

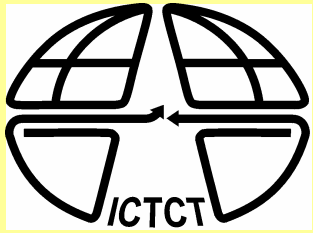
“Effects of ISA-like IST - applications on the communication behaviour of young car drivers in urban areas”



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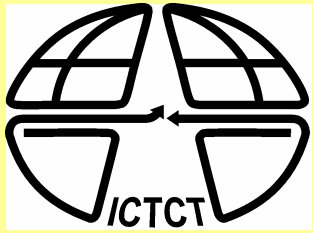
18th ICTCT Workshop
Transport telematics and safety
27th-28th, October 2005, Helsinki



- Introduction
- Adolescent
- ISA and YD
- PhD-Thesis
- Hypotheses
- Experimental Design

Introduction

- ISA
 - Studied for over 15 years
 - Safety effects
 - vary from 10 percent reduction to 20-40 percent



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Design

Introduction

- ISA

- Speed reduction affects
communication

- Question of communication seems of
high importance

Around 75 % of all accidents with
serious injuries take place between
two or more road users



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Adolescent

- Highest accident risk
- Main causes
- Why?



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Adolescent

- Highest accident risk

Austria 2003 (15 to 19 year old):

9684 accidents

88 died



Risk **3x** as high as for the rest of the population!

Similar figures in Germany

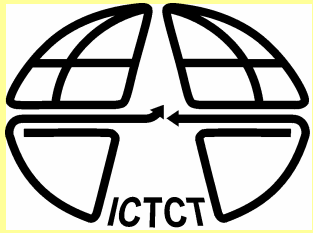


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Adolescent

- Main causes
 - badly adapted speed 27%
 - Mistakes in
 - yielding right of way 12%
 - distance keeping 12%
 - Problems with
 - turning 11%

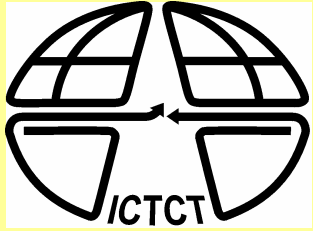




- Introduction
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Adolescent

- Why?
 - Risk because of being a novice driver
 - Risk because of youth
Difference: become involved in risky situations because of lack of experience or seek risk consciously
 - Specific exposure

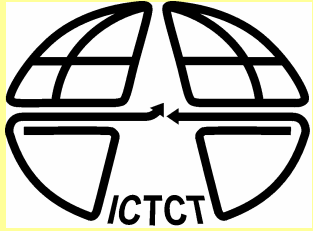


Adolescent

- Why?
 - Risk because of being a novice driver

Percentage reduction in accident liability				
Experience Alone		Age Alone		Age and Experience
During year 1	30%	Between 17 and 18	6%	34%
2	17%	18 and 19	6%	22%
3	11%	19 and 20	5%	15%
4	7%	20 and 21	4%	12%
5	5%	21 and 22	4%	9%
6	4%	22 and 23	4%	8%
7	3%	23 and 24	4%	7%
8	3%	24 and 25	3%	6%

Maycock et al., 1991

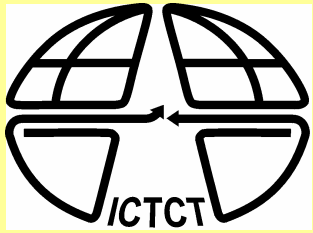


- Introduction
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Adolescent

- Why?
 - Risk because of youth
 - More complex
 - Difficult period of life
 - New identity
 - Autonomy
 - Peer pressure





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Adolescent

- Why?
 - Risk because of youth
 - Special view of a vehicle
 - Not only a means of transport
 - An instrument for profiling
 - A symbol of freedom
 - Allows demonstration of power
 - Provides adventure and thrill



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Adolescent

- Why?
 - Risk because of youth
 - What else?
 - Driving licence is very important
 - Key to autonomy and mobility
 - Discrepancy between
 - » Potentially risky driver
 - » Normal driver
- Study (Mienert 2002)



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Adolescent

- Why?
 - Risk because of youth
 - Potentially risky driver
 - Negative attitudes towards restrictions of their “freedom”, like:
 - » Alcoloc
 - » ISA-like applications
 - » “Novice-driver” - label
 - » Tachographs
 - » Longitudinal control systems
 - » Lateral control systems

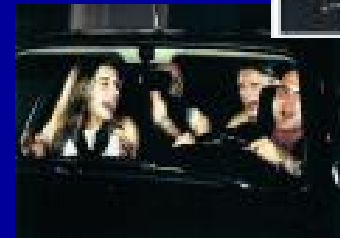


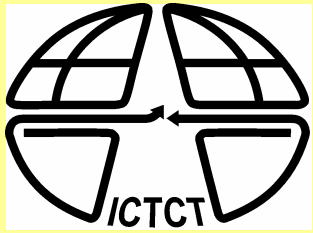
Adolescent

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- **Why?**

- Risk because of being a novice driver
- Risk because of youth
- **Specific exposure**
Group pressure etc.





