



## Table of Contents

1. A Time for Reflection - Anusha Ramanathan	1
2. A Learning Outcomes Study on Effects of Teaching through Cartoon/Comics versus Traditional Methods - Alok K Sharma (Doctoral Student, CEIAR)	2
3. Experiences of a Guinea pig - Ekta Singla (Doctoral student, CEIAR)	9
4. RTICT: The Journey Ahead -Surbhi Nagpal and Anusha Ramanathan	12
5. Connected Learning Initiative (CLIX) launches Open Educational Resources Webportal - Shashank Parimi	16

This issue can be accessed online at <https://bit.ly/2Pkp1Yt>

## Team



### Advisors

Padma Sarangapani and Disha Nawani

### Editorial Committee



Faculty: Anusha Ramanathan, Gomathi Jatin, Meera Chandran, Ruchi Kumar and Shamin Padalkar

Student: Atul Roy, Bhaskar Narayan (MAEE)

Shweta Pal, Uchita Bakshani (MA Education)



### Execution Officers

Ramesh Khade and Deepti Pattanshetti



### Layout and Formatting

Ramesh Khade

**Graphics for cover page:** Gerd Altmann (pixabay.com)

Brought out by the  
Centre of Education, Innovation and Action Research  
and School of Education,  
TISS, Mumbai.  
© TISS, 2019

**Disclaimer:** The views expressed in the periodical are those of the authors and not necessarily those of CEIAR/SoE, TISS.



# A TIME FOR REFLECTION

- Anusha Ramanathan

October is typically a season for exams and holidays across India. A time for reflection. A time to rejuvenate. New beginnings are around the corner. It is in this mode that we bring to you reflective pieces that take stock of what has gone through and what lies ahead.

Read a research paper on the use of cartoons in education from Alok Sharma, a doctoral research scholar with CEIAR and a faculty from CTE, Chhattisgarh. We are always in quest of new and innovative ways to teach, but do they make a difference? Alok's article answers this question with respect to a particular methodology and posits pathways for further research.

Ekta Singla, another doctoral research scholar from CEIAR, writes on a very unique, off the beaten path experience. Have you ever participated in research? Many of us might have, but how about participating in research that involves the taking of drugs? In the 1960s, psychedelic agents were used in an experiment conducted by Harman, et al. before new legislation stopped the experiments in 1966. Ekta does not talk of psychedelic drugs, but we come to understand the various types of research still underway in science that perhaps need constant reviewing and perhaps better counselling for the subjects.

The third piece from Surbhi Nagpal and Anusha Ramanathan is a piece announcing the introduction of online courses aimed at Teacher Professional Development (TPD). They reflect on the journey so far and the journey ahead of them. The need for online courses to ensure TPD at scale is their argument.

The final article is from Shashank Parimi talking of the culmination of a dream of a multi-partner collaborative project, Connected Learning Initiative (CLIX) and the release of the CLIX Modules as Open Educational Resources (OERs). There are quotes from various state officials in the field of education arguing why there needs to be active learning, use of ICTs and the need for more OERs. The path is clear. One needs to journey forward.

We would love to hear from you your ideas and suggestions for the journal and your opinions on these pieces. Do write in.



# A LEARNING OUTCOMES STUDY ON EFFECTS OF TEACHING THROUGH CARTOON /COMICS VERSUS TRADITIONAL METHODS

- Alok K Sharma (Doctoral Student, CEIAR)

## Abstract

*The use of cartoons as a means of an alternative and fun teaching method has been recognised as supportive of meaningful learning, yet use of cartoons or comics in education is not given adequate space. This paper investigates how the use of cartoons and comics affects academic achievement of primary school students. In the present research, a quasi-experimental design with post test for both experimental and control groups was used. This study was focused on students of class 4<sup>th</sup> in select primary schools from which two groups of students namely the experimental group and control group were formed. The research tools developed were tests on learning outcomes for students and a questionnaire for the teachers on their perceptions of cartoon-based teaching. The findings indicate that learning outcomes of the students who are exposed to cartoon-based approach placed under experimental group were higher than those for students of the control group who had no change from the traditional teaching methodology usually employed. The feedback from teachers on the use of cartoons as a teaching strategy was also consistently favourable. However, like any teaching strategy, one has to be careful not to overuse cartoons; since their effects could be diminished, if not lost. In fact, it is suggested that other types of media should also be used along with cartoons.*

