

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences using ICT tools

Atria Institute of Technology uses a student-centered strategy to enhance the learning opportunities by embracing experiential learning, participative learning, and problem-solving methodologies in its teaching- learning process. To retain students' attention spans, faculty members actively engage students in their lessons using a variety of techniques. "Instructional activities involving students in doing things and thinking about what they are doing" is how active learning is defined in teaching – learning process. Students are required to participate in classrooms and labs through a variety of in-class exercises, such as Think-Pair-Share, Class Polls, Summarizing, Visible and Verbal Quizzes, Critical Thinking Exercises, etc. Faculty members create student-specific, contextual, and cutting-edge teaching approaches using ICT tools shown in Figure 2.1, that can maximize learning opportunities for the students. Some of the approaches and activities utilized to improve their learning include seminars, problem-solving sessions, PowerPoint presentations, internet-based assignments, group discussions, group assignments, quizzes, and mini-projects. Figure 2.2 demonstrates the outcome-based teaching-learning process at the institute level.

1. Experiential Learning: To aid students in their experiential learning, each department runs supplemental activities. The institution encourages the following experiential learning techniques to raise students' levels of creativity and intelligence.

- Experiments beyond the curriculum are added through Virtual Labs.
- Student Development Programs (SDPs) and Short-Term Training Programs (STTPs) are regularly conducted for students from the experts of industries and academia.
- MOOC courses like NPTEL, Coursera, and UdeMy provide add-on certification courses (value-added courses) on the newest technology.
- Summer Internship - Students gain practical experience while employed by the company.
- Student projects using the most recent technology, including working prototypes displayed at technical fests.
- Industrial visits give exposure to the working environment and industrial requirements.

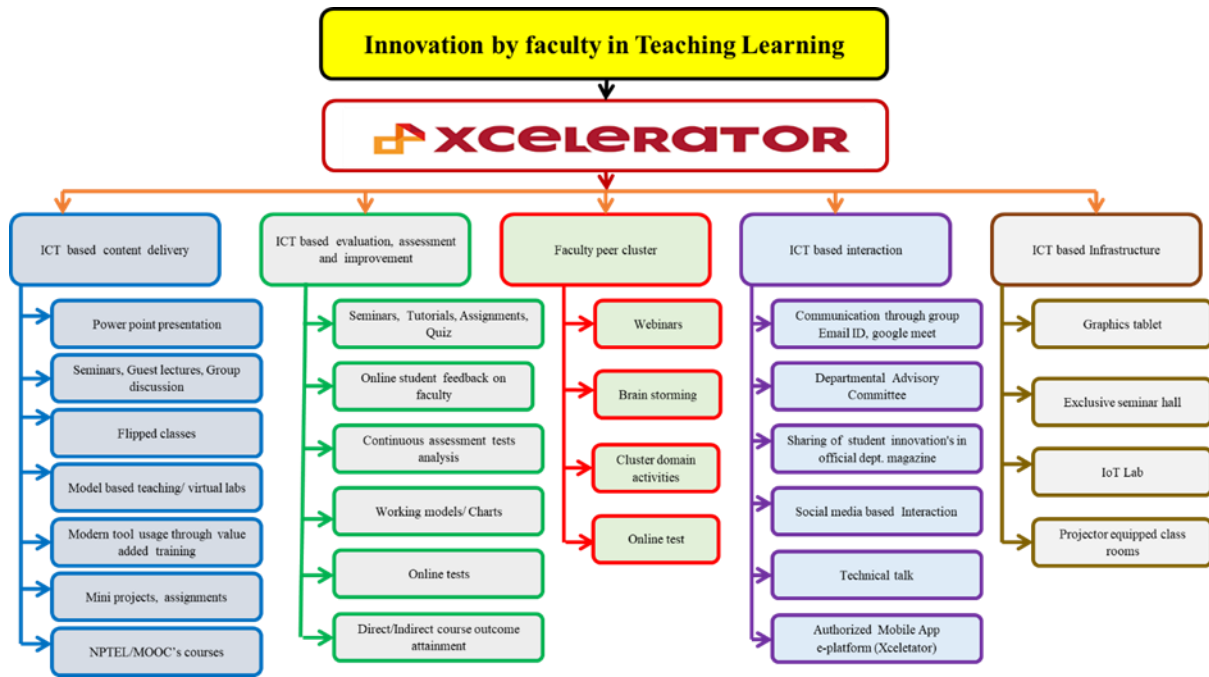


Figure 2.1: Flow Chart of Innovations by faculty in Teaching-Learning Process using ICT tools

