



June 17th - 21st 2019

CIEP - SEVRES (FRANCE)

La main à la pâte
10th International Seminar on
Science Education in School

SEMINAR PROGRAM

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FONDATION
La main à la pâte
POUR L'ÉDUCATION À LA SCIENCE



INSTITUT DE FRANCE
Académie des sciences



MINISTÈRE
DE L'ENSEIGNEMENT
SUPÉRIEUR,
DE LA RECHERCHE
ET DE L'INNOVATION



MINISTÈRE
DE L'ÉDUCATION
NATIONALE ET
DE LA JEUNESSE





SUNDAY, June 16th 2019

Arrival and check - in of participants at the "Centre International d'Études Pédagogiques" (CIEP) – Sèvres.

MONDAY, June 17th 2019

9h – 9h30, plenary session

Welcome address

9h - 9h30: welcome of the participants and presentation of the programme

9h30 – 12h30, workshops: 2 groups

Introduction to the inquiry approach in science and technology - Scientific thinking, critical thinking

9h30 - 11h:

1 - Hands - on session: the participants will practice a scientific hands - on activity according to the principles proposed by *La main à la pâte* and to the various aspects of the inquiry - based approach in science and technology

11h - 11h15: coffee break

11h15 - 12h30:

2 - Exchanges on the implementation of the inquiry - based science approach in class (in kindergarten, primary and secondary school)

Speakers: Mathieu FARINA, Elena PASQUINELLI

12h30 - 14h: lunch at the CIEP

14h – 17h30, workshops: 2 groups

Strategic planning (workshop 1)

Participants will share their experience in order to identify the main steady features in the implementation, dissemination and sustainability of a CPD programme for science teachers: partnerships, planning and coordination of the various components, resources needed, communication, evaluation, etc.

15h30 - 16h00: coffee break

Speakers: Laurence CONSTANTINI, David JASMIN, Margarita GOMEZ, Stephan BAILLARGEON

Free - time for dinner and evening



TUESDAY, June 18th 2019

9h – 12h30: 2 groupes

Pedagogical class resources (elementary, secondary)

Analysis of class lessons brought by the participants and reflection on the compulsory elements of a lesson based on inquiry

Reflection around students' assesment activities linked to those resources.

10h30 - 11h00: coffee break*Speakers: Katia ALLEGRAUD, Frédéric PEREZ***12h30 - 14h:** lunch at the CIEP**14h – 16h00,** workshops: 2 groups

Strategic planning (workshop 2)

Participants will continue sharing their experience in order to identify the main steady features in the implementation, dissemination and sustainability of a CPD programme for science teachers: partnerships, planning and coordination of the various components, resources needed, communication, evaluation, etc.

*Speakers: Laurence CONSTANTINI, David JASMIN, Margarita GOMEZ, Stephan BAILLARGEON***16h00 - 16h30:** coffee break**16h30 – 18h00,** plenary session

The evaluation of inquiry - based science education

The results of international research and surveys addressing IBSE arouse many issues. The speakers, through their presentations and discussion with the participants, will share their perspective on these results: how can they feed the reflection on activities designed for teachers and students? What questions do they raise in terms of interpretation and influence on CPD programmes?

*Speakers: David JASMIN, Mauricio DUQUE***19h:** Official dinner at the CIEP



WEDNESDAY, June 19th

9h – 12h30, workshops: 2 groups

Hands - on activity on Mathematics

9h30 - 11h:

1 - Hands - on session on Mathematics: the participants will practice a inquiry activity according the various aspects of the inquiry - based approach

11h00 - 11h30: coffee break**11h30 - 12h30:**

2 - Analysis of the session with regard to the teaching practices used in the participants' countries

3 - Exchanges on the implementation of the inquiry - based science approach in class (in kindergarten, primary and secondary school)

Speakers: Stephan BAILLARGEON, Caetano AMARAL, Frédéric PEREZ, Katia ALLEGRAUD

12h30 - 14h: lunch at the CIEP**14h – 16h**, workshops: 2 groups

Involving several teachers in a same school (primary or secondary

This workshop will allow to discuss the interest of involving several teachers within the same school for training, but also for the learning of students.

Speakers : Frédéric PEREZ, Stephan BAILLARGEON, Katia ALLEGRAUD, Dado BA

16h - 16h30: coffee break**16h30 – 18h**, workshops: 2 groups

Collaborating with scientists

Based on examples of various collaborations with the scientific world, participants will discuss the different modalities of interventions and their adaptation to the local context.

Speakers : Frédéric PEREZ, Amadou KONE, Katia ALLEGRAUD, Dado BA

Free - time for dinner and evening



THURSDAY, June 20th 2019

9h – 12h30, workshops: 2 groups

Distance learning for inquiry - based science education

How to design distance learning to equip teachers at IBSE? What organization and what elements to take into account in such a training? will be so many questions that the participants will address during this workshop.

10h30 - 11h: coffee break

12h30 - 14h: lunch at the CIEP

14h – 15h30, open space

Free thematics proposed by the participants

An open space will be offered to participants to address topics that would not have been covered during the seminar and which will be proposed by the participants.

Moderators: Dado BA, Caetano AMARAL, Amadou KONE

15h30 - 16h: coffee break

16h – 18h, plenary session

Synthesis - Recommendations, summary of the seminar, what achievements, what needs - necessary elements for a successful project , Preparation of the symposium

This plenary session will be the opportunity to prepare the symposium on Friday, June 21, 2019: through a summary of the syntheses that emerged from the various workshops of the seminar, the objective of this session will be to highlight the essential elements for the development of projects for the promotion of science education, both from a pedagogical and a strategic point of view.