## 1.1 Introduction

The aim of education is to train students to participate actively in learning and enable them to design alternative ways to solve a problem and think critically. This need has led to new education and training approaches gaining importance in our education system. It is important that students participate in the lesson actively and the use of visual aids can provide a more meaningful learning for them by creating a better, active learning environment. One of these tools is cartoons. Students can indulge in a fun, discovery-based engagement during the teaching-learning process.

Cartoons are effective tools which are used in teaching. They are funny as well. In the process of comprehension of the cartoons, students first concentrate

on the line in the cartoon, then think over every detail, make comments by establishing connections and weave a story in their minds, mapping out the contrasts and associations between objects. Thus, the students think in a creative and critical manner (Özalp qtd. in Ecker and Karendeniz). Cartoons are readily processed by both children and adults – they are easy on the eye and easy on the brain. It is generally accepted that most people take in approximately 75-80% of information visually.

## **1.2 Rationale of the Study**

Taking advantages of cartoons in education has not been adequate to-date. However, no tool can make teaching as interesting as a cartoon does. The selection of cartoons that focuses on getting the students to follow instructions or to think, increases the effect of cartoon in education (Özer qtd. In Eker and Karendeniz). It is imperative to test the efficacy of the use of cartoon as a means of alternative and fun way to ensure meaningful learning in the Indian context. It was in this respect of the need to investigate whether the use of cartoon and comics has a positive outcome on academic achievement of primary school students in India that this study was conceptualised.

## **1.3 Objectives of the study:**

- I. To measure the learning outcomes (Scholastic achievement) of the students when exposed to traditional method of teaching.
- II. To measure the learning outcomes (Scholastic achievement) of the students when exposed to teaching using cartoons and comics.
- III. To compare the learning outcomes (Scholastic achievement) of teaching through cartoon and comics to the traditional method.
- IV. To investigate the teachers' perception of teaching through cartoon and comics to traditional methods.

## **1.4 Research questions**

The following research questions had been formulated for seeking answer through the research study:

- I. What would be the effectiveness of using cartoons & Comics on learning outcomes (Scholastic achievement) of the students?
- II. Will there be significant difference between the experimental group and the control group in the students' learning outcomes (Scholastic achievement)?
- III. What would be the teachers' perception about cartoon based teaching vis-a-vis traditional methods?

## 1.5 Research design

- (i) In this research, a quasi-experimental design was used. It is described below (Table 1):

**Table 1: Research design**

Groups	Pre-test	Treatment	Post-test
Experimental Group	---	Instructional techniques using Cartoons & Comics	<ul style="list-style-type: none"><li>• Learning Outcome Test</li><li>• Questionnaire on Perception of using Cartoons &amp; Comics</li></ul>
Control Group	---	Traditional methods	Learning Outcome Test

- (ii) **Description of Treatment (Instructional techniques using Cartoons & Comics) in Experimental Group:** All selected lessons were converted into a form of cartoon-based stories considering the learning outcomes to be acquired by the children. The stories, which were taken from hindi textbook, developed into 04 stages:

- a) The introductory and beginning part
- b) The main body of the story
- c) The critical points to be emphasized as per the lesson
- d) The concluding part or summarisation (Central Idea or message)



*Figure 1: Snapshot from classroom where cartoon based pedagogy was used*

The stages of the story as described above were developed in the form of cartoons and comics in four panels, with each panel describing the respective stage of the story. The body language, facial expressions, etc. of the characters were portrayed in the cartoons as per the requirement of the story. The panels containing cartoon-based comic related to particular

lesson were put up on a board and the students were asked to observe and reflect upon the concepts therein. The teacher developed the lesson by allowing children to describe the story using the displayed cartoons using different types of questions ranging from description triggers to thought provoking questions in a conversational style.

