

TRAFFIC EDUCATION - ACTIVE PREVENTION

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Abstract: *The main objective of traffic education activities is to raise awareness of pupils, parents and teachers about the need of primary prevention in road safety. Various forms and different topics for such events need to be used to ensure reaching of a wide range of target groups. Pupils gain important basic knowledge of the risks in the transport environment through individual and group work. They gain knowledge through their own self-teaching and exploration. The personally obtained knowledge provides influences the children's behaviour and risk perception.*

Keywords: *traffic education, primary prevention, project teaching, competition, self-reflection*

Introduction

Traffic education has been neglected in the long term on all school levels. Traffic education is best covered in pre-school education. Children in kindergartens are motivated to traffic accident prevention during regular outdoor activities in the vicinity of the school. Kindergartens also lay a lot of stress on the development of senses which are very important for health and life protection in the traffic environment.

The situation is much worse at primary schools. Here, schools often appoint a counsellor for traffic education, but their work often begins and ends with organization of visits to the nearest traffic playground. We cannot objectively include all pedagogues into this category, but from personal contacts with TE co-ordinators, we can confirm that this is a common and frequent practice.

Therefore, educational activities of our organization focus precisely on the age category of pupils and on pedagogues of the first and second stage of primary schools. We have been looking for suitable forms of approaching them and we selected two alternatives: project days and various types of competitions in which pupils gladly participate. The topics of competitions are chosen to make pupils think during task fulfilment and to have their gradual work on given task bring about feedback in the form of self-teaching.

Objectives of Traffic Education Events

The objective of these activities is:

- to teach pupils perceive various risks in the traffic and to perceive potential risks
- to make parents and pedagogues aware of the necessity of primary prevention
- to show that traffic education may be done in an entertaining way
- to show that information which pupils obtain through their work and experience is more valuable than information passed on by adults

Project Day

A project day can have various forms. One option is Dalton's teaching. This system is very beneficial both to pupils and pedagogues. During a Dalton's day, pupils acquire a lot of information of great importance for them and such knowledge is long lasting. But it is still classwork. We opted for a day of games, experiments, discussions and experience for the project day.

Pupils started with their preparation for the project day in preceding days. They prepared a map of school neighbourhood and maps of pupils' routes to school with risks and dangerous places. They became aware how important and necessary prevention is and how important it is to get as much as possible from the project day. Pupils prepared the maps in groups. While in other schools, each pupil prepared his or her independent map, here pupils always worked on maps together. First-grade pupils always created one map together and they described all risks on each pupil's route in it. In higher grades, three to four pupils joined in a group from various places of the municipality and they also draw and described all risks. Thanks to this, pupils learned about dangers they might encounter in the municipality while going to see a friend, etc. Thus they were not directed to one route to school only.



Figure 1 Map of route to school - 1st grade



Figure 2 Map of route to school (cutout) - 4th grade

The project day focused on learning about risks and prevention. Pupils experimented to find out how certain physical laws work and which risks must be taken into account in this connection. They got acquainted with the principle of stopping distances, response times, tow line, inertia force and light reflection. They understood why it is important to use a helmet, restraints, retroreflective materials.

Tow Line

Vehicles of different sizes need different area for cornering. We meet this law on roads often while very dangerous situations occur, many times ending with a death of a biker or a pedestrian. Therefore it is very important to inform pupils in time.



Figure 3 Tow line experiment

Response time

Even though pupils are sometimes informed timely of the risks of suddenly running in the road, many are not able to estimate a safe distance, the vehicle's speed and they completely forget to take into account a varying response time which a driver needs to evaluate the situation and to respond quickly. During an experiment, pupils could compare varying response times among themselves.