Individual evaluations of the seminar.

Conclusions

19h: tasting of the specialities brought by the participants



FRIDAY, June 21st 2019

INTERNATIONAL SYMPOSIUM: « Building on one decade of international cooperation in favour of science education around the world » - Provisional programme

08h15 Departure from the CIEP

09:00 Registration

09:30 Opening address: *Daniel Rouan*, President of the Fondation *La main à la pâte* and message from *Mustapha El Tayeb*, IAP SEP/ Global Council Chairman

10:00 A twenty - year mobilisation from *La main à la pâte* and its partners in favour of science education around the world: *Pierre Léna, co - founder and honorary President of La main à la pâte*

10:30 Coffee break

11:00 Feedback session/ The 10th edition of the International Seminar of La main à la pâte : what are the levels of attainment in the various countries? What still needs to be done?

Round - table with participants from the International seminar and discussion with the audience: Best practices and recommendations from participants' last 10 years experiences.

Moderators: Anne Lejeune, Fondation La main à la pâte and Margarita Gomez, STEM Academia (Colombia)

Assessment of the International seminar inputs worldwide: a partner's point of view: *Manzoor Soomro, ECO - SF President*

Testimony: the participation of Malaysia in the International Seminar and further actions developed with *La main à la pâte*: *Lee Yee Cheong, member of the International Committee of the Fondation La main à la pâte*

12:30 Lunch

14:00 Ambitious strategies will be needed to meet the international opportunities and challenges in science education : *Bruce Alberts, President of the International Committee of the Fondation La main à la pâte*

14:45 Prospective session/ The future of cooperation in the field of science education: what lines to develop science teaching so as to address effectively the educational needs of the 21st century?

Round-table with French institutional partners and representatives of projects conducted in Mali, Madagascar, Senegal and Ivory Coast & Discussion with the audience : Contents, partners and forms of tomorrow cooperation.

Moderators: David Jasmin, Director of the Fondation La main à la pâte and Laurence Constantini, Head of International Relations

16:00 - 16:30 Coffee break

16:30 Testimony: the benefits gained from the multistakeholders' project Académie des sciences - *La main à la pâte/ ASSAf/ MEAE/ MEN - DREIC* in South Africa: *Fritz Hahne, member of the International Committee of the Fondation La main à la pâte*

Putting the light on other perspectives in partnerships and the importance of mobilising businesses alongside public institutions: INNOVEC - FUMEC's experience in Mexico: *Guillermo Fernandez*

My priority for international cooperation in the field of science education: *Rosa Deves Alessandri, vice-rector for academic affairs, University of Chile, member of the International Committee of the Fondation La main à la pâte*

17:15 Synthesis & Conclusion: *Hideaki Koizumi, executive vice-president, Engineering Academy of Japan, member of the International Committee of the Fondation La main à la pâte* and *Yves Quere, member of the Académie des sciences, co-founder of La main à la pâte*

17:30 Acknowledgments: *Daniel Rouan* & End of the symposium



SATURDAY, June 22nd 2019

Departure of the participants: Saturday, June 22nd (morning - before 9 am)

APPENDIX: Speakers of the seminar

NOM	FONCTIONS
AMARAL Caetano	Timor-Leste Ministry of Education - Coordinator of National Science Centre for Pratika, Coordinator of Municipal Science Centres, National Teacher Trainer - Timor-Leste
ALLÉGRAUD Katia	Fondation <i>La main à la pâte</i> - Project Manager - Coordinator of the network of the pilote secondary schools, trainer - France
BA Dado	Ministry of National Education/Academic Inspection of Dakar - Coordinator of the project for the Development of Education in the Dakar Region (ADEM-Dakar) - Senegal
BAILLARGEON Stephan	PREST (Regional Centre for Science and Technology Education) - Director and trainer - Quebec - Canada
CONSTANTINI Laurence	Fondation <i>La main à la pâte</i> - International relations coordinator - France
DUQUE Mauricio	Academia Colombiana de Ciencias - STEM Academia Programme - Professor and teacher trainer - Colombia
FARINA Mathieu	Fondation <i>La main à la pâte</i> - Resources Development - Professional development - trainer - France
GOMEZ Margarita	Academia Colombiana de Ciencias - STEM Academia Programme - Coordinator and teacher trainer - Colombia
JASMIN David	Fondation <i>La main à la pâte</i> - Director - France
KONE Amadou	Charles Mérieux Infectiology Centre in Bamako (CICM) - Lecturer-Researcher, National Coordinator of the <i>La main à la pâte</i> project in Mali - Mali
LEJEUNE Anne	Fondation <i>La main à la pâte</i> - International relations - Deputy coordinator - In charge of the overall organisation of the international seminar - France
LÉNA Pierre	Member of the Academy of Sciences (Paris), co - founder of <i>La main à la pâte</i> , Honorary Président of the Fondation <i>La main à la pâte</i> - France
PASQUINELLI Elena	Fondation <i>La main à la pâte</i> - Resources Development - Philosopher (Cognitive Science)
PEREZ Frédéric	Fondation <i>La main à la pâte</i> - co - coordinator of the Resources production and Professional Development sector - Trainer - France
Soomro Manzoor	ECO - SF - President - Pakistan