

REPORT: Pilot Project for Productive Failure in Mathematics

DATE: Tuesday, May 12, 2026

CONDUCTED BY: The Project Team – Productive Failure

(Ms. Nidhi Kulshrestha – Team Assistant)

ATTENDED BY: Students of Class VIII and teachers (Ms.Arinder & Ms.Sheetal)

EVENT REPORT

Productive Failure is an innovative teaching and learning approach in which students are encouraged to explore and attempt problems independently before formal instruction is provided. The approach emphasises learning through exploration, analysis of mistakes, and reflective thinking, ultimately leading to deeper conceptual understanding and stronger problem-solving skills.

A Pilot Project on Productive Failure was conducted in Class VIII Mathematics with 61 students. The project aimed to strengthen conceptual understanding, logical reasoning, and independent learning skills among students through exploratory problem-solving activities.

The project was conducted under the guidance of the resource person for the day, Ms.Nidhi Kulshrestha, whose valuable support contributed significantly to the successful implementation of the programme.

As part of the initial phase of the pilot project, students individually logged into the online platform and attempted the given mathematical questions independently. They were encouraged to apply their prior knowledge, think critically, and explore multiple strategies while solving the problems. This process enabled students to experience productive struggle and identify gaps in their understanding.

Following the activity, students were guided to log in again to share their responses, reflections, and feedback regarding the learning experience. The feedback session was

conducted to support mastery learning and to help students improve their understanding through discussion, clarification of misconceptions, and reflective analysis.

Students actively participated throughout the process while demonstrating increased engagement, confidence, and willingness to attempt challenging questions. The project aims at highlighting that the Productive Failure approach promotes deeper learning, analytical thinking, and meaningful student participation in Mathematics.

Overall, the initial phase of the pilot project was successful in creating an interactive, student-centric, and reflective learning environment for Class VIII students.

