

# Workshop: Children/Seniors

## Tu3/E2: Establishing a Culture of Cycling in the Childhood

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### 1. Background

It is well known that cycling has many benefits e.g. health, environment, safety and reduction of congestion. Children have the same benefits and in addition independence from an adult chauffeur.

Denmark has a tradition of cycling from the early years of childhood. Most children have had a tricycle and are able to manage a bike without steadying wheels at the age of 5. Unfortunately from the late teenage-years the use of bicycle decreases.

A survey from 1992 shows, that Denmark has 4.5 mills. bicycles equivalent to 0.86 bicycle per Dane. 600,000 of the bicycles are bikes for children in the age of 6-12 year equivalent to 1.5 bicycles per Danish child. Other surveys show that also the daily length transported by bike decreases in the adulthood.

A survey conducted in Aalborg in December 2004 showed that 81% of the respondents older than 18 years had access to a bicycle on daily basis and 63% had access to a car on daily basis. 55% of the respondents use the bicycle at least once a week, while the same share for car use is 65%.

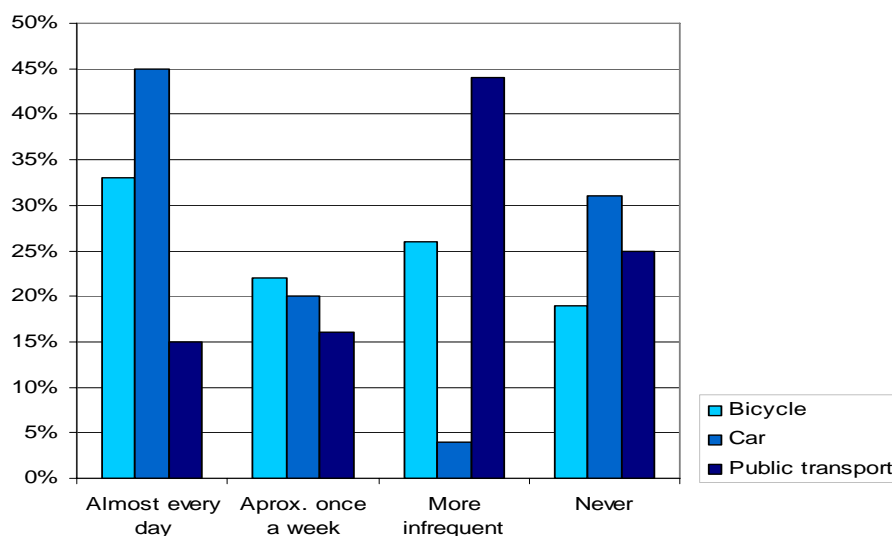


Figure 1 How often do the citizens in Aalborg use different means of transport.  
Source: Survey in Municipality of Aalborg, December 2005.

The modal split in Aalborg shows that the car is the most dominant mean of transport.

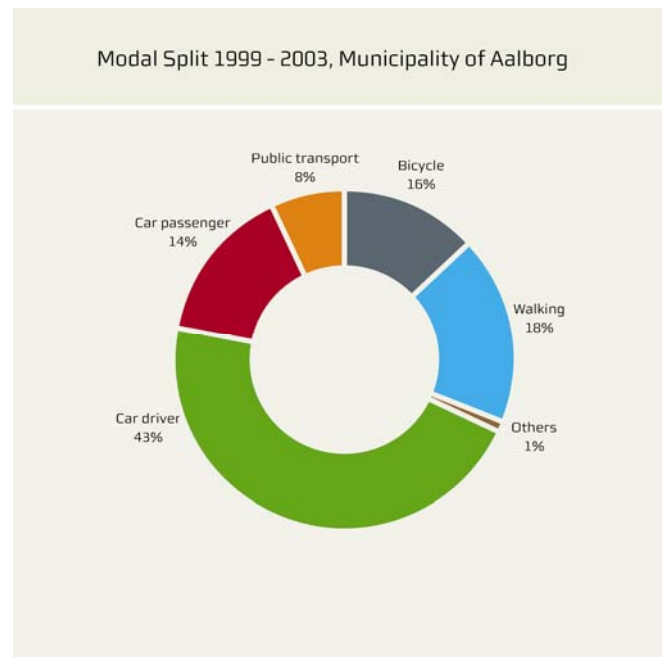


Figure 2 Modal split for the transport in Aalborg

The Municipality of Aalborg wants to change the modal split towards use of bicycle playing a more dominant role with better environment, passability and health in the municipality as a result.

