Dutch mathematics teachers, magazines and organizations: 1904-1941

Harm Jan Smid

Delft University of Technology (retired), the Netherlands

Abstract

The group of teachers of mathematics at Dutch gymnasia, and the magazine of the general organization to which the group belonged, played an important role in Dutch mathematics education, but their history is hardly described so far. This paper will focus on this group and the magazine. We will compare their activities with those of the legal forerunner of the present day organization for mathematics teachers, the NVvW and its magazine Euclides and we will demonstrate that in the prewar years this almost forgotten organization and the magazine were in fact more active and interesting. The history of Dutch mathematics education during the first half of the twentieth century is usually considered as a rather dull period. The study of relatively neglected elements from that period can add some nuances to that picture.

Keywords: mathematics teacher associations; HBS; gymnasium; teacher journals

Introduction

Two years ago, the Dutch Association[1] of Teachers of Mathematics celebrated its 90th anniversary. In Dutch, its name is the Nederlandse Vereniging van Wiskundeleraren, usually abbreviated as the *NVvW*. That association, or at least its legal forerunner Wimecos[2], was founded in 1925. Nowadays, the NVvW is the only representative for teachers of mathematics for all types of secondary education. It also represents mathematics teachers active in vocational colleges for tertiary education, but not those at universities.

Its official organ, the magazine *Euclides,* dates already from 1924[3]. As it becomes immediately clear from that date, the magazine did not start its life as the organ of Wimecos. It was founded as an independent magazine, owned by the publishing

1 We will use the word 'association' for an organization whose members are of the same profession, focussing on the advancement of the professional activities and practices of these members in the first place. With a 'trade-union', or in short a union, we mean an organization that focusses on the improvement of the conditions of employment of its members, such as salaries and pensions. Sometimes an organization combines both aims.

2 Officially, it was an association for teachers of Mathematics (**Wi**skunde), **Me**chanics and **Cos**mography, hence the name *Wimecos*

3 The name *Euclides* was used from volume 4 onwards, before it was an appendix to the *Nieuw Tijdschrift voor Wiskunde* [*New Journal for Mathematics*]

Bjarnadóttir, K., Furinghetti, F., Krüger, J., Prytz, J., Schubring, G. & Smid, H. J.(Eds.) (2019). "*Dig where you stand" 5. Proceedings of the fifth International Conference on the History of Mathematics Education*. Utrecht: Freudenthal Institute.

company P. Noordhoff in Groningen. It was only after the war that Wimecos/NVvW and *Euclides* became closely connected.

Recently, a number of publications was devoted to the history of journals for teachers of mathematics. For instance, both Furinghetti and Pizarelli published articles on the role of teacher journals in Italy (Furinghetti, 2017; Pizarelli, 2017). Furinghetti and Somaglia published an article about a journal on teaching mathematics for primary schoolteachers (Furinghetti and Somaglia, 2018). Krüger published an article on two Dutch journals for mathematics teachers; one of them, the *Wiskundig Tijdschrift* [Mathematical Journal] is from the same period that we describe (Krüger, 2017). A bit older are the publications of Van Hoorn about the pre-war years of *Euclides,* the journal already mentionned before (Van Hoorn, 2008[a], 2008[b], 2008[c]).

So far, less attention has been paid however to the history of mathematics teacher associations. A remarkable exception is *Mathematics for the Multitude?* by Michael H. Price, that describes the history of the English Mathematical Association (Price, 1994). Fujita and Jones published an article about the same association and its endeavor to redesign the English geometry curriculum in 1902. (Fujita and Jones, 2011). Eileen F. Donoghue devoted some pages in the *History of School Mathematics* on associations and their publications in the early years of the 20th century in the USA (Donoghue, 2003). Johan Wansink published an article about the history of the first fifty years of Wimecos/NVvW (Wansink, 1976).

Descriptions of the history of these associations can sometimes be found on their websites, or in publications on the occasion of a jubilee and the like. For instance, the NVvW published, on occasion of its 75th anniversary, a jubilee book titled *Honderd jaar Wiskundeonderwijs* [Hundred years of Mathematics Education], in which one chapter is devoted to the history of both the NVvW and the magazine Euclides (Maassen, 2000).

As a consequence, the historiography of these associations is mostly devoted to those who still exist. The history of associations that have disappeared is often neglected, although they may have played an important role in mathematics education during the years they existed. Such was certainly the case in the Netherlands, and focusing on the Wimecos/NVvW only results in an incomplete picture of the history of Dutch mathematics education.

In this paper we will pay attention to one of these forgotten associations in particular, the "group"[4] for mathematics teachers at the gymnasia. As the main source for its history we will make use of a magazine that was not especially intended for

4 It is usually called a "group", since it was not an independent association but part of a larger organization.

teachers of mathematics only, but that published much interesting information for those teachers nevertheless. Moreover, that was already the case in the seventeen years of its existence before the founding of the group of gymnasium mathematics teachers.

