

6.5.2: The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities (For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives)

CASE 1: PDCA process and Quality Assurance Audit System

The institution has defined its own audit system namely “Quality Assurance Audit System” which periodically monitors the Plan, Do, Check and Act stages in Teaching Learning Process (TLP), all other academic aspects, administrative activities and its achievements.

The TLP audit is carried out at the end of every semester to improve the quality of PDCA process. The TLP audit covers the following aspects:

S. No	Parameters
1.	Lesson plan
2.	Time Table
3.	Course Material
4.	Quality of Internal Assessment Question paper
5.	Assignment Questions
6.	Assessment pattern and marks
7.	Lab Manual
8.	CO attainment
9.	Special initiatives
10.	Faculty feedback and Best Practices

The internal audit committee for TLP has been constituted with senior faculty members in the cadre of Professor nominated by Head IQAC with the approval of Principal. Yearly once, brain storming on audit parameters will be performed by the Head IQAC before the commencement of the quality audit. This is followed by discussions on processes, checklists, form templates, findings of previous audits, methods of presenting audit findings and submission of the reports. Based on the remarks submitted by auditors, the auditee shall update the remarks and further action taken report has been submitted to IQAC. Based on the auditors finding on strength and weakness of TLP, IQAC organizes training programs for faculty through OBE division for the improvement in Teaching Learning process.

The Academic and Administrative Audit (AAA) is carried out at the end of every academic year to improve the quality of Academic, Research and extension activities. The AAA audit covers the aspect of the parameters specified by NBA and NAAC which is mentioned below.

S.No	Parameters
1.	Curriculum Design
2.	Academic calendar
3.	Academic Performance(Assessment and Attainment)
4.	Student projects and internship
5.	Research and Development
6.	Extension activity
7.	Budget
8.	Library
9.	Clubs and committees
10.	Infrastructure utilization

The external audit committee for AAA has been constituted with senior faculty members in the cadre of Professor from Government/Government aided institutions nominated by Principal.

An opening meeting is convened by Principal and Head IQAC along with external members with respect to audit check list and rubrics. The auditors will rate the parameters on a Likert's scale with four levels. Weakness and deficiency are identified based on the remarks submitted by auditors and further corrective and preventive action is taken.

CASE 2: Product based Learning

Product Based Learning (PBL) is a unique Teaching Learning method that has been developed since 2017 to impart the product design life cycle to every student. This is being implemented as a prototype for the courses B.E – Mechanical Engineering and B.E – Electrical and Electronics Engineering. The idea behind Product Based Learning is “Profound interconnectedness” that aims at cultivating the awareness of interdependency at multiple levels of our curriculum that would lead us to the transformation from teacher centric to learner centric approach.

The following aspects are the main focus of transforming ideas to students and inspiring them to understand product design life cycle during their course of study especially during first four semesters of their B.E/B.Tech programme:

- PBL transforms engineering students by inspiring them to think differently about themselves as learners, collaborators and leaders.
- PBL leads students to master core academic content and builds critical thinking, problem solving, collaboration, communication and self-management skills.
- PBL enables teachers to make a difference in their students' lives academically, socially, emotionally and to experience the joy of teaching.

As PBL is a relatively new concept, it was decided to seek the assistance from TVS motors, IBM, Forge Accelerator and VVDN Technologies to train faculty members in small groups in problem identification, brainstorming, idea generation, planning and execution procedure.

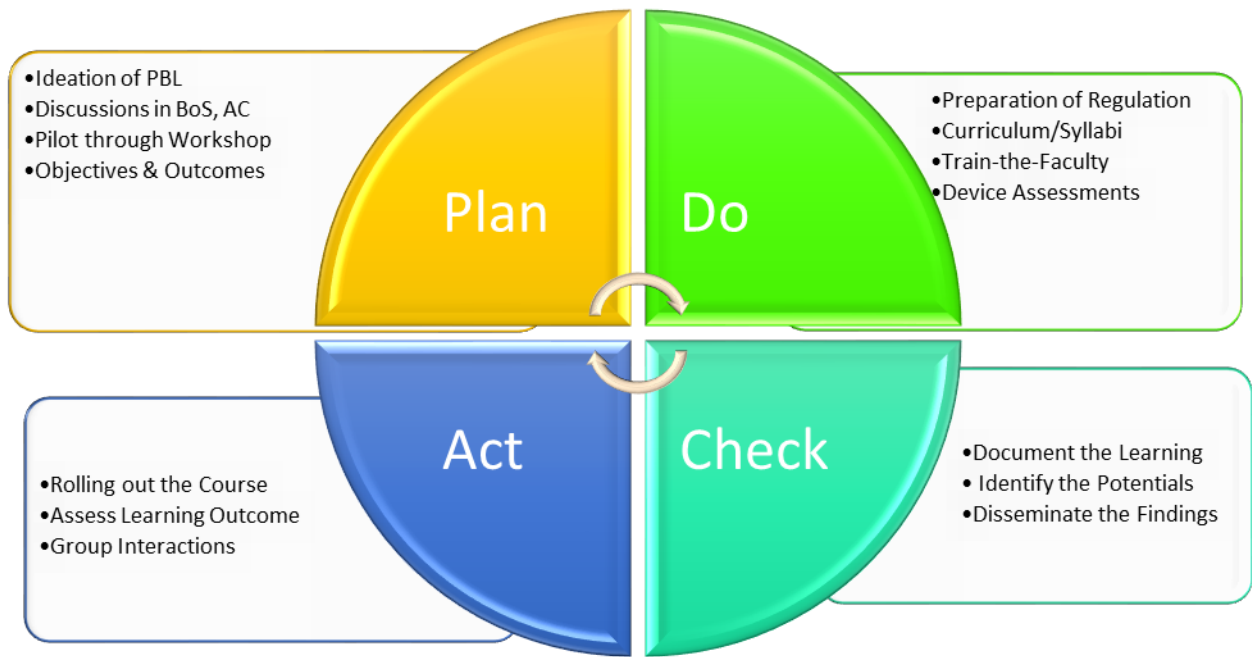


Figure 6.5.2 Phases of PBL