



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACTIVITY BASED LEARNING

Course Code & Course Title : GE8076 – Professional Ethics in Engineering
Year/Sem/Branch : IV/VIII/ECE
Name of Faculty : Dr.T. Sripriya
Designation : Professor
Unit Title : UNIT -III ENGINEERING AS SOCIAL
EXPERIMENTATION
Topic : Proper role of law in Engineering
LO : Acquire the knowledge about various social issues, industrial standards, code of ethics and role of professional ethics in engineering field.
Bloom’s Taxonomy Level : Analyze

S.No.	Title	Description
1	Concept	Engineering as social experimentation can provide engineers with a proper perspective on laws and regulations in that rules that govern engineering practice should not be devised or construed as rules of a game but as rules of responsible experimentation. Such a view, places proper responsibility on the engineer who is intimately connected with his or her “experiment” and responsible for its safe conduct.
2	Challenges Faced	Oral method of teaching made the students feel so vague as it was fully explanations.
3	Name of the Activity	Team Based Learning - Collaborative learning method Student teams have to discuss about the flaws in Engineering Experimentation by choosing a failure design one each (Ex: Bhopal gas tragedy, Chernobyl disaster.....). They have to decode all the problems in that experiment and they should learn the laws properly for designing that in future maintaining human values, loyalty and morals when they become engineers and contribute good to the society. This helps them learn the code of ethics in their profession which serves as a lifelong learning. Assessment pattern were discussed with the students before the activity start.

4	Description of the Activity	<p>Before I started to work on this activity the greatest concern, I had was how to implement active learning in my class. I got the awareness that activities focusing individually are not many times a good choice as the class room has heterogeneous students. I learnt that the active learning classroom should feel like a challenging space for all the students to give them equal participation. By this grouping approach, I felt the probability of learning and involvement had increased.</p> <p>Team Based Learning is a type of collaborative learning method which I have chosen for my class. I did the selection process transparent and created diverse teams. I made them work with groups in the classroom and maintain them week-on-week. Team building itself will motivate students.</p> <p>The aim is to excite students in effective participation. By taking a group approach, I can more likely convince students that they are capable of succeeding. Collaborative learning will enhance the subject understanding and increase social skills. When students work together in collaborative groups they understand more, retain and feel better about themselves also their peers. Moreover, working together in a collaborative environment encourages students' responsibility for learning.</p> <p>I would consider the positive aspect of Student Team Achievement Divisions strategy will be when students learn in teams, sharing of resources and ideas are good as they all feel that they are pretty equal and they get the confidence that each may have individual responsibility in discussions.</p> <p>Class of 30 was divided into 7 teams with a size of 4 each. The assigned teams gathered together, shared their names and started exploring what each may contribute to the teams. I followed this strategy because students learn that they work in teams was based upon sharing of resources and ideas they all feel that they are all pretty equal and they get the confidence that each may have individual responsibility in discussions.</p> <p>At the end of activity session, I will get their feedback. With that feedback I can try all activities on trial-and-error basis.</p> <p>The activity was successful except certain students, even in spite of having assessment they kept criticizing and disturbing the class by distracting. The</p>
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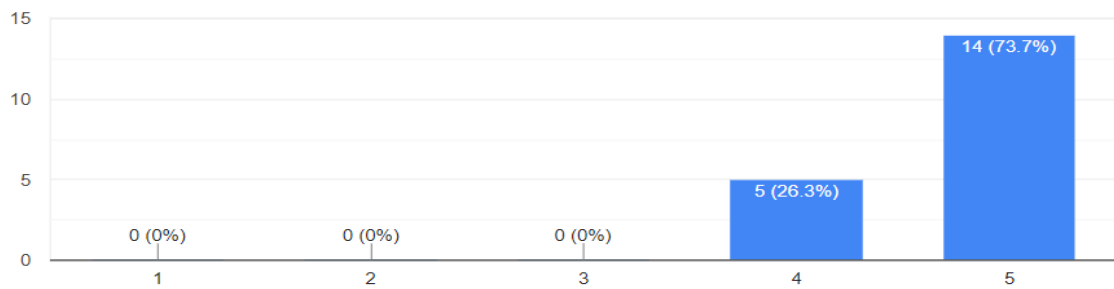
		<p>next time I should see that 100% the students are getting involved by counselling the notorious separately.</p> <p>The assessment pattern or rubrics were as followed in Table 1. Evaluation is the heart of keeping students accountable to their teammates for their preparation and contribution to team activities. This is a process that allows students to give constructive feedback - and this is a capability that will be valuable for their careers as they develop into professionals. These points are then summed to form team scores (20 marks) and teams that meet certain criteria may earn certificates or other rewards. Team photos are attached as Figure 1 & 2.</p>
5	Feedback from Learners (Consolidated)	<p>A descriptive feedback is collected from the students in my class. Some of the interesting feedbacks are as follows:</p> <p>Total number of students enrolled: 30 students</p> <p>She was a very good motivator, informative, great teacher.</p> <p>Interactive learning.</p> <p>Good and helpful.</p> <p>She is very polite.</p> <p>Easy to understand.</p> <p>Team work and we came to know how engineering is used in our day-to-day life.</p> <p>Discussing about how we follow ethics in our life.</p> <p>She was a great teacher who kept her students focused and engaged in what she was teaching. She was very helpful outside of class as well.</p>
6	Feedback of the Faculty about this	<p>The activity was so successful for the students to learn the topic except for the time management. The next time I would be redistributing time limits</p>

