How do mobile environments affect the learning and instruction of mathematics?

Written by

Mathematics remains a difficult and intimidating subject for many students - a trend that is consistent across age, grade level, nationality, and culture. Mobile technology is emerging as a promising way to re-engage students with math curriculum.

Current literature describes applications for mobile technologies in math that are presently being used across the globe. Examples include using SMS to provide direct math tutoring, using personal mobile devices to provide individualized instruction and feedback, providing mobile devices to increase educational access in underserved communities, using mobile augmented reality apps to engage with math out of the classroom, and numerous game-like apps designed to teach specific math skills. Despite the wide variety in uses, some common themes can be seen. Mobile applications shown to increase math learning provide students one or more of the following: learning scaffolds in the form of hints or additional information in real-time, instant performance feedback, abundant practice opportunities, connection between math concepts and real tasks, and entertainment value. Mobile technology use can also help bolster student confidence in math by providing a game-like environment in which some level of failure is acceptable and expected, and perseverance is rewarded. The potential educational benefits of these technologies are well supported, however researchers have also raised some important questions: In what situations are mobile devices not helpful? How significant a role should mobile technology play? Are these technologies best used to support classroom teaching, or vice versa?

Implementation Research:


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Theory:


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Product Research or Descriptions:


