

ACCEPTANCE OF IBSE METHOD AMONG CHILDREN, TEACHERS, STUDENTS ON THE UNIVERSITY AND SOCIETY

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CHILDREN

- *One of the main Objective of the strategic plan of the VINCA INSTITUTE (TC1) in the implementation of the FIBONACCI project and dissemination of IBSME activities in Serbia for the 3 academic years 2010-2013, is:*
- *To improve performance of young people from Serbia, concerning scientific literacy, after the middle school!*
- **(The last results of performance of young people from Serbia on science tests (the Organization for Economic Cooperation and Development Programme for International Student Assessment-PISA) is very bad , and many students leave middle school being illiterate in science. By some estimation, from Serbia, our educational system, concerning science, is lag behind the same one in OECD countries.)**

IBSME IN SERBIAN SCHOOL

An optional course *“La main à la pâte-Discover the World »* for children from 6-8 years;



Шта плива, а шта тоне - експеримент деце у вртићу
"Веверица", ПУ "Дечја радост", Панчево



Participation in international projects

- *By the steps of Eratosthenes*
- *Living with Sun*
- *Greenwave-signes of spring*
- *Europe, Land of Discoveries*
- *Klima, my planets and me!*



FROM PRIMARY TO LOWER SECONDARY SCHOOLS



- We try to use experience of French Academy of Sciences and French Technological Academy with 30 pilot schools

<http://science-techno-college.net/>).

Training workshops for more than 600 students on the Faculty for teachers



Training workshops for more than 3 000 teachers



Books:

- *La main à la pâte,*
- *Seeds of science 1,2,3,4;5*
- *Teaching Science at School;*
- *Discovering the World at Nourisry School;*
- *Europe, Land of Discoveries*
- *Klima, my planet and me*
- *5 new books for print!*





Ruka u testu - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.rukautestu.rs/

Most Visited Getting Started Latest Headlines

Lični prostor Upiši se
Zašto se upisujete? Nova lozinka OK

Pretraživanje

Pretraži u
ceo sajt

PRONADI

Brzo pretraživanje

ruka u testu

Predavanje nauka u predškolskom i prva četiri razreda osnovne škole

Sajt Ruka u testu je koncipiran tako da pomogne nastavnicima, instruktorima, naučnicima i institucijama koje nastoje da realizuju naučni sadržaje u osnovnoj školi. U njemu ćete naći aktivnosti pogodne za rad u odeljenju, naučne i pedagoške dokumente kao i oruđa koja će vam omogućiti razmenu mišljenja i rad u kolaboraciji, i niz drugih mogućnosti... saznajte [više >>](#)

Svakodnevni dokumenti

Dnevna aktivnost	Dnevni projekat	Poslednja pitanja	Poslednje poruke
Découvrir et jouer avec l'éclipse de Lune : Ce module articule activités, ressources documentaires pour le maître et les élèves, et témoignages. (version remaniée d'une première publication sur le site en 1999). La mise en œuvre des activités proposées ne nécessite pas l'observation du phénomène en temps réel. Više >>	 Tragovima Eratostena Više >>	Subota 01 Januar 2000 Subota 01 Januar 2000 Subota 01 Januar 2000 Više >>	Više >>

Vi tražite :

Aktivnost u odeljenju	Dokumentacija	Razmene	
Akustika Astronomija i svemir Mehanika Biologija Ekologija Elektricitet Energija Evolucija Geologija	Magnetizam Materija i materijali Mehanika Merenja Nauka o čoveku Optika Tehnologija Više >>	Naučna : Astronomija i svemir Biologija Ekologija Elektricitet Energija Više >> Pedagoška : Kako raditi ? Kognitivna nauka i obrazovanje Sveska za eksperimente Uloga nastavnika Više >>	Pitanja konsultantima

Najaktuelnije

[Više >>](#)

