AMRITA
VISHWA VIDYAPEETHAM
UNIVERSITY
Established u/s 3 of UGC Act 1956
श्रद्धावान् लभते ज्ञानम्

Online Labs (OLabs) for School Experiments

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Center for Research in Advanced Technologies for Education (CREATE)

AMRITA
VISHWA VIDYAPEETHAM
UNIVERSITY

Vision for CREATE

"An Advanced Research Center to develop affordable and accessible educational technologies for societal benefit"

Our Inspiration

Chancellor, AMMA

Multidisciplinary Team

Animators, 2D, 3D, Graphic Artists

Subject Matter Experts

Linguists, Speech specialists

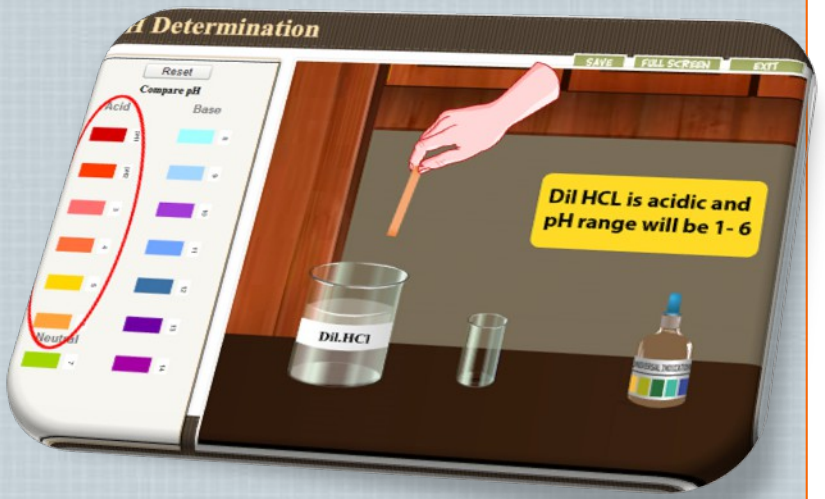
Software Architect, Engineers, Database

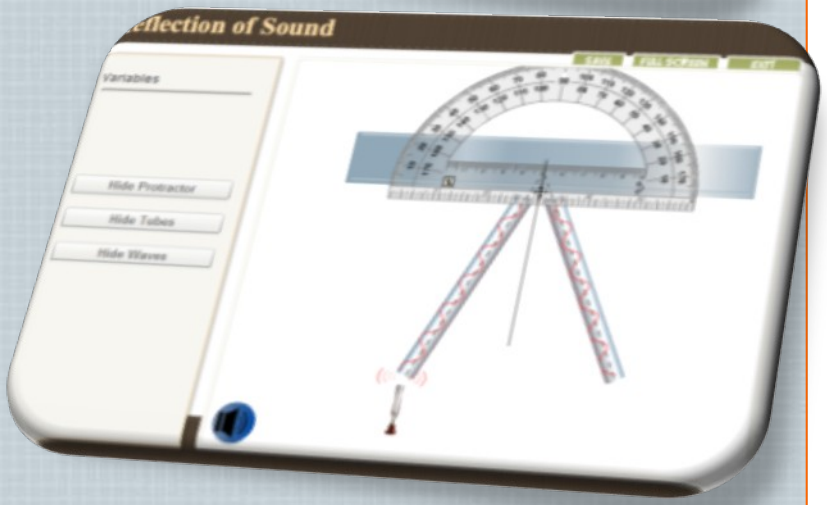
Why OLabs?

- Science Labs are limited in today's schools by lack of equipment
- Students get insufficient time at labs
- Students are not able to explore
- Dangerous substances or breakable equipments
- Lack of good subject teachers
- Formative assessment of Lab skills is difficult

