

## **15 years Bicycle Training for Children in a Real Traffic Environment!- A Story of Success!**

Graz is a city of cyclists. In Austria, however, only children aged 12 and over are allowed to ride the bicycle in real road traffic (without adult escort) unless they take a non-compulsory cycling exam at the age of 10. These exams usually take place in safe training areas where there is no real traffic. The children don't get used to cycling in a real traffic environment. Therefore Austrian Mobility Research (FGM) launched a school project in 1994 which aimed at conveying the basics of road traffic to the pupils. What was special about this cycle training was that the training sessions did take place in a real traffic environment!

The cycle training starts with a first test in the school courtyard: The children's psychomotor abilities are tested. After this first test the cycle training starts in a real traffic environment: The children practise riding the bike in real traffic conditions under the instructions of a trained team of cycle coaches. The training helps to enhance the children's self-confidence and makes them responsible and conscientious road-users.

More than half of the children who participated in the training were able to improve their cycle skills after even one training session. The children also learn that the bicycle is an environmentally sound mode of transport. A study on the long-time effects of the cycle training was also carried out: 73% of all children who participated in the training in 1994 still use the bike as a regular means of transport.

The training has also been carried out in the city of Linz. In Vienna the project was presented to representatives of the Austrian Ministry of Education with great success: it was strongly recommended by the Federal Ministry for Transport, Innovation and Technology and by the Federal Ministry for Education, Arts and Culture. In the Austrian Masterplan Cycling launched by the Federal Ministry of Agriculture, Forestry, Environment and Water Management in 2006 the Bicycle Training is recommended as an example for modern and sustainable traffic education. In the Styrian Strategy Policy for Cycling it is recommended as a best practise for mobility education.

So far, 15.000 children have participated in the training. In 2009 the Bicycle Training celebrates its 15th birthday!

## **Problem description**

In Austria, the road traffic regulations state that children may only ride their bikes in public places after the age of 12. With permission from the authorities, this age limit can be reduced to the age of 10 for children who are physically and mentally ready to deal with real traffic conditions. To prove that, they must take an exam that consists of a theoretical and a practical portion. In Graz, a city where cyclists account for 14% of all road users, Bicycle Training courses focus mainly on theoretical aspects, and cycling exams are held in the protected area of the city's "Verkehrsgarten" (a protected traffic training centre for children). Theoretical Bicycle Training takes place at school and is based on training materials provided by the Austrian Youth Red Cross. Practical training takes place in the city's traffic training centre for children, i.e., in a safe area whose setting and environment does not much resemble the reality of everyday city traffic. In rural areas, children are tested on the streets, i.e., in real traffic conditions, but continuous practice and the active reflection on real traffic conditions are often neglected.

The main points of criticism with regard to this method of training are, first of all, that too much emphasis is placed on theoretical knowledge and the learning of rules and that in urban areas no connection is made between theoretical information and the realities of traffic.

In addition, there is no information about cycling as a socially and environmentally friendly mode of transport.

To improve this unsatisfactory situation, Austrian Mobility Research (FGM) initiated special training programmes for mobility consultants who, in the course of their training, have acquired comprehensive basic knowledge in the complex subject field of traffic with a focus on cycling and bicycle traffic.

Since 1994, bicycle trainers have concerned themselves with the practical and theoretical development of Bicycle Training at schools in Graz. To date, more than 15.000 pupils have taken part in Bicycle Training courses provided by Austrian Mobility Research (FGM).

## **Description of the programme**

The following characteristics make this new method of Bicycle Training different from traditional cycling lessons in the traffic training centre for children and young adults:

- The training sessions take place in the immediate vicinity of the school.
- The pupils are only confronted with the realities of traffic after practising in a safe area: the schoolyard.
- They practise cycling in real traffic conditions under the guidance and supervision of the bicycle trainer.
- The children are able to improve their cycling ability in areas with reduced traffic (also including Graz's network of cycling paths) in controlled group and – particularly important – individual bike trips.
- They are gently prepared to become self-confident, healthy and conscientious road users.
- The training programme focuses on practical cycling sessions in real traffic conditions.
- Theoretical rules are only taught to the minimum extent necessary.

## The target group: children

The target group is children aged nine or older in the 4th year of elementary school, who are able to take the cycling exam on a voluntary basis and therefore receive the best possible preparation for cycling safely and conscientiously in real traffic conditions. Teachers and parents receive information on good ways to practise cycling and are therefore also reached by the campaign.

