

## **Piet Vredenduin: A life dedicated to mathematics and mathematics teaching (theme 6)**

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Piet Vredenduin (1909-1996) was a mathematician, mathematics teacher, mathematics curriculum innovator, and *trait-d'union* between the mathematics education communities in the Netherlands and Flanders. However, his national and international role has remained underexposed to date.

Vredenduin was born in Amsterdam as the only child of two primary school teachers. His secondary education was at a HBS<sup>1</sup> in Amsterdam. He studied mathematics at Utrecht University. In 18 days, he wrote his PhD thesis of 48 pages in which he applied Fraenkel's *Mengenlehre* to number theory. In 1931 he became mathematics teacher at the *Stedelijk Gymnasium Arnhem*<sup>2</sup>, and a few years later also vice headmaster. He stayed so till his retirement in 1974. During the first years as a teacher, Vredenduin also completed a university study in philosophy.

After World War II, Vredenduin participated in two mathematics educational experiments: statistics and history of mathematics. In 1959, he participated in the Royaumont Seminar, as a member of the Dutch delegation (together with Bunt and Leeman). There he "discovered" the structuralist view on mathematics education. To implement the Royaumont ideas, the Dutch government installed the *Commissie Modernisering Leerplan Wiskunde*<sup>3</sup> in 1961 of which he became a member. An important contribution of Vredenduin to this implementation was the writing, in the 1960s, of many articles in *Euclides*, the journal of the *Nederlandse Vereniging van Wiskundeleraren*<sup>4</sup>. In these, he explained the mathematics behind new parts of the curriculum and made suggestions on how to teach them. Between 1940 and 1990, he also wrote many other articles in *Euclides*: e.g. on logic and its role in mathematics and teaching, book reviews, and reports of conferences of interest to mathematics teachers. In 1964, Vredenduin became also mathematics teacher trainer at Technical University Delft. In an interview he said that he was hardly a didactical expert, he passed his own experiences on to students (Goffree, 1985).

Especially during the sixties, when the ideas of Royaumont were worked out, Vredenduin often represented the Dutch Association of Mathematics Teachers in meetings of its Flemish counterpart, the *Vlaamse Vereniging van WiskundeLeraars*<sup>5</sup>. He reported about new developments in Flanders in *Euclides*, and about Dutch developments in *Wiskunde & Onderwijs*<sup>6</sup>, the Flemish counterpart of *Euclides*. In Belgium, the adherers of an axiomatic approach to a new curriculum took the lead, we mention Georges Papy and his wife Frédérique, of whom Vredenduin was an admirer. Yet, in his publications he chose the approach advocated by Freudenthal that is now called realistic mathematics education.

### **Reference**

Goffree, F. (1985). *Ik was wiskundeleraar, hoofdstuk IV, Piet Vredenduin, wiskundeleraar te Arnhem*<sup>7</sup>, 137-186. Enschede: SLO.

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<sup>1</sup> HBS is an acronym for Hogere Burger School (Higher Citizens' School), a type of schools comparable with gymnasium, but without Greek or Latin.

<sup>2</sup> In English: Municipal Gymnasium Arnhem.

<sup>3</sup> In English: Committee for Modernisation of the Mathematics Curriculum.

<sup>4</sup> In English: Dutch Association of mathematics teachers.

<sup>5</sup> In English: Flemish Association of Mathematics Teachers.

<sup>6</sup> In English: Mathematics & Education.

<sup>7</sup> In English: I was a mathematics teacher, chapter 4, Piet Vredenduin, mathematics teacher in Arnhem.