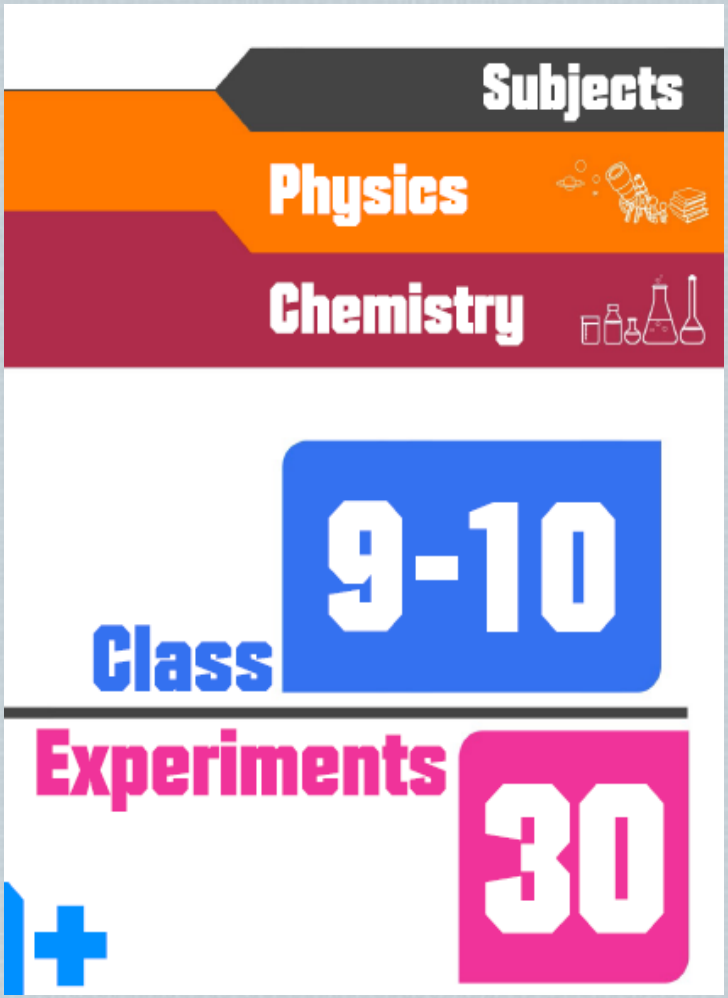
OLabs Objectives

- **Interactive Simulations** which model real life environment and behaviour
- Gives students flexibility to **Repeat, Explore, and Conduct** experiments at their **own pace**
- **Teacher Training** workshops and support for schools
- Experiments and evaluation component aligned to **NCERT Syllabus**
- Allows for both **Formative** and **Summative** assessment of practical skills
- Ease of access – **Cloud** based model and **CD** for **offline access**