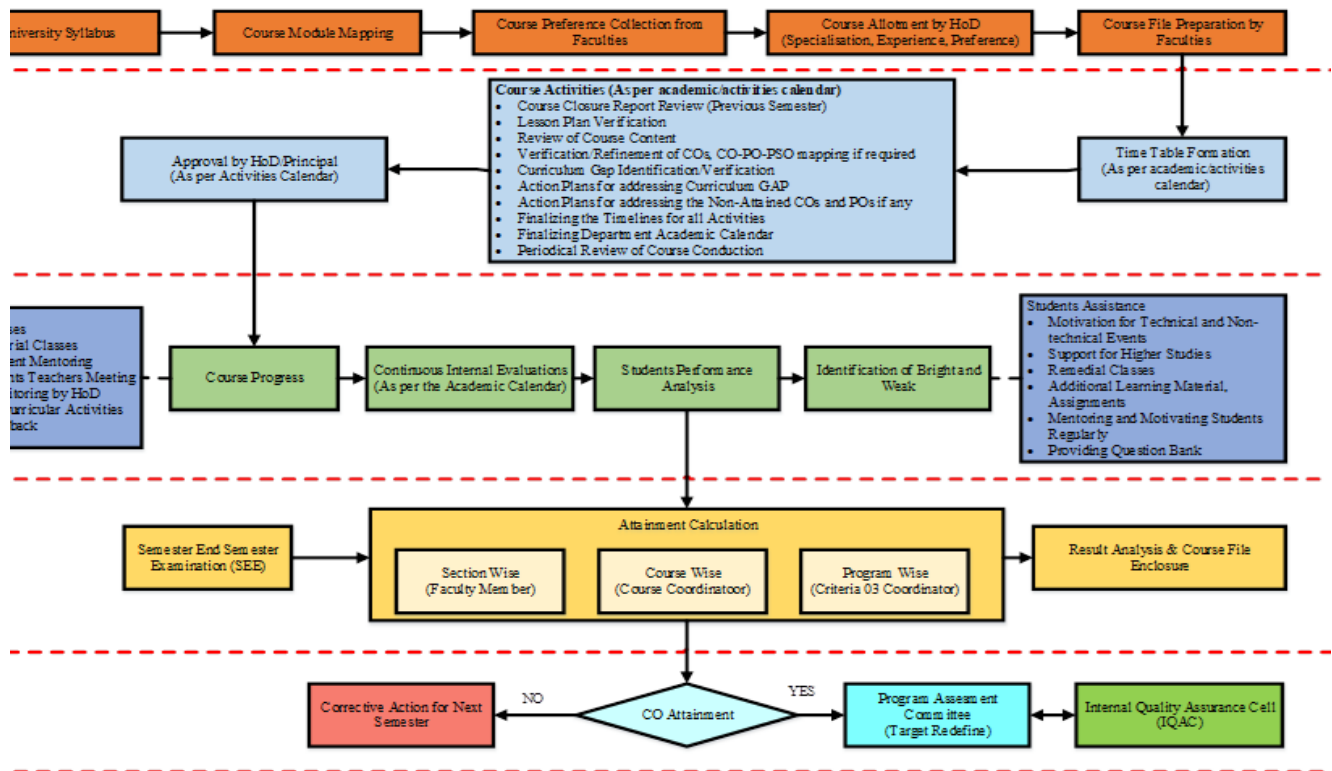


Figure 2.2: Teaching learning process

2. **Participative Learning:** Students take part in a variety of projects, group discussions, seminars, design exercises, and skill-based add-on courses. Students are encouraged to take part in the following activities shown in Figure 2.3, where they can showcase their technical or managerial skills.

- **Seminar Presentation** – Students develop technical skills by presenting papers in seminars and conferences.
- **Regular Quizzes**- Course-wise quizzes are organized using the LMS Platform (Xcelarator and Quiklrn) for the students.
- **Annual Tech Fest** – The institute hosts the technical fest **Dextrix** yearly for both internal and external students.
- **Management Fest** – The management department hosts **Infusion** for the students to display their managerial skills.
- **Annual cultural program** – The institute hosts the cultural fest **Saptharang** yearly for college students to express their creativity.



Figure 2.3: Interactive Methods

3. **Problem-Solving Methodologies:** Departments urge students to learn and enhance their problem-solving abilities. The college organizes expert lectures on various topics, motivates students to join MOOC courses, and participates in various inter-college and intra-college technical fests and other competitions such as:



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- Institute-level training and project creation.
- Continual Assignments based on problems
- Regular quizzes and the construction of mini projects
- Discussion of case studies
- Cluster activities
- Presentations in class
- Internship