That magazine, the *Weekblad voor Gymnasiaal en Middelbaar Onderwijs* [Weekly Journal for Classical and Secondary Teaching] was founded in 1904, so we start our research in that year. It existed until 1950. The group for gymnasium mathematics teachers ceased to exist in 1972. We will however end our research in 1941. In that year the German occupants took control over the magazine, and soon afterwards also over the general organization of gymnasium teachers, to which the group of mathematics teachers belonged. That created a completely different situation. After the war the gymnasium teachers organization, including its group of mathematics teachers, and the magazine were restored, but the educational scene in the Netherlands was soon the object of major changes. So, the year 1941 is a natural endpoint for our research.

To facilitate the reading of the paper, we summarize the most relevant Dutch organizations and journals. Some we have already mentioned above, some will be discussed below.

- 1830 Founding of the Society for Teachers at Dutch Gymnasia.
- 1864 Founding of the General Association for Teachers at Secondary Education (the AVMO). (mainly teachers at the HBS[5])
- 1904 Founding of the *Weekblad*, a weekly magazine, the official organ the Society as well as the General Association.
- 1921 Founding of Liwenagel, a group within the Society, with four subgroups: for mathematics, physics, chemistry and biology.
- 1924 Founding of *Euclides*, an independent journal for the teaching of mathematics.
- 1925 Founding of Wimecos, an independent association for teachers of mathematics, mechanics and cosmography at the HBS.

The Society for teachers at the gymnasia

In 1830 a 'Society for Teachers at Dutch Gymnasia' was founded by a small group of teachers. Its first objective was the improvement of the conditions of employment for the teachers, such as salaries and pensions, but gradually the improvement

5 This name is an abbreviation of *Higher Burgher School* The school type was created in 1863 and can be considered as the Dutch variant of the German *Realschule*.

of teaching gained more importance. The Society was both a trade-union and an association.

In the early years, its members were most likely only the teachers of Latin and Greek. When in 1876 the gymnasia were thoroughly modernized, and other school subjects, including mathematics, became more important, teachers of other subjects will have joined the Society[6]. But at the schools as well as in the Society however, the teachers of Latin and Greek remained the largest group, and no doubt they were the most influential.

In 1907 Dr. H.W.C. Bückmann, a teacher of mathematics at the municipal gymnasium of Amsterdam, made the following remark to a younger colleague from another school:

> We, teachers of mathematics, are working in an isolated position. That should change. Why don't you try to establish some kind of an association? (Verrijp, 1930, p. 99).

That younger colleague, Dr. D.P.A. Verrijp, admitted later that this remark was not taken very seriously by him then, and nothing came of it. Thirteen years later however, Verrijp had not only become older and wiser, but he had also experienced that pleas for mathematics teaching by an individual teacher were not very influential. He proposed therefore to the board of the Society to form a committee of mathematics teachers, which committee should busy itself with problems and questions concerning the teaching of mathematics.

The board answered positively and pointed out that under the new rules of the Society such a committee, as a "group" within the Society, could have an official, permanent and relatively independent status, with its own board and regulations. The board also suggested to include the teachers of the sciences within the group. One year later, in 1921, such a group was indeed formally established, including the formation of four subgroups: for mathematics, physics, chemistry and biology. Its first chairman was Verrijp (*Weekblad*, *17*, 32, 1341-1344).

Fig. 1. Dr. D.P.A. Verrijp (1869-1937).

6 Data for those years are not available.

L.i.W.e.N.a.G.e.L.

The newly established group had the curious name of L.i.W.e.N.a.G.e.L. It was an acronym for *Leraren in Wiskunde en Natuurwetenschappen aan Gymnasia en Lycea* [Teachers in Mathematics and Natural Sciences at Gymnasia and Lycea][7]. When it started, it had about a hundred members. The Society of gymnasium teachers to which it belonged had around 750 members.

The direct incentive for the creation of the group had been rather defensive. The government had changed the distribution of the number of hours devoted to mathematics in the lower classes of the gymnasia. Verrijp opposed this measure and wrote a letter to the government to persuade it to revoke the measure. He, not surprisingly, achieved nothing and therefore tried to involve the board of the Society, which eventually led to the foundation of Liwenagel.[8]

There was in those years however a more general feeling of discontent among mathematics teachers. After World War I, mathematics and sciences had lost much of their credit. The 'anti-mathematische Bewegung' [anti-mathematical movement], active in Germany in the first place but also not without influence in the Netherlands, forced mathematics teaching in the defensive – at least, that was how it was felt by its teachers (Van Berkel, 1996, pp. 81-82). The formation of this gymnasium mathematics and natural sciences teacher group in 1921, and also of the association for mathematics teachers at the HBS in 1925, and the foundation of the magazine *Euclides* in 1924 were partly reactions to this movement. They wanted to defend and protect the interests of mathematics teaching, which were threatened in the opinion of many of its proponents.

