

Name of Innovative Active Learning Technique

Course Name and Code : Additive Manufacturing

Class and Div. : T.Y.B.Tech

Department : Mechanical Engineering

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Purpose and Motivation

- To engage students in their learning by thinking, discussing, investigating and creating
- Students participate their skills, struggle with complex questions, make decisions, propose solutions and explain their ideas in their own words through discussion

Suitability of Technique to course

- Jigsaw is just collection of the pieces to make a complete picture.
- It's a method of collection of topics which will be fully developed by students before coming together to make complete idea.
- It's a cooperative learning strategy which allow individuals or small groups to become responsible for subcategory of a large topic

Suitability of Technique to course

- In the course Additive Manufacturing various additive manufacturing processes are covered, where there are more than 15 types based upon the form of raw material used to manufacture the parts (Liquid, powder, etc)
- To cover this in class , jigsaw is a most appropriate technique.

Procedure of Technique

- Students are divided into groups based upon the form of raw material used to manufacture parts.
- Study material is shared with them in advance
- These groups are asked to study the process in depth to become expert in their own method.
- After this they are asked to discuss in their own groups and share their knowledge and experience in their groups.
- Now these students will become expert

Procedure of Technique

- Experts groups are then reformed to add one student from each sub category
- Each students who is expert in his method will share the method with other group members
- In this way all the students will understand all the methods.
- A quiz finally is conducted comprehensive of all the methods.
- Scores before and after are compared and winner is decided.

Outcomes of Technique

- Students are directly engaged with the material., instead of having material presented to them which fosters their depth of learning.
- Collaborative learning and better understanding
- Healthy competition
- Accountability for their learning and group learning.

Photographs and Student Response

THANK YOU!!!!