- (III) **SAMPLE:** The sample of 94 learners from different primary schools (Class IV) comprised of boys and girls were selected from the Raipur district.
- (IV) **Tools: Two separate tests were prepared for the study**
- **Test on “Learning Outcomes (Scholastic achievement)”** related to students of Class 4.
  - **Questionnaire on Teachers’ Perception about cartoon based teaching:** This questionnaire contained the test items on Teaching Pedagogy, Conducive Learning Environment in Class, Logical Thinking & Creativity and Participation in Teaching-Learning Processes.

## 1.6 Findings and Interpretation of Data

- (a) The Significant Difference between Means of the Scores of Students (Experimental Group) and Scores of Students (Control Group) in the test on learning outcomes were calculated by using the “Critical Ratio”. The calculated value of CR was 5.493, greater than the table value of t-test i.e. 3.373 at 74 degree of freedom. Thus, it can be interpreted that Learning Outcomes of the students who were exposed to cartoon-based approach is markedly better than that of the students who were exposed to only the traditional method of teaching.
- (b) The Teacher’s Perception on 04 different areas of ‘Teaching-Learning Process was determined on the basis of teacher responses. The findings are summarised in Table 2:

**Table 1: teachers perception (%) on 4 broad areas of cartoon based approach in teaching:**

SN	Teacher's Perception on 04 different areas of Teaching-Learning Process	Teacher Average Responses (In %)		
		Agree	Partially Agree	Disagree
1	Average Responses on Teaching Pedagogy	55.57	26.67	17.77
2	Average Responses on Conducive Learning Environment in Class	77.32	21.34	1.33
3	Average Responses on Logical Thinking & Creativity	58.33	30.00	11.64
4	Average Responses on 'Participation in Teaching-Learning Process'	66.67	28.87	4.45

Overall, most teachers (more than 80%) were in favour of using cartoons as a pedagogic tool.

### **1.7 Conclusion:**

The researcher found that academic achievement scores of students in the experimental group were higher. These results suggest that the teaching supported by cartoons is more effective than the teaching based on traditional classroom methods. The data reveals that overall the students responded positively to the use of the cartoons. A challenge for teachers lies in supporting students to come to an understanding and appreciation of the expectations of practices within the classroom. Careful consideration must occur to ensure that teachers are not just transmitting information about these expectations but providing opportunities for students to reflect upon and understand these expectations and 'ways of working'.

Generally, feedback from students on the use of cartoons as a teaching strategy has been found consistently favorable. However, like any teaching strategy, one has to be careful not to overuse cartoons; their effects could be diminished if not lost. In fact, it is suggested that other types of media should also be used along with cartoons.

## References

- Abd Rahim, N., Halim, A., and Mamat, R. (2014). *Learning via Television Cartoon*. Canadian Center of Science and Education, Asian Social Science; Vol. 10, No. 15
- Eker, C., and Karadeniz, O. (2014). 'The Effects of Educational Practice with Cartoons on Learning Outcomes'. *International Journal of Humanities and Social Science Vol. 4, No. 14*.
- Isham, M and Williams, R. Teaching with Cartoons. Extraordinary Teaching Project, University of Iowa. Retrieved from: <https://teach.its.uiowa.edu/teaching-cartoons>
- Lavery, Clare. (n.d.). 'Using Cartoons and Comic Strips'. Teaching English. Retrieved from <https://www.teachingenglish.org.uk/article/using-cartoons-comic-strips>
- SCERT Chhattisgarh. (2018). Environment Science, Class 4. State Council of Educational Research & Training (SCERT) Chhattisgarh.
- SCERT Chhattisgarh. (2018). Hindi Class 4. State Council of Educational Research & Training (SCERT) Chhattisgarh.
- Sexton, M. (n.d.). Using Concept Cartoons to Access Student Beliefs about Preferred Approaches to Mathematics Learning and Teaching, *Australian Catholic University*
- Van Wyk, M. (2011). 'The Use of Cartoons as a Teaching Tool to Enhance Student Learning in Economics Education'. *Department of Curriculum Studies, Faculty of Education, University of the Free State, Bloemfontein, South Africa*.

### Evidences (Photographs, Students' Work etc.)



# हाथ मेरी चारपाई



Figure 2: Examples of cartoon used in study

Alok K Sharma is an Assistant Professor at the Government College of Teacher Education (CTE), Raipur (Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, India)

E-Mail Id: alok\_sharma2k@yahoo.com

# EXPERIENCES OF A GUINEA PIG

- Ekta Singla (Doctoral student, CEIAR)

Like most grad students living and studying outside India I had my share of struggles to make ends meet. In spite of part-time and other odd jobs that came by from time to time, I always found it difficult to save enough to travel around Europe and experience cultures of countries other than the U.K. But all of this changed one day when I found myself face to face with an advert on a tall and humble oak tree.

A PhD student from a nearby university was offering money for her research on human hearts. She was particularly struggling to find female subjects from South Asia. My ethnicity was finally scarce and most importantly paying off. All I had to do was let them observe my heart for an hour or two. I imagined stethoscope and other non-invasive instruments. So very enthusiastically, I contacted the researcher who was more than happy to hear from me. I was a little surprised at her reaction since I thought, given the money, there would be people lining up for it. But apparently, that wasn't the case. As per her directions I made my way to the hospital next day where the study was being conducted. On my arrival, to my utter disbelief, I found I was to be observed inside the closed confines of the MRI machine. I panicked. I get claustrophobic in certain places and the panic was certainly making that place one of the few. I reminded myself of the travel dreams and held myself together. I was informed that I could walk away from the study any time I wanted without any questions being asked. The researcher and her team made all the effort to make me comfortable. I eased in and entered the MRI dome with Mozart playing in my ears, literally. All the while the machine made whirling and whooping sounds I imagined being swallowed by it and never being able to see my loved ones. All of this however, did come to an end with the support of the research team looking after me in the background. When I was thrown out of the belly of the mighty machine, I was told I had been brave and I had contributed to scientific knowledge. It suddenly felt great! Then I figured, there had to be more such studies. And that was how I become a professional research participant.

Next, I met a German researcher who mentioned I would be given a pill, which is non-threatening and she wants to study the effects of it on people. I was expected to inhale from two different inhalers one after the other to increase the dosage of the medicine. The first one was a small dosage, so that was uneventful. For the second one, she said the dosage had been increased

substantially from what she normally uses since I had shown no symptoms to the first one and she judged it safe. Within a few seconds I felt funny, couldn't breathe and started to feel scared, jumpy and out of place. She seemed surprisingly calm through all of this. When I requested for water she finally announced that both the inhalers were empty. I had inhaled air. I couldn't believe it. My mind had tricked me. She said it is called a placebo effect where individual's belief may cause them to produce certain feelings. I hadn't felt more stupid in my life. She was very kind and said it's a common phenomena.

Subsequently I continued to meet researchers from cognitive science, health sciences, psychology, etc. and unexpectedly became part of a research at an alcohol company that was testing the effects of the so-called magic liquid on stress. They were looking for people who had been under stress for a while. Yours truly volunteered. Before me were placed two glasses, one of which had the alcohol and the other a fizzy drink. They were both translucent and one couldn't differentiate one from the other. I was to drink both one after the other with an interval of 5 minutes between each and decide which one was alcoholic. When I had performed the task as expected of me, the researcher asked me, "Which drink made be feel better?" I said, "the second one as it had alcohol and yes it made me feel better if you say so". He was jubilant, as according to him, I had just become a significant data point. Years later talking to some friends about this research's methods, we did concur that it was, as the Brits would call it, a "shoddy" research.