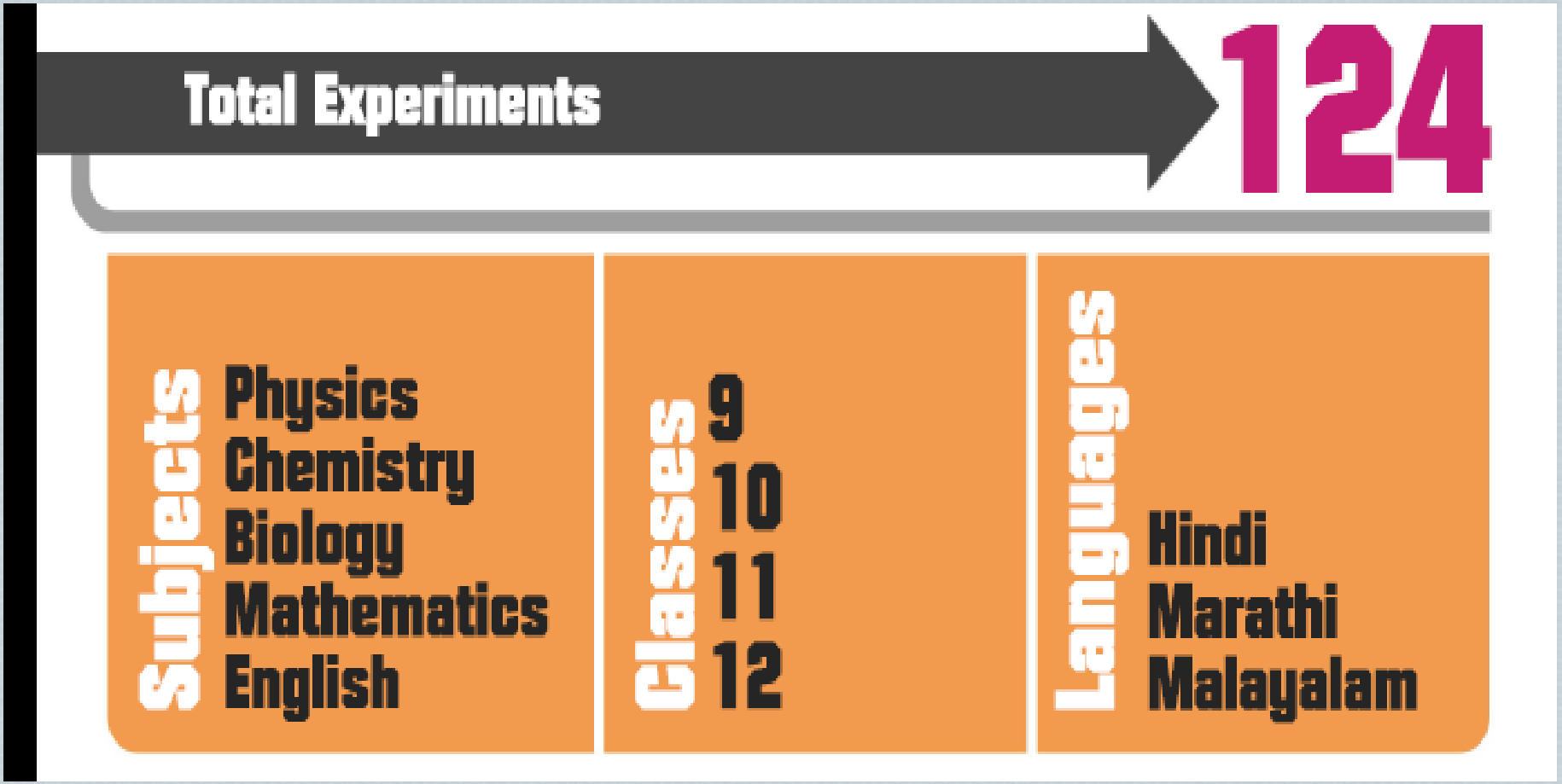




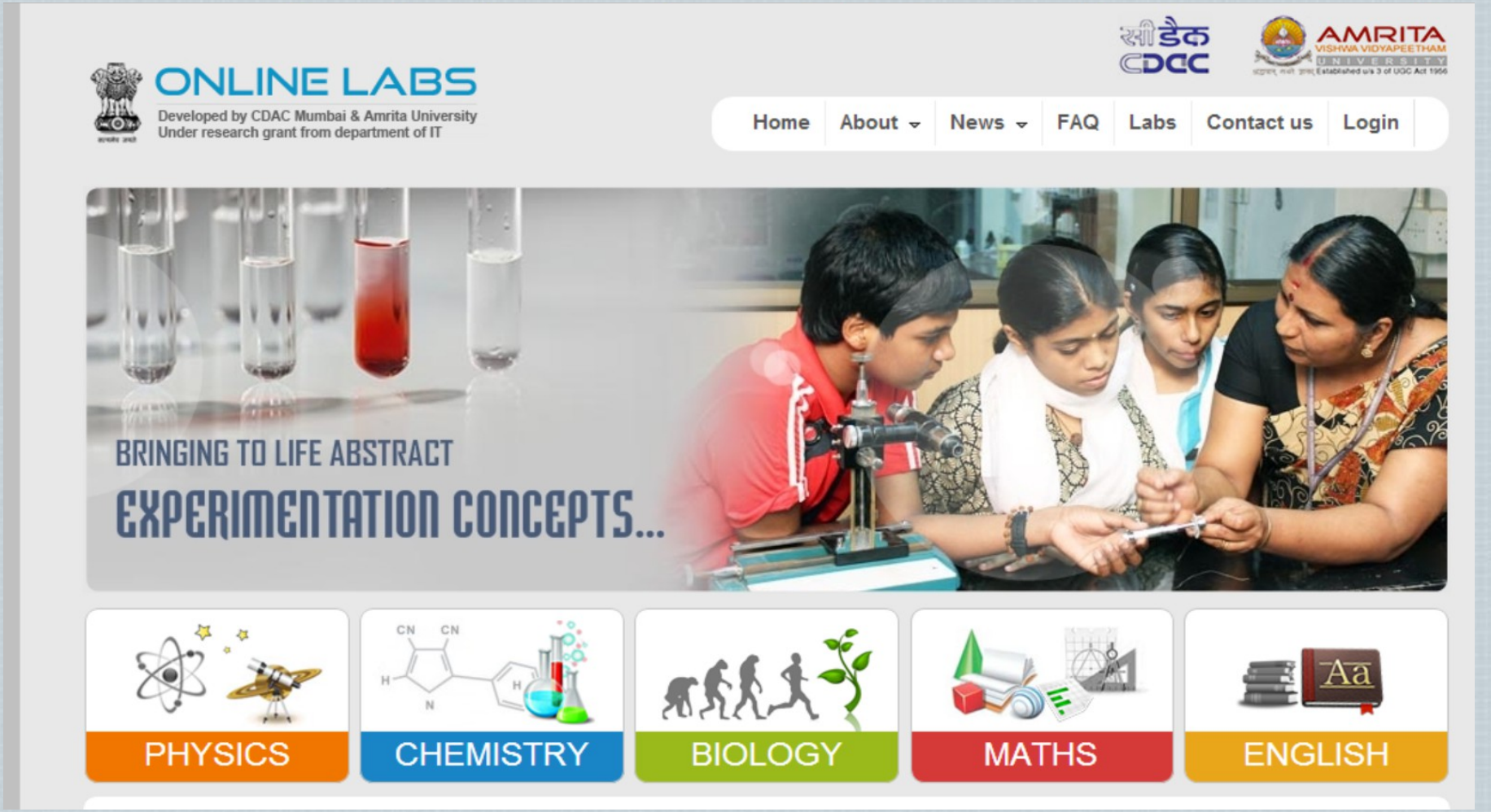
Olabs – Phase 1

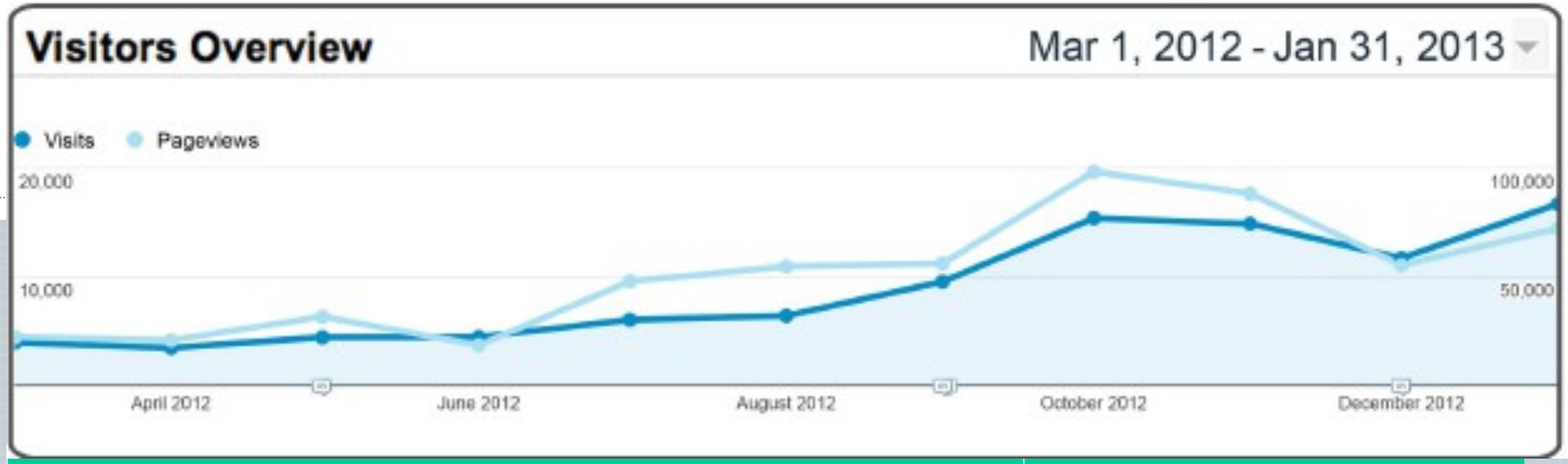


Olabs – Phase 2



www.olabs.co.in

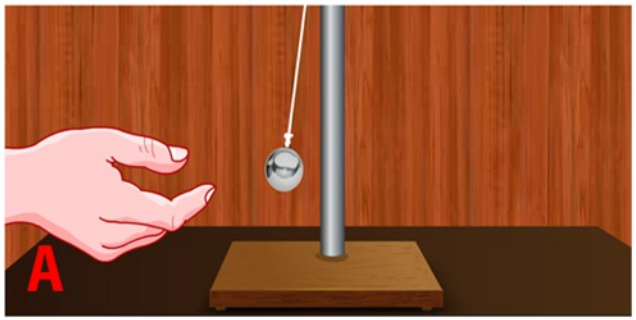