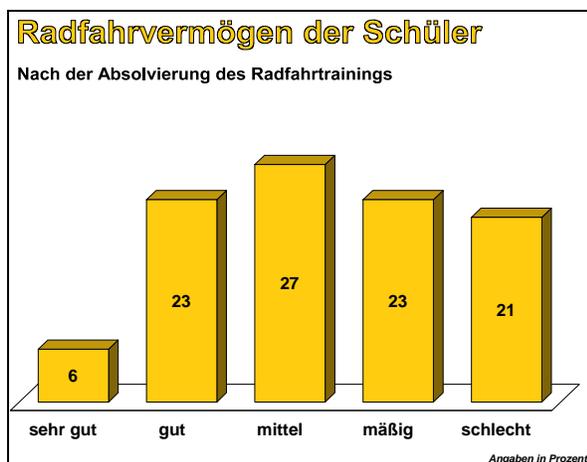
## The main message is: Training under real conditions!

Practising in small groups, children are gently introduced to real traffic conditions on a "handsome" basis. The main intention is to show the children that cycling is fun, is healthy and that the bicycle is an environmentally sound and economically efficient means of transport that they should continue to use in the future.

## Results

Since the Bicycle Training programme was launched, more than 15.000 children have taken part in the training sessions. The children's cycling ability is evaluated by trainers before and after training. In response to the question of whether Bicycle Training should take place in real traffic conditions, the teachers answered in 98% with "definitely yes".

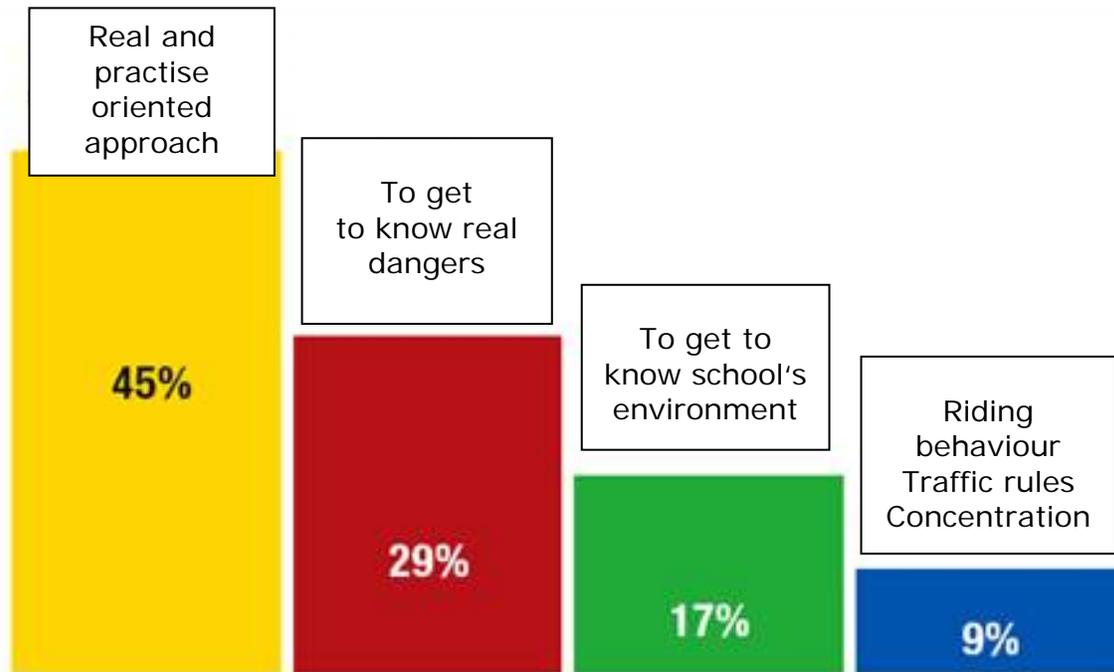
The following diagram shows the cycling ability of 10-year old pupils after successful completion of the Bicycle Training programme. According to these figures, 60% of the pupils are ready to ride their bikes safely in road traffic.



*Children's cycling ability: After successful completion of the Bicycle Training programme  
Very good / good / average / moderate / bad Figures in percent*

## The teachers' opinion

### Arguments for the Bicycle Training in real traffic environment



With regard to the didactical implementation by the bicycle trainers from Austrian Mobility Research (FGM), the teachers' opinions were as follows (selected statements):

*"The team did an outstanding job. The children were made aware of all problems. After the practise run, each individual pupil was told what mistakes he or she had made. The children also enjoyed the film. A big thank you to a very committed team!" (Ms. Höller, Eisteich Elementary School)*

*"Very well organised. This training should take place several times each year in order to get children familiarised with road traffic." (Ms. Waltinger, head teacher, Wieland Elementary School)*

*"Excellent trainers; very good with children!" (Ms. Lang, head teacher, Berliner Ring Elementary School)*

*"I had the opportunity to watch two very committed and capable trainers. I particularly liked their affectionate and responsive way of interacting with the children and their perceptive and caring supervision and guidance. Very well prepared! Excellent advance planning! Thank you!" (Ms. Fuchs, Liebenau Elementary School)*

*"The trainers responsible for our pupils' cycling lessons are very good. This made Bicycle Training a special event for the children in comparison with their normal*

*school activities. Specially educated trainers are able to assess and take into consideration dangerous situations, even during the practical training sessions.” (Mag. Riedl, head teacher, Jägergrund Elementary School)*

### **Favourable conditions and barriers**

Good cooperation with the local education authority, schools and the police is of great significance to the success of a project of this kind. The legal conditions must be clarified, as well as the insurance protection of the children (in Austria, the children are automatically insured against accidents during school events). To begin with, none of the authorities responsible could imagine that it would be possible to carry out such realistic “hands-on” training at all. Only after some time did the Bicycle Training become established as a component of modern mobility education.

