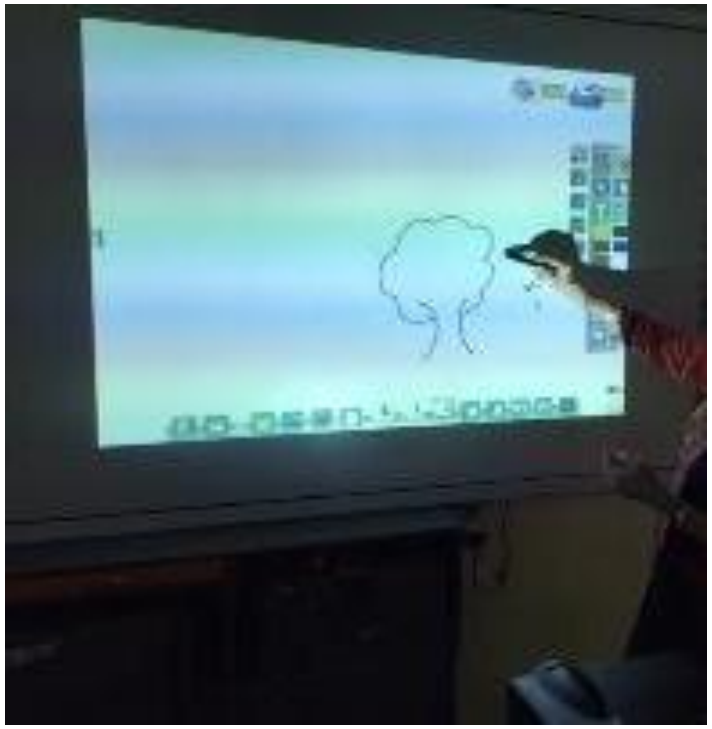
Positive Gains

Systemic measures and combined efforts targeted toward solution integration are determinants of positive gains and will go a long way to empower schools digitally.

Equitable Adoption

Gender-based equitable adoption of the product solution helps counter the perception of biased gender views on technology usage perception and efficiency.

About the Solution



The Solution

Product 1: Smart Classroom

Teacher centric device to facilitate group learning. The single wire, easy to operate device is expected to improve teaching learning efficiency through various features like interactivity, my library, geometric tools and more.

Teachers experience faster coverage of syllabus and provide better conceptual clarity among students through multi-media learning units. It can be stationary or moved around for usage in multiple classrooms.

The Solution

Product 2: Google Future Classroom

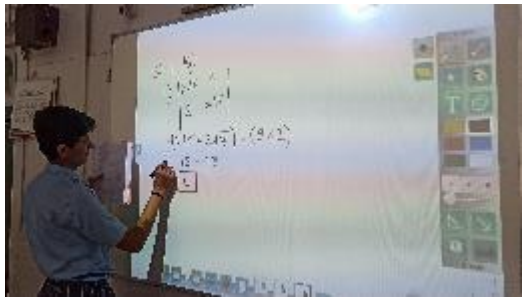
Provides a joint stack of solutions comprising of shareable devices, collaborative tools for teachers and students using Google Workspace for Education. The digital learning zone provides experiences in 21st century skills such as critical thinking, communication, collaboration and creativity.

Teachers can spend more time on enhancement of student learning in a collaborative environment.

Implemented solution: Digital Classrooms

Devices

- KYAN: Patented “6-in-one” interactive, portable, Teaching-Learning intelligent device
- Google’s Chromebook: Shareable Learning Devices



Content and Applications

- Curriculum Aligned Digital Content: 12,000 Units available in English & Local languages
- Teaching & Learning Management System
- Dashboard Analytics to track students’ progress

Services

- Continuous Professional Development of Teachers
- Handholding, monitoring & evaluation support

Digital Classrooms solution is an integrative stack of Smart Classroom and Google Future Classroom
Implemented in more than 1200 schools

