Department of Computer Science and Engineering

Academic Year: 2024- 2025 (Odd Semester)

Degree, Semester & Branch: V Semester B.E. CSE

Course Code & Title: CCS370 & UI and UX Design

Faculty member (s): Mrs. P. Devisri, AP/CSE

Innovative Practice Description Unit

/ Topic: Unit V / Flow Diagrams, Flow Mapping

Course Outcome: CO 5

Topic Learning Outcome: 5b

Activity Chosen: Learning by Teaching

Justification:

Flow mapping and flow diagrams are fundamental concepts in the UX design process and have wide-ranging applications. As students take on the role of teachers, they engage in discussions, answer questions, and share insights with their peers. This peer-to-peer interaction not only reinforces their own understanding but also allows for diverse perspectives and approaches to problem-solving, enriching the overall learning experience.

Time Allotted for the Activity: 35 minutes

Details of the Implementation:

- Before the class, the teacher inquired about the students' interest in teaching flow mapping and flow diagrams, and a few students expressed their interest.
- Based on their interest, **Janarthanavel S, Ashwath V** were given topics related to flow mapping and flow diagrams.
- Adequate preparation time was provided to the students, with the topics assigned a day before the class to allow them to prepare for their teaching roles.
- During the class, students presented their allocated topics to their classmates.
- To keep the class engaging, students utilized a variety of instructional strategies. **Janarthanavel** demonstrated real-world examples of flow mapping, such as applications in process optimization, user journey analysis, or system workflows, highlighting its practical relevance. **Ashwath** employed visual aids like flashcards and flowchart templates, which included key elements such as decision points, process steps, and data flows, aiding in quick recall and understanding. **Muthu sankar** utilized animated videos to show how flow diagrams dynamically represent systems or processes, providing an interactive and visually engaging way for students to comprehend complex flows.
- To encourage involvement, students were allowed to ask questions to their peers during the presentations. This fostered discussions and enabled students to share their perspectives, which is crucial for understanding the practical applications of flow mapping and flow diagrams in design and analysis.

CO – PO / PSO mapping:

CO	PO1	PO2	PO10	PSO1
CO 5	2	2	1	1

(1 – Low 2 – Moderate 3 High)

PO / PSO mapped:

Innovative practice	**PO1**	**PO2**	**PO10**	**PSO1**
	2	2	1	1
Justification for correlation	Students Understood the fundamental concept of Flow Diagram and Flow mapping	Students analyzed Flow mapping and flow diagram using engineering sciences.	Students to communicate effectively on complex engineering activities related to flow mapping and flow diagrams	Student will be able to apply their knowledge of flow diagram and flow mapping in software development

Images / Screenshot of the practice:

JANARTHANAVEL S

ASHWATH V

Reflective Critique:

- ***Feedback of practice from students and other stakeholders:***
  - All the students eagerly listened to the class, showing genuine interest in the presentations. They felt they were able to understand the topic effectively.
  - The students were able to remember key details and concepts of flow mapping and flow diagrams more easily due to the engaging teaching methods.
  - The students expressed that taking on the role of a teacher boosted their confidence in their knowledge of flow mapping and flow diagrams.
  - They also highlighted that this practice significantly helped improve their communication skills, such as clarity, organization, and the ability to present complex ideas—like process flows and system mappings—in a simplified and accessible manner.

- ***Benefit of the practice:*** (E.g.: Outcome attainment would have increased due to innovative practice over conventional practice)
  - Students actively engaging in teaching their peers gain a more profound understanding of the IP address
  - Actively participating in the teaching process helps students remember key details and concepts better compared to passive learning methods
  - This activity helped the student to improve communication skills.
  - Students spent their time in self-learning.
  - This activity encouraged the students to share their knowledge with others.

- ***Challenges faced in implementation:***
  - Effectively motivate students who are not participating in the activity due to shyness, fear of public speaking, or lack of confidence. Motivate the students to overcome their shyness and engage in active learning.

- Implementing Learning by Teaching required additional time compared to traditional teaching methods. Planning and executing interactive teaching sessions was challenging.

References:

1. https://effectiviology.com/protege-effect-learn-by-teaching
2. https://www.researchgate.net/publication/351905566_Impact_of_Seminars_on_Student_S oft_Skills_Development
3. https://www.ritrjpm.ac.in/images/computer-science/2022-023/4 Collaborative_Coding_DBMS_KVS.pdf