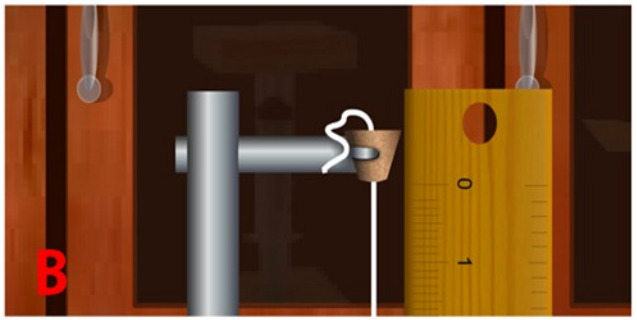


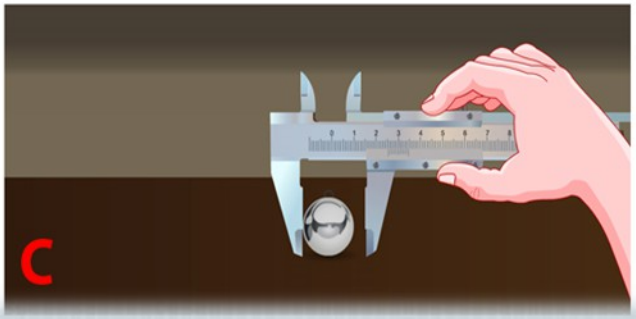
Total number of experiments	30
Total schools trained	112
Total students registered	56000+
Teachers trained	3359+
Workshops conducted	11
Visits to website per month	100,300+
Page views per month	50,800+

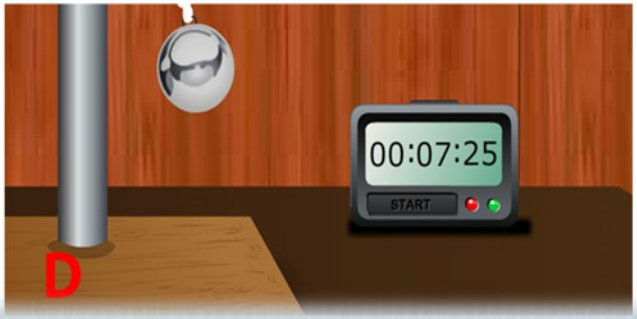
Assessment of Procedural and Manipulative Skills

Arrange the events in the correct order.