Figure 4 Response time experiment

Visibility of retroreflective material

Children commute to school from neighbouring villages, which sometimes lack pavements. A very busy road runs through the municipality and children must cross it every day. Therefore it is very important for them not to be invisible for drivers, but to be well identifiable in the traffic even under reduced visibility. Children did not decorate their painted schoolmates in a very aesthetic way, but it was definitely very functional. They could immediately see the result after switching off the lights in the room, when only a dim light from the outside was falling on the figures.

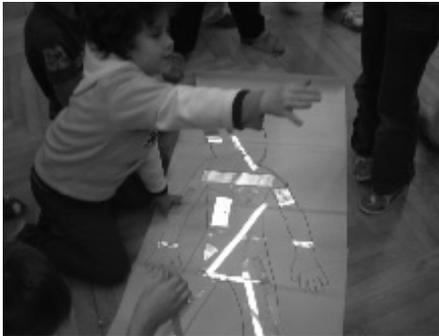


Figure 5a, b Work with retroreflective materials

Stopping distance

Pupils meet with various conditions of braking track every day. It always depends on many factors, which influence the stopping distance. Quality of tyres, speed of the vehicle, condition of the road, condition of the car's braking system, but also the driver's response time. During an experiment, pupils discovered differences of a stopping distance on a smooth and rough surface and differences with various speeds of the toy.



Figure 6 Stopping distance experiment

Dead angle and rear-view mirror

Children often assume that when they can see the car, the driver must also see them. Such a mistake can sometimes be tragic. Drivers in a parking lot, bus drivers at a bus stop and truck drivers only have a limited view from the vehicle and they cannot see everything even with rear-view mirrors. Children found out about the dead angle using mirrors when they tried to look for various pictures and objects.



Figure 7a, b Dead angle experiment

The project day was completed with further experiments, educational tests, interviews and a demonstration of police work. While playing, children got acquainted with important risk factors. They were discovering and evaluating the risks by themselves.

Competitions

The goal of the competitions is to encourage children to express themselves on the issues of traffic accidents and to obtain valuable information by their own studies.

The topics and contest goals must always be easy to understand and process. They should not be a burden for pedagogues and even in the event of lack of interest the tasks must be easy for children's independent work.

The evaluation criteria must be easily and objectively assessable.

We do not expect competitions focusing on accident prevention to be highly professional and of high quality, but our interest is to "convey" vital information.

Advantages of competitions

- children approach "class" actively without perceiving that they are actually being taught
- pedagogues can incorporate a competition into classes
- children can compare the results of their work group with others
- children can get a glimpse of problems of other classes, schools, regions

Competition "Step by step on the way to school"

The task for groups of children was to find dangerous places, risk situations and eventual dangers they encounter (or may encounter) in traffic on their everyday journeys. Children were to create a list and to append a simple and brief explanation why given situation was dangerous. Children had to discover the threat and think about what might happen. Children thus learned to be aware of their surroundings and predict potential risks. They could also note risks for handicapped friends, seniors, small children, etc. We required children to work in groups to make them co-operate again after holidays and make prevention of accidents their common goal.

Results of the competition

- Children documented *risk situations*, phenomena and problems they meet
- They developed the ability to *predict* danger
- They became aware of the *context* and relations involved in the traffic
- They *co-operated* in groups, they learned to communicate and co-operate on a common goal
- They *empathised* with problems of others
- The first three classes joined their prizes and went together for a trip to Prague. The original rivalry from the competition transformed into a joint experience.

1st place – 226 risk factors

- Calling while driving

- Drunkenness
- Biker without lights
- Throwing cigarette butts from a car
- Smoking while driving
- Going to red
- Not adhering to road signs
- Crossing solid line (overtaking)
- Biker without helmet
- Wet road
- Not fastening seat belts
- Small distance between cars
- Shards on the road
- Too loud mp3
- Do not touch a moving tram
- Rashness
- Crazy Margaret as a passenger

2nd place - 102

- Slipping on ice
- Faulty track
- Sand on the road
- Gravel on the road
- Ice on the road
- Water on the road
- Brake failure
- Snow falling off roof
- Sudden stop of a tram
- Unmarked cargo
- Poorly fastened kid's car seat
- Microsleep
- Driver's too loud music
- Aggressive overtaking
- Wild dogs
- Poor road surface
- Homeless people

Risks were classified in an interesting way by pupils on the 7th place. They prepared their contribution to the competition with good thought and wit.