One of the first actions of Liwenagel was to try to maintain the written final exam for mathematics for the literary branch of the gymnasium. Its attempt was unsuccessful, the written exam was soon replaced by an oral one. Also, the endless discussions about the number of hours devoted to mathematics, and most of all about their distribution over the various classes, was only partly successful. Verrijp soon experienced that not only as an individual teacher, but also as chairman of Liwenagel, his influence was limited.

But although Liwenagel had a defensive or conservative incentive, it was certainly not a purely conservative group. Its formal aim was of course to promote the interests of the teaching of mathematics, but that did not mean only a defense of the status quo. It was also concerned about the modernization of the mathematics teaching at the gymnasia.[9]

---

7 A *Lyceum* was a new type of school, a combination of a gymnasium and a HBS.

8 We will use from now on the notation Liwenagel, which came in use soon after 1921.

9 We won't take the activities of the subgroups for the natural sciences into consideration.

That implied not only the modernization of the curricula, but also of the didactics of teaching. One of the methods that, according to the first regulations of the group, should be employed, was to "open the opportunity for the members to exchange views about all topics belonging to their subject". Liwenagel indeed organized these discussions, and on account of these discussions, Verrijp wrote that it was important to see that within the group there were two points of view. One, he said, was more conservative and laid the emphasis on mathematical rigor and the historical development of mathematics. The other one attached more value to modern psychological and didactical insights and stressed the consequences these should have for mathematics teaching. Verrijp concluded that

> although it is well known what I prefer [no doubt the conservative side], I was always of the opinion that it is an advantage that both points of view were represented in the discussions in our group. (Verrijp 1930, p. 103).

The group was embedded in the general Society of the gymnasium teachers, which of course limited its space for maneuvering. It could hardly proclaim opinions completely contrary to those of the general Society. Heavy attacks on the interests of other school subjects and colleagues would not have been apprecia ted. Liwenagel also abstained from discussions about salaries, pensions or the teaching load and the like, such questions were handled by the Society as a whole.

But of course, that was not only a disadvantage. Within the group, contact with science teachers who formed the other sub groups, was easy and obvious. The inevitable cooperation in the Society as a whole certainly attributed to the awareness that mathematics was not the only subject with legitimate desires and interests.

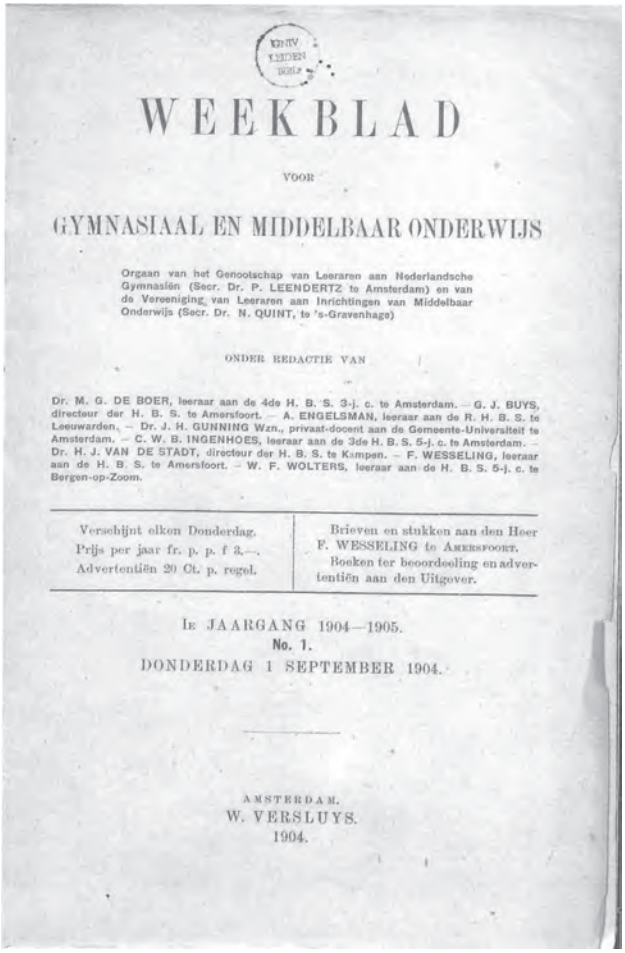
There was another, more important advantage of belonging to a more general association: the group could make use of the weekly magazine that was published by that association. It could publish its points of view, papers and reports of its meetings in the magazine. The archives of the group were lost in the Second World War, so we have no direct source for its activities[10]. But, since many of its activities were described in the magazine, it is still possible to reconstruct these activities.