Assessment of Concepts & Understanding of the Experiments

Assessment of Reporting and Interpreting Skills

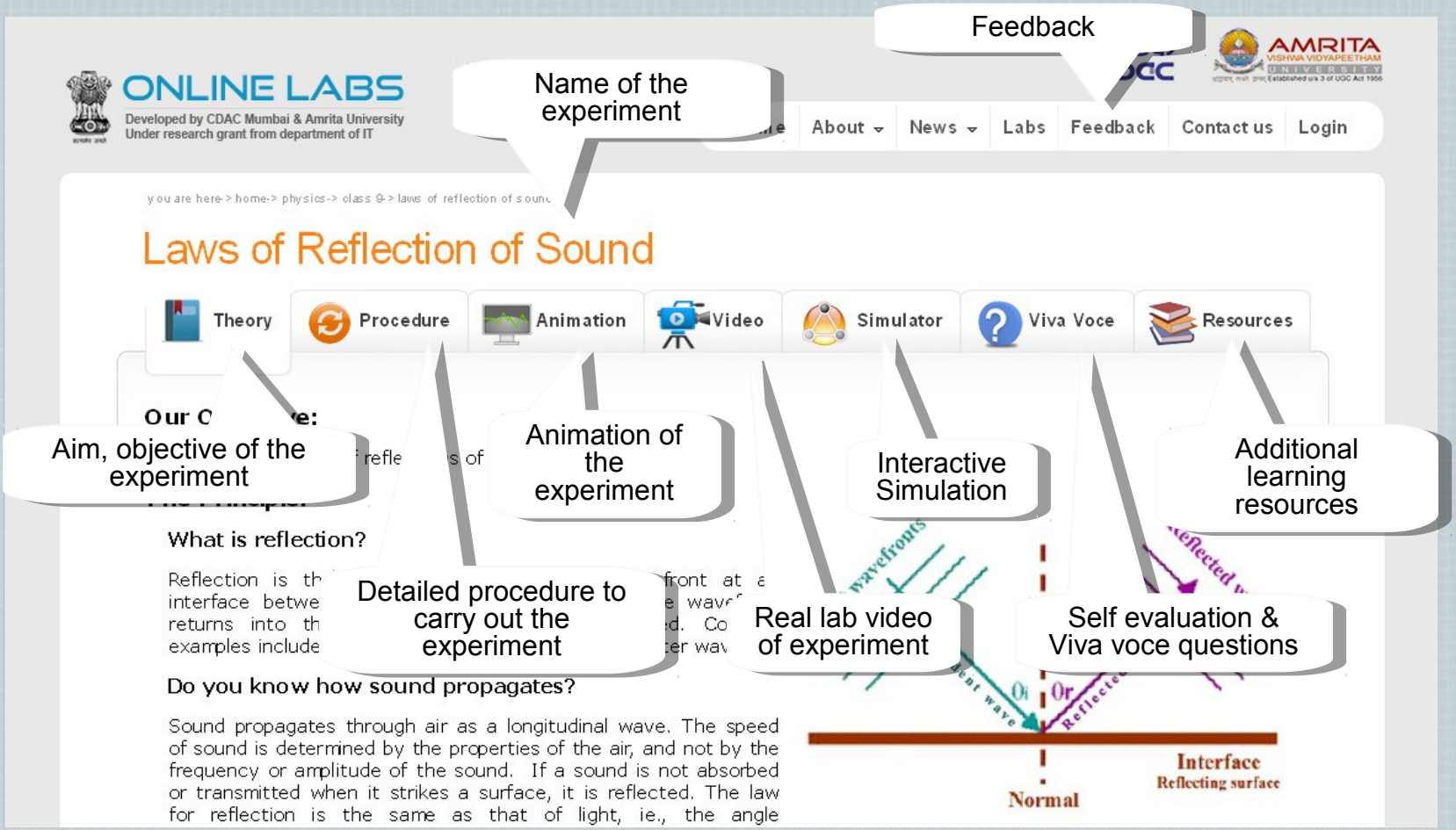
Olabs approach

- Teacher/SME's involvement at design stages
- Teachers piloting in their own classrooms
- Incorporating feedback
- Review by expert group of teachers at CBSE
- Training workshops for both teachers and students
- Online and Phone support