	activity	<p>when I do this activity.</p> <p>In today's scenario of education system, establishing synchronization between teaching and learning becomes a challenging task for teachers to cater the needs of heterogeneous students. Student belongs to various categories of learning such as auditory, visual, learning by doing etc.</p> <p>There is often a mismatch existing in the system of engineering education while handling complex subjects between teaching and understanding. Which as a result becomes "curse of knowledge to students" i.e., the ultimate takes away of the subject is failed.</p> <p>As a result, society is losing highly potential engineers. This gap has to be filled by transforming the methods of teaching from conventional to various other strategies and has to be continuously checked so as to move forward towards producing good engineers. Understanding the needs of the current students', this IIEECP course has become an eye opener for transforming the engineering education aiming towards a very good career path for success.</p> <p>As per my experience of conducting active learning strategies by forming heterogeneous teams is better and worked well rather than homogenous teams. Heterogeneous team formation has distributed students, whereas homogeneous grouping is combining similar ability students.</p> <p>Students with lesser ability will get more benefit in a heterogeneous team. The main aim or success of grouping students to do learning activities is to produce better results. It also teaches the value-added education for the students which is considered to be important in their professional workplace and life. This set up will definitely improve their team skills and communication skills.</p>
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Analysis Report Chart :

Relevance of the activity to the concept *

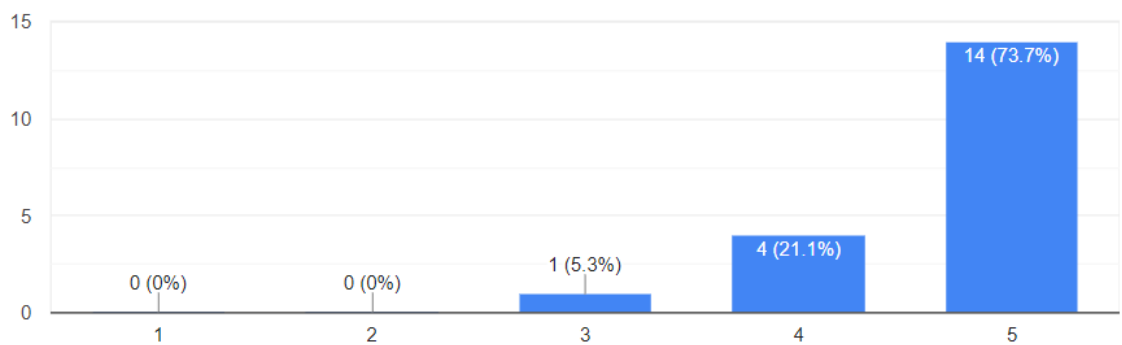
19 responses



How far this activity is understandable when compared to chalk & board method of teaching *