A weekly magazine

That magazine, the *Weekblad voor Gymnasiaal en Middelbaar Onderwijs* [Weekly Magazine for Classical and Secondary Teaching] was the official organ of two associations. One was the Society of teachers at the gymnasia that we have discussed already, the other was the Association of teachers at the HBS. That school type, the so called Higher Burgher School, the Dutch variant of the German Realschule, was founded

10 The secretary of Liwenagel, Dr. A.T.M. Kramer, lived in a neighborhood in The Hague that in March 1945 was accidentally bombed by the RAF.

in 1863. A general organization for HBS-teachers was founded already in 1867, and it also had a double mission: the improvement of the conditions of employment of its members as well as the improvement and advancement of the teaching at the HBS. It was called the Algemene Vereeniging voor Leraren aan Inrichtingen van Middelbaar Onderwijs [General Association for Teachers at Schools for Secondary Education], usually abbreviated as the AVMO.



WEEKBLAD

VOOR

GYMNASIAAL EN MIDDELBAAR ONDERWIJS

Orgaan van het Genootschap van Leeraren aan Nederlandsche Gymnasiën (Secr. Dr. P. LEENDERTZ te Amsterdam) en van de Vereeniging van Leeraren aan Inrichtingen van Middelbaar Onderwijs (Secr. Dr. N. QUINT, te 's-Gravenhage)

ONDER REDACTIE VAN

Dr. M. G. DE BOER, leeraar aan de 4de H. B. S. 3-j. c. te Amsterdam. — G. J. BUYS, directeur der H. B. S. te Amersfoort. — A. ENGELSMAN, leeraar aan de R. H. B. S. te Leeuwarden. — Dr. J. H. GUNNING Wzn., privaat-docent aan de Gemeente-Universiteit te Amsterdam. — C. W. B. INGENHOES, leeraar aan de 3de H. B. S. 5-j. c. te Amsterdam. — Dr. H. J. VAN DE STADT, directeur der H. B. S. te Kampen. — F. WESSELING, leeraar aan de H. B. S. te Amersfoort. — W. F. WOLTERS, leeraar aan de H. B. S. 5-j. c. te Bergen-op-Zoom.

Verschijnt elken Donderdag.
Prijs per jaar fr. p. p. f 3.—.
Advertentiën 20 Ct. p. regel.

Brieven en stukken aan den Heer F. WESSELING te Amersfoort.
Boeken ter beoordeeling en advertentiën aan den Uitgever.

Ie JAARGANG 1904—1905.
No. 1.
DONDERDAG 1 SEPTEMBER 1904.

AMSTERDAM.
W. VERSLUYS.
1904.

Fig. 2. Front page of the first number of the magazine.

In 1904, both associations started together with the publication of the *Weekblad voor Gymnasiaal en Middelbaar Onderwijs,* a weekly magazine for the teachers of both school types. Before, both associations had published a magazine on their own, but it had been proven to be difficult to publish a magazine of an acceptable level, that also was financially viable. But the *Weekblad* was a success. Although there were

sometimes irritations between the two organizations about editorial matters, as a whole their cooperation went very well. The commercial publishing company behind the magazine, W. Versluys, was well known and most capable, as a publisher of schoolbooks as well as of literary works like novels and poetry. The cooperation of the three parties involved remained successful until 1941.

The magazine was published every week, including school vacations, 52 numbers a year, usually more than 1500, and sometimes even more than 2000 printed pages in a year. So the 37 years we do consider amount to more than 50.000 pages. Of course, most of them had nothing to do with the teaching of mathematics. Many pages were filled with the internal affairs of both associations, or with news and discussions about union-like subjects, like salaries, pensions and the legal position of the teachers. But during all those years, the editors welcomed also contributions with news, opinions and discussions about the teaching of the various school subjects, including mathematics.

Not everybody was so enthusiastic about the latter. In the years 1905-1921, there existed a special journal for teachers of mathematics, called *Wiskundig Tijdschrift* [Mathematical Journal]. Its editor, F.J. Vaes, also played an important role in the AVMO, but he complained several times to the editors of the weekly about articles on mathematics teaching that should, in his opinion, rather have been published in his specialized journal. But the editors of the magazine stuck to their opinion that also articles about specific school topics, like mathematics, should have a place in their weekly.

We checked all the volumes from 1904 until 1941 for articles concerning mathematics education, which amounted to about 400 articles, about 1350 pages. Very short communications such as simple announcements of meetings were not included. An article should have some serious mathematical/didactical content to be counted. Of course, not every number of the weekly contained something about mathematics, but on average every month a mathematics teacher could read something that had to do with the subject he taught. That was already the case long before the founding of the Liwenagel. Maybe the mathematics teachers at the gymnasia felt a bit isolated, but they were not neglected in the magazine of their Society.

