

CLIx Wins UNESCO King Hamad Bin Isa Al-Khalifa Prize for the use of ICT in Education



The CLIx Team has been working hard from the inception of the initiative on 2 February 2015. When we look back, we can take satisfaction in the thought that we did achieve something inspite of the hiccups and hurdles. This was confirmed when CLIx was awarded the UNESCO King Hamad Bin Isa Al-Khalifa ICT in Education Prize. The award ceremony was held at the UNESCO headquarters at Paris on 7 March 2018. From CLIx India, Padma, Ajay, Omkar and Shubhangi attended, along with Vijay Kumar and Brandon Muramatsu of MIT.

This prize evaluates programmes on many criterion, as shown by the information required on the application for the prize: the vision and objectives of the project, its outreach and scalability, programme delivery, ICT infrastructure requirement and use of existing ICT infrastructure, strategies to assure the quality of learning outcomes, development of learning resources and use and release of digital content as OER, development process for digital content, certification provided for the content delivered, monitoring and evaluation of programme, sustainability of the programme, stake-holder engagement and the 'innovative features' of the programme.

GENIE, the other winner, is a large-scale ICT education initiative by Morocco's Ministry of National Education and Vocational Training that aims to improve quality in primary and secondary schools. Launched in 2005, GENIE has provided ICT infrastructure, digital devices and internet connectivity to more than 10,000 schools. It has promoted pedagogical innovations by providing more than 300,000 teachers and school administrators across the country with in-service training.

A Laureates' Seminar was organised where opening remarks were given by His Excellency Majed Bin Ali Al-Noaimi, Minister of Education of the Kingdom of Bahrain and Ms Amna Al Sulaity, Director of Public Schools of Bahrain. The speeches were followed by presentations of the two prize -winning projects. Prof Padma Sarangapani of TISS and Dr Vijay Kumar of MIT presented the CLIx project. The presentation was much appreciated. Many country representatives expressed the desire to collaborate with CLIx for replication of its offerings in their respective countries. Mme IIham Laaziz, Program Director, presented GENIE.

There was an exhibition and display for a larger audience of both the winning programmes and a few other interesting programmes that had been shortlisted for the prize. People tried their hands on our digital content. However, the biggest hit amongst participants was *kaju katli* that we had taken along to give a taste of India to the World.

The award ceremony started at noon with opening remarks from Ms Audrey Azoulay, Director General, UNESCO and His Excellency Majed bin Ali AI-Noaimi, Minister of Education of the Kingdom of Bahrain. An outstanding orchestra performance was given by students of Bahrain. Awards were presented by Jawad bin Salem AI Arrayed, Deputy Prime Minister of the Kingdom of Bahrain. Prof Sarangapani and Dr Vijay received the award on behalf of the entire CLIx team. We also captured Facebook Live of the entire ceremony for colleagues back in India. Apart from the CLIx India team and the CLIx MIT team, officials of the Permanent Delegation to UNESCO, Government of India, also attended the award ceremony. The CLIx team brought back a medal and a certificate, and the monetary award of USD 25,000 is on its way!

Shubbangi Wankhede, Chief Operating Officer and Omkar Balli, CEI&AR Implementation team co-lead, CLIx

Voices from the field



Current status of Chhattisgarh Schools: 47 Teachers: 139 Students: 4,680

This Tech-Implementation workshop gives insight how to understand the adoption? Also, different views on the approach to implementation, Tech Related matters, Degree of government involvement made the workshop more holistic. Stories from Field gave a new sense of variation of ICT in Education and Innovation Practice.

Some take away from Telangana, How a District Collector can be an enabler for ICT in Education at Scale, From Rajasthan, Dr. Nagendra said how he can be embedded CLIx Modules in Rajasthan Open source Kisok

- Saurav Mohanty, Chhattisgarh Implementation team lead and Field Action Research Fellow



Current status of Mizoram Schools: 30 Teachers: 154 Students: 4,400

The implementation workshop that we had attended in Pune during 21-23 March 2018 was the best we had so far. Best in terms of attendance (majority of CLIx family from different teams), organisation as well as timing and venue. The discussions and deliberations were more focussed now on adoption which I feel is the main objective of the whole project. We were also able to learn a lot from other States about what works well and what does not. Planning for the next year which was the main focus helped the Mizoram Team a lot in working out day to day as well as specific goal based plan.

