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## CBSE goes virtual with OLabs for schoolkids

Isha Jain, TNN Mar 4, 2013, 03.27AM IST

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LUCKNOW: To promote experimentation in learning, Central Board of Secondary Education (CBSE) has come up with an online lab for school experiments (OLabs) for students of classes IX and X.

A novel e-learning project, the online lab is based on the concept of virtual learning environment which provides experience in online practical science experiments to the students. The content for OLabs is mapped and aligned to the CBSE curriculum for classes IX and X. Using the virtual labs, students can study and use mathematical techniques to demonstrate various complex functions in diverse areas of science. The experiments are demonstrated using interactive simulations based on mathematical models, videos and rich interactive animations to create real world environments.

CBSE teachers in the city opined that these virtual experiments will stimulate students' interest and learning and will give them the experience of doing real lab work, by graphically simulating the laboratory equipment through a virtual medium. "Students can practise these experiments at their leisure and use it for revising the concept even at home and as many times as they wish. For teachers, the online labs are helpful in demonstrating the experiments in class or in laboratory as it will provide minutest details with complete clarity," said a CBSE officer.

How will it help students? OLabs will help overcome limitations faced by some students in schools across the country due to either insufficient time or instruments in laboratories. "It is also capable of assessing a student's observations, procedural and reporting skills, and will allow teachers to track the student usage, thus making learning more effective," reads the circular sent to Kendriya Vidyalaya Sangathan, Navodaya Vidyalaya Samiti, CBSE regional officers.

But there is a section of teachers who believe that shortage of good and trained teachers will pose a challenge for schools to go for virtual labs. According to National Council of Educational Research and Training (NCERT), there are a significant percentage of schools in India where lab facilities for the basic sciences is missing. "The schools will have to first ensure that there are adequate resources available before setting of virtual labs," said a teacher.

What is advantageous for schools is that the CBSE's virtual lab concept is free of cost. Currently, Olabs are being run in CDAC, Mumbai and Amrita University, Kerala.

The goals of these labs is to support learning in a virtual environment such that student learning equals that or is greater than if he or she were physically present in an actual lab. All labs are open source; many make available output from advanced research for free use by the entire student community in the nation.