As well as we have a tradition of cycling we have a tradition of cycling to school. Unfortunately nationwide surveys, common experience and feed back from the schools and parents show that the development goes towards more and more children are being transported to school and activities after school by car instead of self transportation by bike or on foot. The reason is that parents find the road to school is too insecure for their children mainly because of too many cars at the school entrance. It is the same picture we see near the schools in Aalborg. We fear that we will experience an overall decrease in cycling for children.

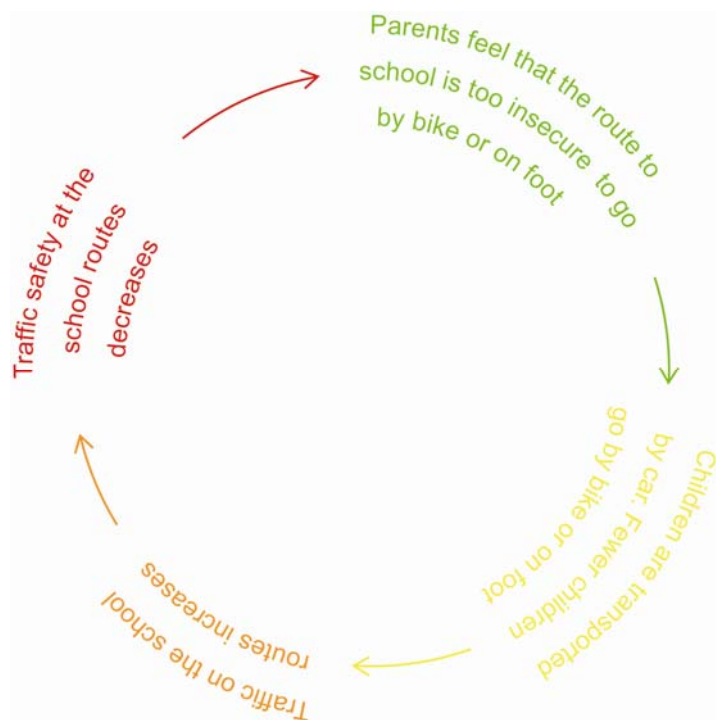


Figure 3 Vicious spiral

We want to turn this vicious spiral for several reasons:

- Increase traffic safety at the schools
- Recommendation for children to move one hour each day due to health
- Establish good habits to maintain later on in life – in the long term change the modal split
- Make the children competent cyclists via practice – the more they cycle in the childhood the more competent cyclists in the adulthood
- The independence for children to transport themselves

To turn the vicious spiral we have launched a number of initiatives.

## 2. Traffic safety highly prioritized

Normally we operate according to traffic safety i.e. with the accidents statistics as background for traffic safety projects. Routes with a lot of children e.g. routes to school are excepted from this politic so projects can be considered even though there are not registered any accidents.

Fortunately accidents with children on the routes to school are seldom. The last 5 years we have registered 29 accidents with children at school routes equivalent to 1,3% of all accidents in the Municipality of Aalborg. Likewise only 48 children (0-16 year) have been registered in accidents on their bike of all roads in the municipality equivalent to 2% of all accidents in the Municipality of Aalborg.

### 2.1 School safety patrol

26 of 63 schools in The Municipality of Aalborg have established a school safety patrol one or more places nearby the school. The police give permission to establish a school safety patrol at a local school and they also have the control with the patrols through a teacher at the school. The school safety patrol contains pupils from the oldest classes of the school and they help the youngest pupils to cross the road primarily in the morning.



*Figure 4 School safety patrol in action.*

To secure the school safety patrol The Municipality of Aalborg has established special traffic signs where most of the school safety patrols are operating.



*Figure 5 Traffic sign at the school safety patrol.*

The sign is to be turned on by the school safety patrol, when they work at the school. The sign will flash when it is turned on and hereby warn the car drivers about the school safety patrol and be especially careful when passing. Two of our signs at the schools have integrated a display to show the speed of the passing vehicle. With these signs we want to make an extra warning to the car drivers at stretches with high speed.

The school safety patrol makes it more safely to cross the roads near the school and hereby it is a better possibility for the parents to let their children walk or cycle partly or the whole way to the school.

## **2.2 Traffic calming measures**

On some of the routes to school there has been established traffic calming to lower the speed and hereby increase the traffic safety on the school routes. Last year we made a traffic calming in a village with a lot of traffic driving through the village.



*Figure 6 Traffic calming at school route in Frejlev.*

The traffic calming was made in dialogue with the local school and citizen association. We experienced that the crossing of the road was diffuse therefore we chose to make traffic calming all through the village and hereby lower the speed generally in the village. With the traffic calming it is safer for the children to cross the road.

