



Parimal and Pramod Chaudhari
Centre for Learning and Teaching



Collaborative Learning Research Laboratory

(सहयोगात्मक अध्ययन अनुसंधान प्रयोगशाला)

at

Parimal and Pramod Chaudhari Centre for Learning and Teaching

107, First floor, DESE-CESE Building, IIT Bombay

Welcome to Collaborative Learning Research Laboratory



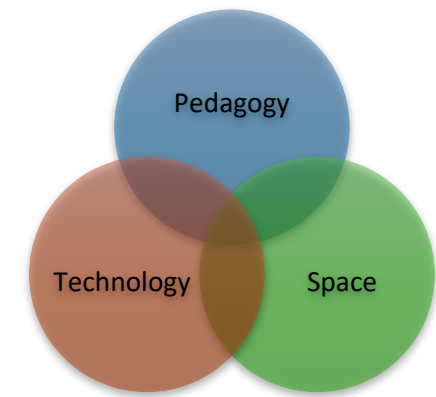
A state-of-the-art Learning Space-cum-Collaborative Learning Research Lab

Collaborative Learning Research Laboratory

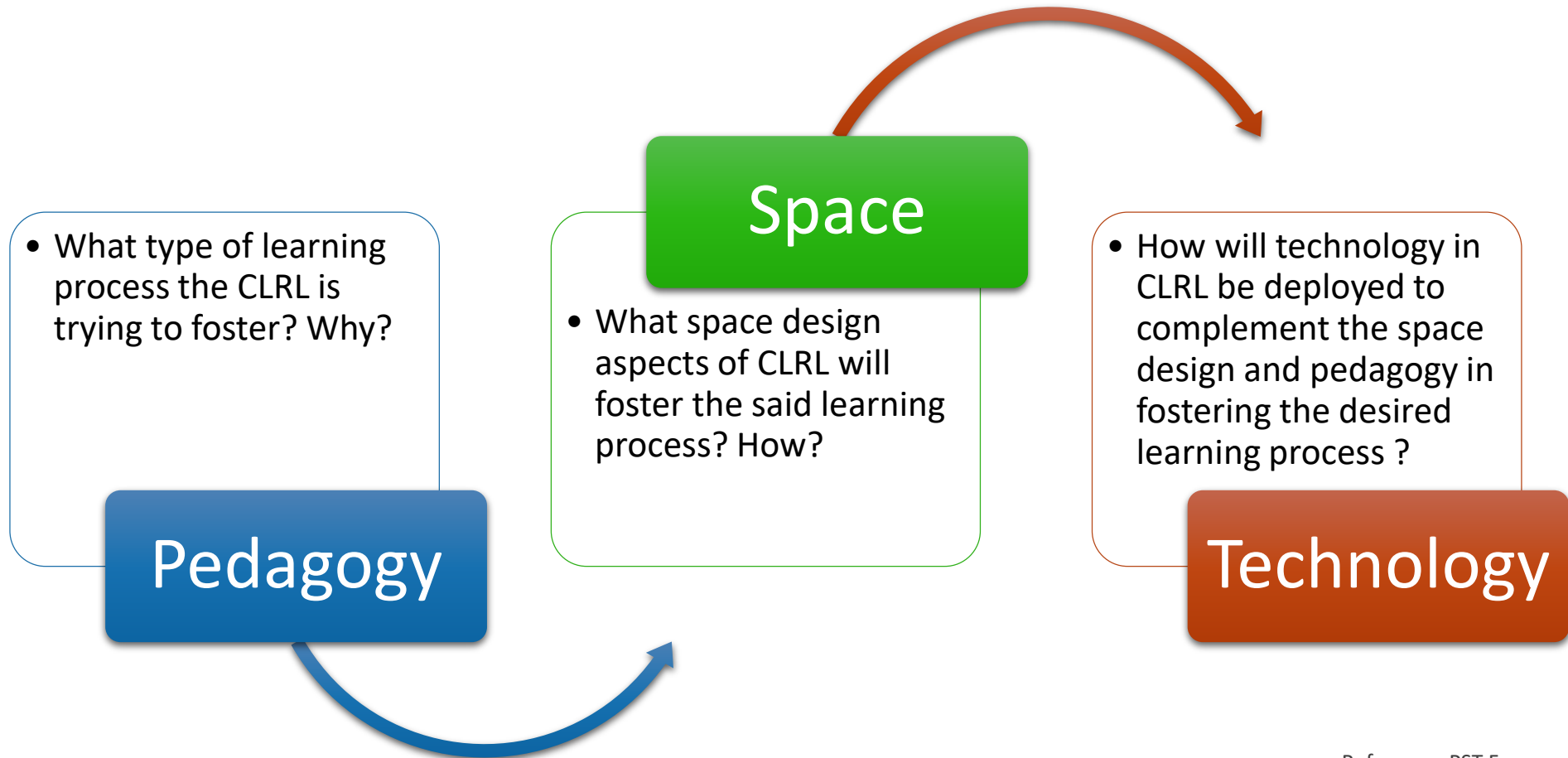
Welcome to a whole new teaching and learning experience that offers a perfect blend of Pedagogy, Space and Technology!

