



**DEPARTMENT OF MECHANICAL ENGINEERING**

**ACTIVITY BASED LEARNING**

Course Code & Course Title : ME8594 & Dynamics of Machines  
 Year/Sem/Branch : III / V / Mechanical  
 Name of Faculty : Mr.V.Vijaya Rajan  
 Designation : Assistant Professor  
 Unit Title : Unit – II – Balancing  
 Topic : Balancing of single cylinder engine.  
 LO : Learners can able to calculate the balancing masses for single cylinder engine  
 Bloom's Taxonomy Level : Apply – K3

S.No.	Title	Description
1	Concept	Concept is to make the students to understand how to calculate the balancing masses required for single cylinder engine.
2	Challenges Faced	(Difficulties faced by students while it was taught in conventional method) <ul style="list-style-type: none"> <li>In conventional method, students felt difficult to understand the concept and</li> <li>The students become less involved in solving a problem by own</li> </ul>
3	Name of the Activity	<b>Fish bowl debate</b>
4	Description of the Activity	<ul style="list-style-type: none"> <li>Introduction about the topic is delivered by PPT in google presentation through online.                      PPT:  <a href="https://docs.google.com/presentation/d/1PU2eh2y7TpQSKT2ht5J4qyYds8ETzB9UCUBcLWAIw">https://docs.google.com/presentation/d/1PU2eh2y7TpQSKT2ht5J4qyYds8ETzB9UCUBcLWAIw</a> </li> <li>Three example problems are discussed and video link has been shared in Moodle.</li> <li>In online students were allowed to form a group and allowed to discuss about the doubts and concepts.</li> <li>At the end students are asked to write the concepts from their understanding and asked to solve the problems individually.</li> </ul>
5	Feedback from Learners (Consolidated)	<a href="https://docs.google.com/spreadsheets/d/1JaH1ajUpcgYo7oXjNagUw(DP)9QT9xcccPPjslD06gc">https://docs.google.com/spreadsheets/d/1JaH1ajUpcgYo7oXjNagUw(DP)9QT9xcccPPjslD06gc</a>
6	Feedback of the Faculty about this activity	(Previous experiences Vs Activity Based Teaching) <ul style="list-style-type: none"> <li>Students were able to easily understand how to calculate the balancing masses of single engine.</li> <li>Activity makes the students to feel free to ask their doubts with others.</li> </ul>

### Analysis Report Chart.

- Above 75% students found activity based learning (Fish bowl debate) was interesting
- More than 75% of students rated above '4' for fish bowl debate.

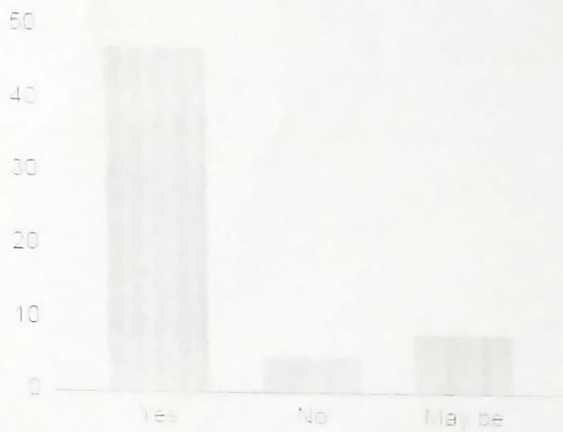


Fig-1 : Is ABL (fish bowl debate) useful to understand the concept

Fig-2 : Student ratings for fish bowl debate

Signature of the Course Faculty

Signature of HOD

Evidences/Proofs (To be attached along with this document)- *Mandatories*

{Photos taken during activity (or) Documents collected from Students (Charts, Crossword puzzles, Cards, etc..)}

SL. NO	CONTENT	PHOTO & LINKS
1	Activity Reports	

2	Online presentation	<p>Power point Presentation:</p> <p><a href="https://drive.google.com/file/d/1M9KHim_CifpFTT62-zLZYErSBEBVo/view?usp=sharing">https://drive.google.com/file/d/1M9KHim_CifpFTT62-zLZYErSBEBVo/view?usp=sharing</a></p> <p>Example Problems:</p> <p><a href="https://drive.google.com/file/d/1wrpdlyyhux-EcIK0uC4fVG-bpxAJkkbf/view?usp=sharing">https://drive.google.com/file/d/1wrpdlyyhux-EcIK0uC4fVG-bpxAJkkbf/view?usp=sharing</a></p> <p><a href="https://drive.google.com/file/d/1wrpdlyyhux-EcIK0uC4fVG-bpxAJkkbf/view?usp=sharing">https://drive.google.com/file/d/1wrpdlyyhux-EcIK0uC4fVG-bpxAJkkbf/view?usp=sharing</a></p>
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