

# Designing and Evaluating Mathematical Learning by a Framework of Activities from History of Mathematics

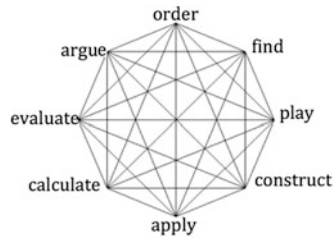
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**Description of the Workshop:** At first, on the basis of his long-term studies of the history of mathematics, BZ represented the eight sustainable activities that proved to lead frequently to new mathematical results at different times and in different cultures for more than 5000 years (Zimmermann 2003). After that, LH represented how this octagon may be used as an instrument to measure how the eight activities are supported within school mathematics, university mathematics, and the usage of ICT in everyday life, respectively. The results suggest that the support gained from all those areas is modest, and amazingly the support gained from the overall usage of ICT seems to have even a descending trend. The studies suggest that design of ICT-based learning environments orchestrated within the so-called pit-stop philosophy, promote a promising support for the Z-activities. This would mean a thorough shift in curriculum design, including dynamic assessment. HS represented a method for applying computer-aided analysis of the Finnish mathematics curriculum for the comprehensive school. Even though his computer-based datamining (Silfverberg, 2016) revealed that the curriculum expressions refer to many of the above-mentioned activities, they seem to be supported poorly in reality.

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The Workshop activities included discussions about curricula in different countries and use of history of mathematics in mathematics instruction. There were participants from Africa, Asia, South-America, and Europe.

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