



Transforming Education through Technology



Indus International School, Bangalore, adopts 1:1 learning methodology for equipping students with 21st century skills

// I feel that lifelong learning is a competency for the 21st century and anybody cannot become a lifelong learner if he is an illiterate person. And therefore technology and in particular the Internet enables self learning and self directed learning, and that was the main purpose behind our adopting eLearning for the school.

Lt. General Arjun Ray
CEO,
Indus Trust



Indus International School, Bangalore, and Indus International Community School, true to their commitment to providing education beyond the classroom are imparting 21st century skills to their students through Intel's 1:1 learning methodology and are enabling lifelong learning - helping their students become actively engaged citizens of the world.

Challenges

- Creating an educational system that prepares students for success in the 21st century
- Shifting from a top-down and hierarchical learning to a more inclusive student-centric learning system
- Empowering teachers to integrate technology into classrooms

Solutions

- Intel-Indus International School collaboration to support new ideas and innovative programs
- Specific initiatives to make PCs and the Internet more accessible and to make

them integral to the teaching system

- Extensive teacher professional development on how to integrate technology into the classroom
- Indus International School implemented 1:1 eLearning for all their students, enabling student centered, life-long learning
- Teachers are integrating technology and 21st century skills when delivering lessons
- Students are developing skills in critical thinking, problem solving and collaboration

The Need for 21st Century Skills in Schools in India

The education system in India, largely suffers from poor quality of education due to weak infrastructure and inadequate pedagogic attention. So, the need for providing high-quality learning is paramount to India, to ensure its future - the generation in schools - is well-equipped to take on the next wave. The key to providing the best learning opportunities lies in implementing the important facets of a high-quality learning environment effectively: thematic instruction, problem identification and solution, understanding relevance to learners' lives, active exploration, choice and autonomy, cycles of creation, collaboration and communication, authentic feedback, the teacher being a facilitator, and the use of 21st century tools.

Information and communications technology (ICT) lets schools foster a 1:1 e-learning environment while raising computer literacy among their students. Making computers part of education helps children reach higher as they learn to think critically and understand their world. The potential to achieve is great for technology-based solutions in education.

Indus International School, Bangalore – Pioneering 21st Century Learning

Indus International School, Bangalore, recognizing the importance and significance of technology in inculcating 21st century learning in their students, adopted eLearning as a primary driving force in their education delivery system. The school introduced eLearning eight years ago with the use of computers for grade IX-XII students in the classroom.

The initiative proved extremely successful and the school, in partnership with Intel,

“The one laptop per child concept has proved extremely effective. It really develops student engagement, we believe in student-centric education so having one laptop per child really help differentiate each child and really develops the students' learning.”

Jyothikiran Hoskere

PYP Coordinator,
Indus International School, Bangalore

“eLearning has been highly successful for us. Children are becoming better, in the art and science of self-learning and reflection and they are in a better position therefore to understand their subjects and actually apply it.”

Sarojini Rao,

Principal,
Indus International School, Bangalore

extended the use of technology across all classes – from primary school to grade XII. By seamlessly integrating technology into their curriculum and moving away from a didactic lecture-based learning to a student-centered learning environment, Indus International School, Bangalore, provided its students a more independent way of learning.

The school places great emphasis on inquisitive learning – learning through exploration – and leverages eLearning to enable self-dedicated learning in the students. The focus on providing one laptop per child proved extremely effective as it helped improve students' engagement and participation. It brought about a student-centric education system where every student can learn and develop at their own pace. This also encourages students to be life-long learners, which is very important in the 21st century.

The integration of technology also ensures that students are more involved in the class. The excitement level is higher, and is based on audio-visual teaching method.

Furthermore, teachers' roles have been redefined. They now act more as facilitators of learning to students. Technology also helped pave the way for teachers to teach higher concepts to students. Reflecting on this, Mrs. Sarojini Rao, Principal, Indus International School, Bangalore says, “The teachers can now focus on concepts, imbibing values, rousing passion for learning in children by making them lifelong learners, create cognitive lessons based on knowledge, teach them the art and science of reflection, teaching them concepts that are not available in textbooks, and delivering education in an enhanced form.”

eLearning also helped in bringing parents and children more closer and facilitated a more collaborative way of learning. Mrs. Rao says, “Parents have become partners

in whatever the children are doing – they are partners in research, enquiry, and actual learning because of technology which conventional teaching will never be able to provide.”

Intel® Learning Series Brings ICT to Life for Indus International School

Indus International School, Bangalore, was able to successfully integrate technology in their education system through Intel® Learning Series - a holistic set of hardware, software and services designed specifically for education.

At the heart of the Intel Learning Series are Intel Classmate PCs. Based on Intel's reference designs and manufactured by local OEMs, they enhance teaching and learning in primary grades through the 1:1 eLearning concept.

