

ZMATH 2008b.00501

Liu, Yaqiang; Kaino, Luckson M.

Geometer's Sketchpad and MSW Logo in mathematics classroom instruction: a comparative analysis.

J. Interdiscip. Math. 10, No. 5, 715-726 (2007).

Summary: Geometer Sketchpad and MSW Logo programs have been introduced in Bachelor of Science Education degree courses along with other software programs including a course on ICT in mathematics education at the University of Botswana. Sketchpad is known as a tool of dynamic geometry and Logo, basically as a programming language. Current trends of instruction involving technology tend to avoid programming language and some critics argue that the language was now given less prominence in enhancement of thinking skills. In this paper, both programs are used to illustrate how to integrate ICT into the teaching the topic on Rotational Symmetry from the Botswana General Certificate of Secondary Education (BGCSE). While the programs indicate that the topic can be taught in two ways that were not similar, it is illustrated that the two programs can be used to describe and investigate rotational geometry to achieve the same stipulated objectives with a difference. At the end of the paper, some differences in instruction using the two programs are identified as well as advantages and limitations.

Classification: R20 U70 G40 D30

Keywords: Geometer's Sketchpad; MSW Logo; rotational symmetry; geometry teaching; geometry software; technology in mathematics instruction

doi:10.1080/09720502.2007.10700527