DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

Academic Year: 2025- 2026 (Odd Semester)

Active Learning Best practices: Flipped Classroom - Cooperative Learning Technique

Degree, Semester & Branch: V, B.Tech. Artificial Intelligence and Data Science Course

Code & Title: CCS335 – Cloud Computing

Name of the Faculty Member: C.Karpagavalli , AP/AI & DS

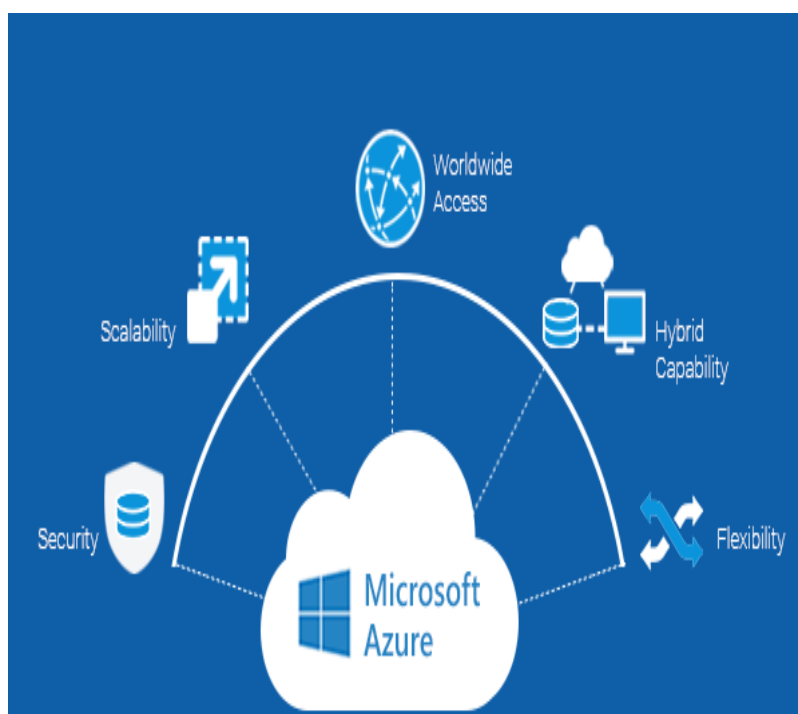
Unit / Topic: Unit - IV / Microsoft Azure

Course Outcome: CO4

Topic Learning Outcome: TLO27

Activity Chosen: Flipped Classroom

Date and Time: 22.10.2025 & 02.40 P.M to 03.25 P.M

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Introduction:

The flipped classroom activity was implemented as a teaching strategy to enhance student engagement, foster deeper understanding, and promote active learning. In a traditional classroom, students typically receive lectures during class time and do homework or assignments outside of the class. However, in a flipped classroom, this model is reversed - students watch pre-recorded lectures or read material at home and then engage in collaborative and interactive activities during class time. This report summarizes the implementation and outcomes of the flipped classroom activity.

Objectives:

- ❖ To encourage students to take responsibility for their learning by preparing in advance.
- ❖ To create a more engaging and interactive learning environment during class time.
- ❖ To promote deeper understanding and critical thinking through discussions and hands-on activities.

Learning Outcomes

- ➢ Increased Engagement: Students reported higher engagement levels as they were actively involved in discussions and activities during class time.
- ➢ Deeper Understanding: The flipped classroom approach allowed students to grasp complex concepts better, as they had more time to review the materials at their own pace before class.
- ➢ Collaborative Learning: Group activities fostered a collaborative learning environment, encouraging students to learn from their peers and exchange ideas.

➢ Time Management: The flipped classroom approach helped students develop better time management skills, as they had to plan their study schedule in advance.

➢ Feedback for Improvement: Valuable feedback from students highlighted areas for improvement, such as clearer instructions for pre-class preparation and more diversified in-class activities.

Procedure:

➢ **Preparing Content**: Pre-recorded video lectures and reading materials were created and made available to students before the class session.

➢ **In-Class Activities:** During the class session, various interactive activities such as group discussions, problem-solving exercises, debates, and quizzes were conducted.

➢ **Feedback Mechanism:** Feedback from students was gathered through surveys or informal discussions to assess their experience and identify areas of improvement.

