
The role of history of mathematics in mathematics teaching. The situation in The Netherlands.

Jan van Maanen *

At present history of mathematics has no structural position in mathematics education in Dutch secondary schools. Yet, there was a vivid tradition in the history of mathematics during this century. Several textbooks for secondary schools had chapters on the history of their subject matter. The mathematics teacher and historian of mathematics Dijksterhuis propagated history of mathematics as a subject in the education of mathematics teachers, and at some places in the uppersecondary level history even was an optional part of the curriculum (from 1952 until 1973 in the Gymnasium ∞ programme, which prepared in the 11th and 12th grades for a university study in the humanities, and from 1974 until 1985 in the 'Wiskunde II' programme, which was taken in the 11th and 12th grades by some of the prospective science students). In present curricula, however, history of mathematics is no longer extant as a subject in its own right.

On the other hand, mathematics is taught in all types of Dutch secondary schools, and another way in which history might be extant is in the 'ordinary' mathematics textbooks. Some of these have regular references to history (*Getal en Ruimte*, for example, and the *Wageningse Methode*), which occasionally give biographical information and historical introductions. But most of the times history is an extra which can be left out as well (and probably is left out by many teachers), an illustration with a caption but without a reference in the text. In most of the texts, however, references to history are rare or totally absent. Pythagoras' theorem, for example, is taught without reference to history in *Exact Wiskunde* and *Wiskundelijn*, whereas *Moderne Wiskunde* at least adds: "Pythagoras was a Greek philosopher (about 500 B.C.)", and *Sigma* says about proving the theorem: "One thinks that a Greek mathematician, Pythagoras (580-496 B.C.) has been the first to do that". It even occurs that authors clearly have knowledge about the history and use it as a source of inspiration, but without revealing their source to their readers.

But there are also positive signs. Research is going on, relevant articles appear in Dutch and foreign journals, the curriculum for the upper secondary level ('Wiskunde B') is under discussion and the integration of history is one of the topics in that discussion, the new curriculum for the lower secondary level ('Wiskunde 12-16', the numbers refer to the age groups for which the programme is intended; the curriculum will start in grade 7 in Autumn 1993) does not mention the approach of mathematics via history directly, but one of its elements is called 'Integrated Mathematical Activities' and integration with history is stimulated, as indicated by the publication of a series of model lessons by the 'Team 12-16', membership of the International Study Group on the relation between History and Pedagogy of Mathematics (HPM) increases, and without doubt this sentence could be much longer than it is now already.

In summary: history of mathematics has had a stronger position in Dutch mathematics education than it has now, but it seems to regain terrain.

* University of Groningen, Department of Mathematics, P.O. Box 800, NL-9700 AV Groningen)
Contribution to the 'table ronde' about the role of history of mathematics in mathematics teaching at the Summer University, Montpellier July 19--23, 1993