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**DEDICATED TRANSPORT TO PRIMARY SCHOOLS AND SPECIAL SCHOOLS;
HISTORY AND PRESENT PRACTICE IN THE NETHERLANDS**

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Samenvatting

Doelgroepenvervoer voor basis- en speciaal onderwijs; geschiedenis en huidige praktijk.

Scholierenvervoer is een vorm van doelgroepenvervoer waaraan in de vervoerswetenschap weinig aandacht wordt besteed. Deze bijdrage geeft een overzicht van de belangrijkste aspecten en een globaal inzicht van de invulling in de praktijk

Er is sprake van leerplicht en feitelijk ook van schoolplicht. Als de school ver weg staat, springt de overheid bij om aan de schoolplicht te voldoen. Uitgangspunt is de religieuze vrijheid van onderwijs. Deze leidt tot grote afstanden voor bepaalde richtingen.

De verantwoordelijkheid voor een vervoersvoorziening ligt bij de gemeente, die een zekere beleidsvrijheid heeft bij het toekennen van een voorziening, het bepalen van de aard ervan en de geboden kwaliteit. Alleen bij de kwaliteit ziet men positieve ontwikkelingen.

Bij de toekenning als zodanig is het afstandscriterium van belang. De juridisch toegestane 6 km is zakelijk niet te motiveren. In Nederland was zij ooit 4km, in Duitsland is zij 2km!

Voor de aard van het vervoer is de leeftijd van belang. Daarbij wordt echter niet vanzelfsprekend rekening gehouden met de ontwikkelingsleeftijd, die beduidend lager kan liggen. Niet elk kind van 10 kan verantwoord met het openbaar vervoer reizen!

De kwaliteit van het vervoer is qua beschikbaarheid en veiligheid van zitplaatsen in het besloten vervoer gegarandeerd, maar voor het overige veel minder. In het openbaar vervoer per trein en bus bestaat geen recht op een zitplaats. Kleinere voertuigen zijn doorgaans slecht toegankelijk.

De thematiek is onderdeel van een proefschrift in voorbereiding over schaalvergroting en bereikbaarheid in het onderwijs.

1. Introduction

School transport is a well defined segment of the transport market: a given number of people have to be transported regularly from known home addresses to one known school address. In terms of transport management it looks simple.

There are however transports to several schools in different places and from different directions. De legal bases for these transports may be various and so may be responsible agents. It has its impact on the organisation and coordination of transports.

One can imagine a situation in which a range of special schools, like those for the ill-hearing, the ill-seeing, the multiple disabled and the behaviourally disturbed, is available only in a regional centre, like the Dutch provincial capital of Groningen. Transport may take place on account of a number of different local authorities, using different types of transport by different (local or regional) providers, given the different rights of the pupils and the different transport qualities these require. Coming from the countryside, the vehicles are not unlikely to transport passengers for different destinations within the town, which creates very long lasting journeys. Perhaps a system of collectors and distributors, exchanging passengers in a number of stations, would be a solution. This might affect the quality of transport for the young and vulnerable though, with regard to safety and comfort. In our Zeeland effort to reorganise pupil transport the director of the provincial school for the ill-hearing at the town of Goes complained about the noise in the bus from Zierikzee: it was bad for their perceptive hearing sense! Who would have known? (de Boer 1985)

In this and following sections the complexity will be unravelled as much as possible by treating the matter under the headings: legal foundations and authority, finance, organisation of transport, criteria for transport provision, transport systems and quality of transport.

2. Legal foundations and authorities: laws, bylaws and jurisprudence

The legal foundation for school transport was laid in paragraph 13 of the *Wet Lager Onderwijs* (Law on Lower Education) of 1920. The municipalities had a relatively independent position in executing paragraph 13.

Demands from the Ministry concerning transport administration, made it necessary to create municipal bylaws on pupil transport. The ‘Vereniging van Nederlandse Gemeenten’ (VNG, Union of Dutch Municipalities), issued a ‘*Modelverordening Leerlingenvervoer*’ (Model Bylaw on Pupil Transport).

Financial problems during the nineteen eighties made the Staatssecretaris van Onderwijs (Under-minister of Education), issue restrictive criteria for school transport. After fierce attacks from national parliament and educational associations the circular letter was withdrawn and replaced with a less draconic one (Staatssecretaris, 1983).

