Case Study 2: Math – “Equations Without Connection”

In Mr. Harris’s 8th-grade math class, students were learning about linear equations. The day’s lesson focused on solving word problems involving car speeds, train schedules, and the price of stock investments. The examples came straight from the textbook, which used characters named “Tom,” “Lisa,” and “John.” The scenarios were neat, tidy, and predictable, but far removed from the realities of many students in the classroom.

As Mr. Harris worked through a problem on the board, Mateo glanced down at his worksheet. “I don’t even know anyone who owns stock,” he muttered to his friend quietly. Nearby, Amira struggled with understanding the problem’s context. English was her second language, and words like “interest rate” and “investment return” had no connection to her world outside of school. When she asked what they meant, Mr. Harris quickly explained the math behind it but didn’t take time to connect the ideas to real-life examples the students might recognize.

The students solved the problems mechanically, plugging in numbers and checking their answers. But there was little excitement or curiosity in the room. No one saw themselves in the math they were learning. The problems didn’t mention their families’ small businesses, their neighborhoods, or the things they cared about, sports, music, food, or technology. Though the lesson succeeded in teaching computation, it failed to show that math lives in every part of their world.