



Department of Computer Science and Engineering

Academic Year 2022 - 2023 (Odd Semester)

Degree, Semester & Branch: III Semester B.E. ECE-'A' Section

Course Code & Title: CS3353 & C Programming and Data Structures

Name of the Faculty member (s): Dr.V. Anusuya, ASCP/CSE

Innovative Practice Description

- **Unit / Topic:** Unit V / Quick sort
- **Course Outcome:** CO5
- **Topic Learning Outcome:** TLO12
- **Activity Chosen:** Learning by Teaching
- **Justification:**

In unit V, the students need to understand the methods of sorting the numbers using quick sort. This activity helps the students to understand the sorting of numbers using quicksort method.

- **Time Allotted for the Activity:** 20 Minutes
- **Details of the Implementation:**
 - A topic Quick sort was given to Ms. Jeya Sudha one week before the presentation.
 - She prepared the presentation and taken the class on 09.12.2022.
 - The topic was delivered around 20 minutes.
 - The students discussed with an example by taking the set of elements such as 12,31,25,8,32,17
 - The implementation of Learning by teaching activity as shown in figure1 and figure2.

- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO4	PO5	PO9	PO10	PO12	PSO1
CO5	3	3	2	2	1	1	2	1	1

(1 – Low 2 – Moderate 3 – High)

- **PO / PSO mapped:**

Innovative practice	PO1	PO2	PO3	PO4	PO5	PO9	PO10	PO12	PSO1
	3	3	2	2	1	1	2	1	1
Justification for correlation	Needs to learn the basic knowledge of engineering fundamentals to perform quick sorting.	The students will identify the relevant sorting algorithm for a given application.	Interpret the complex engineering problem with the help of sorting algorithms	The students can identify best sorting algorithm based on their analysis.	students can understand the quick sort using Visual Go tool	The students can do individually perform quicksort	The students able to explain and present quicksort sorting algorithm	The students can continued upgrading of technical knowledge using the concept of sorting	The students able to implement different sorting algorithm in ICT applications.

- **Images / Screenshot of the practice:**



Figure 1: Learning by Teaching



Figure 2: Learning by Teaching

- **Reflective Critique:**

- ❖ ***Feedback of practice from students and other stakeholders:***

- All the students were eagerly listened the class. Students felt they are able to understand the topic as it was taught by Ms .V. Jeyasudha
- Ms.V.Jayasudha said, the activity helps for improving my communication and self learning skills.
- It makes the students to gain knowledge on quicksort.

❖ ***Benefit of the practice:***

- Students can able to know the method of performing quicksort and it improves the technical knowledge and communication.
- The students can share their gained knowledge.
- Students understood the concept well and all the students practiced the methods using the following numbers.

38 81 22 48 13 69 93 14 45 58 79 72

❖ ***Challenges faced in implementation:***

- First Ms. V. Jeyasudha started the topic very fast then she taught slowly with an example problem.
- I felt the slow learners were not understood clearly. I explained separately for that students, then they understood clearly.

References:

- ❖ https://www.ritrjpm.ac.in/images/computer-science/2022-2023/6_GS_CS8592_learning_by_teaching.pdf
- ❖ <https://ohioline.osu.edu/>
- ❖ <https://www.ritrjpm.ac.in/images/computer-science/>
- ❖ https://www.ritrjpm.ac.in/images/computer-science/2021-2022/10.GSP_One%20minute%20paper.pdf

Signature of Faculty Member

Dr.V.Anusuya

HOD

Dr.K.Vijayalakshmi