Introduction
I would like to report about what basic teachers are doing when they are not satisfied with the mere transmissions of knowledge, when they painfully recognize that this knowledge is not expected. This knowledge needs to be desirable; and, when the will is there, one has to satisfy it, to renew it and the pupils must not be disappointed.
The study volume should integrate the real world and didactical contributions; it is really expected.
In front of the real world where pupils lack appetite for studies, teachers on the spot find out, create new ways, explore «challenging mathematics» for which we are here today.
They know that they will find how to transmit the excitement of research, curiosity to learn, excitement to solve, only by working together.

**Some experiences**
I quickly describe some experiences from France which are incentives for mathematics. I am involved in some of them.

All of these experiences are planned by « basic» teachers. They work together, for instance in Research Institutes like IREM (Institut de Recherche sur l'Enseignement des Mathématiques), absolutely necessary for the math teacher I am!

- First example: the CIJM, “International Comity for Mathematic Games”, created forty years ago to federate mathematic competitions, in schools or not, gathers nowadays 34 members.

**CIJM members**

- Amis des Jeux mathématiques
- Association nigérienne de Jeux Mathématiques
- Association Pierre de Fermat.
- Association Rallye Mathématique transalpin
- Association tchadienne des Jeux (Mathématiques)
- Association tunisienne de sciences mathématiques
- Association ukrainienne des Jeunes Mathématiciens
- Compétition du Département math de l'Université de MILAN.
- CREMA (Agadir- Maroc)
- Culture et Art du sport (Algérie)
- ENS Marrakech (Maroc)
- Fédération Française de Jeux Mathématiques
- Fédération belge de Jeux Mathématiques
- Fédération italienne de Jeux Mathématiques
- Fédération polonaise de Jeux Mathématiques
- Fédération québécoise de Jeux Mathématiques
- KANGOUROU
- LUDIMATHS
- Math en folies
- Mathématiques Sans Frontière AQUITAINE
- Mathématiques Sans Frontière MIDI PYRENEE
- Rallye mathématique de SICILE
- Rallye mathématique de POITOU CHARENTE
- Rallye mathématique d’AUVERGNE
- Rallye mathématique de HAUTE NORMANDIE
- Rallye mathématique de SARTHE
- Rallye mathématique de MADAGASCAR
- Rallye mathématique de NOUVELLE CALEDONIE
- Rallye mathématique du NORD
- Rallye mathématique GANGES BOMBYX
- Rallye mathématique de IREM PARIS NORD
- Tournoi des VILLES
- Tournoi mathématique de Saint Michel en l’Herm
- Tournoi mathématique du Limousin.

Most of them are French but as we can see, there are some African members and others members from Europe (French speaking).

- A major activity of CIJM is to organise each year an exhibition in Paris: “Salon de la Culture et des Jeux Mathématiques”.

Trondheim (No) 2006
The seventh one took place last May in front of the Saint-Sulpice church in Paris. This four days exhibition gathers very young children and grand fathers, students and family, teachers, artists, game makers, editors…
Many events take place during this exhibition: Euromath (European math competition), conférences, mathematical movies, the “Rallye Mathématique dans Paris” and so on.
It consists of a (long) walk within Paris to discover places, museums, streets or buildings, which raise mathematical history or scientific actuality. Each team consists of four persons. Between one and two hundred people try to solve enigmas and mathematical problems!
A few words about three members of CIJM

Amis des Jeux mathématiques
Association NIGERIENNE de Jeux Mathématiques
Association Pierre de Fermat.
Association Rallye Mathématique TRANSALPIN
Association TCHADIANE des Jeux Mathématiques
Association TUNISIENNE de Sciences Mathématiques
Association UKRAINIANE des Jeunes Mathématiciens
Compétition du Département de l'Université de MILAN.
CREMA (Agadir - MAROC)
Culture et Art du sport (ALGERIE)
ENS Marrakech (MAROC)
Fédération Française de Jeux Mathématiques
Fédération belge de Jeux Mathématiques
Fédération italienne de Jeux Mathématiques
Fédération polonaise de Jeux Mathématiques
Fédération québécoise de Jeux Mathématiques

KANGOUROU
LUDIMATHS
Math en folies
Mathématiques Sans Frontière AQUITAINE
Mathématiques Sans Frontière MIDI PYRENEE
Rallye mathématique de SICILE
Rallye mathématique de POITOU CHARENTE
Rallye mathématique d’AUVERGNE
Rallye mathématique de HAUTE NORMANDIE
Rallye mathématique de SARTHE
Rallye mathématique de MADAGASCAR
Rallye mathématique de NOUVELLE CALEDONIE
Rallye mathématique du NORD
Rallye mathématique GANGES BOMBYX
Rallye mathématique de IREM PARIS NORD
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Tournoi mathématique de Saint Michel en l'Herm
Tournoi mathématique du Limousin.

Kangourou, is certainly the largest school competition in the world: nearly 3 000 000 students. André Deledicq was awarded, two years ago, the ERDÖS Price, which recognized the quality of this lucid, but serious, mathematic activity.

FFJM (French federation of mathematical games) organizes a national and international championship, “to develop mathematics through games, to lead pedagogy toward problems and to share the pleasure of research”. Also, FFJM organizes summer universities.

Rallye mathématique de la Sarthe, a smaller organisation but that I know very well! And I think it is an example of what we can do “at the base”!
313 classrooms in 40 middle-schools (50% of all those of Sarthe):
- Two steps, one hour each, in classrooms (December and March);
- A meeting for 18 finalist classes: 10 outdoor workshops. It is a festival day of mathematics (June).
For pupils, we aim at:
- providing a dynamical project to the mathematic course: both pupils and their teacher commit themselves in this annual competition; they have to discuss together about this decision.
- providing opportunities for the group to work together, to plan a long research, too long for a single pupil.
- training for argumentation and debate: only one answer is expected and pupils need to discuss, to argue, to discover proofs, examples and counterexample.

For teachers, we aim at:
- providing a dynamical project in mathematic teaching
- helping to find new activities: now a database of exercises is available on the website.
- changing the glance towards students: the teacher has to be only an observer; he looks at the group; he looks at each pupil.
Finally, I would like to talk about an experience which is not a competition but is, in my mind, an important, inventive and fabulous idea: MATh.en.JEANS.

MATh.en.JEANS is not really young: 17 years old! The main aim is to lead students toward the pleasure of research. A MATh.en.JEANS team consists of two groups of pupils (for instance from two neighbouring middle or high schools) working with a professional mathematician; during the whole school year they discuss together in order to solve a problem proposed by the researcher and chosen by them. They must publish their results and participate in the final congress.

Last school year, seventy French schools were involved in this activity supported by the CNRS (Centre National pour la Recherche Scientifique) and the Minister of Education.

http://mathenjeans.free.fr

http://www.cijm.org

http://sarthe.cijm.org