Developments in Literacy
Educating Children • Empowering Communities

Technology Enabled Academic Learning (TEAL)

DIL's latest innovation, **Technology Enabled Academic Learning (TEAL)**, represents the acme of all our successes in EdTech interventions over the past 25 years, using video to strengthen core subject instruction in the classroom. Currently, these subjects include **math**, **science**, and **English**.

The main purpose of TEAL is to enable students to **construct their own understanding of a concept** through a combination of video, student-centered learning activities, and assessments. It has recast the way teachers teach and students learn by shifting (a) the teacher's function from direct instruction to guiding students' acquisition of knowledge, and (b) the students from **passive to active learners**. As newly learned concepts constellate in students' minds, teachers use scripted, activity-based lesson plans to support students in **creatively applying those concepts**.

How Does TEAL Work?

(1) Teachers introduce a lesson objective.

(2) Teachers gauge each student's prior knowledge of the subject, then conduct a formal pre-lesson assessment.

(3) Students view a video lesson presented on an LCD Screen.

(4) Teachers assign individual and group learning activities so students can creatively apply the new concept(s) learned.

(5) Students take a quick formative assessment, receiving immediate feedback on their mastery of the lesson.

(6) Teachers receive a simple assessment report that shapes their strategy for ensuring that every child is learning.

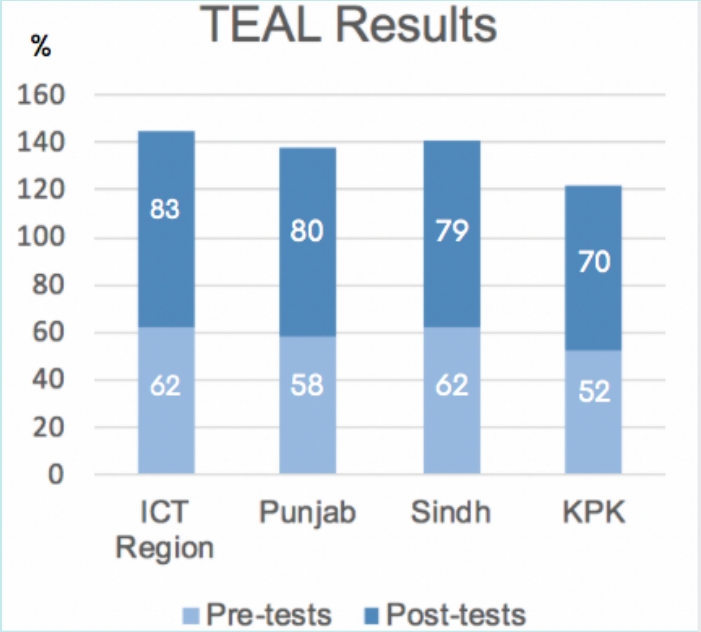
TEAL's Uniqueness

Like other similar programs in Pakistan's education system, TEAL complies with national curricular standards (Standard Learning Objectives or SLOs) for each of the 3 subjects. What makes TEAL unique, though, is threefold:

(a) Shortage of electricity in rural areas makes internet access difficult. Once downloaded from the web, **TEAL video lessons become accessible even without internet**.

(b) **DIL develops its own digital content, and enhances it by regularly soliciting feedback from both students and teachers**. This continuous feedback improves the quality of instruction, allowing DIL to make adjustments that help students gain firmer command of the material.

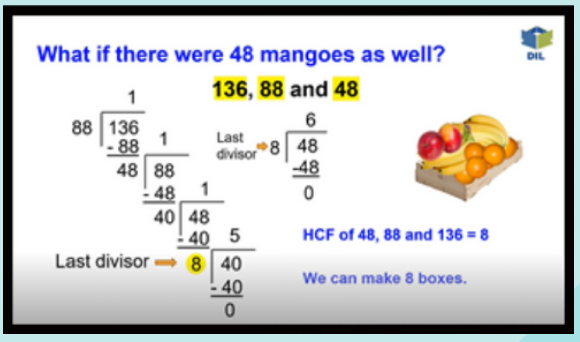
(c) TEAL standardizes the quality of instruction across schools.



TEAL's Impact

Although DIL has only fully implemented TEAL in Grade 6, it has delivered results. The graph above illustrates the cumulative progress of 407 Grade 6 students between 2018 and 2019 in the provinces of Punjab, Sindh, and Khyber Pakhtunkhwa (KPK) as well as the ICT (Islamabad Capital Territory) Region. Each student completed 105 pre- and post-assessment tests in the 4 subjects.

In March 2022, TEAL was nominated for UNESCO's World Summit on the Information Society (WSIS) for its contribution to information exchange and knowledge creation.



A TEAL math lesson on Highest Common Factor

TEAL's Future

In addition to expanding TEAL beyond Grade 6, DIL has now adapted the technology to replace tablets with an economical, scalable LCD (liquid crystal display) that employs a clicker response system. The principles of **creativity, collaboration, communication,** and **critical thinking** will continue to shape new TEAL content and platform updates. The program shows great promise in improving the academic growth of children throughout Pakistan.