Department of Computer Science and Engineering
Academic Year 2024 – 2025 (Even Semester)

Degree, Semester & Branch : IV Semester B.E CSE-'A'
Course Code & Title : CS3492 & Database Management Systems
Name of the Faculty member : Mr. K.Vignesh Saravanan, AP-III / CSE

Innovative Practice Description

- **Unit / Topic: Unit II / Enhanced ER Model**
- **Course Outcome:** CO2
- **Topic Learning Outcome:** TLO 4
- **Activity Chosen: Jigsaw Learning**
- **Justification:**

  ER modelling is a conceptual design for the DBMS system design for any applications. Different applications are assigned to students under each group. Students are provided the opportunity to excel themselves designing an ER model/diagram for a particular application and share that knowledge with their team members. The prime objective of JIGSAW is to promote both self and peer teaching which requires students to understand the concept very clearly and engage in discussion and learning
- **Time Allotted for the Activity:** 50 Minutes
- **Details of the Implementation:**

  After I completed the Entity-Relationship model, ER Diagrams and Enhanced-ER Model concepts, the students are given a group activity. To understand the modelling of any application system, the students are made to work into groups to discuss and understand the ER models. The students are asked to identify different applications in various domains.

  Students were divided into **8 groups with 8 members in each group**. Each student in a group is assigned with any one application. I delivered the instructions to the students on how to model the ER diagram. After they completed their ER diagram, from each team one student is selected and framed as a team – "***Expert Group***". Thus for each application there will be an expert group. The expert group members discuss within themselves and model the ER diagram for their application.

  After they have modelled the application, the expert group is collapsed and all the students are re-grouped into their original group (initial team). Now each member in the team will be an expert in any one application. They shared their ideas to all the other members in the group thus enabling each student to learn all the applications. This enabled the students to get insight knowledge in this topic.
- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO4	PO12	PSO1	PSO3
CO1	3	3	3	1	1	2	2

(1 – Low 2 – Moderate 3 – High)

- **PO / PSO mapped:**

Innovative practice	**PO3**	**PO9**	**PO10**	**PO12**
	2	**1**	**2**	**2**
Justification for correlation	Student will be able to design solutions for database applications	Student will work individually and as a Team	Written communication/ and oral communication with team are improved	Student will implement the designing skill in future projects

Figure-1: Students working as a team in JIGSAW activity

- **Reflective Critique:**
  - ***Feedback of practice from students and other stakeholders:***
    - Students felt the activity is very interesting. Students felt the activity conducted gave them a chance to improve their communication skills, also working as a team they can face group discussions in future work place. Through learning from peer members, students felt comfortable to clarify their doubts.
  - ***Benefit of the practice:***
    - Through this activity the students made to work as a team and explain to others also, like a group discussion activity. The students are made to understand the different the applications through knowledge sharing.
  - ***Challenges faced in implementation:***
    - The grouping of the students was difficult, since some students were not present. Initially 8 teams were planned with team size of 8 members, but the team size is reduced and it was difficult to form the expert group.
    - Some students in the team did not participate actively in the team.
    - Individual assessment/observation was difficult.

References:

- https://www.jigsaw.org/
- https://www.readingrockets.org/strategies/jigsaw
- https://www.youtube.com/watch?v=euhtXUgBEts
- https://www.teachhub.com/teaching-strategies/2016/10/the-jigsaw-method-teaching-strategy/