The Intel® Learning Series helped in fostering innovative interaction in the school through collaboration between students and their peers as well as their teachers. Another important aspect of the Intel® Learning Series is the emphasis on teachers' training to help them deliver effective education through the best use of technology in the classroom. The training is conducted by Intel pedagogical experts. It fosters teacher preparation, readiness and professional development.

Delivering Benefits for Students and Teachers

Intel® Learning Series brings multiple benefits for the students as well as the teachers and parents of Indus International School, Bangalore that include:

- Transforming students' futures through enhanced education and an introduction to technology at an early age
- 1:1 learning supports the students' own learning pace and style
- Teaching tools for helping teachers enhance their lessons
- Facilitating various forms of classroom interaction and collaboration; allowing teachers to move among individuals, small groups, and whole class instructions; providing inside-outside classroom mobility
- Child-friendly operating system; Web filtering and monitoring; classroom management

Transforming Education through 1:1 Learning

Indus International School, Bangalore, has seen a positive transformation with the integration of technology in their education delivery system:

- Enabling life-long learning in the students
- Learning focused on research and exploratory skills as seen in the increase of research reports submitted by the students
- Enhanced collaboration among students and teachers
- Self-directed learning through self-discovery as demonstrated through the increase in the number of science experiments
- Faster and better learning environment
- Enabling knowledge sharing and collaborative learning
- Fostering enquiry-based learning for faster development as demonstrated by the increased number of projects that the students are now completing
- Encouraging students to learn at their own pace
- Bringing more excitement in the learning process
- Improving the creativity and imagination of the students
- Improving quality of education

Indus International Community School (IICS) – Providing 1:1 Learning for the Underprivileged

Indus International Community School (IICS) is an initiative from the Indus Trust designed to give underprivileged children the best chance to define their future. Situated in a 3-acre campus close to the Indus International School, Bangalore, the school aims to provide equal opportunity to underprivileged children.

The eLearning model has been successfully adopted with the 400+ students, who have been provided one laptop each. The school aims to nurture these underprivileged students as 21st century engaged citizens and give them equal opportunity so they can be at par with any student in the world.

The school has all the infrastructure needed to enable international education. State-of-the-art classrooms with one

computer per child, e-resources, smart interactive boards and several other resources are available.

To further help and develop student learning, there are three remote learning centres set up around the community school. These remote centres follow a 3-pronged approach:

1. Providing academic support to children because they have no support at home
2. Helping parents learn along with their children
3. Healthcare through telemedicine – Providing medical support for both parents and children

// We used eLearning because we wanted the students to become 21st century engaged citizens and when they graduate, they are at par and stand as equal with any child coming out from any progressive school.

Anuradha Gulati

Principal,
Indus International Community School



Solution Infrastructure

The 1:1 e-learning environment for Indus International School is based on the Intel Learning Series. This package of hardware, software, services and support works reliably together and is delivered by the solution provider - Connoisseur Electronics Pvt. Ltd.

At the heart of the Intel Learning Series are Intel-powered Classmate PCs. The PCs include practical, education-oriented features that improve the learning experience for students, parents, teachers and schools. These features include:

- Lightweight, easy-to-carry design
- Rugged, drop-resistant construction, water-resistant keyboard
- Education-specific software
- Compatibility with existing content, applications and operating systems
- Theft deterrence

Intel® Learning Series Software Suite

The Intel® Learning Series Software Suite provides a collaborative, secure, enhanced and easy-to-use experience for:

- **Students:** Reading, writing, painting, drawing, and collaboration tools help students learn and improve core skills.
- **Teachers:** The classroom management application supports collaboration, group teaching, testing and file transfer for efficient organization and assessment.
- **IT Administrators:** The trusted platform module (TPM)-based hardware and software theft deterrence solution helps protect capital and operational investments.
- **Parents:** An access management application allows parents to monitor children's use of internet at home.

“As an OEM for Intel®, we actively promote Intel® Learning Series for schools across India. Built to advance education, the Learning Series enables more personalized and comprehensive 1:1 eLearning solutions for K-12 students.”

R P Harish Kumar

Director,
Connoisseur Electronics Pvt. Ltd.

From the Students' Perspective

“Classmate PCs help in collecting, organizing, representing and interpreting data. It helps us to be more interactive, say in math, we do different quizzes on it. Before we used books to research and now we are doing it on our very own laptop.”

Vibhuti

Student, Grade 5 (B)
Indus International School, Bangalore

“Learning is much faster and easy on a classmate PC and books provide a very limited way of learning. All information cannot be found in books but with a computer we can find anything we want. Sometimes we really don't understand our homework; the classmate PC helps us find answers in an instant and from anywhere.”

Aryan

Student, Grade 5 (B)
Indus International School, Bangalore

“It's a privilege to have classmate PCs because it's easier to research in class and find new stuff and validate it. Teachers don't know everything and so it is helpful when I need to search something or know something. For assignments, we need to have the right information so it's helpful to have our own classmate PC where we can access the right information anytime. The classmate PC helps me a lot in assessing and planning my studies.”

Gokul

Student, Grade 5 (B)
Indus International School, Bangalore

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