KYAN Video

Impact Assessment Study

About the Study

Framework for the Study

- This study was designed using the evaluation criteria by **OECD-DAC** which assesses impact operationalised as the
  - **Relevance**
  - **Efficiency**
  - **Effectiveness and Coherence**
  - **Sustainability**

of an intervention or a development project

Our key evaluation questions were:

Coverage of the Study

31 Schools, 31 principals, 121 teachers and 363 students

Project and Stakeholders	**Location**	**Mumbai-Thane, Maharashtra**	**Mangaon**	**Ahmedabad, Gujarat**
	Districts covered	2-Thane, Mumbai	1-Raigarh	2 - Ahmedabad, Gandhinagar
	Schools covered	12	15	4
	Medium of Instruction	Marathi	Marathi	Gujarati
	School Type (Govt./Aided/Private)	Urban, Government & Pvt. Aided	Rural, Government, Pvt. Aided, Pvt. Unaided	Rural & Urban, Government
	Classes (covered under the project)	6th to 8th	6th to 8th	6th to 8th
Hardware	No. of K-Yan devices and specification	12	15	4
Services	Teacher Training days & batches	2 (Basic and Refresher)	2 (Basic and Refresher)	2 (Basic and Refresher)

Tools Used

Survey instruments

- Structured Questionnaires for all stakeholders – principals, teachers and students – all study locations

Factual data from the schools

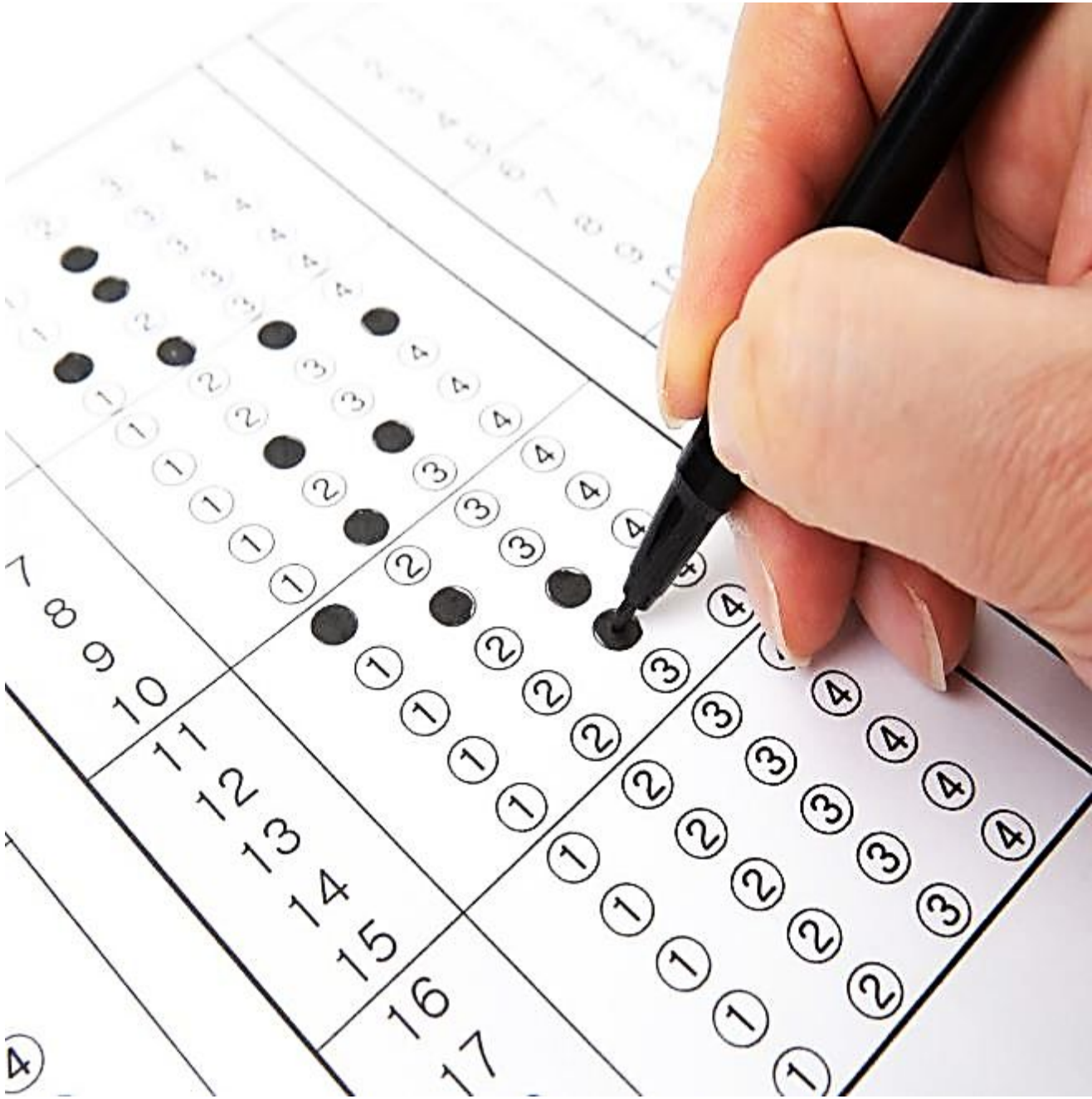
- Data on student enrolment – all study locations