Glimpses:

Reflective Report

- ➢ Preparing and Sharing Content: Reading materials were created covering the relevant topics. These materials were shared with the students through the learning management system or other suitable platforms well in advance of the corresponding class sessions.
- ➢ Class Sessions: During the class sessions, students were divided into groups to discuss and apply the concepts covered in the lectures. Facilitators were present to guide and support the students' learning process.
- ➢ Active Learning Activities: Various interactive activities were organized, such as group debates on controversial topics, hands-on experiments or demonstrations, problem-solving scenarios, and peer teaching sessions.
- ➢ Assessment: In-class quizzes and assessments were conducted to gauge students' comprehension and provide timely feedback.
- ➢ Feedback Collection: Students were asked to provide feedback on the flipped classroom experience, highlighting the aspects they found beneficial and suggesting potential improvements.

Observations:

The implementation of the flipped classroom activity was successful in enhancing student engagement, promoting deeper understanding, and creating a more interactive learning environment. By using this approach, students were encouraged to take ownership of their learning process and actively participate in class activities. However, continuous refinement based on student feedback and ongoing assessment of the approach will be essential to optimize its effectiveness in future implementations.

Students Response:

- Bright students were actively participated to prepare the topic wise questions and concept notes.
- Slow learners expect to assist the topic towards searching online and also understanding the questions
- Most of the students were enjoyed the session.

Students response ensures the students could improve listening, communication, creativity and problem-solving skills.

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FEEDBACK

Active Learning Best practices: Flipped Classroom - Cooperative Learning Technique

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Name of the Faculty member: Mrs.C.Karpagavalli , AP/AI & DS

Unit / Topic: Unit - IV / Microsoft Azure Course Outcome:

Course Outcome: CO4

Topic Learning Outcome: TLO27

Activity Chosen: Flipped Classroom

Date and Time: 22.10.2025 & 02.40 P.M to 03.25 P.M

Google form Link : https://forms.gle/ouEK5SuWMcFxcPMw6

Feedback Questions:

1. Did the plan align with your expectations?

    Yes   No

2. How effectively was the innovative practice plan implemented?

    Excellent   Good   Satisfactory

3. How well did you understand the objectives and purpose of the innovative practice plan?

    1   2   3   4   5

4. Were the necessary resources and support provided for successful implementation?

    Yes   No

5. Did you notice any specific benefits or changes resulting from the plan?

    Yes   No

6. How engaged were you throughout the practice plan?

    1   2   3   4   5

7. Did the plan provide opportunities for active participation and collaboration?

    Yes   No

Feedback Analysis:

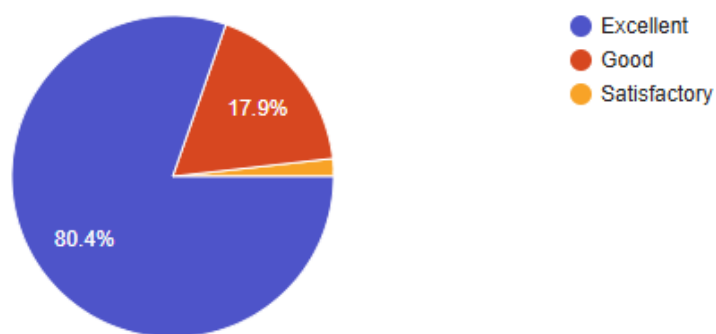Did the plan align with your expectations?