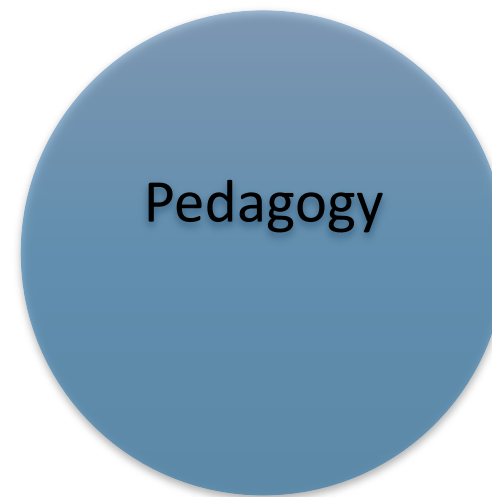
- It is a student-centred, technology-rich classroom to facilitate collaborative and active learning pedagogy.
- A learning environment where the physical space is designed to foster interactions among students.

Pedagogy driven Space and Technology



A series of questions support the CLRL design process in identifying pedagogy, technology, and physical space requirements.





Technology

Space

Collaborative Learning Research Laboratory

Transforming lecture classrooms into Active Learning Spaces

[Image credit:](#)

<https://www.rasmussen.edu/student-experience/college-life/pros-and-cons-online-class>

<https://www.viewsonic.com/library/education/active-learning-matters/>

Pedagogy @CLRL: Active Learning Pedagogy

- Students go beyond listening to lectures, copying of notes, execution of prescribed procedures.
- Students form small groups and work collaboratively in small teams.
- The approach results in deeper learning and an enhanced learning experience.
- Students use high-quality audio-visual facilities and online resources.
- Students use a variety of resources and visual information as they learn from peers and instructors.

Pedagogy in action

- The teacher is not a knowledge transmitter but takes up a facilitator's role in knowledge construction.
- Students work on various tasks such as open-ended problems, design problems, case studies, exploratory studies, analytical discussions, simulations labs, problem-solving tasks etc.
- Students talk, write, reflect, argue, discuss, explore and express their thinking to get actively involved in the lecture content.
- Students can jointly edit each other's work when displayed on local screens. Students can also share material with a whole class.
- Students learn more in active learning rooms, forming closer relationships with their peers and instructors.



https://www.researchgate.net/figure/TEAL-classroom-for-teaching-electromagnetics-at-MIT_fig3_260648443



<https://cft.vanderbilt.edu/guides-sub-pages/learning-spaces/>



<https://www.flickr.com/photos/derekbruff/24929775791/in/album-72157630533336504/>



<https://openlearning.mit.edu/mit-faculty/residential-digital-innovations/teal-mitx>

