

ENHANCING TEACHING AND LEARNING IN MATHEMATICS FOR ABLE PUPILS THROUGH THE USE OF ICT

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When technology was first introduced in schools, it initially made its mark in mathematics. However, as developments in ICT expanded to support other areas of the curriculum, mathematics began to fall behind. For a long time, word processing and multimedia dominated classroom use, but with the advent of interactive whiteboards, it has become easier to demonstrate how technology enables learners to engage with mathematics in ways that go beyond traditional tools like compasses, pens, and paper.

Starting with basic activities and then repeating them using technology reveals how much deeper students can explore mathematical concepts. Technology not only enhances engagement but also unlocks children's natural curiosity for the subject in a way that traditional methods often limit—what can be thought of as “false ceilings.” These limits aren't intentional but stem from a teacher's perception of how far learners can go. With technology, those ceilings are removed, and students begin to ask their own meaningful questions and seek answers independently.

In my view, this shifts the power of learning mathematics from the teacher to the learner. Students gain a sense of independence, and more importantly, when they present data in various formats using digital tools, their relational understanding deepens. The availability of free online courses and resources also enables educators and developers to share and exchange ideas on how best to integrate ICT in the classroom.

Beyond improving student engagement and understanding, ICT tools play a crucial role in differentiating instruction for diverse learners. With adaptive learning

software and online platforms, teachers can personalize lessons to meet each student's unique needs. This approach allows all learners to progress at their own pace and receive targeted support. Furthermore, technology fosters collaboration through group projects and peer learning opportunities, enriching the educational experience.

Ultimately, ICT empowers both teachers and students, transforming the traditional classroom into a dynamic, inclusive environment where all learners can thrive in mathematics.

References:

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