

Mobility Management in Schools - New Teaching Methods for a Sustainable Mobility Education Using Creative Media

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Abstract - For more than eight years Austrian Mobility Research has been breaking new ground in terms of project development and project implementation. We attempt to apply Action Research approaches rather than methods of Basic Research for collecting and analysing data on people's personal attitudes towards different means of transport and their travel behaviour. Thus, the key element of our educational projects in Austrian Schools is to stimulate an awareness-raising process by using creative media and new teaching material like competitions and mobility games. The approach is one of the promising techniques, which are currently being applied in the field of urban mobility management in general and in the field of home-to-school travel in particular.

Method: Action Research

Action Research is an investigative approach based on Qualitative Social Research, which was developed in the United States in the early thirties. The need for an Action Research project usually arises in real immediate situations. The action research project is designed to bring about social changes and to improve the situation. Currently the method is completed with social marketing techniques applied within the context of urban mobility management with target groups. The objective is to trigger off a change of social processes. The researcher is involved in the process and participation and co-operation are the central elements of Action Research.



Project steps

1. Establish awareness

In various project steps we attempt to investigate existing mobility behaviour and find alternatives. The first step is the most important step: namely to establish awareness, because it includes all the central elements, that is, how the different target groups (teachers, parents, decision-makers and pupils) can be addressed. We collect statistical data and figures, we show pictures and we inform about the traffic behaviour of children. The next phase is the so-called "Creative phase" where new ideas are developed jointly with parents, teachers and pupils. Then actions and campaigns are developed. By using creative media, competitions and adequate communication strategies for teachers, parents and children mobility management can be a lively and exiting topic. What does this mean in concrete?

Teachers don't see the correlation between the causes for and the effects of certain mobility behaviour. Their mission is to protect children as weak traffic participants and their approach is also very much focused on safety education. The main point of view of the safety education in schools is focused on children as car passengers and on how to protect them with seat belts or on children as vulnerable cyclists and how to protect them with helmets.

1.1. Statistical data and figures

We try to establish awareness by providing statistical data and figures. For instance we try to show that children up to the age of 14 are more likely to be injured when they are car passengers than when they are pedestrians or cyclists. In order to make people aware of the problem we present pictures taken in the schools' immediate surroundings. The striking "pieces of evidence" draw people's attention to the fact that traffic is not only generated by other road-users and subsequently proves that schools are both: Traffic victims and traffic generators.



1.2. Mobility analysis

During the initial phase of the awareness-raising process we implement another integral tool: the mobility analysis. We collect detailed data referring to the individual mobility behaviour pattern of each project participant. Evaluating the data underlines the shared responsibility of all road-users. Especially teachers may be considered "passionate" car-drivers. A typical argument in favour of coming to school by car is the heavy load of books teachers have to bring along.

1.3. Informations about childrens' traffic behaviour

To be able to establish awareness the participants have to be told that the traffic know-how and the traffic behaviour of children differs from adults' traffic behaviour. Many adults still believe that children are able to adapt and adjust to existing traffic conditions. From developmental psychology we know that due to their age they cannot really measure distances and assess dangerous situations in traffic.



2. Developing of new ideas jointly

2.1. Integration of all participants

The next phase is the creative phase. Depending on the problem itself, working groups elaborate a specific project plan. These working groups include all partners involved in the programme – school authorities, representatives of parents' associations, children and youth organisations as well as political decision-makers. In this phase it's the parents and teachers task to elaborate new ideas. The children themselves are involved at a later stage.



2.2. *The role of an external mobility expert*

Apart from clarifying the framework conditions and co-ordinating the meetings, Austrian Mobility Research is also responsible for moderating the meetings. A relaxed atmosphere is important, we inform the participants about our experience with other projects where the participants succeeded in changing their mobility behaviour. A typical element of action research is that the researcher deliberately abandons his objective stance and informs the group about other successful projects from a more subjective view.



3. Actions and campaigns

The next step is to transfer the theoretical plans developed by the working groups into practice. A wide range of possibilities includes short-term activities as well as comprehensive and substantial campaigns.

3.1. *Car Free month*

This campaign mainly addresses teachers who are asked to leave their cars at home. But it is not easy to change travel habits, not even just for one day. Very often the school yard is used as a car-park. We use creative media like the ball barometer. This “ball barometer” is put up in the class and filled daily with “eco-balls” showing the modes of transport the children had used for getting to school. In the EU-project Tapestry car trips were reduced from 32% to 20%, while pedestrian and public transport trips increased by 5% and 7% respectively.



3.2. *Walking pools*

At a primary school with a very high percentage of pupils walking to school, parents decided to escort other children from the neighbourhood on their way to school.



3.3. *Rental of bicycle trailers*

"Riding by cycle trailer" is promoted by the EU-project Tapestry. At a kindergarten a free bicycle and cycle trailer rental has been set up to increase the number of bike and trailer users.



3.4. Traffic noise and health

One of our ongoing projects (EU-project GOAL) focuses on the risks of traffic noise to health. In order to achieve most striking effects we illustrate the problem by means of artistic elements. We designed a fantasy creature, the Monstrous Krakadau. The Monstrous Krakadau visits Austrian schools, is fed with all the noisy stuff and by eating its way through traffic noise makes the topic come alive.



3.4. New teaching material

We invented a mobility game for Austrian schools: The Urban Troll. We use new identification figures like Urban Troll, a figure which encourages children to go by bike or on foot. Urban Troll says: You can change the system, these are your rights in traffic! Urban Troll does not lay down traffic rules, it wants the children to become aware that they can bring about a change in the existing traffic system. Another figure used in traditional traffic education is the “Helmi” figure. Helmi, which was given its name because it always wears a helmet, stands for the motto: Protect yourself, be careful, don’t go without helmets...



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4. Maintain new mobility behaviour

But how effective are such projects? Which conditions must be met in order to generate enduring behavioural awareness, on the one hand, and long-term changes in mobility education, on the other?

4.1. Financial support

Providing financial project support is important. It's a fact that responsible authorities offer only little financial support for local projects on mobility education, mainly due to their lack of awareness.

4.2. Awareness-raising at teachers' training colleges and universities

Awareness-raising at teachers' training colleges and universities by focusing on the ecological impacts of traffic would also be very important. New teaching materials need to be designed which are tailored to the children's needs.

4.3. Mobility experts

Schools need follow-up project support. Mobility experts should keep up contact, give additional impetus to ongoing and future projects, advise and inform "new parents".

4.4. "It takes time to do a thing well"

But "It takes time to do a thing well". Despite all these problems, we managed to launch cycling seminars and training in real traffic situations. When we started this project eight years ago in Graz none of the parties involved, neither teachers and political decision-makers nor school authorities, could imagine such a learning-by-doing programme for children. But today the project has become an important tool of modern road safety training. Since we

started this project more than 4500 children have participated in the training. And the number is growing day by day.