The mathematical content of the *Weekblad*

As might be expected, the mathematical content of the *Weekblad* comprises a wide variety of subjects. Nevertheless, it is possible to devise some categories that cover most of the content. We made up six categories: book reviews, (school) mathematics, curricula and exam programs, methodology and didactics, reports of groups outside both associations, and reports from the associations, or groups within the associations themselves.

Book reviews

These could vary from short reviews of new schoolbooks to very long reviews of rather high-brow books on mathematics and its history. The number of reviews varied over the years; some reviewers were very active and wrote a large number of reviews. But there were also years when the number of reviews was considerably less.

It is self-evident that reviews of schoolbooks were something that would interest most mathematics teachers. Usually, these reviews were rather benevolent, with some minor critical remarks, for instance about small errors or sloppy formulations. One can find only a few really critical reviews in which teachers were advised not to use the book. Sometimes such a verdict was based on the serious mathematical errors it contained, but for instance the schoolbooks of J.H. Schogt, impeccable from a mathematical point of view, were considered as to difficult for most pupils.

Not only schoolbooks were reviewed, also books of some scientific significance. As an example: the book *De vierde dimensie* [The fourth dimension], described as an introduction to the comparative study of different geometries by Hendrik de Vries, professor in mathematics at the University of Amsterdam. The review consisted of no less than eight pages, and one can imagine that it went beyond the interest and even understanding of most readers of the Weekly.

Articles about (school) mathematics

This category contains in the first place articles about mathematics itself, often school mathematics, but sometimes also about mathematics of a higher level. Articles about school mathematics could lead to lengthy discussions. For example, an article of J. Wansink about the remainder theorem sparked several reactions, which in turn led to responses by Wansink (*Weekblad*, *37*, 36, 851-853).

Another topic that could lead to heated discussions were exam problems. Teachers argued that problems did not fit into the program, were ambiguous or unclearly formulated, to difficult or even wrong. For instance, a complaint about a question of the exam for trigonometry for the HBS in 1935, evoked no less than nine reactions (*Weekblad*, 31, 40, 1173-1174).

The fact that the magazine was published every week, and was produced and printed by a professional publisher who could work with a short production time was highly conducive for such discussions. After the war, when *Euclides,* which was a monthly with a much longer production time, became the official organ of Liwenagel and Wimecos, such discussions became impossible. Of course, nowadays they rage on the internet!

Curricula and exam programs

When F.J. Vaes and C.A. Cikot suggested in 1904 to introduce calculus in the HBS-curriculum, they could publish and defend their proposals in the recently founded *Weekblad*. Their proposals were submitted in 1907 to the mathematical section of the general meeting of the AVMO, were subject of ample discussions there and in the end rejected, which in turn provoked new reactions. The weekly published detailed reports about these discussions and the final vote. Publication of and discussion about proposals concerning changes in curricula and exam programs were recurring topics in the magazine. It happened with the proposals for a so called 'normal-program' for the HBS in 1917, with gymnasium programs in 1919 and 1922, with the so called "Beth-Dijksterhuis" report for the HBS in 1926, and with the new HBS-program in 1937. Members of the AVMO and the Society could therefore know all the ins and outs of the proposed changes in the curricula and exam programs, and, if they wanted so, also join in the discussions.

Methodology and didactics

The editors of the weekly conducted a generous policy concerning articles about the methodology and didactics of the teaching of mathematics. There were articles advocating the main stream ideas of those days, underlining the need to acquire the necessary skills and routines, or defending the status quo against all proposals for renewal. But there was also a place for contributions which diverged largely from the standing practices and opinions. An interesting example of this category is Tatyana Ehrenfests "About the role of axioms and proofs in geometry" from 1915 (*Weekblad, 12*, 13, pp. 457-470).

Mrs. Ehrenfest - Afanassjewa (1876-1964) was a Russian mathematician and physicist who had studied with Klein and Hilbert, who was very interested in mathematics education. She had been active in teaching mathematics and teacher training in Russia. few years before, when her husband had been appointed as professor in physics in Leiden, she had moved from Petersburg to the Netherlands, but she could not yet write in Dutch. The article, her first in Dutch, was a translation of one of her lectures held in Russia for mathematics teachers and was intended, as she later wrote, to introduce herself to a Dutch audience. That was certainly successful. The article provoked some reactions, which were answered by her. A few years later she started a didactical discussion group at her house. On the long term that group became highly influential. After the war it was attended and eventually chaired by Hans Freudenthal, whom she greatly influenced (Smid, 2016).

Reports from outside

The magazine published also reports of activities from groups and organizations that did not belong to one of the organizations. In 1936, the didactical discussion group of Tatyana Ehrenfest for instance got some official status as the Mathematics Working Group, belonging to the Dutch branch of the New Education Fellowship. The magazine published a report of the first official meeting of this working group, followed by six other reports of activities of the group. (*Weekblad*, *33*, 12, 381-382) Reports of the pre-war activities of this group are rare, so these give valuable information about the group.

