

# COMMUTING TO SCHOOL OF 9 YEARS OLD PUPILS IN SLOVENIA

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*Original scientific paper*

## Abstract

*With our investigation we wanted to find the proportion of pupils who are practicing active commuting to school, and the reasons why some children are not active and how they fell about active commuting. Subject's sample consisted of 232 pupils of who were attending 3 and 4 class (average age=8.7 years). Pupils had to answer on 46 closed questions, two of them were open. According to the results we can conclude: Slovene children are active commuters to/from school; children who are not active commuters, are driven to/from school because of parents drive them, they live to far and the traffic is to busy; children who are not active commuters would became ones if they would live closer to school, and the traffic would be less busy and if there would be more safe places to cross the road.*

**Key words:** walking, reasons, pro and contra

## INTRODUCTION

Children obesity in the developed world is increasing as well in Slovenia (Bučar et al. 2004). With the growing obesity also are dropping motor abilities in population (Strel, et al.2009). In the world medical and physical education authorities are trying to found a way how to increase children activity. Simple solution is promoting active commuting to school by bike or by foot (reference) to become a commutation habit. Habit is routine of behavior that is repeated regularly (mostly subconsciously); developing habit is a process of learning, where positive stimulus slightly ends, but reaction remains if there is no inhibition stimulus involved (Pečjak, 1975). In Slovenia Primary School Law (2006) in article 56 defines when the pupil leaves more than 4000 meters from school, school have to organize transportation into school by bus. Pupil has to enter the school according to the home address and to the school area within pupils address. For commuting to school for children of nine years are responsible parents. From parents are habits transmitted also the children. How is commuting to school done strongly depends also on other objective (e.g. weather, parents employment, possession of car) or subjective reasons (attitude towards biking, walking). Faulkner et al. (2010) were researching how parents decide how children will commute to school; decision appeared to be primarily influenced by concerns about traffic, the child's personal safety, and the

child's maturity and cognitive ability regarding navigating his/her way to/from school safely; following the escort decision, parents considered mode choice, typically selecting what they perceived to be the easiest and most convenient way to travel. The ascription of convenience to the various modes of transportation was influenced by perceptions of travel time and/or distance to/from school. Convenience became a particularly salient theme for parents who found it necessary to complete

multi-activity trip chains. Ten years old children boys walking to school were associated with higher physical activity after school and during the evening; active transport may contribute to a more physically active profile, at least for boys, supporting walk-to-school initiatives to increase children's physical activity Cooper et al. (2005).

With our investigation we wanted to find the proportion of pupils who are practicing active commuting to school, and the reasons why some children are not active and how they fell about active commuting.

## METHODS

Subject's sample consisted of 232 pupils of who were attending 3 and 4 class (average age=8.7 years). Pupils were from four Slovenia schools from two urban (N=122), and two country schools (N=110), boys were 122 and girls 110. All parents wrote written permission to allow children to fulfill questionnaire. Questionnaires were answered in September and October 2009. Pupils had to answer on 46 questions, two of them were open. Closed questions were either just to cross the correct answer (e.g. Which class do you attend?), either on Likard scale from 1-3, 1-4 and 1-5. For each question/variable frequencies were calculated with SPSS 18.0. Evanson et al. (2008) found questionnaire completed by school-age children to assess travel to and from school, including mode, travel companion, and destination after school, was reliably collected and indicated validity for most items when compared with parental reports.

## RESULTS AND DISCUSSION

Actually the results for Slovenia children are quite good as more than half of them is already walking at least one part of the way to school. Even bigger percentage is walking back to home. Comparing to New Zealand children (aged 5-10 years) where

slightly more than 42 % of them are walking to school (Hinckson et al., 2011)., Slovenian children showed good results. What is very interesting a lot of Slovene children wish to be able to ride a bike when traveling to school and back. Slovenian traffic law (2011) prohibits children under age of 10 years to drive alone, and with age of 10 they are allowed to drive only if they pass a theoretical and practical test. By Anderson et al. 2009 almost two thirds of

Danish 15-19 years old boys and girls cycled to school, cyclists had higher aerobic power than both walkers and passive travelers (4.6-5.9%), isometric muscle endurance (10-16%), dynamic muscle endurance in the abdominal muscles (10%) and flexibility (6%) were also higher in cyclists compared with walkers and passive travelers. Slovene children would like to ride a bike and perhaps we can expect also some improvement in motor abilities.

**Table 1.** How children travel to/from school and how they wish to travel.

	How you travel to school (%)	How you travel from school (%)	How would you like to travel to school (%)
on foot	39,7	45,3	22,8
by school bus	13,8	13,8	7,8
by public transport	1,3	1,3	0,4
by car(given a lift)	28,4	18,5	9,1
other	3,0	3,0	4,3
a mixture of on foot and by car	7,3	9,1	5,2
a mixture of foot and bus	3,0	3,4	1,3
a mixture of foot and scooter	0,4	0,4	3,4
a mixture of car and bus	3,0	4,3	12,5
bycycle	0,0	0,0	28,4
Missing data	0,0	0,9	4,7

Children who are not walking to school (43%) had to fulfill also statements why they are not walking to school (Table 2) and what they desire to be fulfilled to start to walk to school (Table 3).