56 responses

- Yes
- No

98.2%
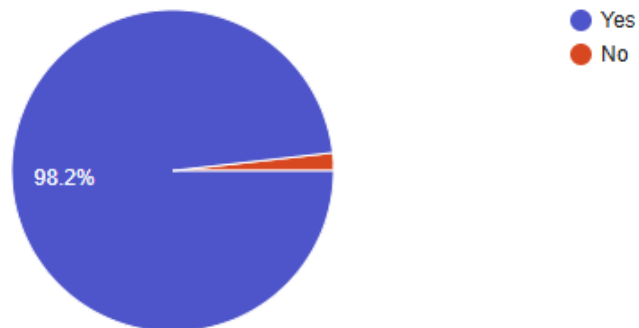
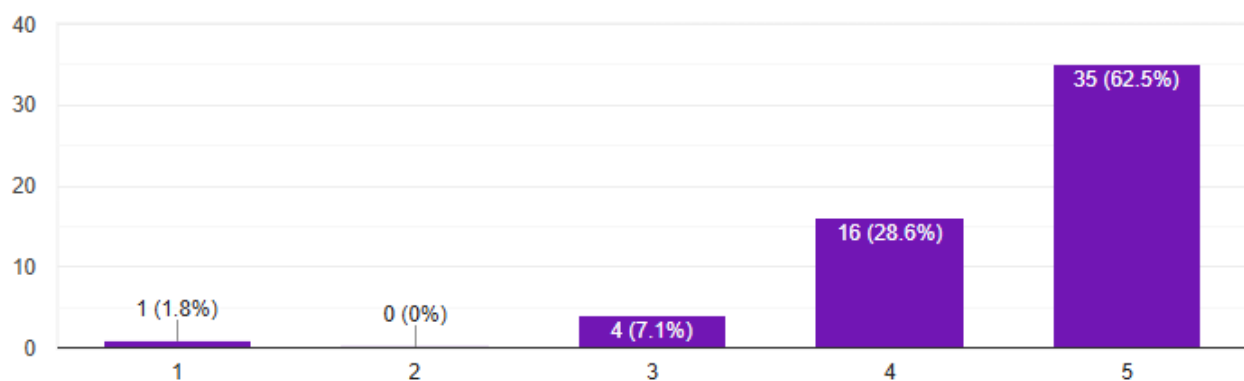How effectively was the innovative practice plan implemented?

56 responses

- Excellent
- Good
- Satisfactory

17.9%

80.4%

How well did you understand the objectives and purpose of the innovative practice plan?

56 responses

Value	Count
1	1 (1.8%)
2	0 (0%)
3	4 (7.1%)
4	16 (28.6%)
5	35 (62.5%)

Were the necessary resources and support provided for successful implementation?

56 responses

- ● Yes
- ● No

100%

Did you notice any specific benefits or changes resulting from the plan?

56 responses

- ● Yes
- ● No

100%

How engaged were you throughout the practice plan?

56 responses

Rating	Count
1	1 (1.8%)
2	0 (0%)
3	4 (7.1%)
4	18 (32.1%)
5	33 (58.9%)

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Did the plan provide opportunities for active participation and collaboration?

56 responses

● Yes
● No

100%

CKyl
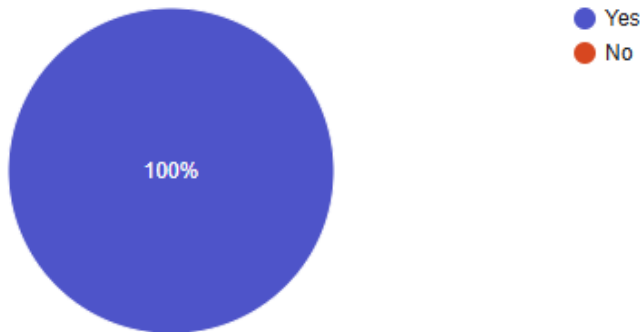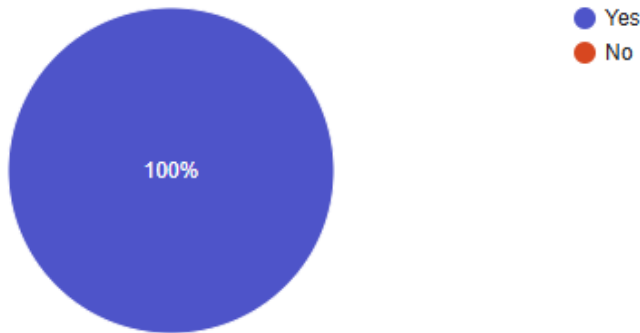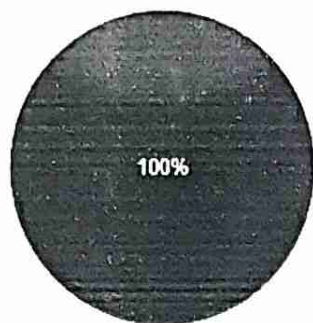
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Signature of the Faculty Member

HoD/AD