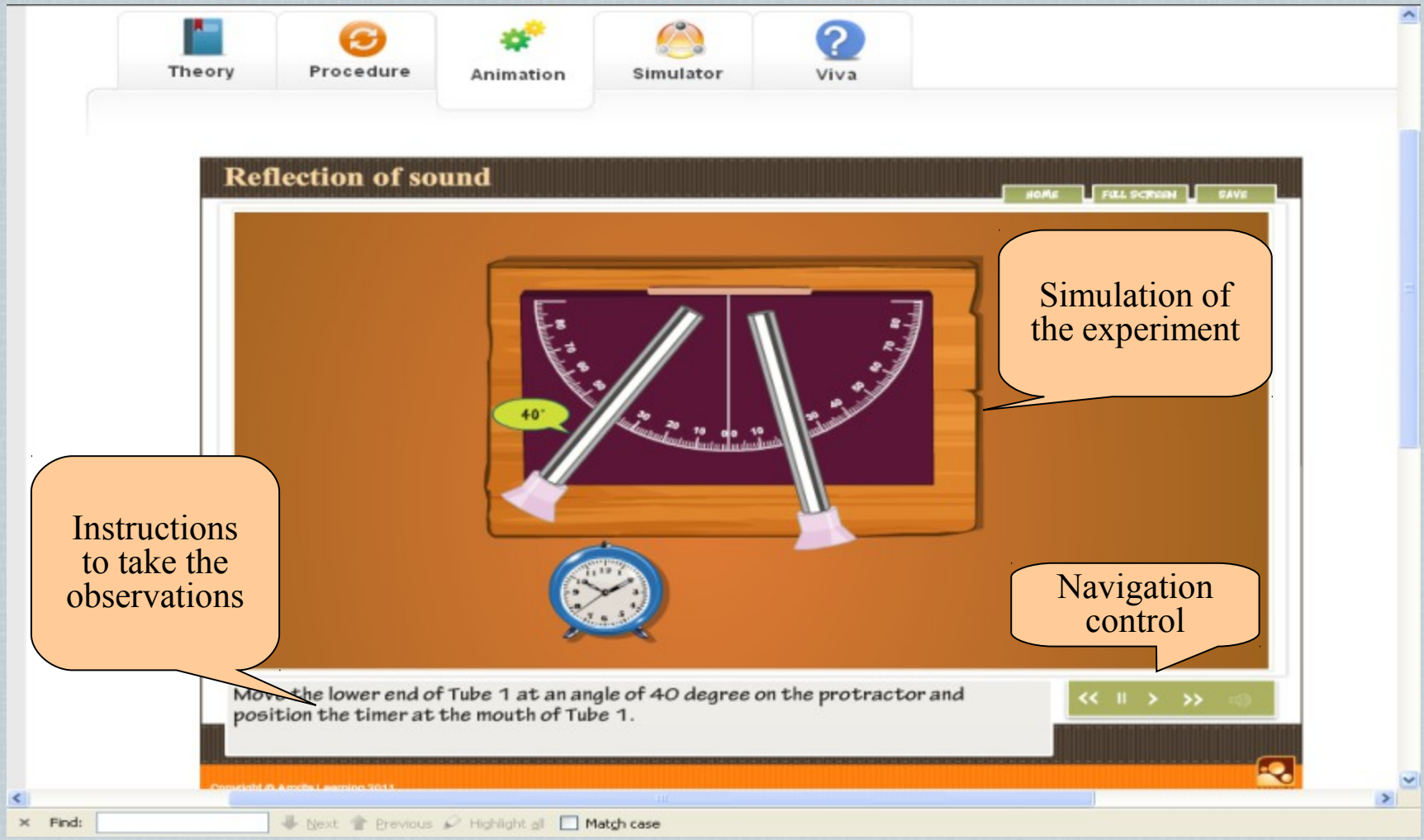
OLabs Framework - Salient Features

- Evaluation – auto evaluated multiple-choice questions & Viva-Voce questions that enable better performance in practical examination
- Provision of links to glossary at relevant places
- Intuitive Feedback & guidance throughout
- The entire Lab, including Animation & Simulation can be configured easily by a Teacher.
- Perform, record and learn experiments; anywhere, anytime.
- Can easily be extended to support Physics & Chemistry Labs of other classes.