Three main reasons why children are not walking to school are: adults drive them all the way (probably parents leave children by the way at school when

traveling to the job), they live too far away and the traffic is too busy and fast. Actually all three reasons are objective reasons, where children can't change them and leave children dependant to the parents and traffic; Rodriguez and Vogt (2009) confirmed children walk less if they live farther from school, their parents have car or they have organized school bus.

**Table 2a.** Statements why children do not walk to school (N=98)

	Agree %	Undecided %	Disagree %	Missing %
An adult drives me all the way.	59,2	9,2	18,4	13,3
I live too far away.	55,1	12,2	29,6	3,1
I don't want to.	15,3	15,3	53,1	16,3
I don't have enough time.	18,4	14,3	52,0	15,3
I am not allowed to.	25,5	8,2	51,0	15,3
The weather is too bad.	15,3	21,4	46,9	16,3
My friends don't walk.	15,3	11,2	57,1	16,3
No one from my family walks with me.	32,7	7,1	44,9	15,3
I am frightened of meeting strangers	14,3	7,1	62,2	16,3
I am frightened of being bullied	20,4	10,2	54,1	15,3
The roads are too difficult to cross.	27,6	7,1	50,0	15,3
I don't know what walking route to take.	7,1	6,1	70,4	16,3
There are not enough lollipop people.	24,5	13,3	45,9	16,3
The traffic is too busy/ traffic is too fast.	45,9	9,2	30,6	14,3
There are too many cars near the school entrance.	20,4	10,2	54,1	15,3
The route does not have good lighting along the way.	20,4	7,1	57,1	15,3
I don't feel safe walking to school.	21,4	20,4	43,9	14,3
Other				
No pavement	3,1	0,0	0,0	0,0

Children would walk to school if they would live closer to the school. This reason is far the strongest and again can't be changed by children and it is objective. Then there is a group of reasons (above 40 %) which can be defined as objective obstacles from traffic. In this group are following reasons:

need for more safe places to cross the road, there was less traffic/slower traffic and general need to felt safer. However low reasons as being bullied, meet strangers or good lightening show Slovenian children fell in general safe.

**Table 3.** I would walk to school if ... (N=98)

	Agree %	Undecided %	Disagree %	Missing %
I was driven some of the way and dropped off within walking distance.	31,6	12,2	36,7	19,4
I lived closer to the school.	59,2	6,1	21,4	13,3
I had more time.	24,5	11,2	42,9	21,4
I was allowed to.	16,3	17,3	45,9	20,4
The weather was better.	19,4	10,2	49,0	21,4
My friends walked.	34,7	13,3	31,6	20,4
Someone from my family walked with me.	29,6	11,2	38,8	20,4
There was good lighting along the way.	26,5	12,2	40,8	20,4
I was less frightened of meeting strangers.	15,3	10,2	54,1	20,4
I was less frightened of being bullied.	18,4	8,2	53,1	20,4
There were more safe places to cross the road.	40,8	8,2	29,6	21,4
I knew what walking route to take.	18,4	8,2	53,1	20,4
There were more lollipop people.	25,5	11,2	41,8	21,4
There was less traffic/slower traffic.	42,9	12,2	24,5	20,4
Cars kept away from the school entrance.	27,6	17,3	34,7	20,4
I felt safer.	41,8	13,3	25,5	19,4

## Conclusions

According to the results we can conclude:

- Slovene children are active commuters to/from school,
- children who are not active commuters, are driven to/from school because of parents drive them, they live to far and the traffic is to busy,
- children who are not active commuters would became ones if they would live closer to school, and the traffic would be less busy and if there would be more safe places to cross the road.

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## PUTOVANJE DO ŠKOLE UČENIKA I UČENICA OD 9GODINAU SLOVENIJI

### **Sažetak**

Ovim istraživanje smo željeli ustanoviti koliki je udio aktivnih učenika u pješaćenju do škole i nazad, kao i razloge zbog kojih neka djeca nisu aktivna, i kako se osjećaju po pitanju aktivnog pješaćenja. Uzorak ispitanika sastojao se od 232 učenika koji pohađaju 3 i 4 razred osnovne škole (prosječna dob = 8.7 godina). Učenici su odgovorili na 46 pitanja zatvorenog tipa, a dva pitanja su bila otvorenog tipa. Prema dobivenim rezultatima možemo zaključiti: djeca u Republici Sloveniji su aktivni putnici u/iž škole; djeca koja nisu aktivna, su većinom odvezena u/iž škole, jer ih roditelji provoze kolima, oni žive daleko od škole, a promet je opterećen saobraćajem; djeca koja nisu aktivni putnici postali bi aktivni i oni, ako bi stanovali bliže školi, promet bi bio manje opterećen saobraćajem i ako bi bilo više sigurnih mjesta za prijeći cestu.

**Ključne riječi:** pješaćenje, razlozi, za i protiv

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*Received: 11 October 2011*

*Accepted: 11 November 2011*