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BOOST GRADE 5 MATH USING PROBLEM-BASED LEARNING

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Problem-Based Learning (PBL) is a teaching approach that begins with real-world problems. Instead of starting with lessons, the teacher presents a scenario – like "How can we share 24 candies evenly among 6 friends?" – and students work together to find solutions. This active method makes math meaningful and helps students build critical thinking skills.

In PBL, students identify what they know, what they need to learn, and how to find needed information . Teachers guide but don't show the answer, encouraging discovery and deeper understanding.

A study at Bongar Elementary School (2022) in Pangasinan found that Grade 5 learners improved significantly in math after using PBL. Students began each week with a story problem, worked in teams to analyze and solve, then presented solutions using pictures, numbers, and words. These steps mirror good thinking habits and help students own their learning.

PBL builds more than arithmetic skills. It encourages:

Critical thinking, as students evaluate multiple solution strategies.

Collaboration, as they share and defend ideas with peers.

Communication, when explaining reasoning using words and visuals.

These align with educational theories like Piaget's constructivism—learning by doing—and Kolb's experiential cycle.



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Steps for Teachers

Pose a meaningful problem aligned with math standards.

Let students explore what they know and resources they need.

Guide discussion but avoid giving answers – ask, "What do you think?"

Support multiple representations, like drawings and equations.

Have students share solutions and reflect on what worked.

Research shows that PBL not only improves test scores but also boosts engagement and confidence. Grade 5 students often report that solving real problems is more exciting and memorable than just practicing drills about numbers.

Problem-Based Learning gives Grade 5 students ownership of their learning and connects math to life. By putting real-world questions first and guiding students through exploration and explanation, teachers help learners think deeply, work together, and become better problem-solvers.

References:

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