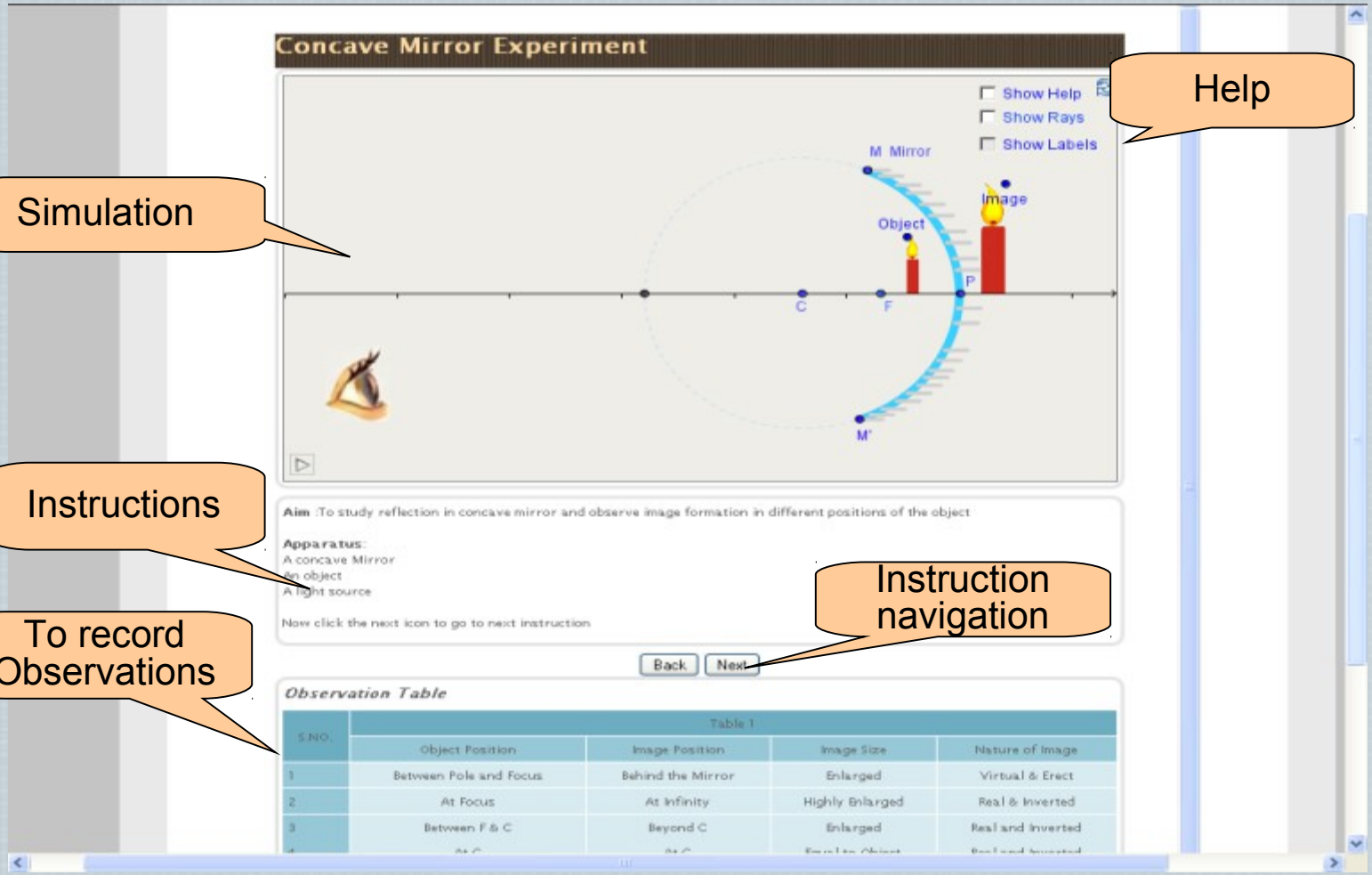
Integrated experience



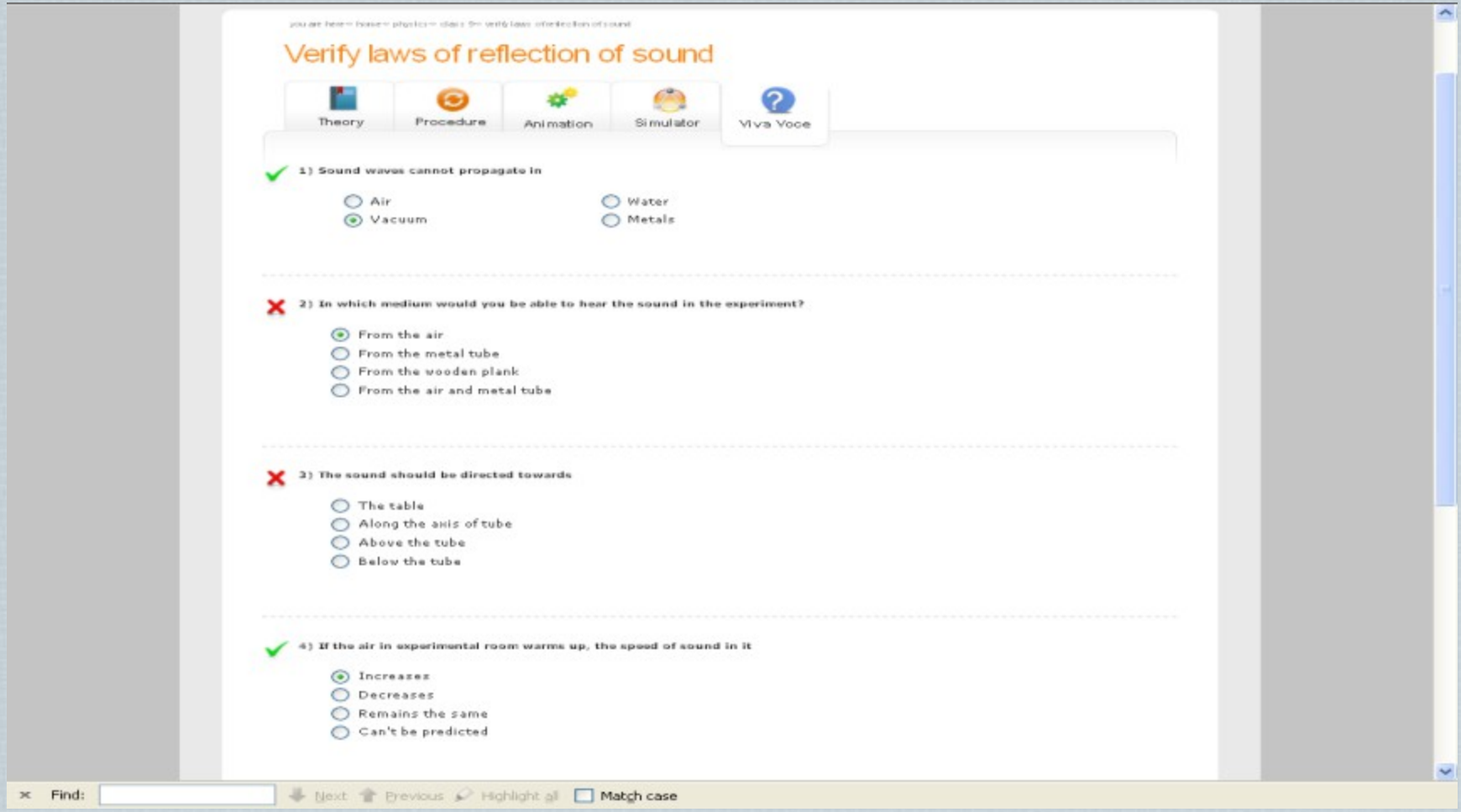
Teacher mode – “Reflection of Sound” Experiment



Student Mode- “Concave Mirror Experiment”



Self-Evaluation




Simple Pendulum
Pressure

OLabs ecosystem

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