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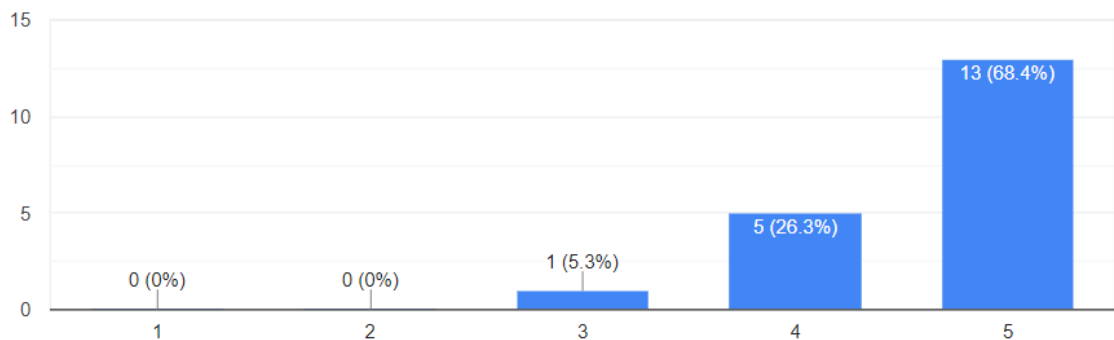
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Faculty was able to explain the concept very easily through this activity. *

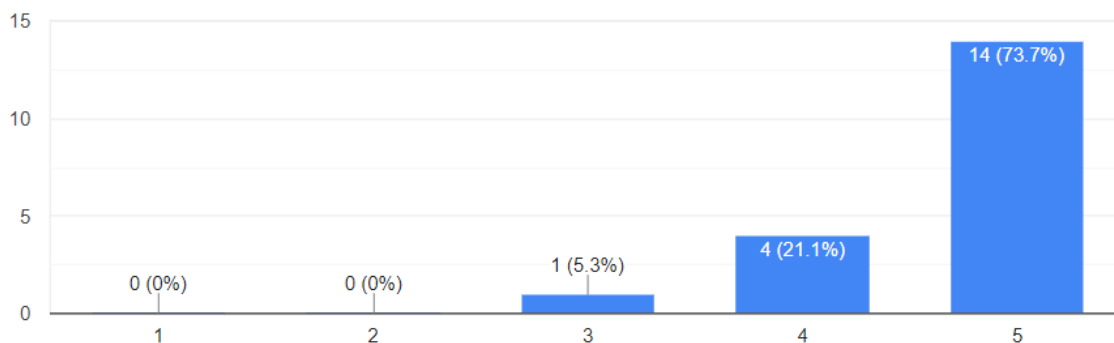


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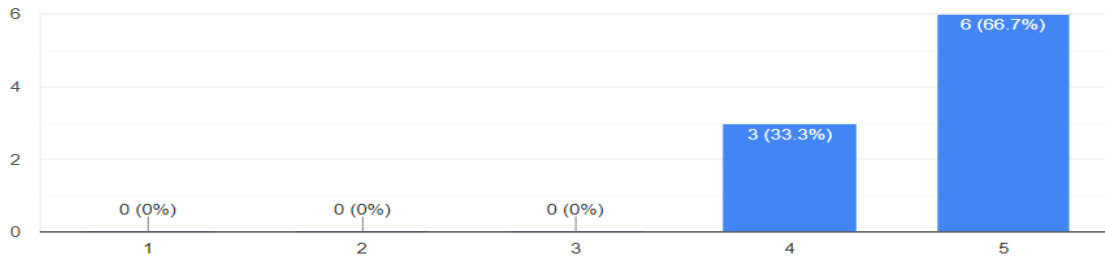
I was able to easily correlate the activity and the concept *