While the Mathematics Working Group can be considered as a progressive one, the independent association of teachers of mathematics at the HBS, Wimecos, was more conservative. Its founding must have been a setback for the AVMO that had tried to create a group like Liwenagel within the association. Nevertheless, not only the formation of Wimecos was mentioned, but also reports of other activities by Wimecos were occasionally published in the magazine (*Weekblad*, 26, 20, 621-623).

Reports from inside

The weekly magazine published of course many reports and much information concerning the activities of both organization. Until the founding of Liwenagel and Wimecos, matters concerning mathematics education were usually discussed on the yearly meetings of the Society and the AVMO, we have mentioned already some reports of these meetings.

Later these matters were mainly left to Liwenagel and Wimecos; although the latter was not part of the AVMO. Since Liwenagel was part of the Society for gymnasium teachers, the activities of that group received much more attention in the magazine than those of Wimecos. Not only reports of the yearly meetings of Liwenagel were published in the weekly, also other activities were extensively covered. Since the archives of Liwenagel were lost in the war, these accounts give crucial information about Liwenagel.

The reports in the weekly magazine show that the group became very active soon after its founding. It conducted surveys of its members, it produced reports on curricula and exam programs which were widely discussed, it organized lectures for teachers and it held yearly meetings. In 1926, it took the initiative to organize meetings for all mathematics teachers, including the HBS teachers. From 1932 on, these meetings were meant for teachers in mathematics and the natural sciences, held every two year. The last one of these meetings was held in 1970.

Liwenagel, Wimecos and Euclides

Liwenagel was not the only organization for teachers of mathematics. We have already mentioned Wimecos several times – we will discuss it in more detail later – but there were more. Education in The Netherlands was – and party still is – organized according to religion. Not surprising then, there were also organizations for teachers working at Protestant and at Roman-Catholic Gymnasia and Higher Burgher Schools. Schools for secondary education on a religious basis formed in the beginning of the 20th century a small minority, but their number was growing.

Both organizations had sections for the teachers of mathematics, comparable with Liwenagel. Contemporaries therefore spoke of four organizations for teachers of mathematics: Liwenagel, Wimecos and the two groups on a religious basis. The meetings for all teachers of mathematics that were initiated by Liwenagel, were for instance organized, as the chairman Verrijp said, with the cooperation Wimecos and the mathematical groups of the Protestant and Roman Catholic teachers associations (*Weekblad*, *23*, 28, p. 869). The history of these groups however, which disappeared in 1972 with the dissolution of the organizations to which they belonged, remains so far unwritten.

Wimecos, the association for teachers of mathematics at the HBS, the legal forerunner of the present day mathematics teachers association, on the other hand did *not* belong to the general organization for HBS teachers, the AVMO. We can only guess why the founders chose for an independent association. The reason sometimes given, that the rules of the AVMO did not allow such groups is certainly not correct. On the contrary: the board of that association tried in the years before 1925 to establish such groups, and it explicitly pointed to the example of the group of mathematics and science teachers for the gymnasium teachers to illustrate what it had in mind (*Weekblad, 22*, 12, p. 436 & 15, pp. 523-525). Perhaps the founders of the HBS mathematical association in 1925 considered the atmosphere for mathematics in the AVMO as not favorable. Anyhow, the example of Wimecos was followed. In the following years several independent associations for teachers in school subjects were founded: for teachers in physics and chemistry, in biology, in modern languages, history, and more.

By opting for an independent association however, the teachers of mathematics also chose for isolation and a rather powerless organization. Wimecos displayed little initiatives or activities of its own, apart from a yearly meeting that usually attracted hardly twenty participants. It did not have its own magazine, but as the chairman said in his yearly address in 1931, "that was not a problem, since we are not a fighting organization and do not have many announcement to make" (Wansink 1976, p. 9).

That sounds of course not very ambitious, but there is also another interesting aspect to this remark. In the same year Verrijp, the chairman of Liwenagel, had said

in his speech on occasion of the 10th anniversary of Liwenagel, that if necessary, Liwenagel did behave as a fighting organization (*Weekblad, 27*, 35, pp. 1060-1069). So no doubt the remark by Tiddens was a reaction to Verrijps remark, and intended to highlight their differences.

One could suppose that the magazine *Euclides* could in a way be used by Wimecos, but that was not the case. That magazine was owned by the Noordhoff Publishing Company and its founding editor, P. Wijdenes was very keen on maintaining an independent position. *Euclides* sometimes published some of the lectures presented at activities organized by math teachers groups, but Wijdenes did not allow the associations any influence on the policy of his journal. Even the founding of Wimecos was not mentioned in the magazine (Wansink 1976, p.7).

