

ICMI in the 1950s and 1960s

The internationalization process and the emergence of Mathematics Education as an independent discipline

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This paper aims to analyze the evolution of the objectives and fields of action of the International Commission on Mathematical Instruction (ICMI) in the period from its reconstitution as a permanent sub-committee of the newly re-founded International Mathematical Union (IMU) to the presidency of Hans Freudenthal, who impressed a real turning point in the Commission's activities. As is known, the ICMI was created during the ICM held in Rome in 1908. Its first president Felix Klein left a strong mark on the first phase of the Commission's history, up to WWI. ICMI's activities suffered two caesuras due to WWI and WWII.

The decades 1950 to 1970 that are the object of our analysis, could rightly be called the "Roaring Twenties" for mathematics education due to concomitant events in politics, technology, research and society. The Cold War and the consequent climate of tension between countries stimulated interest in science, including mathematics, and favored the birth of specific projects aimed at research and teaching. Support plans to help nations recover from the disasters of war financed national and international initiatives also in the field of education. Computers opened new perspectives to research and teaching. The school was transformed into a school "for all". The progressive decolonization and the conquered independence of some countries also led to consider the problems of education - obviously also of mathematics education - in those countries. It is in this context that in 1952 ICMI was reconstituted.

The old Commission was born and developed within the community of mathematicians and depended for its mandate on the four-year International Congresses of Mathematicians, but it was otherwise free to choose its members and decide which projects to implement. The new ICMI as a subcommittee of the IMU depended on it both for the choice of members of the Executive Committee and for funding. The lack of precise "Terms of Reference" to regulate the relations between the two bodies produced friction that arose mainly from the ICMI's desire to obtain greater independence from IMU. Furthermore, the Commission's old agenda, which placed emphasis mainly on curricula issues and organizational aspects of mathematics teaching in the various countries, was now outdated. The new demands of society, the new trends in mathematical research and technology required a renewal of the subjects to be studied, of tools and of methods. Collaboration with international organizations such as UNESCO and the OECE / OECD favored new initiatives on every continent.

The three main lines of investigation that we have chosen for our study are the following:

- internationalization and changing the objectives of ICMI,
- relationships between IMU and ICMI, which often take the form of relationships between professional mathematicians and educators.
- emergence of mathematics education as an autonomous research field;

Our analysis of this period is based on a wide selection of unpublished letters and documents belonging to the period 1952-1974 (from the IMU Archive and others), which made it possible to highlight unknown or lesser-known aspects of the history of ICMI.

References

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