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Characteristics of Development of Mathematics Education in Serbia

Abstract :

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In the development of mathematics education of Serbs, there is one main specific characteristic. That is the fact that the Serbs, who inhabited both north of the rivers Sava and Danube – within the Habsburg Monarchy – as well as the south – within the Turkish Empire, had in 18th and 19th centuries completely different educational opportunities. From the end of 17th century, Serbs under Habsburg rule won the right to open primary and secondary schools with classes in Serbian, as well as to form the most significant institutions of their national culture. The situation regarding culture and education was considerably different with the Serbs who lived under Turkish rule. Complete illiteracy and educational backwardness were predominant. The organisation of primary schools commenced at the beginning of the 19th century, although it was not until the Hatisharif of 1830 that the Serbs were allowed to form their own schools, as well as other state institutions. A series of Educational Regulations, Decrees and normative acts from the second half of 18th century introduced a mandatory general elementary education in Habsburg monarchy. Mathematical education was systematically included in the curricula in all, even in Serbian primary (trivial) schools from the end of the 18th century in all parts of the Austrian Empire that Serbs lived. The first textbooks in Serbian national language appeared and the first Teacher school and two grammar schools, known as Gymnasiums, were soon established. The ideas of founding an institution of higher education in the Serbian language in the Habsburg Monarchy dates back from 1774, but

in spite of all the activities and efforts, this aim was not achieved until the establishment of the Kingdom of Yugoslavia. On the other hand, the main development of mathematics education as well as of mathematics science occurs in Belgrade, the capital of the Serbia after liberation from Turks. This development rested on three national institutions: Lyceum founded in Kragujevac in 1838, Belgrade Great School founded 1863 and the Serbian Royal Academy founded 1886. The most significant names of mathematics from that period were Dimitrije Nešić, rector of the Great School, founder of the first mathematics library in Serbia in 1871 and considered as the first Serbian mathematician, Bogdan Gavrilović and Mihailo Petrović who among the first finished their doctoral studies and who are the most credited for the transformation of the Great School in the Belgrade University in 1905. Petrović's school of mathematics, which represents the root of the overall development of mathematics in Serbia, is even today well-known in the world of mathematics. Beside the activities of mathematicians with the highest degrees from European universities – Dimitrije Danić and Petar Vukićević from Berlin University, Đorđe Petković and Bogdan Gavrilović from University in Pesta and Mihailo Petrović from École Normale Supérieure in Paris – defense of the first two doctoral theses in mathematical sciences at the University of Belgrade took place in 1912 (Mladen Berić) and in 1913 (Sima Marković). The important year in the development of Serbian mathematics is considered to be 1896, the year when Mathematics seminar, predecessor of Mathematics Institute, today the most significant mathematics institution in Serbia, was founded. References Brueckler, F. M., Stilinović, V., Teaching arithmetic in the Habsburg Empire at the end of the 18th century – A textbook example, *Historia Mathematica* 40 (2013) 309-323. Lawrence, S., 2005. Balkan mathematics before First World War, *BJSHM Bulletin*, 4, 28-36. Lawrence, S., 2009. A Balkan trilogy: mathematics in the Balkans before World War I, In *Oxford Handbook of the History of Mathematics*, edited by Eleanor Robson, Jacqueline Stedall, Oxford University Press Inc., New York, Chapter 2.4, 175- 214. Nikolić, A., Prva srpska aritmetika [The First Serbian Arithmetic], *Proceedings of Matica srpska for Social Sciences* No. 83/1987, 151-160. (Serbian) Pejović, N., Digitalization of Mathematical textbooks used in Serbia in the past, Web page: <http://elib.mi.sanu.ac.rs/files/journals/ncd/12/ncd12055.pdf> Pinter, J., Nastava matematike u prvim decenijama rada Učiteljske škole u Somboru [The Teaching of Mathematics in the First Decades of the Operation of the Teachers' School in Sombor], *Proceedings of the Scientific Meeting entitled Natural and Mathematical Sciences with the Serbs in the 18th and early 19th Century*, Novi Sad, 26th and 27th June 1995, 245-255. (Serbian) Internet site of Mathematical Institute: <http://www.mi.sanu.ac.rs>