To prevent further clashes the Ministry decided to decentralise the responsibility to local government: the individual municipalities. This was put into effect by the 1987 ‘*Wet gemeentelijke regelingen leerlingenvervoer*’ (Law on municipal regulations for pupil transport’. In this law the municipality was granted considerable freedom in defining standards. See the next section.

The ‘Raad van State’ (Council of State) has the function of an administrative court of appeal against decisions of municipalities. These often tried to develop their own policies in pupil transport, with a number of appeals as a consequence. This jurisprudence will be treated in later sections.

3. Finance: accumulating cost, decentralisation, and parent contribution

Under the law of 1920 pupil transport was financed by *local government*, but it could send a bill for 80% of the cost to the *Ministry of Education*. The law in the version of 1950 (section 13) mentions the financial position of the parents as a consideration for transport provision either in cash or in kind.

The development and diversification of special education caused a rapid increase of transport cost. De Bruine mentions a growth of total cost of nearly 90% from fl. 112,

286.250,- in 1978 to fl. 212.500.000,- in 1983, being caused completely by the growth of special education. (de Bruine a.o. 1984, p. 16).

The ministry wanted to economise its contribution by 25%. Studies by the author's research unit, showed that this could have been achieved by a more efficient organisation of transport (Klinkenberg and de Boer 1983, Hoogenboom 1985). The explanation of the inefficiency was a complete lack of coordination between municipalities for transports to the same regional school centres.

Table 1 shows the results of Klinkenberg's analysis of two thirds of the Groningen municipalities' (Klinkenberg en de Boer, p.9).

Table 1. Mean cost of school transport per pupil kilometre for different types of schools and transport for 37 municipalities in the Province of Groningen for the year 1982 (in guilders).

type of transport	Transport to LOM/MLK schools		Transport to other special schools	
	mean	s	mean	s
bus PT	37	15	33	10
train	44	21	43	5
private means	207	132	121	129
taxi non-coord.	384	138	424	161
taxi coord.	334	118	383	201
School bus	165	42	182	-

s = standard deviation

The expenditures for the different transport modes were calculated per pupil kilometre. The differences were spectacular. Uncoordinated taxi transport, i.e. transport provided by individual municipalities was on average about 10 times as expensive as public transport! Given the fact that public transport was used by only 36% of the pupils of 'light' special schools (LOM/MLK, presently united in the special primary school) and the taxi by 48%, transfer of 30% of the latter to public transport and school bus was estimated to be sufficient for achieving a 25% cost reduction (p.13).

The *Hoogenboom study of the Province of Zeeland* used data collected in a project supported by a subsidy of the Ministry of Education.

In the province about 1840 children received special education. Of those 640 or 32% travelled by public transport, a percentage similar to that in the Province of Groningen. Those using special transport by taxi or school bus on a regional (inter municipal) level are relevant target groups for economising. These categories counted 550 pupils.

On the basis of a detailed analysis of routing of vehicles and kilometre cost of these, different optimising strategies were designed. The transport cost for the categories studied was 1.8 million guilders for the year 1984. The cheapest strategy was calculated to be one in which public transport was adapted to the requirements of these customers: a reduction of cost to 1.0 million guilders. Travel times though would be excessive in some cases: up to 350 minutes per day. The combined strategy is an adaptation including elements from the 0 en 0+ strategies restricting the maximum travel time to 200 minutes per day. It would reduce cost by about 30%.

Table 2. The implications of different transport strategies for cost and travel times of Zeeland pupil transport to special schools in 1984. Travel times in minutes per day.

strategies	actual (0)	Optimised (0 +)	Shifting school times	adapting public transport	changing school locations	combined strategy
effects						
cost p/a (guilders)	1.757.400	1.477.700	1.356.300	1.017.900	1.343.900	1.272.000
maximum travel time	109	201	201	350	190	196
mean travel time	94	97	97	134	93	112

The *decentralisation of responsibilities of 1987* implied a *transfer of funds to the municipalities*. These are receiving a yearly budget through the ‘*Gemeentefonds*’ (Municipality fund), based upon municipal characteristics, like population size and density, explaining the general level of expenditure.

