BEST PRACTICES

Best Practice – I

1. Title of the practice:

"Academic performance and improvement of students through Collaborative Learning: A process of continuous evaluation and effective mentoring"

2. Objective of the Practice:

To improve the academic performance, quality and knowledge of the students and to achieve the objectives, the following steps have been taken:

- The objective of the Institute is to implement mentorship scheme is to provide training and guidance to undergraduate students in all disciplines, increase the participation of all undergraduate students from Fist year to Final year in the different activities conducted by the Institute, which will be useful for them in their life after graduation.

- Assessment of student learning at its best enables students to identify their strengths and weaknesses to identify the kinds of information they need to correct their learning deficiencies and misconceptions. The segmentation of the students starts at admission level for a better assessment.

- Determining the point in students' education (e.g., Slip tests, Guest lectures, Tutorial Classes, and Mentoring) at which he/she should develop the specific knowledge and skills.

- Faculty provides guidance to improve proficiency in writing skills and aptitude to the students.

- Faculty members can use before-and-after self-assessment to verify whether course outcomes meet their expectation or not. Before a course begins, the faculty writes brief comments about the types of students for whom the course is intended and also faculty monitors overall progress of students during his/her graduation.

3. The Context:

In the current scenario the professional courses followed continuous evaluation of students' progress throughout their courses. In every institution student evaluation measured in terms of academic performance and campus placements are the key factors to measure the performance of an institution. In the admission process 60% to 70% students from rural areas enroll themselves which supposed to be the 1st graduate of the family. The proper assessment and proper training will helps the students to improve the performance in academic and non-academic activities. This practice helps the students to identify the requirements and provide appropriate guidelines to improve their overall academic performance. It will

help to brainstorm and remove the fear of failure and learning new things from the students' mindset and help them to perform progressively.

For these implementations college utilized Mentorship scheme and developed systematic road map for improving the different aspects of personality developments, Communication Skill, Presentation Skill, Team Work, leadership qualities, resume writing, etc. and make them ready to face the challenges in the industry. Through the mentorship scheme, if the students are lagging in any of the above mentioned skills are provided the opportunities to participate in the different activities planned under the Mentorship Scheme to develop themselves.

4. The Practice:

- The Orientation/Induction program is conducted to the students before commencement of academic year. In Orientation program students will know course structure, university norms and regulations like credits, internal and external, detentions, and facilities (E-library, Labs, Gym, Medical facilities and Sports activities etc.,) provided by the institution.

- The Class room time table is prepared to meet the course outcome as described by the university syllabus. This step will help the student to reduce the burden and understand concepts in a better way. The tutorial classes have been implemented effectively to fill the gaps.

- The lecture plan is prepared in a best way to fulfill the course objectives, If the faculty identified any gaps in the course contents, it will filled by the subject experts or industry professional as guest lectures.

- Along with these activities, mentor has to keep the academic record of the mentees allotted to him in terms of their monthly attendance, academic results, co-curricular participation within and outside campus etc. and inform the same to the parents.

- During the regular classes daily two topics are given to the students to prepare for the test besides their regular class work. Daily morning one hour is allotted to write the test on the given topics. If they score less mark and are not able to understand the concept clearly, they are provided with additional classes beyond the working hours, to clarify their doubts with the subject teacher and also necessary counseling is given to the students.

- The individual attention is given to the students which help the students to feel comfortable and their performance is appreciable in the tests. Our college implemented mentoring system for improving personal attention. In this system each faculty allotted 20 students. Faculty is responsible for student academic performance and overall development. This increased the accountability of a faculty member. As a result the students will become capable of understanding of the subject and they succeed in the terminal and the university examinations.

- The faculty member observes the performance of each individual student in time interval, based on their performance faculty member take the necessary action as required.
- The students' attendance monitor by mentor faculty on daily basis. Our college using software named 100 pins which will give regular updates to the parents about their kid's attendance. This is helping to increase the attendance percentage of the students.
- For Collaborative Learning Presses (CLP) institute focused on group learning, hear students will divided in groups in each group 5 members will selected , among them one students will have good knowledge reaming four will be average and below average. Here students will practice/study/learn the given topic by faculty member, if any doubt occur group leader will help to clarify after that they will give oral presentation or written test. This activity helps students to learn in friendly manner, inculcate leadership quality and team work spirit in them.

5. Evidence of Success:

Institution has given constant progress for overall development of the Students. Every year students have performed well and shown progress in their overall development, it resembles the quality of teaching learning programs and techniques adopted by the institution in Higher Education. In addition to inculcating research culture in faculty members as well as students, college conducts International Conferences /Seminars /Symposiums/FDPs/Guest Lectures every year, as they help and motivate faculty and students for research publications.