19 responses



The team work was interesting *

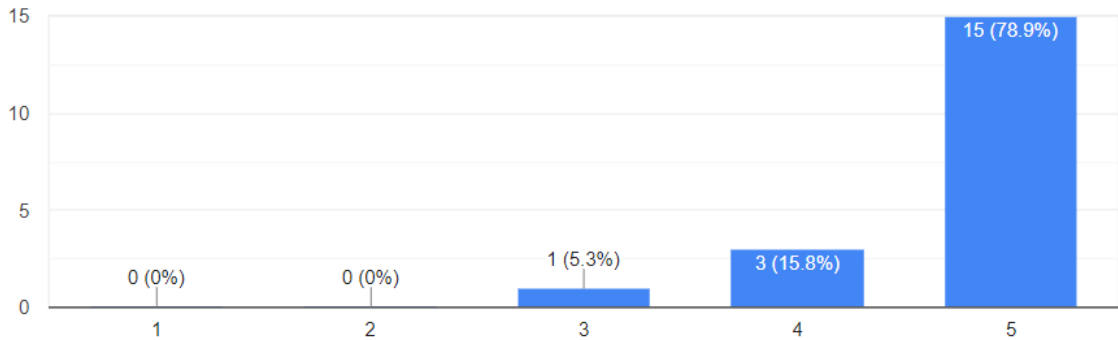
9 responses



The team work was interesting *

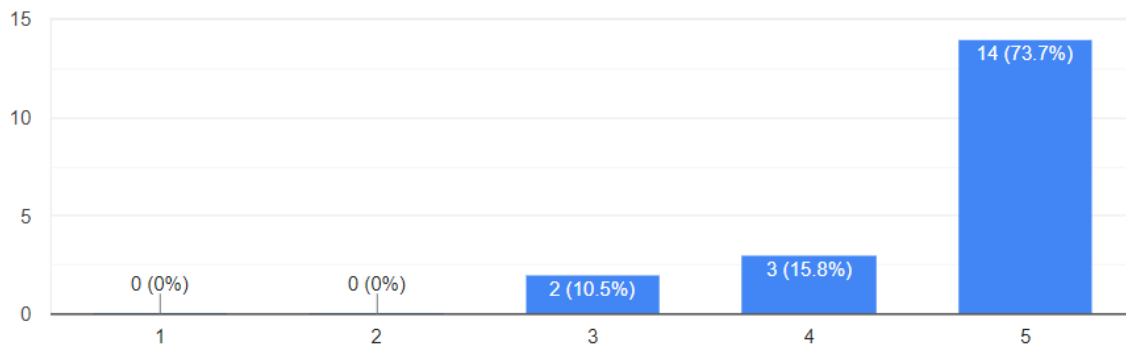


19 responses



This activity helped me to have better understanding *

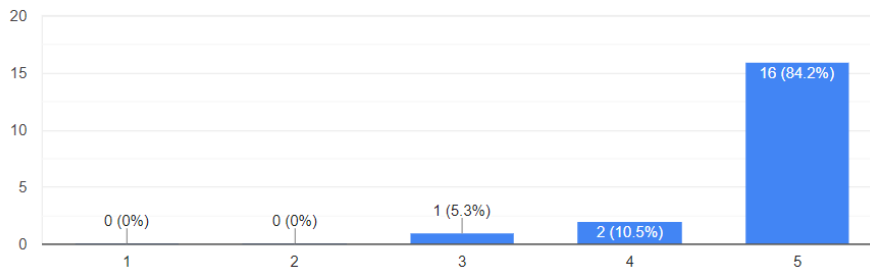
19 responses



Overall, I would rate this activity as *



19 responses



Signature of the Course Faculty

Signature of HOD

Evidences/Proofs of Collaborative Learning

Table 1 Team-wise scores of the class

Team Number	Number of students	Team Score (Median Score)	Team Performed less than median score(yes/no)	One most important reason for team's performance
1	4	15	No	Mediocre performance
2	4	20	No	Excellent Coordination
3	4	18	No	Good coordination. But missed their timing.
4	4	12	Yes	Have to improve. This team had lack of motivation and got distracted.
5	4	13	Yes	Language problem
6	5	17	No	Good team performance
7	5	19	No	Excellent Team work



Figure 1 Team 2



Figure 2 Team 4