
In memory of Tamás Varga

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Tamás Varga : 3 November 1919 - 1 November 1987

Tamás Varga was born in Kunszentmiklós, Hungary in 1919. He was one of seven children.

Many of his family have played in the past or play today an active part in the public life of Hungary. He went to primary school and secondary school in his native town. He was admitted to the Teacher Training Dept. of Budapest University, where he graduated as a Teacher of mathematics and physics. With a reference from his lecturer, Lipót Fejér, he was awarded a scholarship to spend 18 months at Scuola Normale Superiore, Pisa, Italy. This institute developed a system of teacher training similar to that of Scuola Normale Superiore in Paris, namely, to train future teachers incl. teachers of mathematics at the highest possible level. As during World War Two he was called into active army service, he could not put his newly acquired knowledge into practice for a long time. While in the army, he helped some of his acquaintances escape from Balf concentration camp, West Hungary.

After World War Two he took the first opportunity to get back to his homeland. He worked as a secondary school teacher first in Kunszentmiklós, then in Budapest. His excellent gifts, professional expertise and sound knowledge of foreign languages were soon highly appreciated : in 1947 he was appointed to take up a job at the Ministry of Religion and Public Education. Here he contributed to writing curricula and was co-author of numerous textbooks. In 1948 he started work in the National Institute of Public Education, where he could work in the same field in a more direct way and with greater efficiency. He worked here until the institute was dissolved in 1950. From 1951 onwards he worked at the Budapest Eötvös Loránd University of Arts and Sciences. He was involved, in the first place, in the training of teachers of mathematics. He was in charge of organizing correspondence courses and he held lectures on methodology and on elementary mathematics.

He was awarded several prizes already at this time : Beke Manó Prize (Bolyai János Mathematical Society, 1954), Medal of Merit for Socialist Work (1955). He felt, however, that he could only link his work in teacher training to everyday life if he simultaneously took part in school education. This is why he started teaching mathematics in a school, something he would continue to do for a very long time. 1957 : the whole world was deeply impressed by the successful launch of the first satellite 'Sputnik'. It was realized (first in the United States and then in other countries as well) that technical development was only possible if the teaching of mathematics was modified and modernized. Consequently, a large number of articles and books was published on a wide range of topics in this field. Tamás Varga read this literature with a critical approach and decided to use these ideas or their amended versions in order to improve the teaching of mathematics in Hungary all his life. Since he soon realized that this kind of improvement could only yield results if it also involved the basic steps of the teaching of mathematics, he started focusing on improving the teaching of mathematics in primary school. In a couple of years' time he established a set of well formulated ideas and at the 2nd Hungarian Mathematical Congress he outlined his idea which could help, he'd hoped, make the teaching of mathematics in primary school more up-to-date and more efficient (1960). Later he admitted how he'd been astonished to hear a presentation by Zoltán Dienes, a scientist of Hungarian origin at this Congress : it was at this point that he realized that other scientists were also working on similar problems. This helped him make his decision to start an education experiment in a class in 1961, which was to have been the first step on the way to develop a new curriculum for primary schools. The experiment only lasted one year. Both he

and the teachers taking part in it found that there were quite a lot of things they still had to learn before they could continue with the experiment. At an international symposium on the teaching of mathematics organized by the UNESCO in Budapest in 1962, Tamás Varga's work was highly acclaimed and he and Willy Servais (Belgium) were asked to compile and partly to write a book on the most important findings of the symposium. The book was published a few years later, in the second half of the 1960s.

Varga continuously worked on developing his ideas into a complex system. In 1963 he was able to launch experimental education, first in two parallel classes in Váci Street Primary School, Budapest and later on in several other classes as well. This meant putting his theory into practice, which resulted in the well-known experiment of complex teaching of mathematics. From 1967 he was employed by the National Pedagogical Institute (OPI). Here he could directly control and fine-tune his experiment. As a result of his experiment of complex teaching of mathematics, the until then separated teaching of arithmetic and geometry was transformed into the teaching of mathematics incl. several other fields of mathematics as well. This new approach focused on children's individual thinking and suggested that teachers should consider themselves to be fellow-workers of the children.

Thanks to his knowledge of foreign languages and his keen interest he was always up-to-date on the latest developments in the research on mathematics, didactics of mathematics, psychology, different social sciences, which he very carefully adopted to the Hungarian system of education. His colleagues in the National Pedagogical Institute, Andor Cser és Endre Hódi helped him a great deal effectuate the experiment of complex teaching of mathematics and prepare and launch the National Curriculum in 1978. His closest associates were Endréné Gádor, Sándor Pálffy, Istvánné Halmos, Eszter C. Neményi and Julianna Szendrei.

Though many of Varga's ideas had been put into practice by this time, the spread of new ideas was hindered by the all-obligatory Curriculum. The Curriculum which was finally introduced differed from the one which had been planned a great deal, in particular in senior classes of primary schools. (10-14-year-old children.) The new Curriculum was much more widely used than the methods proposed for its realization or for establishing a fellow-worker relationship between teacher and student.

Varga's concept of the practice of the teaching of mathematics has become more and more evident all over the world. He was a pioneer in using everyday situations in teaching mathematics at school. At the proposal of Hans Freudenthal, the worksheets prepared by a special team for experimental classes in primary schools ('Munkalapok') were used in IOWO as working materials. Isaak Wirchup (University of Chicago) had them translated into English and their latest version is now taught in Finland too. (See)

Varga was awarded numerous Hungarian awards : Ministerial Award (1972), PhD degree for the research of complex teaching of mathematics (1975), Award for Excellence (1977), Hungarian State Award (1980), Liberation Award (1985).

He received a large number of honours abroad too. He made a high international reputation as Co-editor and Co-writer of the UNESCO Studies. He published numerous articles in foreign languages and he was invited in person to different parts of the world. Tamás Varga was an outstanding figure of international renown in the history of teaching mathematics. He was member of the Editorial Board of Educational Studies in Mathematics and he was elected Vice Chair of CIEAEM. He continued working even during his illness ; one of his last articles was published posthumously in the Hungarian periodical 'Kritika'. Although his ideas were only partly realized even in Hungary, Tamás Varga's approach has had a lasting influence on the teaching of mathematics at all levels in Hungary, from kindergarten to university.