The municipality may use *two types of additional funding*: from the parents and from regional government; the first one explicitly and the second one implicitly.

According to the law a municipality may demand a *parent contribution*, taking account of the family income level.

- For disabled pupils transport to primary education and secondary education must be free, including free accompaniment by a guide. The pupils of expertise centres (the 'heavy' special schools) are considered to be disabled (Vereniging van Nederlandse Gemeenten, Handboek Leerlingenvervoer, HLV, Supplement 10, april 2003, p. C1-5.
- For (physically) able pupils in primary education, including special primary education, a parent contribution may be demanded for the distance up to 6 km and for journeys above 20 km an additional contribution dependent on the level of income: nothing at a yearly income under 28,500 Euro's and above that up to 7.5% of the income. This is no doubt meant to discourage visiting faraway schools.

The amounts mentioned were those for the year 2004 - 2005. These are indexed on a yearly basis (van Piggelen 2005, pp. 46 – 49).

In the circular letter of the Under-Minister of Education of 1983, public transport was demanded to be the first option. It is to be preferred because it is generally cheaper, as demonstrated in the Zeeland case, and because independent travel is preferred by the (special) school, enhancing general independence of the pupil.

After about 1995 *regional transport* by bus is no longer financed by national government, but by regional government, after a transfer of the budget.

The regional bus network is expected to show a cost coverage of at least 50%, which implies that this is 50 % subsidised by regional government. Assigning pupils public transport for the journey to school, might improve cost coverage of existing lines. In general it is more likely to contribute to deficits, because it increases demand during morning rush hour.

4. Organisation of transport

The municipality, being the authority in pupil transport, while financing it, decides about the organisation of it.

Under the law of 1920 small local operators provided transport towards special schools, often without formal contracts. Only where large numbers of pupils were transported over considerable distances, buses were used. In Zeeland for instance we found a bus on the connection from the island of Schouwen-Duiveland to several schools in the regional centre of Goes.

Given the authority of the municipality the organisation may be quite diverse. Actors are:

- *the municipality itself or an association of communities:*
 - o hiring transport and assigning pupils to vehicles, most likely the general practice during the nineteen eighties,
 - o public tendering of transport for reason of cost and European demands to do so. A town like Delft tendered its pupil transport on its own for the second time in 2000 (Gemeente Delft 2000). The transport volume was 250 pupils.
In the Province of Groningen an association of 7 municipalities tendered their pupil transport for the first time in 1998, with support from regional government. Transport volume: 435 pupils.

- *a school:* operating one or more vehicles
 - o In a survey in the southeast of the Province of Groningen we found several schools with at least one vehicle, adding up to 10 vehicles (de Boer 1991, pp. 74 - 77). It made the impression of competition for pupils by means of transport. Several of these schools were closed in the meantime.
 - o The liberated reformed school 'de Wegwijzer' (signpost) at Zwijndrecht (Province of South Holland) receives (2006) some of its 'travel pupils' by municipality organised transport, but volunteers (parent committees)

organise transport by a touringcar from the adjacent large town of Dordrecht and by four minibuses (placed in a foundation), two of which are from the distant Province of North-Brabant.

- *a non profit organisation*, like an association running a community bus.
 - o the multibuses of Grijpskerk and Sellingen (both Province of Groningen). Both were explicitly developed on a partial basis of pupil transport (de Boer, 1994),
 - o Buurtbuses, standardised volunteer based public transport in rural areas, organised by a 'buurtbus association'. A buurtbus line like BBA nr 268 in the river areas of Bommelerwaard en Land van Heusden en Altena was explicitly developed with pupil transport in mind. It serves the agricultural 'Prinsenhof College' in the village of Andel at the border between these areas.

- *a public transport company*, either by offering to create a bus line or adapting the line / schedule.
 - o In the turmoil of the early eighties the DVM regional bus company in the Province of Drenthe managed to attract substantial pupil transport by offering to take over the responsibility from the municipalities.
 - o In the schedules of public transport one may find incidental lines which are clearly serving a school. The line from Buitenpost to Kootstertille (Province of Friesland) is one of those: it serves a 'liberated reformed' school at Kootstertille.