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ISA and adolescent road users

- Longitudinal control
- Improve the communication
- Impact on adolescent in detail unclear
- “Risky” group may not be affected

Quite the contrary

- Risky Behaviour
- Subjective vs. objective risk
- Delegation of responsibility
- Interpersonal communication



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PhD - Thesis

- Young drivers are even more affected
- Speed is one of the main factors contributing to young drivers' accidents
- Idea
 - People with positive attitude benefit
 - People with a more risky behaviour may not – need something else



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Hypotheses

- Hypothesis 1: The use of an ISA system will improve the communication between the driver and other road users.
- Hypothesis 2: Adolescents with an initially positive attitude towards ISA and traffic safety in general will benefit more from the use of ISA than young drivers with an initially negative attitude.



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Hypotheses

- Hypothesis 3: Psychological group training can change a negative attitude towards ISA and towards speed behaviour in general.
- Hypothesis 4: The short-term use of ISA is not enough to get a long term influence on the drivers' behaviour.



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Hypotheses

- Hypothesis 5: Psychological group training has the potential to improve drivers' behaviour for a longer period of time



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Experimental Design

- Takes place in the frame of  www.humanist.org
- Co-operation with one partner
– CDV (Czech Republic)



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Experimental Design

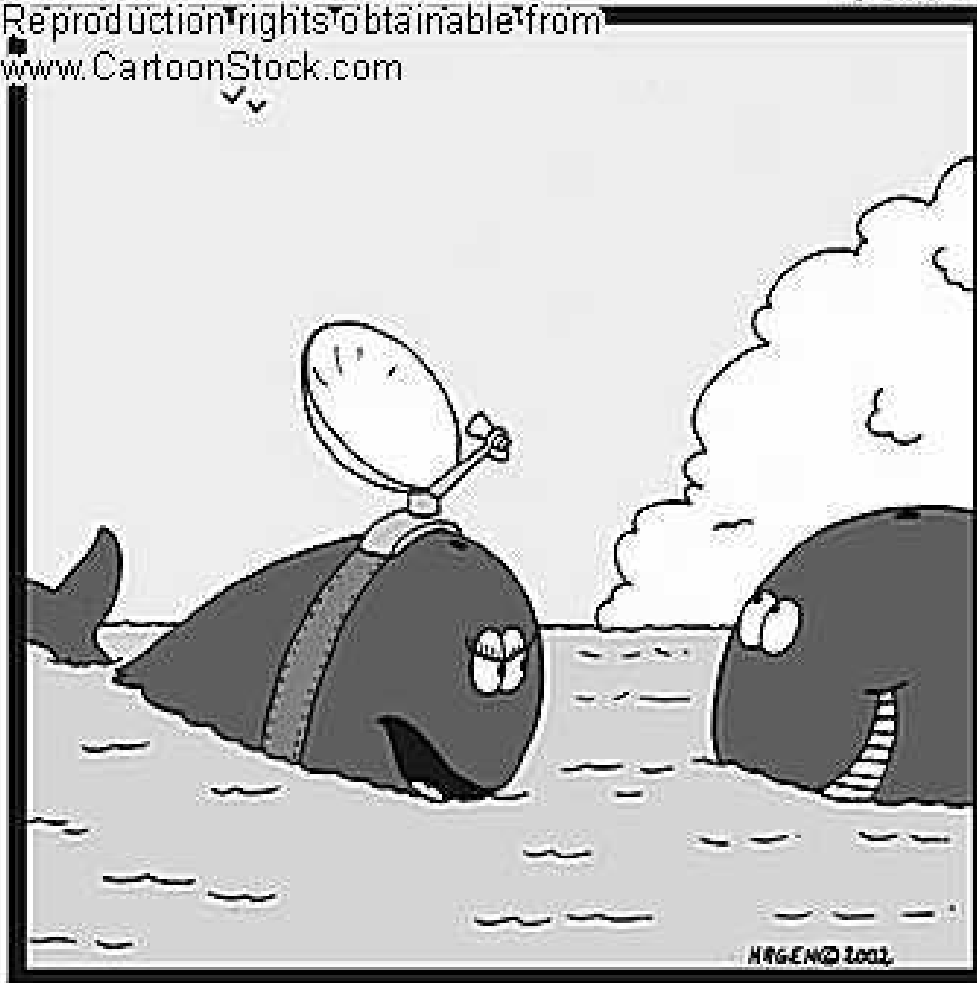
Questionnaire 1				
Ride in a non equipped car				
Questionnaire 2				
Driving with ISA				
Driving without ISA				
Country	Training	No Training	Training	No Training
Austria	10	10	10	10
Czech Rep.	10	10	10	10
Questionnaire 3				
Ride in a non equipped car				
Questionnaire 4				
Analysis				

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You can laugh all you want, but since I bought this "GPS" system, I haven't beached myself once!

Thank you
for your
attention!