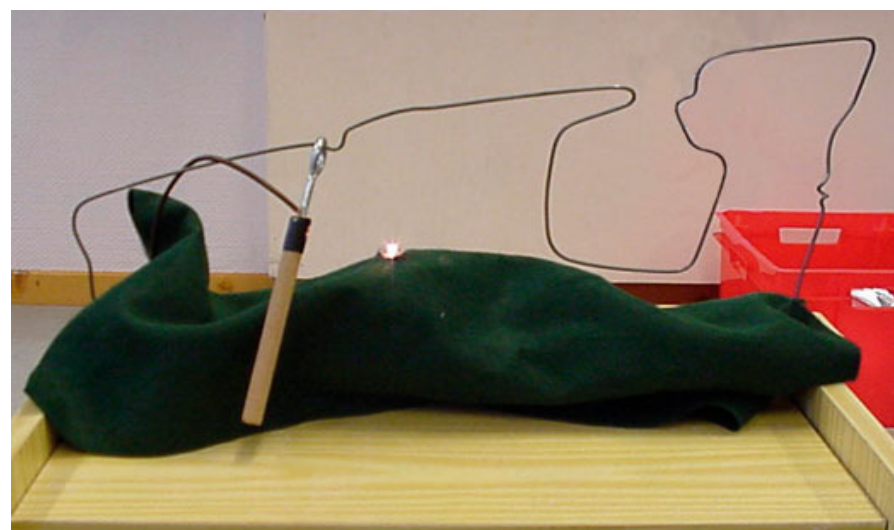
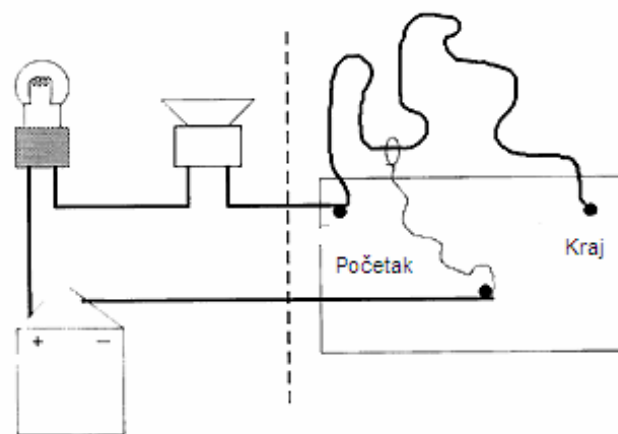
Académie des sciences
INRP
www.inrp.fr

© Ruka u testu 2009

AKTIVNOSTI → ELEKTRICITET

- **Interesantna demonstracija, promena položaja reostata utiče na promenu intenziteta svetla**

Skriveni deo električnog kola





Klima , moja planeta ... i ja !



riska u testu

Le climat,
ma planète...
et moi!

Un projet EEDD
cycle 3

Klima, moja planeta ... i ja !

Klima, moja planeta... i ja ! je obrazovni projekt u vezi održivog razvoja, čiji je jedan od ciljeva uoženje nastavnika, učenika i roditelja. Jednom od glavnih ekoloških i zdravstvenih i društvenih problema XXI-og veka, tj. sa klimatskim promjenama.

Klima, moja planeta ... i ja ! je multidisciplinarni projekt (nauka, geografija, matematika, srpski jezik, građansko vaspitanje...) koji prvi plan stavlja aktivnosti učenika poput pitanja, pretrage literature, eksperimentisanja i diskusije. Omogućuje učenicima da razumiju mehanizame klimatskih promena koje su prouzrokovane prirodnim fenomenima ili ljudskim delovanjem kao i posledice koje one imaju na zdravlje i biodiverzitet. Upravo ove poslednje ukazuju na potrebu razvijanja svesti o važnosti zaštite životnog okruženja u svakodnevnim aktivnostima, kao i uloge svakog pojedinog građanina.