5. Criteria for transport provision: raising kilometre standards, but what about safety?

Introduction

The volume of pupil transport depends on the qualification criteria for transport. The basic criterion was and is the distance from home to closest the school of the required type of school and the preferred direction, i.e. (non) religious orientation, measured

along the shortest route. The route should be ‘for the pupil sufficiently passable and safe’ though (Wet op het Primair Onderwijs, artikel 5, lid 6). In extremis this implies that the absence of a both passable route and safe route might be sufficient reason for transport provision. In fact the capacities of the individual pupil should be considered as well!

The distance criteria and the two for the distance conditional criteria will be treated successively.

Required type of school of the preferred religious direction

In primary education there are three types of school in fact: the primary school (basisschool), the special primary school and the expertise centre. The primary school is the standard. For the other types an indication by a team of specialists (*toelatingscommissie*) is required.

For the primary school the options are: public (‘openbaar’), Roman-Catholic, Protestant Christian, Islamic etc. Municipal pupil transport has to be granted, irrespective of the choice.

Distance

The municipality may use a distance limit, below which no transport provision will be granted.

Under *the Law on Lower Education of 1920* the standard was 4 km. The Under-Minister of Education issued a *circular letter* on the 31st of December 1982. It contained new distance limits / thresholds for pupil transport. The new limit for primary special education was to be 4 km, that for secondary special education 8 km. The unfriendly reactions from educational interests and from national parliament led to a new circular letter, cited before (Staatssecretaris 1983). The Under-Minister decided to reduce the minimum distance to 2 km both for primary and secondary special education. For disabled children the distance limit was not to be used.

Later on it was decided to decentralise the full responsibility for transport provision to the municipality. The 1987 ‘*Wet gemeentelijke regelingen leerlingenvervoer*’ left the decision on a minimum distance to the municipality, except for disabled children, for which there is no minimum distance (van Piggelen. p.49)

Given this new freedom, municipalities sometimes chose for higher distance limits. The Jurisprudence of the Council of State shows that a distance of 6 km to a primary school (Municipality of Borsele) does not necessarily imply pupil transport (VNG, 1994, Handboek Leerlingenvervoer, Jurisprudentie Hoofdstuk 1, p. 1-1). A limit of 8 km (Municipality of Voorst) is rejected by the Council, because it might cause financial problems for the parents (p.1.6). Some municipalities, like the city of Zwijndrecht (Province of Zuid-Holland) are sticking to the limit of 4km. Other ones, like the city of Dordrecht, are using the 6 km limit. It makes transport to the Zwijndrecht liberated reformed school cheaper for the municipality!

A for the child sufficiently passable and safe route

The distance is to be measured for the shortest and ‘for the pupil sufficiently passable and safe’ route.

Passable might mean that the road is paved on the one hand, and that the child is allowed to use it either on foot or with his means of transport on the other hand. It excludes a dirt road, a motorway and a railway line.

The safety demand is a harder nut to crack. One might demand the presence of facilities for slow transport modes or a reduced speed of car traffic: a separate footpath or sidewalk / cycle track, including protected road crossings and/or a traffic calming regime with a 30 km speed limit. In the countryside neither of these is to be expected, except in or near larger settlements.

In the manuals and in the jurisprudence there is no sign of considerations like these. The Council of State judges it to be normal that parents are guiding their children on the route to school. This in fact denies the safety demand.

Even more remarkable is the fact, that *security* type of safety is not mentioned explicitly. For parents this may an argument for bringing children to school.

Age

The age of a pupil may be a criterion, not so much for transport provision as for the type of transport provided. A traditional age limit for special transport is 10 years. From that age pupils of primary special schools are supposed to be able to use public transport. If

necessary a parent may accompany them for free. This may imply two season tickets per pupil.

The City of Delft evidently did not apply this rule strictly: of 73 pupils with bus stop to school transport 22 were over 9 years (tender annex 8).

In education the concept of '*development age*' is used. Children may be literally 'retarded', underdeveloped with regard to their historical age. It may imply that a 12 year old is lacking abilities which most 9 year old do have.

6. *Transport systems*

A transport provision may take different shapes: a bicycle kilometre allowance (when only the distance is a problem), a car kilometre allowance (when parents are able and willing to transport the child themselves), a season ticket for public transport, or special 'aangepast' (adapted) transport.

