

Effects of Attitudes and Behaviours on Using Computers to Learn Mathematics

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Introduction

The effects of attitudes and behaviours on learning mathematics with computer tools are profound and far-reaching, shaping the educational experience and outcomes of students in contemporary classrooms. Attitudes towards mathematics and technology, whether positive or negative, significantly influence the level of engagement, motivation, and ultimately, the depth of understanding that learners achieve when utilizing computer tools for mathematical exploration. Students who harbour a positive disposition towards both mathematics and technology are more likely to approach computer-assisted learning with enthusiasm and curiosity, embracing the interactive and dynamic nature of digital tools to enhance their mathematical comprehension. Conversely, negative attitudes can create barriers to effective learning, hindering students from fully harnessing the potential of computer tools. Attitudes of anxiety or apprehension towards mathematics July exacerbate when coupled with technology, leading to avoidance behaviours and limited utilization of available resources. Recognizing and addressing these attitudes becomes crucial in unlocking the transformative power of computer tools as vehicles for enhancing mathematical understanding. Educators must work to cultivate a growth mind-set that encourages resilience in the face of challenges, fostering an environment where students view technology as a supportive aid rather than an insurmountable hurdle.

Description

Behaviours, too, play a pivotal role in the efficacy of learning mathematics through computer tools. Active engagement and exploration of mathematical concepts within digital environments encourage deeper comprehension and critical thinking. Students who actively experiment, manipulate visualizations, and collaborate using computer tools tend to internalize mathematical concepts more effectively, enabling them to apply their learning to diverse problem-solving scenarios. Conversely, passive consumption or superficial interaction with technology can lead to shallow understanding and hinder the development of higher-order thinking skills. Furthermore, the interplay between attitudes, behaviours, and technology extends to the development of digital literacy and computational skills [1,2].

Proficiency in using computer tools not only enhances mathematical learning but also equips students with essential twenty-first-century skills required in an increasingly digital world. By adopting a proactive stance and embracing technology as a valuable ally in mathematical exploration, learners can build confidence, competence, and a sense of agency, empowering them to navigate the evolving landscape of mathematics and technology with

confidence. The effects of attitudes and behaviours on learning mathematics with computer tools are pivotal in shaping the educational journey of students. Positive attitudes coupled with active engagement foster a fertile ground for deep mathematical understanding and computational literacy. By recognizing and addressing negative attitudes and cultivating behaviours that promote active exploration, educators can unlock the transformative potential of computer tools, enabling students to not only excel in mathematics but also thrive as adaptable, technologically adept learners in an ever-evolving digital age [3-5].

Conclusion

However, it is crucial to recognize that the successful integration of computer tools in mathematics education requires thoughtful planning and on-going professional development for educators. Positive attitudes towards technology must be coupled with a deep understanding of its potential and limitations. Teachers should possess the skills and knowledge to select appropriate tools, design effective learning experiences, and guide students in navigating digital spaces responsibly and ethically. In conclusion, the effects of attitudes and behaviours on learning mathematics with computer tools permeate every facet of the educational landscape. These effects influence not only how students perceive and engage with mathematics but also how educators design and facilitate meaningful learning experiences. By fostering positive attitudes, promoting active and collaborative behaviours, and providing educators with the necessary support, we can harness the transformative power of computer tools to cultivate a generation of mathematically adept, technologically fluent learners who are prepared to thrive in an increasingly complex and interconnected world.

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Conflict of Interest

None.

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