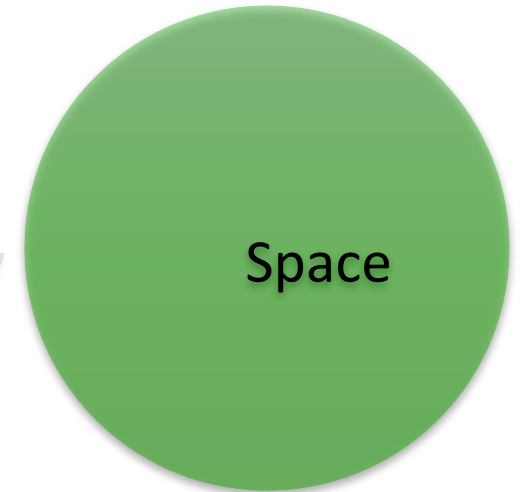
Note: The images shown on this slide are for illustrative purpose only.

Collaborative Learning Research Laboratory

Pedagogy

Technology

Space



Space Design @CLRL

Space @CLRL promotes change in the role of a teacher from *knowledge transmitter* to *facilitator in knowledge construction*

Space offers affordance to students for peer learning, collaborative learning and team building.

Round tables for seating of sufficient size (7 feet diameter) to accommodate 9 students in 3 groups comfortably.
Total capacity: 45 students

Manageable team size of the group; 3 students in each group



Allows sharing of physical workspace

Enables sharing of Digital workspace by sharing a laptop

Flexible furniture, e.g. movable chairs

Space Design @CLRL

Central Display
screen visible
across space

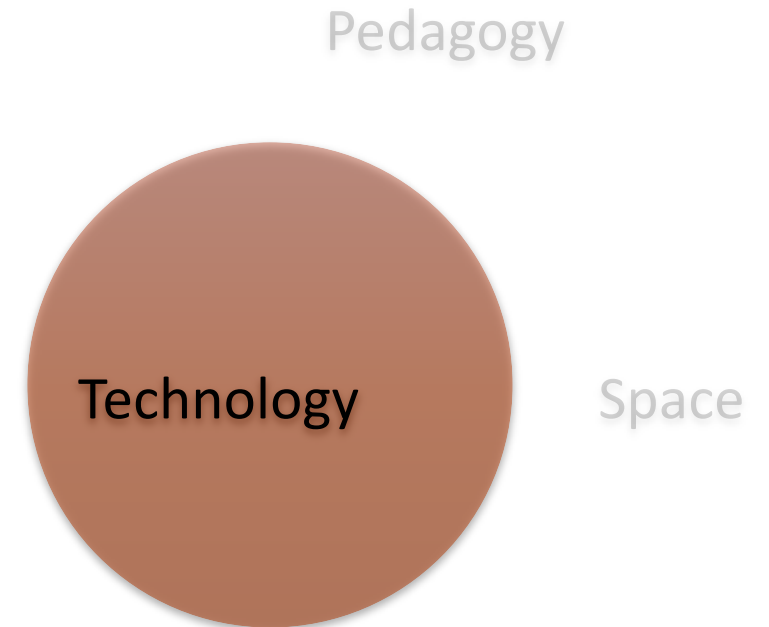
Sufficient
common
writable Surfaces

Free movement
paths for
instructors and
accessibility to
each student in
the classroom



Sufficient
affordances and
interaction
opportunities for
collaborative
discussions
among students;
A clear line of
sight and
movement
possible among
students