The municipality decides which type of provision is granted, looking for the cheapest solution. It may urge parents to organise combined transport by car. In case it has to hire adapted transport for one pupil, it will fill up the vehicle with pupils living along the route to the school. Of course these options have a certain inherent difference in quality.

In professional transport there are the following system options:

- *Public transport*
 - o using an existing public transport line
 - o adapting the route and/or schedule of an existing line for a number of departures
 - o creating a dedicated public transport line, as in the Buitenpost – Kootstertille line mentioned before.

- *Special transport*
 - o creating a dedicated pupil transport line, with stops along a main road, maybe using (some) public transport bus stops, ending at the school. The

latter seems to be the general practice. In the Province of Groningen we found only once a special school bus stop (in the village of Beerta).

- door-to-door multi stop transport for vulnerable clients, maybe using an exchange station in the urban fringe, for distribution to different schools
- door-to-door non stop transport for clients demanding utmost care.
- *Mixed transport*
 - feeding on public transport with dedicated transport from/to home, a solution in areas with dispersed settlements,
 - feeding on public transport with dedicated transport from/to school

In the *Oldambt tender* a distinction was made between three categories:

- 1. Pupils of primary schools and (nowadays) primary special schools
- 2. Pupils of special schools for those with serious behavioural and learning problems (ZMOK, ZMLK, nowadays expertise centres)
- 3. Pupils with a physical, sensory or intellectual disability (expertise centres) and those needing a wheelchair

Children of category 1 can be transported from stops and using exchange locations, except those with 'a special (social) indication'. Those of the other categories must be transported from door to door. (39), 175 category 2 and 3 of which 10 in wheelchairs (2 zmlk).

Individual transport we met in our Zeeland case study amongst others. In this case the municipal physician of the (former) Westenschouwen municipality attested, that a pupil had to be transported individually to a hospital school (reconvalescenten school) in distant Rotterdam.

7. Criteria for transport quality: improving general safety.

Introduction

Transport has different qualities: speed or rather travel time, safety, seating and accessibility.

Travel time is important because travel is tiring, but, more important, because it restricts the opportunities for other activities.

The importance of *Safety* is self evident, but in school transport it is extra important because both the travel motive and the travel mode are largely captive.

Seating, i.e. the availability and quality of seats is important both for safety and for the quality of travel. By lack of a seat the journey may be too tiring for vulnerable pupils.

Accessibility too is an aspect of quality: the ease of boarding, of moving through a vehicle and of sitting. If this is sub standard, quite a few children may have problems travelling.

Travel time

Travel time is the first and most specified quality criterion. The different transport solutions have widely differing time consequences. The door-to-door non stop is the fastest solution for vehicle and client, and the most expensive one. The door-to-door multi stop is feasible only with small vehicles: the time needed for stopping alone might approach the transport time limit for pupils boarding first.

Line transport with fixed bus stops, reduces the length of the route and the boarding time, since often more than one pupil will board at the same time. It allows for larger vehicles and therefore fewer vehicles and less driver hours. For the pupils it will be more time consuming, because they have to go to the bus stop and be there in time, i.e. a number of minutes before the planned arrival of the bus.

The Under-Minister of Education's circular letter of 1982, mentioned a travel time of 1.5 hours in one direction as the time limit for public transport, and for replacing it with dedicated transport, on condition that it would produce a 50% reduction of travel time. This was adapted even before the circular letter of 1983: one hour (Staatssecretaris

1983, p.2). There is no mention of a time limit for special transport, nor is there in the Law on municipal regulations for pupil transport.

The Council of State decided in 1993, that the travel time of a disabled child had to be reduced from 1.5 hours to 1 hour. Worrying, but in line with an earlier citation of the Council of State, is its acceptance of a walking distance of 1200 metres to a bus stop as taking less than 30 minutes

In the *Oldambt tender* the walking distance to a bus stop is restricted to 600 metres. (p. 39)

The in-vehicle time should not be longer than 60 minutes per single trip, unless the distance makes this impossible. The pupil must be picked up within 10 minutes after the agreed time

The delivery and pick up at school should be within 5 to 15 minutes before and after lessons.

