

TRANSFORMING MATHEMATICS EDUCATION: BRIDGES OVER MOTIVATION AND TECHNOLOGY

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Mathematics education is still facing lots of challenges in engaging its pupils and improving their grades at school. Recent research has illuminated more critical insights into the complex learning landscapes of mathematics, thus throwing up persistent obstacles and potential solutions.

The student attitudes towards mathematics are usually profound struggle. As Darmayanti et al. concluded in their 2023 research, students often define mathematics as "too soft," "very difficult," and "boring." These multiple perceptions are seen to be multifaceted impacts that result in learning outcome issues. Key problems identified from the study are low motivation on the part of the students, a lack of material understanding, and avoiding homework regularly. These are not just problems on the student side. Teachers are also part of the problem. The same study found that teachers sometimes had difficulty with classroom management and overall understanding of mathematical content. This two-sided complexity calls for a holistic approach to mathematics education. Especially, innovation comes out from the technology integration. Developing appears to be Shurygin et al.'s research on mobile applications for the year 2023. Quasi-experimental study, which proved how a digital tool like MalMath can totally change learning math, showed an impressive improvement in performance regarding academic results with a tremendous rise in motivation on the part of the experimental group. Academic results of the experimental group stood at 45.11 in contrast with the traditional learning approach (33.23). Deep and profound implications are brought out. Mobile applications and learning digital platforms are no more supplementary but potential

game-changers for mathematics education. They deliver personalized, interactive learning that overcomes classroom limitation.

Practical ways educators and their institutions can implement this:

Implement the technology-enhanced learning environment

Develop motivational strategy; hence, engaging students actively

Developing on-going professional development for teachers

Having accessible and appealing mathematics in terms of learners

The future of mathematics education is about understanding the student's perception, making use of innovative technology, and developing experiences that adapt learning to make mathematics no longer a challenge but exciting discovery. The evolution of education landscapes occurs at this meeting point between empathetic teaching, innovation in technology, and student-centric approaches, from which the narrative of mathematical education is going to be rewritten.

References:

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