7th place – 48 risk factors

- Topics:
- Riding the school bus
- Riding tram and trolleybus
- Crossroads - I am afraid, afraid
- Pedestrian crossings - children's and senior citizens' lives in danger

- We walk or go on a scooter
- We have to repair it - we understand, but please do it fast
- In front of the school
- What else came to our minds - even the unbelievable can happen

The results were announced in the town hall. Prizes were handed over in a ceremony by: **MUDr. Daniel Rychnovský**, 1st Deputy Mayor of the Town of Brno, **PhDr. Marie Klusoňová**, Head of Pedagogical and Organization Section of Education and Youth Department of the Town Council of Brno, **Mgr. Ivana Draholová**, Head of Kancelář Brno – Zdravé město, **Ing. Libor Sobotka**, PIS Police CR – Brno; and for the organizers by the sponsor **Ing. Ivan Budík**, Financial Manager of HBH Projekt spol. s r. o.



Figure 8a, b, c, d Rewarding the winning groups

Event “Step by step without accident”



The events for 2009 started in March with a competition

“Step by step without accident”



The task of children's groups was to create a draft of a traffic-educational campaign and try to influence the target group's behaviour for whom the campaign was intended. Pupils could select a topic and a target group according to their interest. The objective of the competition was to lead pupils in the form of self-reflection to safe behaviour in traffic. At the same time, pupils noticed dangerous behaviour of other traffic participants.

Teachers received instructions on the competition as well as methodological notes how to use the competition in classes, in media education, in Czech and foreign language classes, citizenship education, art education, health education, personal and social education, etc.

Results of the competition

- Children handed over visuals on various topics
- First aid
- Drink driving
- Suitable and unsuitable place for playing
- Protective aids
- Recommendations and warnings for bikers - bike equipment, crossing a road with a bike, visibility, etc.
- Recommendations and warnings for pedestrians - retroreflective and colourful clothing
- Behaviour in public transport - tram is not a ZOO, not a buffet; consideration to the elderly
- Recommendations for drivers - fast and reckless driving, car distance from bikers