Page for teachers

Page for childrens

Page for press



Prostor za nastavnike

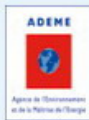


Prostor za učenike



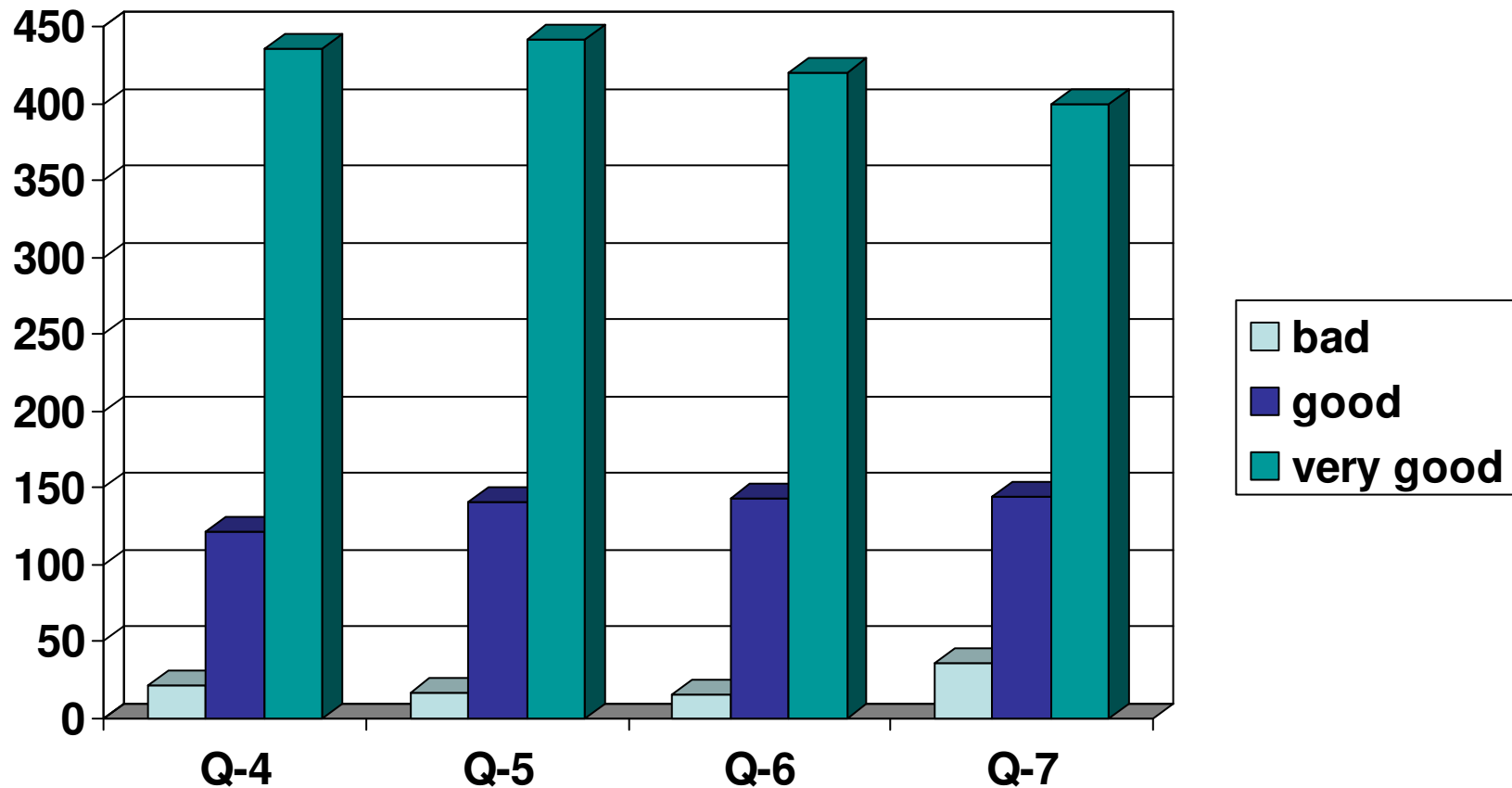
Pres

Partneri projekta



4 -QUESTIONS FOR 600
TEACHERS

Q-4:IBSE increase knowledge/manipulation
Q-5:this knowledge/manipulation is applicable in class
Q-6:IBSE is more interesting for children
Q-7: material can be used in our work



STRATEGY OF IBSE IN FRANCE AND SERBIA

• LAMAP-FRANCE

- To understand the teacher's fears
- To develop a **coaching staff** at the Académie (ca. 20 persons)
- To develop and provide **all kinds** of resources to teachers ;
 - A web site (10 years, 200.000 requests/month) ;
 - Pilot centers (approx. 3.000 classes) ;
 - Many others
- To explain science education to **public opinion** (radio...) ;
- To mobilise the **scientific community** ;
- To request **assessment** and develop its own (formative) ;