The sciences did pay well but then one could hit a dry patch with them, especially during the vacation. So I explored other fields, as it was important to make contributions to all fields of knowledge. One such life saving research facility belonged to a business school. I would be made to play decision-making games on a computer and had a choice at the end between chocolate and money. I most often opted for the chocolate. It really uplifted my spirits but eventually gave me a run for my health.

Being a human subject was not always sunshine and breezy. In a childhood impressions' research, as I sat with a patient researcher, I was asked to recollect events from my childhood that I remember the most. After a few stories about my siblings and mother's homemade biscuits, a strange memory came flooding in from nowhere. It was about a friend's mother who would often speak to my mother about her struggles of raising her kids in a city like Mumbai, a very strange and big city compared to the small town they had come from. On that particular day, something cracked in her and she wailed and wailed while my

mother and friend (crying herself) made every effort to console her. The onlookers stared at us. We somehow made it to a nearby shop and got them water and cold drinks. Recollecting that incident I suddenly felt the presence of the researcher who had momentarily faded away. We spent the next few seconds in silence until I requested her to take my leave. Before I left, she checked if I was alright, if I wanted to talk about it to someone more professional or a friend perhaps. It has been many years since I last spoke or even thought about that day but each time it makes me very conscious of the impressions I leave on children.

Each of these experiences and many more made me critical of the scientific method. They acquainted me with dedicated researchers from various fields who spent considerable energy giving meaning to research ethics, making me feel less of a guinea pig and more of a participant. It made our temporary relationship significant by using it as an opportunity to spread awareness about their work and purpose of research in building our cumulative knowledge and lastly, paid off for my Europe travel.



### *Upcoming Events*

**Fifth Annual Seminar on Research in Social Sciences,**

*30 November 2019,*

Place: Monk Prayogshala 4114, 4th Floor, C Wing, Oberoi Garden Estates Near Chandivali Studios, Powai, Mumbai 400072, Maharashtra, India

<https://www.monkprayogshala.in/workshops/seminar-2019>

Call for paper: 13 October 2019, Registration deadline: 15 October 2019

**Workshop on “Enquiry into Comparative Education: Global and Local Perspectives” ,**

*5-6 November 2019 and 22-24 January 2020*

Place: TISS, Mumbai, India

Contact: [poonam.sachdev@tiss.edu](mailto:poonam.sachdev@tiss.edu)

# RTICT: THE JOURNEY AHEAD

-Surbhi Nagpal and Anusha Ramanathan

Teachers do not merely transmit curriculum to students, but play an active role in student learning and development (NCTE, 2009). Therefore, professional development of teachers is of paramount importance. Apart from a strong pre-service teacher education programme, efforts are needed to develop skills and help the in-service teachers reflect on their practice. While the state provides continuous professional development (CPD) through in-service training for school teachers every year, Justice Verma Commission Report on Teacher Education highlights such trainings as sporadic, not need-based and of short duration, thereby being insufficient for appropriate development and growth of teachers (GoI, 2012). Since traditional in-service programs have such shortcomings, teachers have limited opportunities to reflect on their practice and discuss their classroom issues within a professional teacher community or any subject expert during the academic year. Therefore, one needs to think of alternate ways in which teachers can receive continuous onsite support.

The affordances that modern information and communication technology (ICT) offers have not been appropriately utilized for teacher training and development in India (GoI, 2012). ICT has changed the nature of teaching and learning with the introduction of online courses. The popularity of such online courses has been increasing, given the number of courses available on different platforms in different subject areas. An online professional development program can foster contextual onsite-support, and the possibility of connecting with an online community of practice to a large number of teachers at the same time (Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2009).

Addressing the concerns mentioned above as highlighted in existing literature and policy documents, the Centre for Education Innovation and Action Research (CEIAR) at TISS offers online in-service professional development model for elementary and secondary school teachers through its RTICT (Reflective Teaching with ICT) programme. The programme offers multiple courses in the domains of Languages, Mathematics, Science and Digital Literacy. Experts in the respective fields have been involved in the rigorous design and review process of the courses. The courses offered under the programme are hosted on the TISSx website, developed on the Open edX platform. Course participants can also access course materials through the TISSx app available on Play Store.

