



POLJOPRIVREDNI  
FAKULTET  
UNIVERZITET U  
NOVOM SADU  
**PFNS**  
DEPARTMAN ZA RATARSTVO I  
POVRTARSTVO



UNIVERSITÀ  
DEGLI STUDI  
FIRENZE  
**DISPAA**  
DIPARTIMENTO DI SCIENZE DELLE  
PRODUZIONE AGROALIMENTARI  
E DELL'AMBIENTE



UNIVERSITÄT FÜR  
BODENKULTUR  
WIEN  
**BOKU**  
DEPARTMENT FÜR WASSER-  
ATMOSPHERE-UMWELT



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**Workshop  
2018**

# Science for education and education for science

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WP3: Dissemination and exploitation

## **Bring research into schools**

*raise the level of interest in research and  
higher education in the younger generation*

## “Children's university”

- *2 consecutive years*
- *4 events*
- *Younger group (8-9 year old)*
- *Older group (9-10 year old)*
- *Environmental related topics + experiment*
- *What science is, and what is not*

# “Children's university”

Modeling clay + ice + water = melting glaciers











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# “Children's university”

## Blackboard chalk + vinegar = Erosion







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# “Children's university”

## basics of the scientific methods and scientific practice



## “Children's university”

basics of the scientific methods and scientific practice

- Science vs. pseudoscience
- Science vs. protoscience
- Scientific knowledge is temporary
- What are the objects of scientific inquiry (everything that can be observed and measured)
- By definition scientific predictions cannot be 100% accurate
- Falsifiability of science



## Round table discussions on Critical thinking

- What is critical thinking?
- Why it can be useful?
- Does, and to what extent formal education nurture critical thinking?
- To what extent are characteristics of critical thinking (openness to new ideas, skepticism, fair acceptance of facts and arguments, willingness to change your opinion if facts/arguments point to that) useful in daily life/school/science?

## Round table discussions

-high schools-

**“This kind of discussion will undermine authority of our school and our staff”**

**“ You will force our pupils to conclude that they do not need school at all”**

# Round table discussions on Critical thinking

# 120

# VS.

# 3 days

## Round table discussions

-high schools-

we chose those prep schools to be representative sample of the upper echelon of our high schools.

It turn out that they probably are representative sample, but not in a manner we expected.

# Round table discussions

## -Faculty of Agriculture-



# Round table discussions

## -Faculty of Agriculture-





## Conclusions

- Attempt to inquire on inquiring minds appears to be (almost) deadly - usual response for challenging established norms
- Both students and pupils:
  - are very aware of the problem...but
  - have quite pragmatic response ...so
  - they lack skills in critical thinking
  - usually try to find justifications for their teachers
  - It seems that prep school students are very prone to various conspiracy theories
  - public vs. private schools