### **2.3 Dialogue with the schools**

We have together with the local police an ongoing dialogue with the school about the local conditions at the schools and the routes to school. We make contact with the schools every year concerning review of leaflets about safe routes to the local school and also participate in an annual meeting with teachers and police concerning traffic safety. Through these ongoing activities we have a good dialogue with the school either through the school board or school management. The schools e.g. call us to discuss specific traffic-related problems by the schools and we conduct inspections at the schools.

### **2.4 Action plans**

The Municipality of Aalborg made an action plan for traffic safety in 2005. The plan describes what kind of projects we prioritize to increase the traffic safety. The focus is on larger project with a lot of accidents to reduce but also a priority to combine different measures to reach even better results. The measures we use are

- Infrastructure e.g. traffic calming
- Information e.g. campaigns
- Technology e.g. intelligent traffic solutions
- Partnership e.g. cooperation with the police, schools and citizens

The Municipality of Aalborg has also made an action plan for cycling. This plan was elaborated in 2003 and is getting revised this year. The existing plan is mostly a plan where cycle infrastructure is prioritized. One of the main priorities has been to establish a ring road for cyclists around Aalborg and to establish a continuous cycle network.



In the new action plan we have planned to include more soft measures and use a combination of soft measures, technology and infrastructure. We already use soft measures e.g. information and campaigns but we expect to have a synergy effect if we combine soft measures with infrastructure and technology and make a strategy to coordinate the projects.

The objective is to change the modal split towards more cyclist on the roads in Aalborg.

### 3. Campaigns

#### 3.1 Leaflets to all children in the primary schools

In the last 7 years we have developed and distributed leaflets concerning safe routes to school to all children on the public schools. The leaflets describe the local conditions at each school e.g. cycle path, under ground passages, school safety patrol and drop off points.



Figure 7 Part of a leaflet at a local school in Aalborg.

We make the leaflets in cooperation with the local schools. We e.g. ask them to consider alternative drop off points with the chaos at the school entrance in mind. An alternative drop off point could be at the end of a road with a connecting path to the school, a parking lot nearby etc. We want the schools to point out the drop off points themselves so they are involved in the process and e.g. take a discussion in the school board about other issues concerning traffic safety at the school.

Alternative drop off points is an efficient measure to turn the vicious spiral. If parents who want to drive their children to school because they find the route to school to insecure start using the drop off points they make the condition at the school entrance less chaotic and more secure. Then some parents will consider letting their children walk or cycle to the school and the vicious spiral has been turned. To make the drop off points work, a lot of local involvement and continuously information to the parents are needed.

The leaflets are deigned to be local and inspiring. The pictures on the front page are from the local school; the map is simple and informative and one of the columns in the leaflet is dedicated to describe the local conditions in text.

The local leaflets are a huge success. Every year we get a lot of positive feedback from both the schools and the parents. Furthermore developing leaflets have initiated a process at the schools. We experience that traffic safety is far more on the agenda in the school board, in newsletters at the schools and with local initiative. The initiatives are e.g. linked to convince the parents to use the drop off points.

### 3.2 Behaviour changing campaign

To initiate and support the local initiative in the matter of safe routes to school we made a behaviour changing campaign at one specific school in 2005.

Measures used:

- Meetings with school management, parents and local police.
- Talking to and distributing flyers to parents driving their children to school to the main entrance in the morning together with parent and police.
- Competition for the children with the goal to walk or cycle to school for the longest period of time.
- Creative competition with traffic safety as theme.
- Police control.
- Survey concerning mean of transport to school.



Figure 8 Friendly talk with a parent at the school entrance.

During the period we managed to change the behaviour. The parents started using the drop off points and the children were very keen on walking or cycling to school because they wanted to win the competition.

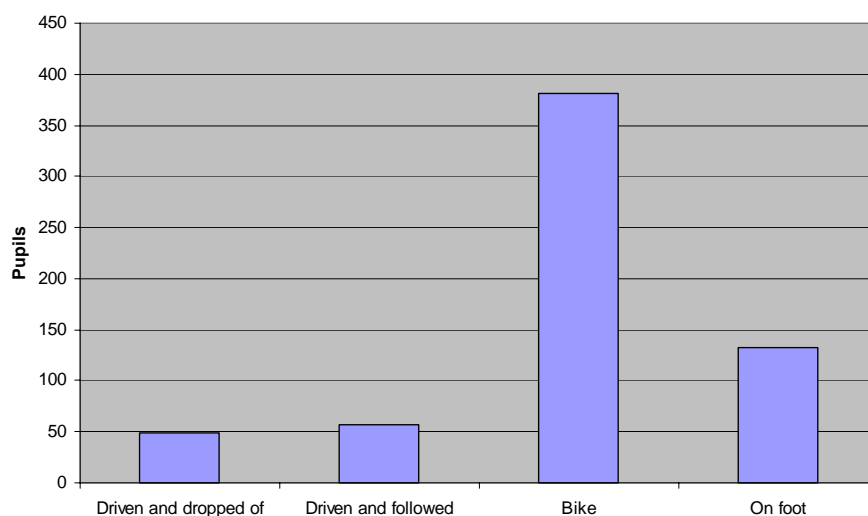


Figure 9 Transport of mean observed during a week in the campaign period.  
Source: Count at the drop off point at Gl. Hasseris School, November 2005