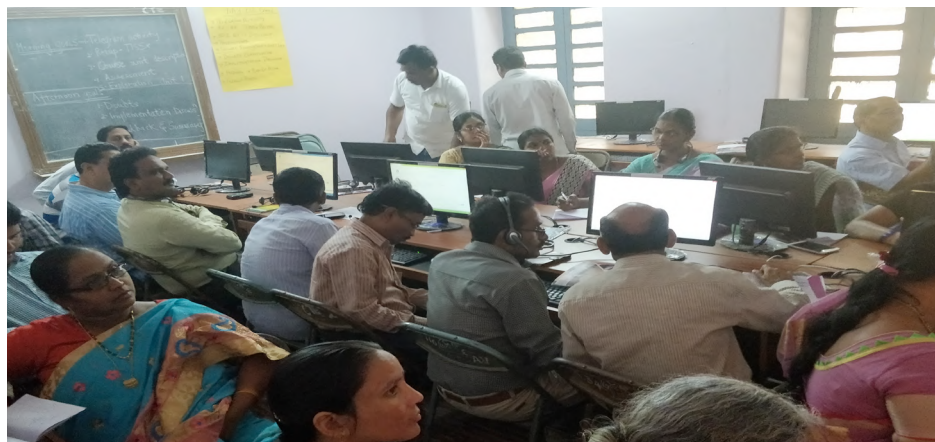
The RTICT programme was conceptualised and developed as a follow-on to Connected Learning Initiative (CLIX), another successful endeavour by the Centre wherein digital learning modules in subject areas of Maths, Science, English and Digital Literacy were developed for government high school

students. The project has been implemented in the states of *Chhattisgarh*, *Mizoram*, *Rajasthan* and *Telangana*, and recently released its resources and materials in the form of Open Educational Resources (OER). RTICT programme offers blended practice-based courses for government school teachers helping them enhance their instructional practice by introducing research-based pedagogical advancements in their domain and also facilitating effective integration and use of ICT in their day-to-day teaching (CEIAR, 2017). Through thoughtfully designed content and implementation activities, teachers are encouraged to reflect on their practice and understand the relevance and significance of constructive classroom practices. The programme has brought together CLIX teachers through a digital community of practice (CoP) on the Telegram app where teachers have been encouraged to share their reflections, ideas and challenges with each other.



The RTICT cohort model offered to CLIX school teachers has completed two runs (2017-18 & 2018-19) and is in its third cycle (2019-20). The current run of the programme also offers subject-electives along with the compulsory pedagogy courses. After each year's course run, a comprehensive review process is undertaken, which involves a detailed analysis of the course content, teachers' feedback interviews, and reflections from the course team. This is followed by tweaking the course content as per the need of the group and also rethinking the implementation strategies to enable an impactful course completion. The review exercise also evaluates the CoP engagement of teachers and thereby tries different strategies to strengthen interactions between teachers. Therefore, each course run is an iterative exercise informing our future course of action based on the experiences of the learners and evidence from the field. This has helped us in enhancing and contextualising the course experience for the teachers. For instance, after the first year's review cycle, the team decided to offer these courses to teacher educators with an intense mentoring programme.

Teacher educators/resource persons were connected to a mentor responsible for resolving the doubts and queries of the course participants and enabling course completion. In a nutshell, these attempts helped us understand how these courses could be effective in the nascent phase of online professional development avenues that would truly enable scale.



Considering the importance of quality professional development opportunities for practising teachers, online modes of professional development offer such opportunities for teachers at their convenience, which fits in their busy work schedules (Dede, Ketelhut, Whitehouse, Breit & McCloskey, 2009). In the spirit of making quality learning opportunities available to as many teachers as possible and creating a vibrant community of practitioners who can learn from and support each other, the centre will be opening some of these courses to learners and educators beyond CLIX teachers. The way forward is to leverage technology to enable such connections. In this era of Digital India, with MHRD emphasizing the validity of online platforms such as SWAYAM for upskilling educationists (ToI, 2018), the RTICT programme from TISS is a unique offering that focuses on integrating TPACK (Technology, Pedagogy and Content Knowledge) in a teacher professional development programme.