Safety outside the vehicle.

There are no general, national demands on the safety pupil transport, with regard to walkways and waiting areas.

In the 1998 *Oldambt tender* safety related demands are made on the locations of getting on and off the bus and on those for the exchange of pupils between vehicles.

The transport company will have to come to agreement about the locations of bus stops with the directors of the schools involved (p.43).

Potential exchange of pupils must take place under supervision and responsibility of the transport company. Exchange points must be approved by the municipality of the pupil concerned.(p. 40).

In the 2000 *Delft tender* (concept agreement with transport company), article 4 stated that the 'as much as possible direct transport should follow the safest route (section 7) and that the transport company takes care of safe boarding and alighting of the vehicle, preferable at the school side of the road, unless it can be crossed safely via traffic wardens or a traffic light.

Safety and security inside the vehicle.

The general conditions for safety inside the vehicle have improved considerably since 1983, the first year of our activities in this field. At that time, there was a strange official seat regulation, and seat belts were not required in mini buses. Parent organisations complained continuously about chaotic and dangerous conditions.

Buses, minibuses and cars as a rule had benches in stead of individual seats. The Ministry of Transport *regulation for seat distribution* (regeling zitplaatsverdeling, nr 025381) stated that children under four years of age did not require a seat (1=0), children from four to nine years old might share one seat (2 = 1) and 3 children from ten to 14 years old might share two seats (3 = 2).

Given the cost implications this regulation is likely to have been taken literally, implying that eight-person vehicles sometimes transported more than 16 pupils, irrespective of the real seating opportunity!

In two steps this bizarre regulation was improved. In 2004 *it was to demand a seat for every child*. This implied, that nowadays 8 children at most are allowed to be transported by a minibus (van Piggelen, 2005, p.52). *This demand is not made on public transport, wherein both train and bus stands are allowed!*

Cars and minibuses built after 1989 have to be provided with *seat belts*, from 1999 three-point ones. These have to be used by the passengers (van Piggelen, p.52). *These demands are not made on trains, nor are they on public transport buses unless these have a maximum speed of 100 km/h.*

Accessibility

The Dutch ‘Wet Gelijke Behandeling’ (Law on equal treatment) demands that the disabled be treated equally, in the sense that they get the opportunity to participate in all kinds of activities, including transport. The public transport section has not yet come into force though. Following the famous Dutch ‘Polder Principle’ (problem solving by convincing and negotiating) the Minister of Transport seeks to come to agreements with the actors in the field to improve accessibility without enforcing it. Considerable sums

are spent on adapting platform heights of train and bus to reduce the gap between vehicle and platform.

The European Union has issued standards for the accessibility of urban buses. These have been incorporated into Dutch bylaws, forcing transport companies to comply with these for new buses. Public transport by bus is being tendered gradually throughout the country. The Provinces responsible for this as a rule require low floor busses, accelerating the introduction of accessibility in this way. It implies that accessibility is improved in the countryside as well.

In tendering documents for pupil transport only wheelchair accommodation is required explicitly for those needing it and 'adaptations required for certain pupils'.

In our Zeeland project the director of the Mytyl school for multiple disabled children complained about transport, stating: 'We teach them how to sit at school and in the school bus they have no opportunity to get decent seating'.

8. Concluding

Dutch pupil transport is not very extended. The quality is rather disappointing though. The criteria for granting transport and for assigning a specific type of transport are unsatisfactory. The criteria for transport quality are dubious as well. This transport sector should get more attention from behavioural transport scientists.

Fortunately the problems with seating have been solved recently by introducing a legal demand for a seat for all passengers in minibuses and touring cars.

Parents and their organisations have complained for decades about problems in pupil transport. Recently a few manuals have been issued and the creation of advisory councils for pupil transport was stimulated (van Oudheusden 2002, van Piggelen 2004). In this way parents are suggested to create better transport themselves. It is a minimal approach.

International comparative studies might be helpful to improve the quality of Dutch pupil transport. In Germany for instance, pupil transport is quite voluminous. Transport is

free, and for the primary school (Grundschule) it is granted usually at a distance of 2km., in secondary education 3km. The safety of transport, especially at bus stops, receives much more attention. See Gliewe 1989.

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