During one week in the campaign period we made an observation at the drop off points of how the pupils were transported to school. The result is shown in figure 9. Most of the pupils use the bike to school during the campaign and only a small share of the pupils are being driven to school. Furthermore only between 5 and 14 parents per day drop their children off nearby the school entrance.

The main issue when establishing a behaviour changing campaign at a school is that the school and the parent representatives take interest in the project and follow up on the project.

### **3.3 We walk and cycle to school/ we cycle to work**

In the spring we participate in campaigns with the objective to make more citizens cycle to school and work. The campaign for children is a campaign on a regional level while the campaign for adults is national. In both campaigns you have to walk/cycle the most to get a chance of winning a prize. The campaigns are based on the concept of being a part of a group where you support and encourage each other to use the bike.

### **3.4 Se og bliv set (See and be Seen)**

In the spring we have a campaign with the main objective to increase traffic safety for cyclist. From a survey made in December 2005 we know, that young people younger than 29 year use the bike more often than other citizens in Aalborg. The statistic of accidents also show that is the same groups of age who are involved in the accidents in the municipality. Therefore the campaign focuses on the young cyclists from 18-29 year. From the survey we know that the primary reason (61% mentions it as a reason) for using the bike regularly is because of the exercise. Young citizens also mention the economic benefits. With increased traffic safety and passability for the cyclists we want to maintain them as cyclist when they finish studying. We want cycling to be a fair alternative especially for commuters. The campaign can also be seen as an attempt to pass good habits from the childhood on into the adulthood.

## **4. Education of children**

### **4.1 Traffic club (3 -6½ year) The Danish Road Safety Council**

The Danish Road Safety Council offer children in the age of 3-6½ years to be members of a traffic club. Every half year the child gets a package from the club containing:

- Information to the parents.
- A leaflet about traffic safety at the actual level of age e.g. how to cross a road, advice on cycle training.
- An activity to the child e.g. a game, CD or lunchbox.

The traffic club is a good foundation for traffic safety education in the school.

### **4.2 Traffic safety education at elementary school**

The Danish Road Safety Council has a national scheme for teaching traffic safety on cycling for children. All schools have a teacher with traffic safety education as responsibility. This teacher coordinates which materials to buy for the education at different levels and is a sort of consultant for the other teachers at the school. It is the class teacher in each class who are in charge of the traffic safety education in his/her particular class.

The scheme for teaching traffic safety contents teaching materials for all levels in the school. They focus on making it a standard to teach the children in



- how to walk safely finishing with the walking test (0. or 1. grade)
- how to be safe on a bike - manoeuvring and technique – finishing with the little bicycle test (2. or 3. grade)
- how to cycle safely in the traffic finishing with the bicycle test (6. grade)
- behaviour in traffic – alcohol, speed etc. (7.-10 grade)

All schools in The Municipality of Aalborg have as minimum the cyclist test in 6<sup>th</sup> grade, but most of the schools teach in all the themes named above and even more.

To help the teachers educate in safe cycling in 6<sup>th</sup> grade the Municipality of Aalborg in cooperation with the police has introduced a course for the teachers at this level. We have taught traffic safety in general and locally combined with a practical introduction and test of regulations for cyclists. The background is that the teachers have not got any education in traffic safety when they studied. All they know is what they have learned when they went to school or got their drivers license and what they read in the teachers manual.

After the course the teachers has responded that they feel more capable to teach the children especially in the practical training.

## 5. Conclusion

Through campaigns and good infrastructure for cyclists we try to maintain the cycling culture from childhood in to adulthood. We experience that we already have decelerated the vicious spiral but we have not turned it yet. Through a review of the action plan for cyclists we will make a defined strategy to combine soft measures, technology and infrastructure to reach a synergy effect. The objective is to change the mean of transport towards more cycling. To reach this the strategy must include measures to maintain a good culture of cycling in the childhood and manage to maintain this culture into the adulthood. The benefits of this are well known e.g. increased quality of life e.g. independence, better health, decrease in environmental impact and increased safety.