Moving forward, some of the standalone courses will be offered in a modular form using the completely online mode of MOOCs in the first such run in November 2019. The courses will be open to anyone who has completed an undergraduate degree and would be able to access and teach a batch of at least 10 students (TISS, 2019).

### **List of Modular Courses that will be offered this November**

*C-03: ICT and Education for Teachers and Teacher Educators*

*E-04: Designing Learning Experiences for the English Classroom*

E-08: *Mentoring for Teacher Professional Development (Hindi and English runs available)*

More details can be found at <http://admissions.tiss.edu/view/10/admissions/stp-admissions/reflective-teaching-with-information-communication/>

There is no doubt that online learning is here to stay. What is needed is a thoughtful way of leveraging this to enable continuous professional development. We need to make more efforts to enable teachers to have meaningful learning experiences themselves and connect them to a wider global community of educationists.

## References

CEIAR. (2017). *Post Graduate Certificate Reflective Teaching with ICT: HANDBOOK 2017*. Mumbai: Tata Institute of Social Sciences. Retrieved October 7, 2019, from <https://clix.tiss.edu/wp-content/uploads/2017/12/RTICT-Handbook-merged-16.12.17.pdf>

Dede, C., Ketelhut, D. J., Whitehouse, P., Breit, L., & McCloskey, E. M. (2009). A Research Agenda for Online Teacher Professional Development. *Journal of Teacher Education*, 8-19.

GoI. (2012). *Justice Verma Commission Report: Vision of teacher education in India : Quality and regulatory perspective. Vol 1*. Delhi: Ministry of Human Resource Development. Retrieved October 7, 2019, from [https://mhrd.gov.in/sites/upload\\_files/mhrd/files/document-reports/JVC%20Vol%201.pdf](https://mhrd.gov.in/sites/upload_files/mhrd/files/document-reports/JVC%20Vol%201.pdf)

NCTE. (2009). *National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teacher*. New Delhi: National Council fo Teacher Education.

TISS. (2019, October 07). *Reflective Teaching with Information Communication Technology (RTICT)*. Retrieved from Admissions 2019, TISS: <http://admissions.tiss.edu/view/10/admissions/stp-admissions/reflective-teaching-with-information-communication/>

TOI. (2018, November 14). MHRD launches faculty development programmes - LEAP & ARPIT. New Delhi, Delhi, India : The Times of India . Retrieved October 7, 2019, from <https://timesofindia.indiatimes.com/home/education/news/mhrd-launches-faculty-development-programmes-leap-arpit/article-show/66615006.cms?from=mdr>



# CONNECTED LEARNING INITIATIVE (CLIX) LAUNCHES OPEN EDUCATIONAL RESOURCES WEBPORTAL

- Shashank Parimi

The Connected Learning Initiative ([clix.tiss.edu](http://clix.tiss.edu)) is a programme seeded by Tata Trusts and led by Tata Institute of Social Sciences (TISS) and the Massachusetts Institute of Technology (MIT), USA from 2015 at CEIAR. CLIX offers a scalable and sustainable model of open education for high school students and teachers. CLIX incorporates thoughtful pedagogical design and leverages contemporary technology and online capabilities, aimed at improving access to quality education in under-served and resource-constrained contexts. In Telangana, CLIX is being led and implemented by the SCERT in 300 schools across 13 districts and has reached 18163 students, 2730 teachers and 175 teacher educators. This programme is also being implemented in the government high schools of Chhattisgarh, Mizoram and Rajasthan. The CLIX ecosystem includes the Government of Telangana, Chhattisgarh, Mizoram and Rajasthan, Homi Bhabha Centre for Science Education (TIFR), Eklavya, Madhya Pradesh, National Institute of Advanced Studies, Bangalore, Mizoram University, Aizawl, Centre for Education Research and Practice, Jaipur, and Tata Class Edge, Mumbai.

