

## HT Top School Survey 2016: Syllabus a hurdle in teaching in hi-tech ways

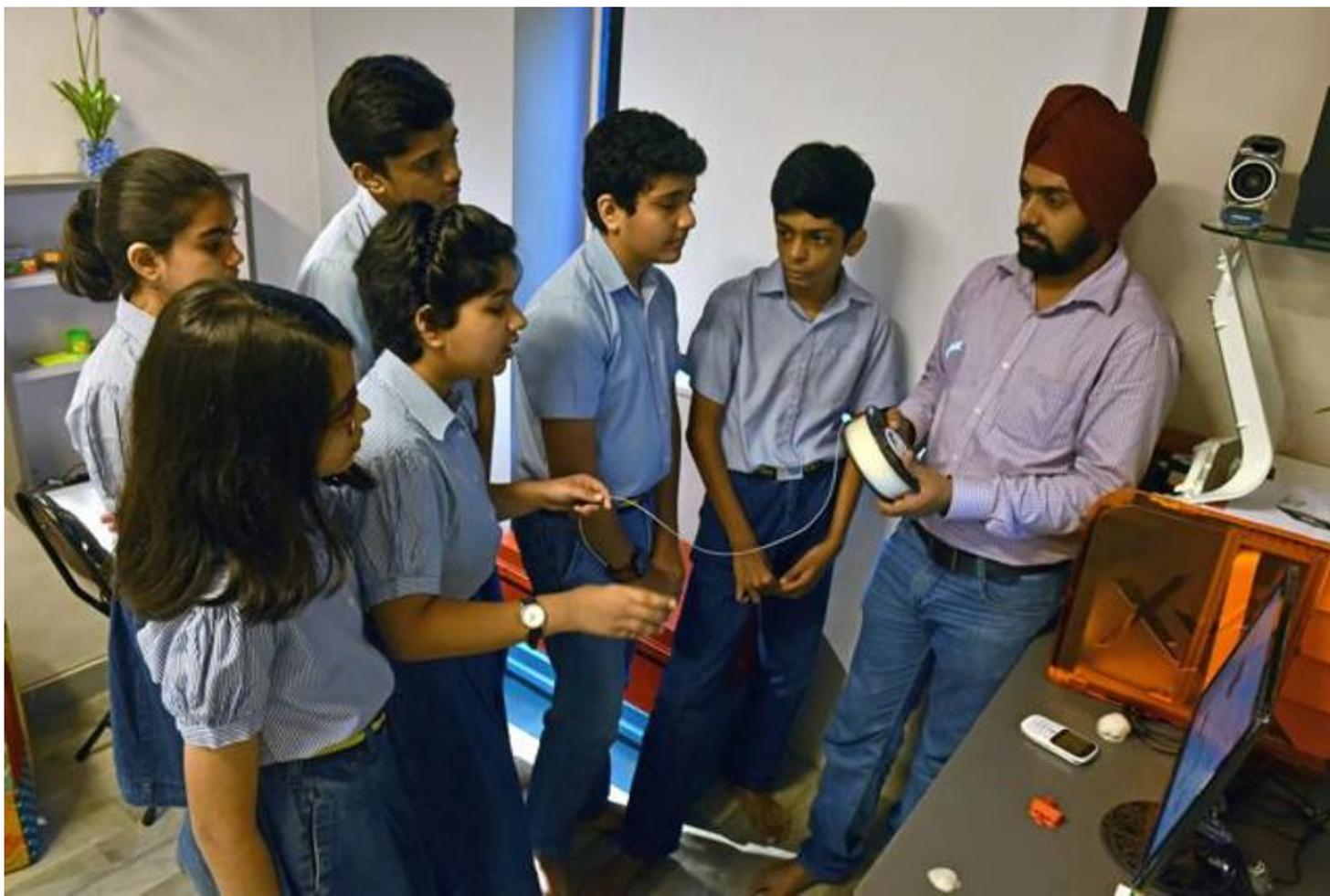
Puja Pednekar, Hindustan Times, Mumbai | Updated: Sep 26, 2016 15:14 IST



Teachers of various schools participate in a workshop to learn new classroom techniques at American School of Bombay, BKC. (Pratham Gokhale/HT PHOTO)

Although government think tank Niti Aayog is promoting tinker labs in schools across the country, the content-heavy syllabus and space constraints are stopping them from adopting the do-it-yourself (DIY) style, according to teachers.