6. Problems Encountered and Resources Required:

Our college is working with full efforts to achieve the objective of this practice, even though we are encountered some problems while implementing this practice. The following problems were encountered while implementing this practice:
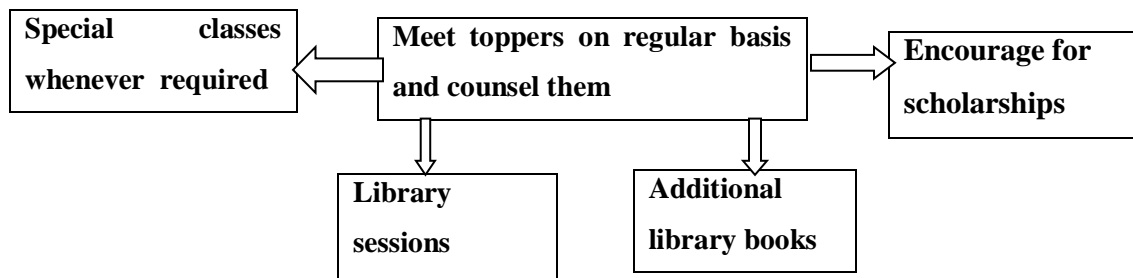
- The main challenge for our college is located in rural area and students are not that much exposed to the current enhancements.
- The medium of instruction of the Engineering course is English and since most of the students are from regional (Telugu/Hindi) medium, they feel difficult to understand the classes and write the examination in English.
- The tutorial classes after college hours will help the students' to develop academic performance but some of the students feel that they are attending classes continuously for a long period.

- There are some students coming to the college from different locations of the city, because of the additional tutorial classes day scholar students feel difficult to reach home in time after evening classes.
- Some students are less attentive during the evening classes.
- Faculty members feel that they have additional workload of teaching.
- College identified the slow learners and implemented a special program (CLP) by clubbing them with bright learners.

7. **Special programs for advanced learners and slow learners**
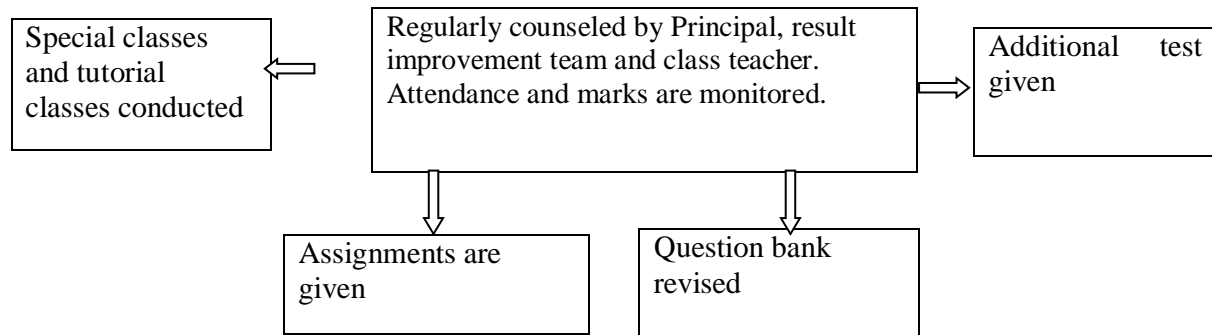
   Advanced learners:
   - High performing students are identified on the basis of internal assessment, university examination, and involvement in classroom.
   - Students are encouraged to be members of professional bodies like CSI and organize technical events.
   - Advising to participate in group discussions, technical quizzes to develop analytical and problem-solving abilities in them and thereby to improve their presentation skills.
   - Various club activities are conducted by all the departments in the respective areas to mould the students in corresponding field.
   - NPTEL session is conducted for the entire subject for tough topics.
   - Students are been encouraged to take up micro projects to inculcate research orientation and practical awareness in the 2nd year apart from the regular mini and major projects.
   - Students are also provided opportunities to develop their creativity by participating and organizing intercollegiate as well as national level technical symposiums.
   - Bright and diligent students are motivated and inspired to get university ranks.
   - Students are encouraged to take up competitive exams like GATE, GRE, TOEFL, IELTS, CAT, PGCET etc
   - Semester toppers and university rank holders are encouraged with certificates and cash prizes by the management.

Special classes whenever required	←	Meet toppers on regular basis and counsel them	→	Encourage for scholarships

Library sessions	Additional library books

Process to encourage bright students & Slow Learners:

- The Institute practices a robust student academic counseling process. During the time of admission Principal interacts with the parents and the student to assess their need and aspirations. Further during the course of study group of students are assigned to a faculty for counseling.

