

Theme 4 Plenary Lecture

The constructive and destructive roles of calculators in mathematics education

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Abstract:

For a long time, calculations themselves and the ability to perform them was an intrinsic part of mathematics education. Until WWII, what we now call “mathematics” was simply called “calculations measuring.” A few decades later, the emergence of pocket calculators brought a new aid, but also a threat to the primary goal of teaching arithmetic. Operating the new device became an important skill, which had to be taught as well, but the spread of the devices led to the belief that we no longer need to learn (and hence also to teach) multiplication tables. In my talk, I will draw attention to how numerical skills were associated with mathematics, how the arrival of the computer and calculating devices shifted the core of mathematics, and how this is reflected in mathematics education.