Focussed Group Discussions (FGDs)

- Teacher and student cohorts – 3 schools (1 each in Mumbai, Gujarat & Raigad)

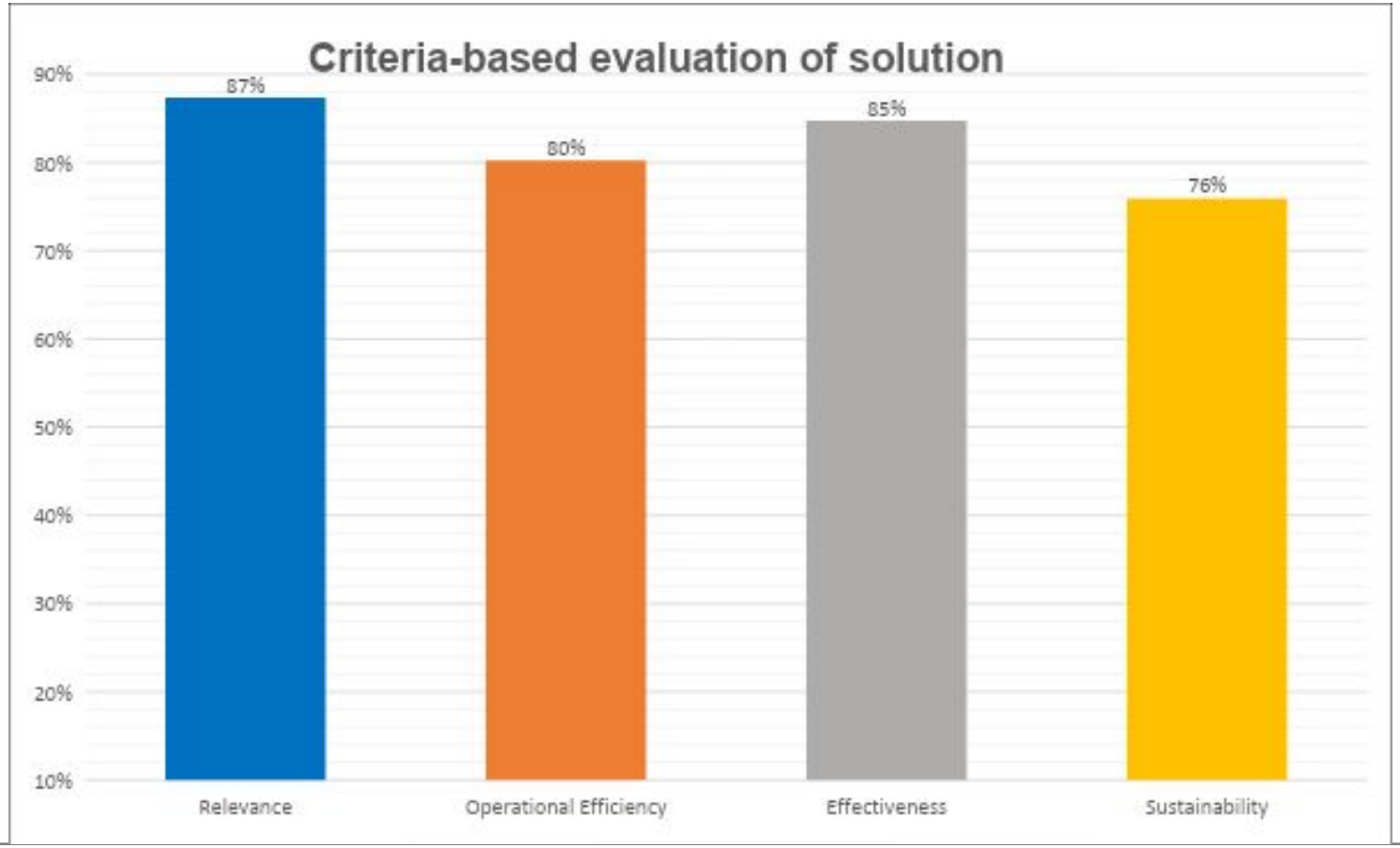
Semi-structured interviews

- Principals – 3 schools (1 each in Mumbai, Gujarat & Raigad)



Findings

Quantitative

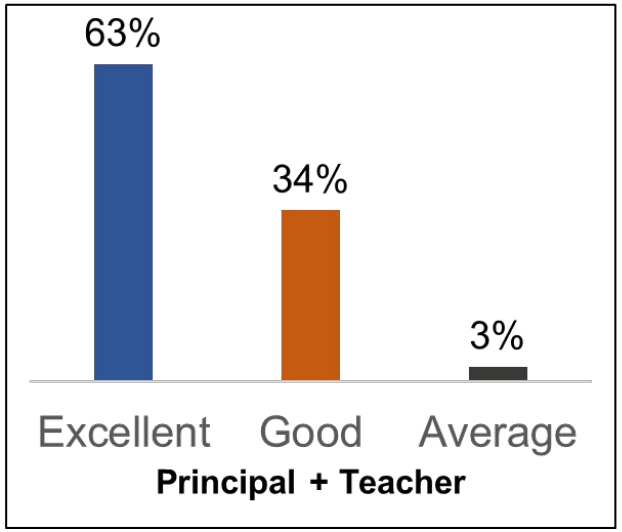


Insights:

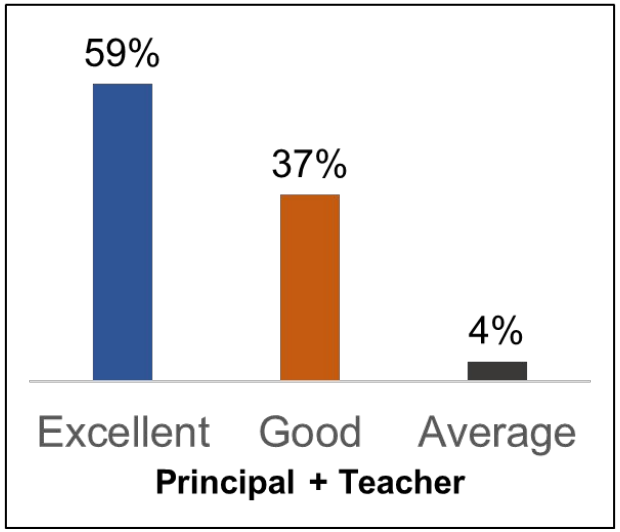
The solution has been rated excellent on all four evaluation criteria. The Relevance rating for the solution is 87%, the Efficiency rating is found to be 80%, for effectiveness the solution has been rated at 85% whereas on sustainability it is rated at 76%. The ratings indicate that there has been a **very strong adoption and integration** of the solution in the teaching-learning processes and the digital ecosystem of the schools.

