

## Kendriya Vidyalaya raises students' engagement and performance with Chromebooks

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### At a Glance

#### What they wanted to do

- Increase student performance
- Introduce new teaching practices

#### What they did

- Transitioned to Chromebooks and Google Apps for Education, which teachers and students at both schools use to collaborate and share materials

#### What they achieved

- Greater student participation
- Higher academic scores
- Integrated teacher lesson plans

#### About KV Janakpuri, Delhi

- Opened in 1973
- Grades 1 to 12
- 4,370 students
- [www.kvjanakpuri.edu.in](http://www.kvjanakpuri.edu.in)

#### About KV IISc, Bangalore

- Founded 1963
  - Grades 1 to 12
  - 1,800 students
  - [www.kviisc.ac.in](http://www.kviisc.ac.in)
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### Background

Known for delivering excellent secondary and senior secondary education, Kendriya Vidyalaya (KV) is a chain of central government schools throughout India. Among the nearly 1,100 schools are KV Janakpuri, Delhi, and the KV Indian Institute of Science (IISc) in Bangalore.

### Challenge

Teachers at KV Janakpuri wanted to stimulate new energy and enthusiasm in their classrooms. “We wanted to explore latest technology tools to increase student engagement,” says Mr Vk Yadav, Principal at KV Janakpuri Delhi. KV IISc, too, wanted to raise student performance, as well as to introduce new teaching practices.

### Solution

To see how Google technology could create engaging classrooms, the two KV schools launched a year-long pilot program with Chromebooks and Google Apps for Education in 2014. The pilot involved 19 teachers and 315 students in grades three, five, and seven. The Chromebooks delivered the flexibility and independence lacking in the school's aging PCs.

### Benefits

#### Easy to use

Every student received individual access to an easy-to-use Chromebook. This personalized approach to learning helped the students become more engaged as they collaborated via the Chromebooks, Google Drive, and Google Sites. The Chromebooks were also far quicker to install and begin using—about 15 minutes, compared with perhaps three or four hours for a desktop PC.

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***“More students are interested when they have different ways to contribute. Now they are going beyond the class through Chromebooks.”***

***–Anju Pal, Science TGT, KV Janakpuri***

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“The desktops in our labs are not that fast, and there is also the problem of power and backup. There is no such problem with Chromebooks,” says Meenakshi Kaushal, KV Janakpuri computer instructor. “It’s also easy for students to submit their assignments. And paperwork is not involved, so it’s easier for us as well.”

### Learning is personalized

The Chromebook pilot helped children with different learning styles to bloom in the classroom. Anju, a trained graduate teacher in Science, recalls one mischievous boy who became much more engaged in class work and even participated in a play. “There has been a tremendous change in his attitude, and now he is able to easily understand and assimilates concepts.”

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## About Chromebooks for Education

Chromebooks for Education give students, teachers, and administrators a simple solution for fast, intuitive, and easy-to-manage computing.

Chromebooks provide access to the web's education and collaboration resources, as well as offer centralised management and low total cost of ownership.

Using Chromebooks, teachers spend more time teaching and less time managing classroom technology, and schools can deploy more computers into the hands of their students and teachers.

To learn more about Chromebooks for Education, visit:  
[www.google.com/chromebook/education](http://www.google.com/chromebook/education)

## About Google Apps for Education

Google Apps for Education is a suite of communication and collaboration tools offered to schools for free and without ads.

Google Apps for Education can be accessed from any device, at any time. Products in the suite include Gmail, Calendar, Drive, and Classroom.

Google Classroom lets teachers easily create, review, and organise assignments, as well as communicate directly with their students.

To learn more about Google Apps for Education, visit  
[www.google.com/edu/](http://www.google.com/edu/)

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"Another boy, normally introverted and quiet among his classmates, gained confidence and became more expressive on Chromebooks. He passes all the assignments with flying colours, and there is much improvement. More students are interested when they have different ways to contribute. Now they are going beyond the class through Chromebooks." Students also have more options now for completing an assignment, she adds.

Some students became so comfortable using the Google solutions that they began helping other students. "When students become teachers themselves, you can see their confidence soar," says KV IISc primary teacher Sudha Ramesh.



## Concepts can be taught holistically

Teachers previously worked in silos, without collaborating with their colleagues who taught different subjects. That changed with Chromebooks and Google Apps for Education. Science and Social Studies teachers, for instance, could jointly offer an integrated research project on Indian water resources, creating a broader understanding and enabling deeper learning. Their students worked together using Google Slides, Google Maps, Google Drawings, and more.

## Results

Research shows a 23 percent uplift in student attention or engagement and a 55 percent increase in ease of explaining complex concepts in classrooms using Chromebooks. Students in the KV pilot programs are "exploring new ideas, and sometimes they are teaching us," Mr. Yadav says. The teachers have seen "an increase in students' attendance and performance," adds KV IISc primary teacher Aarti Poonia. "Students are getting trained for the 21st century at this early age, which is very important."

"Definitely, in future, Chromebooks and Google technology will be a big part of our classroom," Mr. Yadav says. "Developed countries are using them, and now developing countries are on the way to using technology, too. So we think it's a good idea to include Chromebooks in our classes."