- The counselors monitor the academic performance and interact frequently to understand and assist the student with issues that affect their ability to learn or impede their academic success.

- The institute has a system to communicate performance and attendance of students to parents regularly. A set of 20 students are assigned to a faculty as mentee and provide personal and academic care to the student.

- Mentors communicate regularly with the parents and also send them SMS along with the report cards after the completion of each assessment test.

- Care is taken by faculty for monitoring the performance of slow learners. Faculty members do periodic interaction with parents to discuss the progress in performance of the slow learners.

- Learning material prepared by subject faculty it's verified by the expert committee and will be shared through Whatsapp/ email regularly for students' reference.

- All departments conduct remedial classes; provide course notes for students especially the slow learners and those students who are at the verge of dropping out due to arrear subjects.

- Weak students are given regular class tests in order to improve their performance in the university exam. Further faculty members revise the tough topics as per the students requisition and provide university question bank and discuss the way of presenting the answers in the exam to score marks.

Special classes and tutorial classes conducted	←	Regularly counseled by Principal, result improvement team and class teacher. Attendance and marks are monitored.	→	Additional test given

Assignments are given	Question bank revised

Process to bring improvement in slow learners:

Extra classes are organized to clarify doubts. Critical topics are re-explained for better understanding by the students. Appropriate counseling with additional teaching is done which eventually results in students attending the classes regularly. The following process also conducted in the class rooms to brighten-up their interpersonal skills.

8. Collaborative learning:

Collaborative learning is a method of teaching and learning in which students' team-up together. A group of bright and slow learner students discuss a lecture or an important topic from the particular subject. In this collaborative learning, student groups work together and learn to work as a team. In these small groups, students can discuss to clarify their doubts towards the subject, work to overcome the weakness and develop their interpersonal skills. They learn to deal with conflict. These groups are guided by subject teachers with clear objectives, students engage in numerous activities that improve their understanding of subject. Collaborative learning provides a place where:

- Learners actively participate.
- Learners become teacher, and sometime teacher become learner.
- Projects and questions increase the interest & challenge and help to develop students' strengths.
- Students gain problem solving skills when they face conflicts.
- Goals are clearly identified and used as a guide.
- Research tools such as Internet access are made available.
- Students are invested in their self-learning.

Benefits of Collaborative Learning:

- Students learn to work with all types of people. During small-group interactions, they find many opportunities to reflect upon and reply to the fellow learners. Small group also allow students to add their responses to the subject doubts.

- When questions arise, students will have a variety of responses. Each of these can help the group give productive result.

- This group activity helps to develop social skills among students as they communicate not only with team members but also with other group members to relate their thoughts, view-points etc

- Each student has opportunity to contribute in group discussion. Students are apt to take more accountability of their material and to think critically about related issues when they work as a team.

- Because of more interaction with more pupil students receive good individual feedback about their ideas and responses.

- This feedback is often not possible in large-group instruction, in which one or two students exchange ideas and the rest of the class listens.

Actions have been taken for identified Problems:

- To avoid feelings in students they are having long and continue classes, institute encourage to use advance methods of teaching techniques like using Projectors and case study method of teaching practices.

- Institute provides additional buses for specific routes after additional classes.

- The new teaching methods of teaching practices are helping the students to attract the additional remedial classes, and refreshment is provided to the staff and students in remedial classes.

- To avoid the additional workload felt by faculty members, college provide compensation leaves (CCL) to them.

9. Concluding Notes:

The overall performance of the system is good and there is a great improvement in the overall result of the college along with students' quality and knowledge.

Best Practice – II

1. Title of the Practice:

Motivation of students for Innovations and Enhancing Students Placements and motivating them for Higher Education.

2. Objective of the Practice:

The main objective of this practice is to increase number of placement and motivate the students for higher education.The following steps have been taken to fulfill this objective:

- In the first step institute/placement department segregate students as per students' requirements, they have identified that all the students are not having same objective. But these are different priorities like Job, Higher Education and becoming an entrepreneur.

- In the second step they will identify required training classes which will help the students to enhance the capabilities to get employable and provide appropriate knowledge about higher education.

- To meet the industry expectations college provide Class Room Training (CRT Programs) from first years on words. This CRT program is scheduled and planned on the basis of specific needs & training. This will help the students to get jobs in campus placement drives.

- Institution provides coaching classes like GATE, PGCET, TOFEL and IELTS to the students to encouraging and motivate them for higher education. This training help to increase number of students' enrollment for higher education in India abroad by achieves good ranks in GATE, PGCET etc.