- Dr Lalbiakdiki Hnamte, Mizoram Implementation team lead and Associate Professor, Department of Education, Mizoram University



Current status of Rajasthan Schools: 101 Teachers: 248 Students: 13,277

Government of Rajasthan

Indeed, it was an excellent opportunity for the whole CLIx team to review and reflect collectively on the activities done so farand on the present status of CLIx program. Further, in the workshop the outcome of this exercise was meaningfully utilised in setting the directions and evolve next one-year plan of action. This workshop will proved to be an important milestone in the endeavour to achieve the target visualised for CLIx program.

- Nagendra Nagpal, Rajasthan Implementation team lead and Director of Centre for Education Research Practice, Jaipur



Current status of Telangana Schools: 300 Teachers: 1,589 Students: 10,080

An organisation is like a gizmo. Basic functionality of which depends on the four gears synced and revolving together.

CLIx is similar to this principle with its four gears being the teams; Implementation, TPD, Technology and Research.

It was absolutely necessary for the 4 to come together and transform themselves into interwoven gears revolving to make CLIx function with minimal flaws. The Tech Implementation Design workshop was able to transact the four teams onto one paradigm, with each team leaving with a comprehensive idea and vision of the future.

- Shashank Parimi, Telangana Implementation team lead and Field Action Research Fellow (Junior)

Tech Assist - 2

Binary Number System

In mathematics and digital electronics, a binary number is a number expressed in the base-2 numeral system or binary numeral system, which uses only two symbols: typically 0 (zero) and 1 (one). The base-2 numeral system is a positional notation with a radix of 2. Each digit is referred to as a bit.

Example:

 $100101_{2} = [(1) \times 2^{5}] + [(0) \times 2^{4}] + [(0) \times 2^{3}] + [(1) \times 2^{2}] + [(0) \times 2^{1}] + [(1) \times 2^{0}]$

 $100101_{2} = [1 \times 32] + [0 \times 16] + [0 \times 8] + [1 \times 4] + [0 \times 2] + [1 \times 1]$

 $100101_2 = 37_{10}$

Bit

The smallest unit in binary number system and computer system. The information is stored in computers in the form of 0s and 1s. Generally,

0 stands for "No" or "No data" and 1 stands for "Yes" or "Data received"

Byte

8 consecutive bit clubbed together to become a Byte. It can be a letter or a digit.

Basic conversions

1 byte = 8 bit 1000 bytes = 1 KiloByte (KB or K) 1000 KB = 1 MegaByte (MB or M) 1000 MB = 1 GigaByte (GB or G) 1000 GB = 1 TeraByte (TB or T) And so on...

File

Collection of data or information stored together in a place. File name is the name given to a file.

Example: Storing your personal details in a file and name it "Biodata" or "Resume" or "CV".

Folders / directory

We can categorise similar files and create a group of it. We can also assign Folder names.

Example: Storing everyone's Biodata files in a folder and name it "Biodata".

Command line interface (CLI)

An interface/program which allows you to type commands and gives you required output. Generally two coloured screen. (Black and white)

Example: DOS, Unix and mostly linux server OS.

Graphical user interface (GUI)

An interface/program which allows you to work in a better way with images and videos and help texts (visual clues that helps in understanding the program and using the program)

Example: Ubuntu desktop OS, Windows XP, Windows 7, and Macintosh (Mac)

CLIx team—Research

This section features recent studies in the field of education published by our CLIx team who work in tandem with the Centre for Education, Innovation & Action Research (CEI&AR).