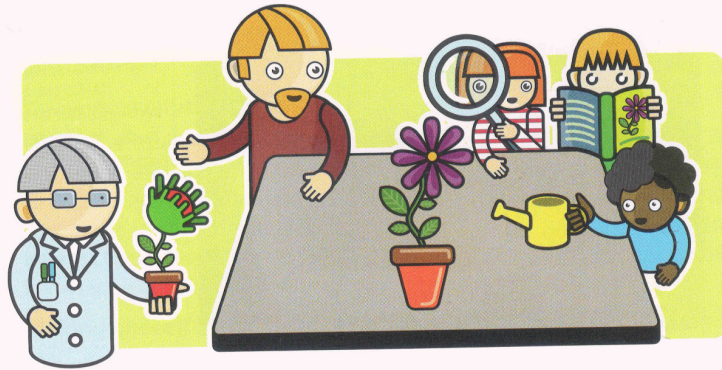
RESULT (2009) :
approx. 30 % of classes !

• RUKA U TESTU-SERBIA

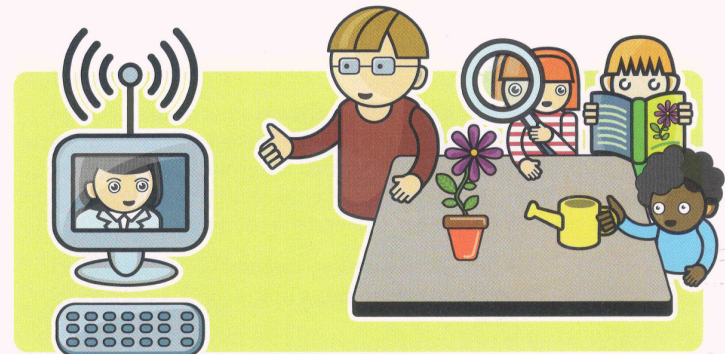
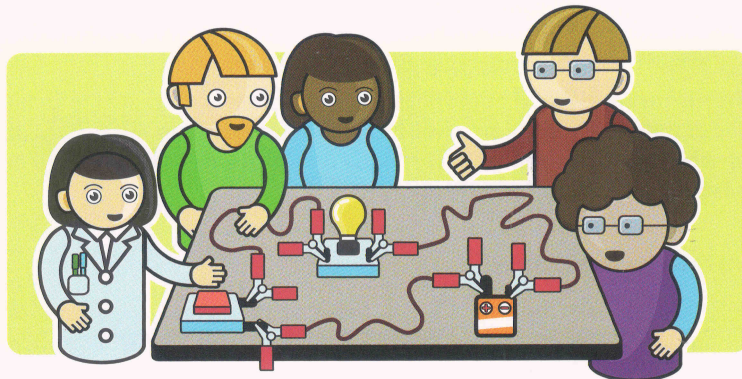
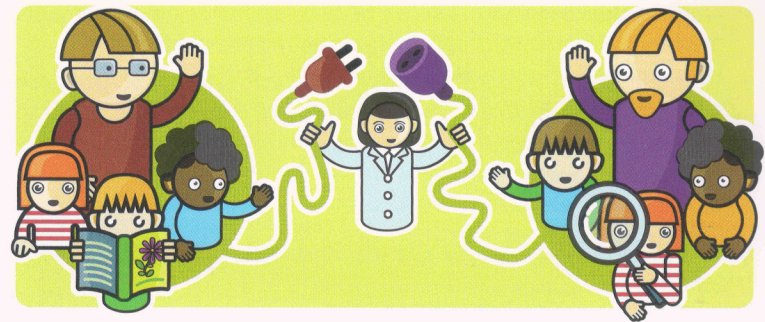
- To understand the teacher's fears
- Académie help us
- To develop and provide **all kinds** of resources to teachers ;
 - A web site (3 years, requests/month not so impressive)
 - We just start this year with some kind of Pilot centers;
 - Many others
- To explain science education to **public opinion** (not so intensive...) ;
- To mobilise the **scientific community** (very slow)

RESULT (2009) :
approx. 7-10 % of classes !