3. The Context:

Many new graduates are finding it difficult to obtain graduate-level work and almost impossible to get placement in their dream/aiming field. In order to address this, institution examining the methods used to enhance student employability and deploying various measures to get productive result by focusing on work experience. Work based /project based learning support students to apply their knowledge and conceptual understanding to solve real world problems or problematic situations under the supervision of instructor. Project based learning is one of the ways to increase the opportunities of learning and developing different skills. This Project based learning is a part of academic and embed programs like introduction of key skill modules and curriculum development to increase the various opportunities for students. These skills focus on applying the knowledge in a commercial environment while developing core competence, students get familiar with professional practice and raising the value of graduate/education.

4. The Practice:

- Institute's Training placement team help the students to make them 'Plug & Play' the technical knowledge with industry needs. Training is given from 1st year onwards and the trainers are brought from various sectors to make the students active.

- Following training programs are offered to improve the employability skills.

  Ist year

  ✓ Basic English (speak, read & write)

  ✓ Verbal & Non Verbal

  ✓ Spoken English course for Telugu medium students

  IInd Year

  ✓ Intermediate English (Speak, Read & Write).

  ✓ Aptitude problem solving skills- Basic

  ✓ Analytical & Reasoning

  IIIrd Year

  ✓ Career Awareness sessions

  ✓ Soft Skills Training (Creativity, Motivation, Leadership, Group dynamics and Body Language).

  ✓ Aptitude Training (Analytical, Logical & Verbal reasoning skills)

  ✓ Mock Interview (Tech & HR) by senior faculty from the respective department

  IVth Year

  ✓ Training on Corporate question papers & Corporate Etiquette.

  ✓ Interview Skills and Mock Interview

  ✓ Monthly tests on company questions

  ✓ Weekly Group discussions & Mock Interviews

  ✓ Technical Training on their core and in other areas like (Programming fundamentals – C & C++, JAVA, Hardware, Networking, MAT-Lab, ARDUINO, Auto-CAD etc) by our internal faculty.

- Creating awareness among the students of various avenues for higher studies. Collecting data of the Alumni who have done higher studies. Networking among Universities, Colleges, Institutions abroad committed to impart Higher Education and Collaborative Study courses. Interfacing with the appropriate authorities by collaborating Universities and Institutions. Promoting new relationships between overseas Universities and Institutions and to help define the scope of such relationships

through appropriate Memoranda of Understanding (MOUs).

- One of the popular ways of doing work based learning is providing internships programs to the students. Institution encourages students to do internships in Industries. This help student to get practical and work based knowledge.

- Institution also provides In-house projects for final year students. This will help student to get experimental knowledge at college.

- Institution started Incubation centers at college campus to give work based training to students. It increases student's employability chances.

- To motivate students in their higher education our college provide coaching classes for GATE, PGCET, TOFEL and IELTS at campus with subject and industry experts, it results a gradual progress in students to participate in higher education.

- To fulfill the industries requirement; final year students get focused training program like e-Litmus, AMCAT, IPAT, NASSCOM NAC-TECH and Job Montor Test. This training helps to increase the percentage of employability.

5. Evidence of Success:

Since the rigorous academic schedules followed, it is observed that students are progressing enthusiastically from one semester to the next semester. Feedback and suggestions are taken from every student regarding the student needs to prepare for the Job or further studies they want to pursue or face the society. The working of the programs are monitored and reviewed periodically for the regularity, by the college academic committee. This review helps to fine tune / restructure for further improvement with modern ideas and practices. Improvement in certain specific output parameters relating to students 'performance are presented below as evidence of success:

- Demand for admission into the college.
- Student academic result
- Placement records
- Further studies.

6. Problems Encountered and Resources Required:

- Students feel difficult to balance their performance between academics and placement training.
- By carrying out internships, the academic schedule gets disturbed.
- By carrying incubation centers students loses their regular class schedules.
- Because of the in house projects faculty not able to complete some part of the syllabus in time.
- Additional funds and man power are required to maintain Training and Placement Cell.

7. Actions Taken for Identified Problems:

- Appropriate schedule has been prepared for placement training and academics.
- Additional classes and tests are conducted to the students.
- Institution recruits additional manpower for maintaining training and placements and providing sufficient funds to maintain training properly.

8. Concluding Notes:

The Institution has brought progressive changes practically for all-inclusive development of the students by conducting CRT programs, Soft skill training, coaching classes and Technical training on their core areas to increase employability to get various positions all over the world, enabled to continue their higher education in all levels and made them innovative challenging engineers.