In some schools, untrained teachers find it tough to include new ways in their teaching. Holy Mother School, Malad, for instance, introduced a programme loosely based on the maker movement in 2011, but discontinued it recently. “We couldn’t sustain the programme because teachers weren’t trained to weave it into the curriculum,” said Rafiq Siddiqui, the school’s founder.



## Students of RN Podar school, Santacruz, learn new techniques. (Pratham Gokhale/HT PHOTO)

Rakesh Joshi, principal, Apeejay School, Nerul, said schools will have to spend on training teachers before introducing the new methods. “Teachers don’t mind conducting activities, but we need to enhance their skills,” said Joshi. “Indian curriculum is content heavy and schools are under constant pressure of completing the syllabus in time. Weaving such activities into the curriculum requires some tactful planning.”

**face to face**

**SHABBI LUTHRA, CEO, FOUNDER, CONSILIENCE**

## 'New-age labs motivate students to show creativity'

**MUMBAI:** Shabbi Luthra, CEO and founder, Consilience, a global innovation consultancy, which is leading the training for tinker labs, tells about the origins of the maker movement

**What are maker/tinker labs?**  
Making serves as an intermediate link between educators and designers, connecting them together to create a larger movement towards a smarter and more collaborative production. It was conceptualised by Seymour Papert. It integrates science, technology, engineering, art, and math (STEAM). Tinkering labs provide children with tools to solve problems in the real world.

**Why are they needed when schools have their own science labs and a few schools also have language labs?**  
A maker space is not solely a science lab, computer lab or art room, but it may contain elements found in all of these familiar spaces. So it must be designed to accommodate a wide range of activities, tools and material. Diversity and merging of activities are critical to the design, making and exploration process, which will give rise to new ideas and strong prototyping.

**Why is it important to teach children to do-it-yourself (DIY)?**  
A vital part of the maker experience is providing opportunities for open-ended exploration. DIY attitude enables hands-on involvement of the student. This motivates the student and allows him/her to share his/her creativity.

**How can the teacher incorporate it in a regular classroom?**  
This can be done by incorporating making in the classroom. Teachers can conduct activities related to the subjects, before the start of the lecture or at the end of the concept, such as to use a toy motor and cardboard to explain centrifugal and centripetal force. Let students recreate a scene from their language book and have them recite a story in class.

**Is the module practical?**  
Integrating this model in Indian schools affiliated to the state and national boards is essential. Students get to learn collaboration and hands-on experience with concepts.



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( <http://www.hindustantimes.com/mumbai-news/the-10-best-schools-in-mumbai/story-5qwIU8R6u0a9cwOUrycGFK.html> ) [Best schools in Navi Mumbai\( http://www.hindustantimes.com/mumbai-news/best-schools-in-navi-mumbai/story-nZAeNAE6ywsQcWG6wWotKO.html \)](http://www.hindustantimes.com/mumbai-news/best-schools-in-navi-mumbai/story-nZAeNAE6ywsQcWG6wWotKO.html)

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Space is another factor. Tinker labs require 1,000 to 1,500 square feet of built-up area, according to the guidelines for Atal tinkering labs, which is being endorsed by Niti Ayog. In a space-starved city like Mumbai, schools don't have so much space. "We are in the middle of setting up tinker labs, but infrastructure is a major problem. We don't have space to add a room to our old buildings," said Kavita Sahay, director-school operations and academics, VIBGYOR High Schools.

Parents, too, need to change their attitude towards learning, said teachers. "Parents are obsessed with marks and want to see immediate results, whereas maker is about equipping kids with skills that will come in handy for the future," said Suman S, headmistress, RN Podar School, Santacruz.