But *Euclides* also had to pay a price for its independence. As we have seen, the *Weekblad* offered a teacher of mathematics quite some interesting information about his teaching subject, and if he was already a member of the Society (and therefore automatically of Liwenagel) or of the AVMO, he received the magazine for free. Joining Wimecos was not expensive – only one guilder a year – but *Euclides* was not that cheap: five, later six guilders a year, for no more than six numbers a year. Why to subscribe to *Euclides* if you were already a member of the Society or the AVMO?

So it is no surprise that *Euclides* had difficulties to survive. In 1939, when the existence of *Euclides* was seriously endangered, the publishing company Noordhoff and the editor in chief P. Wijdenes made a deal with Liwenagel and Wimecos: *Euclides* became their official organ and they acquired the right to publish their official announcements in *Euclides*. In return their members became – there was no choice! – subscribers to *Euclides* for a highly reduced price. But Liwenagel and Wimecos did not yet acquire real influence on the magazine, this would only happen some years after 1950, when Wijdenes retired.

The end of the story

In the sixties, the whole educational landscape of the Netherlands was radically transformed. One of the long term effects of this transformation was a process of merging of societies, associations and unions in the educational field. That resulted in the abolishment of Liwenagel in 1972, when the Society for gymnasium teachers and the AVMO for the HBS teachers merged. In the end, in 1997, only two general organizations for teachers, both for primary as well as for secondary education, were left: one 'neutral', that is to say on a non-religious basis, and one of a protestant orientation. They function, certainly for secondary education, as a trade-union in the first place, leaving the care for the teaching of the various school subjects mainly to the respective subject orientated teachers associations.

One of these is the present Dutch Association for the Teachers of Mathematics, the NVvW, into which Wimecos was transformed in 1968. In that year the mathematics teachers at the gymnasia and at the schools that replaced the former extended elementary schools, were admitted. In 1976 also the teachers of mathematics at vocational schools joined the NVvW. The NVvW was from then on the only association for teachers of mathematics left, with as its official organ the magazine *Euclides*.

Discussion and conclusion

In the introduction, we have mentioned some publications of Furinghetti, Somaglia and Pizzarelli on Italian journals for teachers of mathematics. We have also mentioned two Dutch journals: *Euclides* and the *Wiskundig Tijdschrift*.

Euclides and the *Wiskundig Tijdschrift* were founded by (former) teachers of mathematics, devoted almost only to mathematics and intended for mathematics teachers. The position of the *Weekblad* was quite different, it was a magazine founded by two general teacher organizations, and it comprised a wide range of subjects, for a large part subjects typically for trade unions It was intended for all teachers at the gymnasia and the HBS.

The journals described by Furinghetti, Somaglia and Pizzarelli also differ markedly from the *Weekblad*. Although these Italian journals show also great differences mutually, some are for instance devoted to mathematics only, others cover a wide range of school subjects, they have in common that they all have an educational mission only.

The wide variety of subjects concerning school mathematics and mathematics teaching published in the *Weekblad* is however highly comparable with the content of the more specialized journals, for instance the *Wiskundig Tijdschrift*, or the *Periodico di Matematica*. The *Weekblad* had no regularly questions and answers column, but the possibility to engage in lively discussions on articles published in the magazine was quite unique.

The long lasting combination of subjects from the sphere of a trade union, and from the field of education in the magazine is not something one would expect.[11] That may be a reason why the *Weekblad* has not been systematically used so far as a source for the history of Dutch mathematics education. It has been used occasionally for that purpose, for instance to describe the endeavor to introduce calculus at the HBS in the beginning of the 20th century (Smid, 2000), but as far as we know,

11 The *Weekblad* also published articles about other school subjects, but those on mathematics teaching formed by far the majority. Why this was the case remains unclear.

this is the first time that this magazine is systematically analyzed concerning its content about the teaching of mathematics. By doing that, we could also describe the history of the mathematics subgroup of Liwenagel.

Conclusion

If we describe the history of Dutch mathematics education in the first half of the past century only by looking back to the history of the present day Dutch Association of Mathematics Teachers, its predecessor Wimecos and its official organ, the magazine *Euclides*, we miss an important part of the picture. We have described the gymnasium mathematics teachers group Liwenagel and we hope we have shown that is was an active group, a mixture of more conservative and more progressive teachers, taking full advantage of being a group of a larger association by using its magazine and having the backing of a larger organization. The *Weekblad* published important news about curricula and exam programs for the teachers of mathematics, it offered a variety of articles concerning all aspects of the teaching of mathematics, and it also offered a platform for opinions and discussions both from a conservative as well as a progressive point of view.