Collaborative Learning Research Laboratory

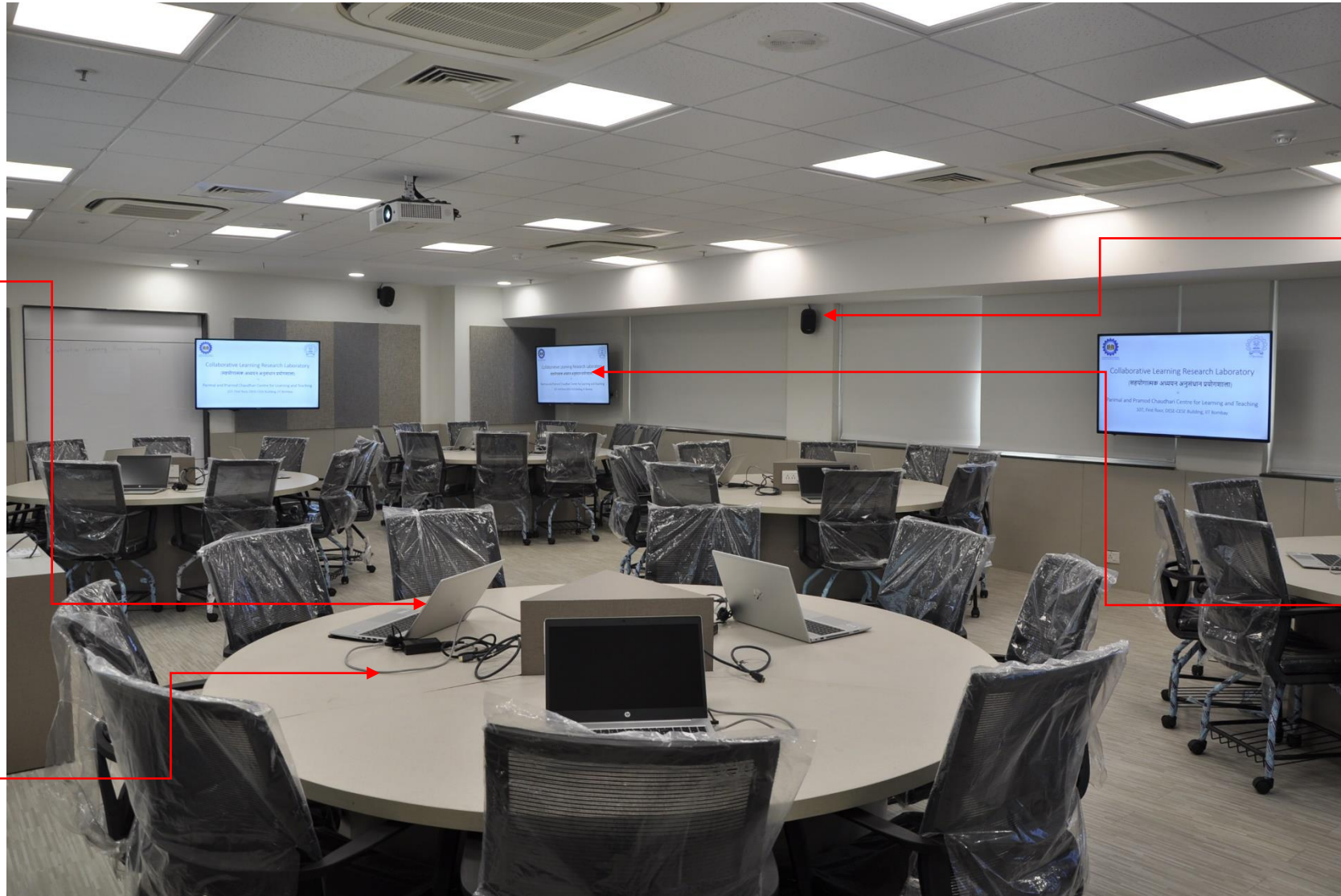


Technology Design @CLRL

Three laptops on each table, one laptop per group

Wi-Fi enabled space, students and faculty can log in using LDAP

Interconnected work stations (through wired LAN connectivity)



Appropriate acoustic arrangements for broadcasting any student's views/ discussion/ oral presentation

Each table with its dedicated display with a provision to share a laptop screen with the dedicated displays and central display

Screen sharing facility enables any student's or any group's screen to be shared with the entire class + instructor

Contact us

Please write to us at office.ppcclt@iitb.ac.in for any further queries and for booking the CLRL.