Improvement in learning outcomes

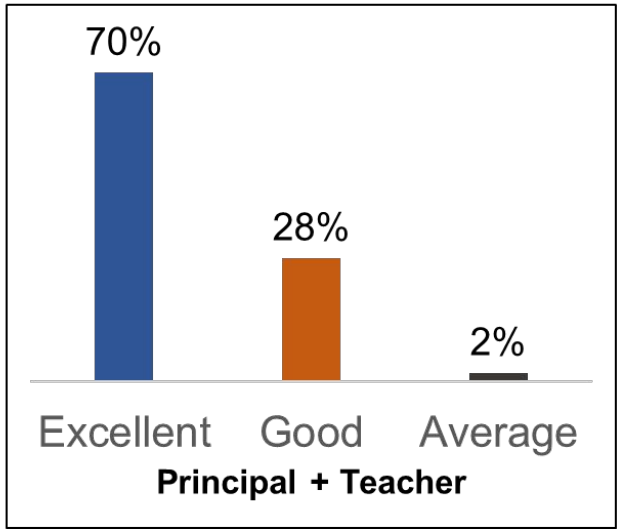
Extent of Improvement in Student Attendance

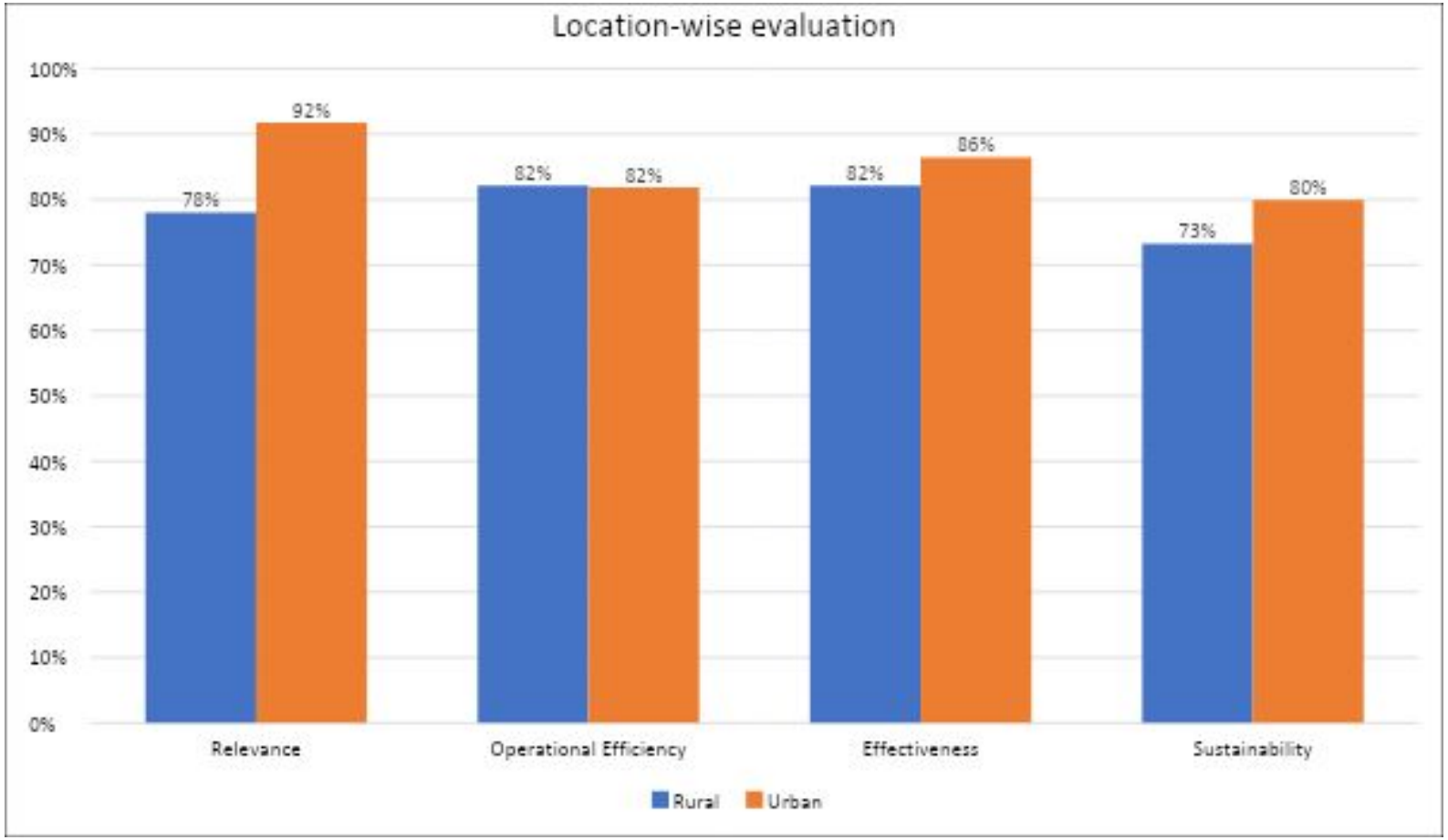


Extent of Improvement in Student Enrolment



Extent of Improvement in Learning Outcomes





Insights:

Overall, the solution has been **extremely successful in both school locations**. The graph also suggests that the score on operational efficiency for both school types is the same indicating that the usage of the solution by the teachers and students is exceptional in both urban and rural schools. The urban schools score marginally better than schools in rural locations on 3 of the 4 evaluation criteria. This may be attributed to the apprehensions for the fitment of the solution given some challenges like power cuts or the availability of internet.

Findings

Qualitative

Teacher experiences

"If a topic is the task of about 4 lectures, then with the help of KYAN it can be done within 1 lecture itself. So, somewhere it helps us to save our time and at some instances where topics are difficult, it helps us to elaborate and explain it much better. It is helpful in preparing our plans and strategy for delivering lecture." - Sanjaybhai Gamit, Juval Primary School

Amplification-transformation of teaching practices - Saving time on task

"Participation of students in the learning process has much improved. Even before exams when we show them the lessons of the respective subject, when they are asked various questions, they respond very well. And when they come across same questions in their exams, they are able to articulate them well in their written exams." - Falguni Patel, Juval Primary School

"Children give more importance to the period of Kyan than other subject periods. Due to this they have started studying more and more children have passed this year than the last year. They are also more interested in learning with K-yan than with books. Due to this exposure to technology, their skills have improved." - Madan Dangat, Shailendra Education Society,