The first half of the twentieth century is usually seen as a rather dull and uninspiring period in Dutch mathematics education. And it is true: curricula, exam programs and teaching methods did not change much. If one only looks at Wimecos and *Euclides*, it seems that mathematics teachers were mostly conservative, and showed little interest in renewal, both concerning content matter as well as didactics. That might well be the case of course, but if one looks at Liwenagel and the *Weekblad* however, that picture shows more nuances and is much livelier than is usually taken for granted so far.

References

Berkel, Klaas van (1996). *Dijksterhuis. Een biografie.* Amsterdam: Bert Bakker.

Donoghue, Eileen F. (2003). The Emergence of a Profession: Mathematics Education in the United States, 1890-1920. In G.M.A. Stanic & J. Kilpatrick (Eds). *A History of School Mathematics.* Reston: The National Council of Teachers of Mathematics.

Fujita, Taro & Jones, Keith (2011). The process of redesigning the geometry curriculum: the case of the Mathematical Association in England in the early twentieth century. *International Journal for the History of Mathematics Education, 6*(1), 1-23.

Furinghetti, Fulvia (2017). The mathematical journals for teachers and the shaping of mathematics teachers' professional identity in post unity Italy. In K. Bjarnadóttir, F. Furinghetti, M. Menghini, J. Prytz, & G. Schubring (Eds.), *"Dig where you stand" 4. Proceedings of the fourth International Conference on the History of Mathematics Education* (pp. 101-116). Roma: Edizioni Nuova Cultura.

Furinghetti, Fulvia and Somaglia, Annamaria (2018). The role of a journal on teaching mathematics and sciences issued at the beginning of the 20th century in professionalizing Italian primary schoolteachers. In: F. Furinghetti & A. Karp (Eds.), *Researching the history of mathematics education* (pp. 79-106). ICME-13 monographs. Cham: Springer.

Hoorn, Martinus Cornelis van (2008[a]). Euclides en de hbs vóór de Tweede Wereldoorlog I. *Euclides, 83*, 286-291.

Hoorn, Martinus Cornelis van (2008[b]). Euclides en de hbs vóór de Tweede Wereldoorlog II. *Euclides, 83*, 326-331.

Hoorn, Martinus Cornelis van (2008[c]). Euclides en de hbs vóór de Tweede Wereldoorlog III. *Euclides, 83*, 366-371.

Krüger, Jenneke (2017). Mathematische Liefhebberye (1754-1769) and Wiskundig Tijschrift, both journals for Dutch teachers of mathematics. In K. Bjarnadóttir, F. Furinghetti, M. Menghini, J. Prytz, & G. Schubring (Eds.), *"Dig where you stand" 4. Proceedings of the fourth International Conference on the History of Mathematics Education* (pp. 175-188). Roma: Edizioni Nuova Cultura.

Maassen, Jan (2000). De vereniging en het tijdschrift. In F. Goffree, M. van Hoorn & B. Zwaneveld (Eds), *Honderd jaar wiskundeonderwijs* (pp. 43-56). Leusden: NVvW.

Pizzarelli, Chiara (2017). Teaching of mathematics in educational journals of Turin (1849-1894). In K. Bjarnadóttir, F. Furinghetti, M. Menghini, J. Prytz, & G. Schubring (Eds.), *"Dig where you stand" 4. Proceedings of the fourth International Conference on the History of Mathematics Education* (pp. 293-308). Roma: Edizioni Nuova Cultura.

Price, Michael H. (1994). *Mathematics for the multitude? A History of the Mathematical Association.* Leicester: The Mathematical Association.

Smid, Harm Jan. (2000). Dien onvergelijkelijken stap vooruit. In F. Goffree, M. van Hoorn & B. Zwaneveld (Eds). *Honderd jaar wiskundeonderwijs* (pp. 297-314). Leusden: NVvW.

Smid, Harm Jan (2016). Formative years: Hans Freudenthal in pre-war Amsterdam. In: L. Radford, F. Furinghettie & T. Hausberger (Eds), *Proceedings of the 2016 ICME Satellite Meeting of the International Study Group on the Relations Between the History and Pedagogy of Mathematics* (pp. 65-78). Montpellier: IREM de Montpellier.

Verrijp, Diederik Pieter Adriaan (1930). L.i.W.e.N.a.G.e.L. In D.E. Bosselaar, e.a. (Eds), *Gedenkboek ter gelegenheid van het honderdjarig bestaan van het Genootschap van Leeraren aan Nederlandsche Gymnasiën 1830-1930.* Amersfoort: G.J. van Amerongen & Co.

Weekblad voor gymnasiaal en middelbaar onderwijs (1905-1941). Amsterdam: W. Versluys.

Wansink, Johan Hendrik (1976). Een halve eeuw Wimecos-NVvW 1926-1976. *Euclides, 52*(1), 1-18.

Wiskundig Tijdschrift (1904-1921). Culemborg: Blom & Olivierse.