SUPPORTING TEACHERS: IN THE CLASSROOM, THROUGH SPONSORSHIP, FROM A DISTANCE, BY TRAINING, BY COLLABORATIVE PROJECTS. PRODUCTION OF RESOURCES...



What does this consist in?



TEACHER

- RARELY LIBRARIAN
- VERY RARE COLLABORATOR WITH STUDENTS
- MOSTLY “POPE”
- ***LECTURE OF THINGS to LECTURE OF SCIENCE***
- ***NEW PEDAGOGIE VIA PROBLEM, PROJECT...***

CONCLUSIONS

TEACHER: ESTIMATE IBSE BUT APPLICATION OF IT IS NOT SO IMPRESIVE

- RARELY LIBRARIAN
- VERY RARE COLLABORATOR WITH STUDENTS
- MOSTLY “POPE”

- *LECTURE OF THINGS to LECTURE OF SCIENCE*
- *NEW PEDAGOGIE VIA PROBLEM, PROJECT...*

CHILDREN AND STUDENTS AT UNIVERSITY: IMPRESSIVE WITH IBSE!



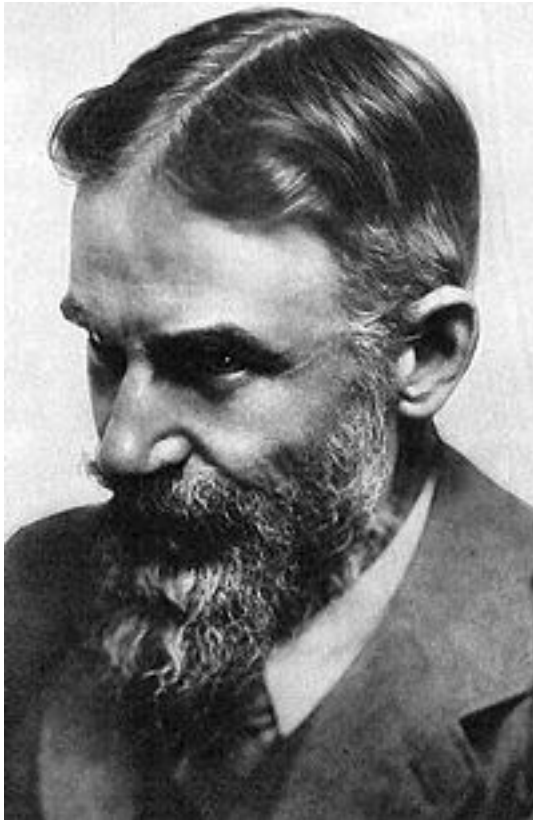
PARENTS: LIKE IT BUT THE NOTE IS MORE or LESS IMPORTANT



- My parents always asked me did I asked something my teacher, but never for note that I received !

S. Weinberg (Nobel prize for physic)

SOCIETY: MANLY DISCUSS ABOUT KNOWLEDGE BASED SOCIETY



- Some people always asked WHY THE SITUATION IN THE SOCIETY IS...

George Bernard Shaw

SCIENTISTS: NOT SO MUCH INTERESTED AND...

- ONLY THE TEACHER OF SCIENCE CAN
NOT UNDERSTAND THAT SOMEBODY
DID NOT UNDERSTAND SOMETHING!

GASTON BACHELAR

SCHOOL: CLASSICAL ONE AND LITTLE
BIT DASTY
PROEMTHEE (creativity) versus HERMES
(information)



Why a focus on pre and primary school ? (ages 3 to 12)

Children:

- spontaneously question natural phenomena
- have a great ability to learn
- can learn language and science together
- in contact with the real world are less influenced by media.

primary school is an ideal place to implement
an in-depth renovation of science education and most
profitable!

General philosophy of
Hands-on, *La main à la pâte*, *Ruka u
testu, IBSE*

做中学

- Science as an investigation.
- Something pupils do, not something that is done for them
- Teacher helps pupils to build their own knowledge
- Action, experimentation, interrogation, collective reconstruction
- Deeper understanding with an oral or written presentation: *science notebook*

European innovations develop rapidly

& are becoming a reference for many countries