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Mathematics teaching in gymnasiums and real schools in Poland in the years 1795-1918. Schools with Polish and German as the language of instruction - comparison

Abstract

The borders of Poland have been changing over the years. The most tragic moment in the history of Poland took place at the end of the 18th century - Poland disappeared from the map of Europe for 123 years, it came under the occupation of three empires: Prussia, Austria and Russia.

A comparative analysis of teaching mathematics at the territory of Poland under Prussian and Austrian Partition will be discussed in this presentation. The analysis will concern the period from 1795 (III partition of Poland) to 1918 (Poland regained its independence).

The ways of teaching mathematics in schools with German and Polish as languages of instruction in the territories of Prussian and Austrian occupation will be compared. It should be mentioned, that in 1867 the territory of Austrian occupation gained autonomy, which meant that in most schools of this occupation German as language of instruction was changed into Polish.

Gymnasiums (Classical Grammar Schools) and schools of real type (among them, depending on the period, for example: Real Schools [ger. *Realschule*], Real Gymnasiums [ger. *Realgymnasiums*] and Upper Real Schools [ger. *Oberrealschule*]) were the most important in secondary education in the territory of Poland during the years 1795-1918. Education in Gymnasiums was centered on the humanities, but a large emphasis was also put there on teaching mathematics. Schools of real type were centered on teaching mathematics and natural sciences (usually, in schools of real type, mathematics was taught in a wider range than in the Gymnasiums). These schools prepared young people to start university studies. The analysis which will be presented will focus on Gymnasiums in Torun, Gdansk, Krakow and schools of real type in Torun and Stanislawow.

The first school-leaving examinations (Matura examinations) in Poland were carried out in the above mentioned period of time. The rules of conducting those examinations were the same as the rules obliged in the occupying empires.

One of the consequences of introduction of school-leaving examinations was the unification of the mathematics curricula in all schools of a given type - Prussia and Austria had diversified regulations. The curricula frameworks in all schools of given type in Prussia (and under Prussian occupation) were the same, however, their implementation was slightly different; for example, content of material and textbooks could be different. A similar situation happened in the Austrian Partition.

We will present:

- A comparative analysis of the hourly timetables of mathematics classes in schools in the Prussian and Austrian Partitions
- A comparative analysis of mathematics curricula in selected schools (Prussian and Austrian occupation) and material placed in textbooks, with particular attention paid to: issues discussed during mathematics lessons and the scope of their implementation; introducing the mathematics and scientific news to secondary school education; paying attention to applications of mathematics, for example civic calculus (otherwise known as financial mathematics), descriptive geometry or solving triangles; and issues which are not currently included in mathematics curricula in secondary schools in Poland,

like complex numbers or arithmetic sequences of the second order

- A comparison of school-leaving exams in mathematics carried out in the Prussian and Austrian Partitions
- Discussion of the mathematics teachers' profile in the two Partitions (comparison of the mathematics teachers' education and their research and educational work).

Researches will be based on the analysis of, among others, information contained in the reports published by schools operating in each one of the Partitions, analysis of school textbooks and archival materials related to school-leaving exams.