On 27 September SCERT, Telangana and TISS launched the CLIX Open Educational Resources (OER) web portal at the Indira Priyadarshini Auditorium, Public Gardens, Hyderabad. The portal was launched by Dr. B. Janardhan Reddy, IAS, Secretary to Govt., Education, Sri T. Vijaya Kumar, IAS, Commissioner & Director of School Education, Smt B. Seshu Kumari, Director SCERT and Prof Padma Sarangapani, TISS. The DEOs of Warangal Urban, Karimnagar, Vikarabad and Siddipet, teachers and students were also present at the event. SCERT and TISS awarded course completion certificates to 66 teachers who were enrolled in the Post Graduate Certificate Programme in Reflective Teaching with ICT, offered by the Centre for Education Innovation and Action Research (CEIAR), TISS Mumbai. During the programme, students and teachers demonstrated the CLIX modules and interactives, showcased their work and shared their experience of using technology and the CLIX resources. TISS also presented its findings from research studies on the learning outcomes of CLIX that shows significant gains among students in English with 52.5% gain in listening, 25.3% gain in speaking, in Mathematics with 45% gain and in Science with 39.8% gain relative to their pre-test scores.



*The CLIX OER Webportal Launch*

The CLIX Open Educational Resources (OERs) are released under open licenses where anyone can reuse, re-create, modify and adapt them to their varied contexts. In this release, more than 100 hours of content in English, Hindi and Telugu languages with options for online and offline versions, more than 40 digital interactives and teacher support material will be available on the CLIXOER web portal ([www.clixoer.tiss.edu](http://www.clixoer.tiss.edu)). In addition to the OER resources, the portal provides insights into the educational design and development processes and the research that went into the creation of these high quality resources. These are of relevance to teachers, educators, students and policymakers.

Shivprasad, a student from ZPHS Saipet, said that “CLIX modules are very easy to learn. We are applying experiments in daily life. We want to learn more subjects through CLIX. The modules which are given in the course are easier than the concepts taught by the teacher.”

Dr. Ravi K. Kola, English teacher from ZPHS Shaipet, commented that “CLIX improved learning standards for students in rural areas and they have become autonomous learners”.

The CLIX Project Director, Professor Padma Sarangapani said that the “Collaboration with Telangana State has been successful because of the exemplary leadership and initiative taken by the state Commissioner and SCERT, and their commitment to strengthening the government school system. CLIX has achieved international recognition because we have been able to show that ICT labs in schools can be managed by the schools themselves and teachers can be successful in integrating ICT into active learning in all subject areas.”

B. Seshukumari, Director SCERT appreciated that “most of the schools have shown a very good response” and that “the teacher-training component has come up very nicely”. “CLix has brought positive changes,” she averred.



*Students displaying their artefacts made using CLix modules*

The Commissioner, T. Vijay Kumar added that “with peer learning concept students are helping each other to learn. The technology will accelerate learning. We have to go forward with this Connecting learning approach. The children must have these 21st-century skills that are absolutely essential in today’s day and age. Even basic literacy in these skills has the potential to expose them to the global landscape of using technology and even something as advanced as learning to code in school.”

Dr. B. Janardhan Reddy, Secretary, Education congratulated CLix for empowering students and commented that “there is a need for digital connectivity to reach out to all classrooms. The success of this project will inspire us as well as TISS. We have to strengthen the infrastructure and reach 29000 schools in Telangana. The program is a success and improvement was seen in every sector for Science, Maths and English.”

Open Educational Resources are the need of the hour to bring about equity across the spectrum of education. Quality, well researched OERs need to be promulgated as well for them to make an impact at scale. This launch is just one of the efforts that the CLix team is making in collaboration with its partners. Dissemination will be truly achieved only when the last mile has been covered as well.

---

### **Publication**

Printed and Published by CEIAR, TISS and printed at Sharda Stationery & Xerox, Shop No 4, Arjun Centre, Govandi Station Road, Deonar, Govandi East, Mumbai, Maharashtra 400088