Figure 9 Protective elements and recommendations for skateboarders

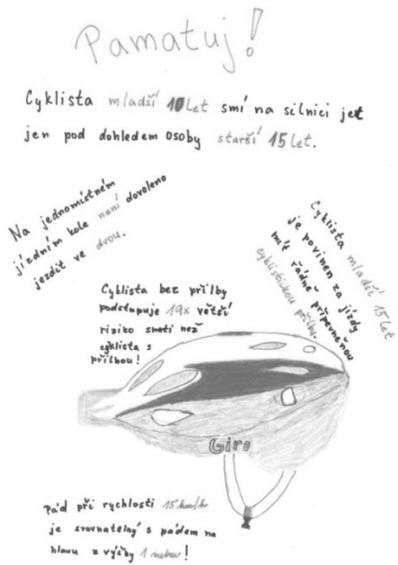


Figure 10a, b Recommendations for bikers

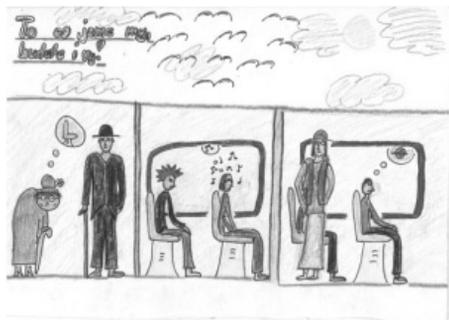


Figure 11a, b, c, d Behaviour in tram

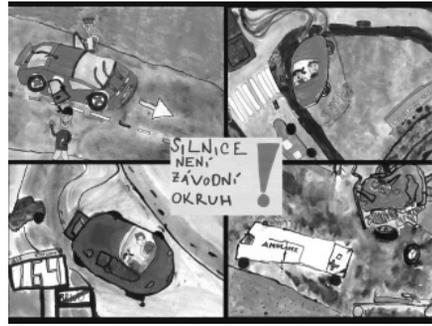
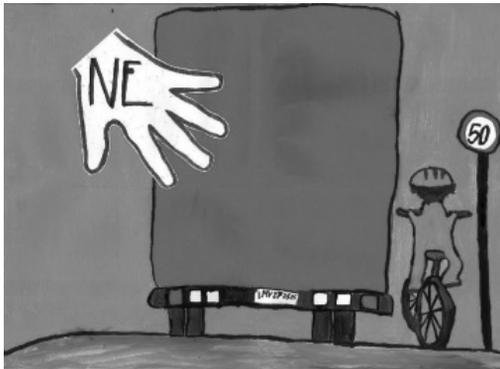


Figure 12a, b Fast driving



- NO – to drivers' recklessness towards bikers
- NO – to cars in town
- NO – to speed over 50 km/h
- NO – to holding to a car while cycling

Figure 13 Winning visual

The first place won ŽŠ Vedlejší. The winning visual focused on drivers' recklessness towards bikers. It was bringing attention to safe distance while taking over and not observing speed limits in town. Some could see also other thoughts in this visual – promoting cycling in town and suppression of car traffic; warning for bikers that they should not catch on trucks while riding.

Krok za krokem v dopravě

Evaluation of the competition and presentation of awards took place in the town hall within Brno Days without Accidents. In September, on the first day of the European Week of Mobility, a launching ceremony of a tram “**Step by step in traffic**” took place, putting into operation a tram which was decorated with visuals from the competition. The winning visual was placed on the sides of the tram. The tram was running in Brno not only during the EWM, but for another month. Pupils participated in this festivity and had a chance to meet their tram throughout the month. Thus they saw that the results of their work were utilised, that they had a meaning and that their work in accident prevention was important.



Figure 14 Festive opening - with children's champagne



Figure 15 Cutting "retroreflective" band



Figure 16 Opening day



Figure 17 Tram in operation - interest of passengers was big



Figure 18 Tram in the streets of Brno

Conclusion

Educational events about traffic can have long-term educational influence if children during those events can promote their talents, ideas and examine and explore by themselves. It is too early to assess whether our events brought about the expected result. But it is certain that children carried out all tasks with big enthusiasm and interest. During the last event, they also saw the results of their work in the public. Furthermore, the tram was riding in Brno for a month, which addressed passengers. And objectively, they were quite amused in their tram. They read the visuals and we often heard them talking about those topics. The topics were mostly attractive for young people who always are included in our target group.

So far, only very few classes participated, but we hope that it will be better and better in the following years. Regular events usually have a growing number of partici-

pants and we want to continue with our competition and finance it in the forthcoming years.

DOPRAVNÍ VÝCHOVA – AKTIVNÍ PREVENCE

Abstrakt: Cílem dopravně výchovných akcí je upozornit žáky, rodiče a pedagogy na nutnost primární prevence v oblasti bezpečnosti silničního provozu. Pro zajištění oslovení co nejširší cílové skupiny je nutné volit různé formy a různá témata těchto akcí. Prostřednictvím individuální i kolektivní práce získávají žáci základní důležité poznatky o rizicích v dopravním prostředí. Tyto poznatky získávají vlastním zkoumáním a vlastní prací. Výsledky osobního poznání mají zpětnou vazbu na chování dětí a vnímání rizika.

Klíčová slova: dopravní výchova, primární prevence, projektová výuka, soutěž, sebereflexe