Integrated Approach to Technology in Education (ITE)
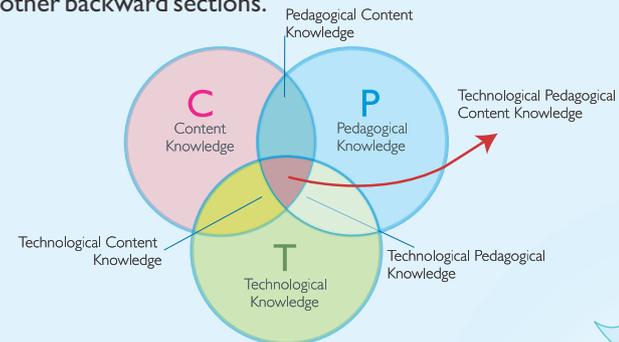
An Initiative of

TATA TRUSTS

Integrated Approach to Technology in Education (ITE) is an initiative of Tata Trusts implemented in mostly rural locations of Eastern and Northern India. This is an organic approach offering a pedagogical framework to improve teaching and learning processes and foster authentic learning. This model includes project-based learning, which caters to the needs of older children and adolescents (in middle school). The beneficiaries belong to some of the most underprivileged geographies, especially inhabited by tribal communities, minorities and other backward sections.

TPACK Model from Koehler & Mishra (2009)

ITE resonates the TPACK framework, which advocates linkages between curriculum, pedagogy and technology
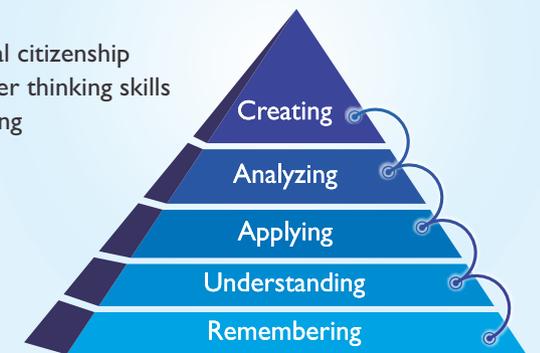
Objectives
- Bridge the digital divide and foster digital citizenship
- Improve learning and trigger higher order thinking skills
- Increase interest in learning and schooling
- Improve teaching pedagogy

Assumptions
- Students create learning artifacts with the help of technology
- Teachers design learning activities through lesson plan
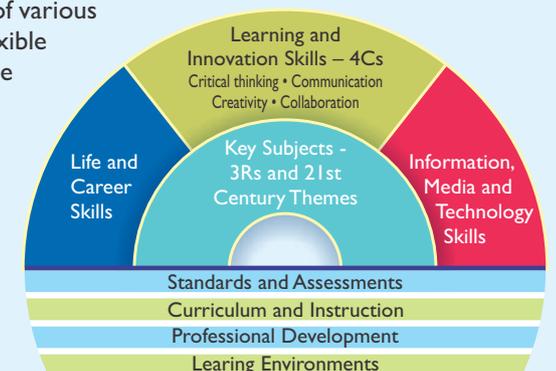- Activities are integrated with the curriculum

Agents
- ITE team at Tata Trusts
- Tata Trusts' Partners
- Resource volunteers and master trainers
- State and District education departments

Revised Bloom's Taxonomy from Krathwohl (2002)

Learning benchmarks of ITE to target higher order learning.

The cost for each student for ITE at learning centres ranges between Rs. 250 to Rs. 300 per month. In the mainstream system, where the State or District adopts and extends support in terms of infrastructure and teachers, the cost range is nearly Rs. 70 to Rs. 150.
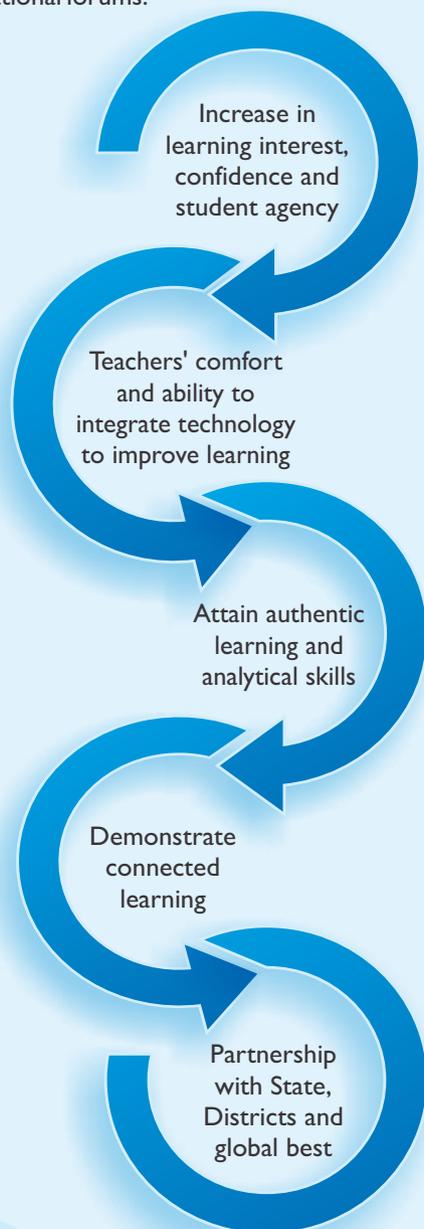
The project was first piloted in 2012 at Murshidabad and has now scaled to 18 locations. It is administered and implemented by Tata Trusts and its partners in collaboration with District and State education departments. Incubation of various learning models was undertaken in the flexible environment of learning centres. These were thereafter extended to the mainstream schooling system.