### **Implementation steps**

- 1.) Information for teachers and parents
  - 2.) Setting up appointments with the schools involved
  - 3.) Selection of training routes
  - 4.) Preparation of a situation report with a description of the school environment
  - 5.) Description of the schoolyard
  - 6.) Design of worksheets
  - 7.) Teaching unit for Bicycle Training (including video)
  - 8.) Bicycle Training in a safe, protected area
  - 9.) Bicycle Training in real traffic conditions
  - 10.) Questionnaire for teachers and parents
  - 11.) Analysis of the observation sheet
  - 12.) Documentation of the theoretical unit
  - 13.) Documentation of the training process
  - 14.) Overall assessment and evaluation of pupils
  - 15.) Evaluation of questionnaires for teachers and head teachers on Bicycle Training
- Timetable / duration of implementation:

### **Bicycle Training in other Austrian cities**

The idea of Bicycle Training has also been exported to the city of Linz, Austria. As part of the EU environmental project MOBILE, the Bicycle Training programme was introduced at an elementary school in Linz. To achieve the highest possible level of project multiplication, a cross section of the community and community leaders, including the official in charge of traffic education at elementary schools in Linz, the municipal traffic councillor, the bicycle transport representative for the city of Linz, the district school inspector, the parents’ representatives and police representatives, were invited to attend this Bicycle Training programme. Since 1997, the police have been conducting Bicycle Training courses in real traffic conditions in all Linz elementary schools.

### **Cooperation with the University of Sport Sciences**

Since 2005 there is a strong cooperation between the University of Sport Sciences in Graz and FGM. Students evaluated the Bicycle Training, they developed new exercises on the bicycle and evaluated the childrens’ mobility behaviour and developed a walkability score for elementary schools in Graz.

## Awards and Lectures

The Bicycle Training won the VCO mobility price 2004 and the Shimano Cycling Concept Award 2004. In 2004 the Bicycle Training was presented at the ECOMM in Lyon. Two years later, in 2006 the Bicycle Training was presented as the only Austrian presentation at the Velomondial in Capetown, South Africa.

## More informations and list of literature

<b>Website</b>	<a href="http://www.radfahrtraining.at">www.radfahrtraining.at</a>
<b>Project documentation</b>	<a href="http://www.radfahrtraining.at/docs/Projektdokumentation_Radfahrtraining_2008.pdf">www.radfahrtraining.at/docs/Projektdokumentation_Radfahrtraining_2008.pdf</a>
<b>ELTIS</b>	<a href="http://www.eltis.org/study_sheet.phtml?study_id=1357&amp;lang=1=en">www.eltis.org/study_sheet.phtml?study_id=1357&amp;lang=1=en</a>
<b>Matserserthesis</b>	<a href="http://www.radfahrtraining.at/docs/Radfahrtraining_in_der_Verkehrsrealitaet_Masterthesis.pdf">www.radfahrtraining.at/docs/Radfahrtraining_in_der_Verkehrsrealitaet_Masterthesis.pdf</a> (also available in the research library of the Federal Ministry for Transport, Innovation and Technology, Bd. Nr. 156)
<b>Presentations</b>	<ul style="list-style-type: none"><li>- ECOMM 2004 (<a href="http://www.epomm.org/ecommm2004/ECOMM2004.pdf">www.epomm.org/ecommm2004/ECOMM2004.pdf</a>)</li><li>- Velomondial 2006 (<a href="http://www.africanagenda.com/velomondial2006.com/pdf/VM2006%20Marketplace%20Papers%20T-U.zip">www.africanagenda.com/velomondial2006.com/pdf/VM2006%20Marketplace%20Papers%20T-U.zip</a>)</li></ul>
<b>Strategic Papers</b>	<ul style="list-style-type: none"><li>- Masterplan Radfahren 2006 (<a href="http://umwelt.lebensministerium.at/filemanager/download/18340/">http://umwelt.lebensministerium.at/filemanager/download/18340/</a>)</li><li>- Strategie Radverkehr Steiermark 2008-2012 (<a href="http://www.radland.steiermark.at/cms/dokumente/10554022/998cb2c6/RVK_broschuere_final_72dpi.pdf">www.radland.steiermark.at/cms/dokumente/10554022/998cb2c6/RVK_broschuere_final_72dpi.pdf</a>)</li></ul>