This month we feature Shamin Padalkar and Jayashree Ramadas' paper *Designed and Spontaneous Gestures in Elementary Astronomy Education* published in International Journal of Science Education, 2010

We make a case for using gestures and actions to understand and convey spatial and dynamic properties of systems. Problems in learning elementary astronomy are analysed in the context of demands of spatial thinking, in a system which is not amenable to direct perception, namely, the sun-earth-moon (SEM) system. We describe a pedagogy which uses gestures (most often in combination with concrete models and diagrams) to facilitate the visualisation and simulation required in elementary astronomy. These gestures are presented in terms of their purpose in pedagogy: to internalise a natural phenomenon, or an astronomical model, or general properties of space. In terms of design these pedagogical gestures mediate between concrete models of the SEM system and related spatial configurations on the one hand, and their corresponding abstract diagrammatic representations on the other: called here the model- gesture-diagram pedagogical link. Next we present some video data on students' gestures observed during collaborative problem-solving which took place in the course of our pedagogic intervention. Implications of these results are drawn for embodiment and multimodality of thought.

Keywords: Astronomy education; Gestures; Modelbased reasoning

Read full paper

Note: In last month's CLIx Newsletter edition, we featured Nishevita Jayendran and Anusha Ramanathan's paper *The Value of Stories in English Language Learning* presented at Critical Edge Alliance Conference, Denmark which took place between 21-25th June, 2016. The authors are happy to announce this paper has been published in the 7th Volume of the Language and Language Teaching journal and can be accessed on the CLIx website.

Read full paper here

Explore CLIx

CLIx offerings for students: <u>https://staging-</u> clix.tiss.edu/welcome

Post Graduate Certificate in Reflective

Teaching with ICT: <u>https://</u> www.tissx.tiss.edu/

Publications: <u>https://clix.tiss.edu/research/</u> publications/

Releases/Modules: <u>https://clix.tiss.edu/</u> research/releasesmodules/

Blogs: https://clix.tiss.edu/news/

CLIx in the Media: <u>https://clix.tiss.edu/press-</u> room/

Opportunities: <u>https://clix.tiss.edu/</u> <u>opportunities/</u>



Module: English

English is the language of aspiration for many Indians, as it opens doors of social access and economic opportunity that are often closed to non -English speakers. Thus a significant section of the population has low or no access to higher educa-

tion, employment, or participation in democratic citizenship. This may in part be attributed to limited language learning opportunities in school years. Overcrowded classrooms and low teacher-pupil ratio often impede one-to-one communication and oral practice, both extremely crucial for learning a second language. CLIx English aims to create opportunities for language learning and meaningful interaction among high school students.

To create a community of independent language learners who use English confidently to express themselves, not only to access economic opportunities but also richer human interactions, and greater participation in democratic citizenship.

Forthcoming events

18th April - CG State officials to visit CLIx Mumbai

27 - 28th April - CLIx teachers present at Roundtable at Ambedkar University, Delhi

About CLIx



The CLIx Ecosystem

The Connected Learning Initiative (CLIx) is a technology enabled initiative at scale for high school students. The initiative was seeded by Tata Trusts, Mumbai and is led by Tata Institute of Social Sciences, Mumbai and Massachusetts Institute of Technology, Cambridge, MA USA. CLIx offers a scalable and sustainable model of open education, to meet the educational needs of students and teachers. The initiative has won UNESCO's prestigious 2017 King Hamad Bin Isa Al-Khalifa Prize, for the Use of Information and Communication Technology (ICT) in the field of Education.

CLIx incorporates thoughtful pedagogical design and leverages contemporary technology and online capabilities. Resources for students are in the areas of Mathematics, Sciences, Communicative English and Digital Literacy, designed to be interactive, foster collaboration and integrate values and 21st century skills. These are being offered to students of government secondary schools in Chhattisgarh, Mizoram, Rajasthan and Telangana in their regional languages and also released as Open Educational Resources (OERs).

Teacher Professional Development is available through professional communities of practice and the blended Post Graduate Certificate in Reflective Teaching with ICT. Through research and collaborations, CLIx seeks to nurture a vibrant ecosystem of partnerships and innovation to improve schooling for underserved communities.

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