© 2007 Partnership for 21st Century Learning (P21)   www.P21.org/Framework

ITE inculcates holistic and contemporary learning

• Outcomes •

- There has been increased interest and inquiry in school subjects among the students.
- Improved students attendance has been noticed at the learning centres and schools.
- Students' performance on authentic tasks and research & analytical skills while using technology have improved significantly.
- There is reported increase in teachers' engagement with ITE projects.
- Students have begun using Internet, mobile phones and digital cameras for other daily tasks.
- Teachers are using activity-based approach for other subjects that do not involve technology or ITE.
- There is documented evidence of students gaining confidence, especially in the remote tribal areas and madrasas.
- Two of the States and Districts have come forward to adopt the initiative in schools.
- The outcomes and process involved in the ITE initiative have been documented and disseminated at international forums.

Increase in learning interest, confidence and student agency

Teachers' comfort and ability to integrate technology to improve learning

Attain authentic learning and analytical skills

Demonstrate connected learning

Partnership with State, Districts and global best

Some of the distinct features of ITE

Not language dependent:
Students create projects in their own language.

Not internet dependent:
Internet enhances learning, but its absence doesn't stall the process, thus, works even in the remotest areas.

No add-on curriculum:
Teachers design ITE activities through lesson plans from the syllabus.

Teachers are prepared to design lesson plans where their students will create ITE projects.

Students from traditional setups like Madrasas gain confidence, using technology devices and work collaboratively towards a meaningful learning experience.
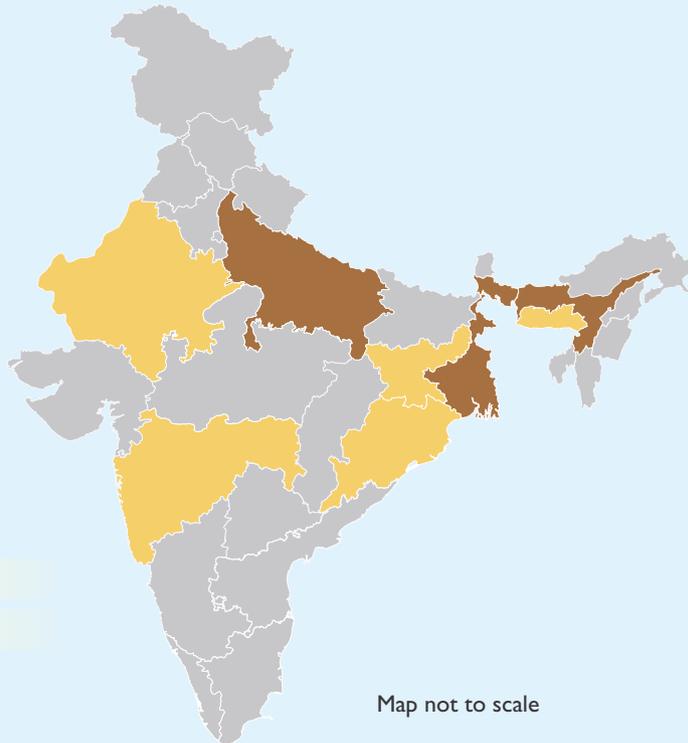
Students attain real-life experiences through taking photos and videos, conducting interviews with people in their community and by applying knowledge and skills they learn in the classroom, to analyse the surrounding environment.

• COVERAGE •

- 17,000 students in 18 projects across nine states
- 91% rural middle school students
- Concentration at scale in 3 states - West Bengal, Assam and Uttar Pradesh
- Prepared about 500 teachers since 2012 across
  - 99 Schools
  - 66 Learning centres
  - 34 Madrasas

■ At Scale

■ On-Ground

Map not to scale

Children working on ITE project

State and District Partnerships

Rashtriya Madhyamik Siksha Abhiyan (Assam)
District Administration of Nalbari, Kamrup rural, Baksa and Nagaon (Assam)
District Administration of Kolkata and Howrah (West Bengal)
West Bengal Board of Madrasah Education

Implementing and Resource Partners

Assam:
Gramya Vikas Manch
Digital Empowerment Foundation

West Bengal:
Suchana Uttor Chandipur Community Society, Vikramshila Education Resource
Society, Samaritan Help Mission, Child In Need Institute, Street Survivors India

Uttar Pradesh:
Nalanda, People's Vigilance Committee on Human Rights, Azad Siksha Kendra,
New Education Group - Foundation for Innovation and Research in Education,
Aga Khan Foundation, Eastern UP initiative of Tata Trusts

Odisha:
Sikshasandhan, Karrtabya, Jagruti, Seba Jagat, Tata Trusts Program Management Unit

Maharashtra:
Society for Awareness, Harmony & Equal Rights

Rajasthan:
Foundation for Education

Other Partners:
Ram Krishna Mission (All India)
Torpa Rural Development Society for Women

• FUTURE PLANS •

- Venturing into other areas of Trusts' presence and innovations, thus offering an opportunity of authentic and connected learning across cultures and geographies.

- Accrediting the teacher professional development component of the current training curriculum is proposed to be converted into a certificate course. This will cater to in-service teachers in locations where Tata Trusts have rolled out its ITE project. The course will create a cadre of teacher educators who will further help in scaling.

- Internet connectivity solution was tried through wi-fi at community level, which connected a few schools and allowed connected learning. Tata Trusts seek to explore partnerships and try similar or other innovative solutions for scaling up access to internet connectivity.

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To know more, visit **www.tatatrustsite.org**
Know about other initiatives of Tata Trusts at **www.tatatrusts.org**
Watch films on ITE on our **YouTube** channel

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