Transformation of learning – Increasing student participation and performance

Student experiences

"Earlier we did not have access to perform experiments but now with projector we can see and observe the experiments done. Prior to this when teacher used to explain us experiments, some of us used to understand and some of us did not understand. When we see/observe the experiments here on the projector we understand it easily and we can perform those experiments easily." - Aarti Gohil, Class 8, Juval Primary School

Effectiveness of the interactive content – understanding experiments with virtual labs

"We can understand lessons well using KYAN. Madam would teach us and also display the lessons on the whiteboard here. We can also see the videos of the lessons being taught. There are images that can be displayed on the board. We can listen to the poem and learn how to sing it. It has got very good tunes and we can learn those new tunes." - Sachin Gosawi, Class 6, Shailendra Education Society

Effectiveness of the content – the power of multimedia learning

Principal experiences

"There are indicators that have been defined which need to be achieved. So, say a student who does not have **exposure** to KYAN is meeting indicators up to 50%, but those indicators are achieved up to 70-75% when KYAN is used as a medium for transferring knowledge. So, their abilities are upgraded for sure." - Kamlesh Kumar Chavada, Juval Primary School

"Now students on their own come forward to get enrolled for such scholarship exams and we make use of KYAN to help them prepare for such exams. Our ratio of participation in competitive exams have increased." - Kamlesh Kumar Chavada

"Ours is a remote school location with very limited access and exposure for better learning for students. But KYAN has given them a Global touch; we were able to get them into the global race due to KYAN." - Anuradha Shenoy, Shailendra Education Society