

Technology for teaching and learning elementary mathematics: An analysis of online resources

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Abstract

The increasingly developed instructional technology has brought mathematics education opportunities and challenges. Today, internet technology tends to be utilized everywhere. Then, how effective the technology can be implemented in teaching and learning elementary mathematics and how pre-service and in-service teachers can be benefited to take advantages of online resources? The presenter believes that implementation of technology for teaching and learning elementary mathematics should not pursue the fashion of expensive “cutting edge” technology; instead, more attention should be paid on exploring and using those exiting technological resources, particularly those available free-shared online resources. This presentation is to share research on online resources for teaching and learning elementary mathematics, examine and analyze those resources for teachers and students, and discuss the effective strategies of implementation in elementary mathematics classrooms.

The increasingly developed instructional technology has brought mathematics education opportunities, as well as challenges. The opportunities include those available hardware and software packages, those internet technologies and those free online resources. The challenges are that implementing technology in mathematics teaching and learning has its pros and cons. How to implement it effectively in teaching and learning is still a question. Getting into 21st century, technology tends to be utilized everywhere, internet access becomes available in schools and at homes. Then how the technology can be implemented in teaching and learning elementary mathematics effectively, and how pre-service and in-service teachers can be benefited to take fully advantages of online resources? In this presentation, presenter will share the results of research on those online resources for teaching and learning elementary mathematics, examine and analyze those free and useful online resources for teachers and students, and discuss the effective strategies of implementation in elementary mathematics classrooms.

Online resources for teaching and learning elementary mathematics

(**Presenter has made a search on those online resources for teaching and learning elementary mathematics in the conjunction with teaching elementary mathematics methods courses in past 2 years. Presenter will introduce the methods of data collection and these resources objectively. Here are [those raw data collected.](#))

Free and useful online resources for teachers and students

(**Presenter will provide statistical results of data (those collected online resources), share with teachers and students those free and useful online resources, and discuss their uniqueness based on the level of friendly use, accuracy of content, engagement of teaching and learning, motivation and assessment.)

Effective strategies of implementation in elementary mathematics classrooms

The presenter believes that implementation of technology for teaching and learning elementary mathematics should not pursue the fashion of expensive “cutting edge” technology; instead, more attention should be paid on exploring and using those exiting technological resources, particularly those available free-shared online resources. (**Presenter will discuss strategies of implementation based on teaching experience and resource on effective teaching.)