

# TRAINING WORKSHOP ON INNOVATIVE TEACHING & LEARNING OF SCIENCE THROUGH INQUIRY-BASED SCIENCE EDUCATION (IBSE) FOR TEACHER TRAINERS

25-30 OCTOBER 2015  
KUALA LUMPUR, MALAYSIA



Organised by:



**ISTIC**  
INTERNATIONAL SCIENCE, TECHNOLOGY AND  
INNOVATION CENTRE FOR SOUTH-SOUTH  
COOPERATION UNDER THE AUSPICES OF UNESCO



اينستيتوت فنكايمايقن كورو  
**INSTITUT PENDIDIKAN GURU**  
Kementerian Pelajaran Malaysia

In Collaboration with:

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

## INTRODUCTION

*La main à la pâte* is an inquiry-based science education programme that was introduced in France in 1996 by prominent academicians, namely, Georges Charpak, Pierre Lena and Yves Quéré. The programme was later launched by the French Ministry of Education in primary schools and since then, the number of schools adopting this approach has multiplied. In 2011, *La main à la pâte* became a Foundation for Scientific Cooperation with the Academy of Sciences, the Ecole normale supérieure (Paris) and the Ecole normale supérieure de Lyon as its founding members.

Through the *La main à la pâte* approach in science learning, children are led to discover and learn science spontaneously and naturally, as they construct knowledge using materials and equipment familiar to them. Students are exposed to situations that arouse their curiosity towards natural phenomena, stimulating them to ask questions and discover the answers as they move through the process of scientific investigations.

The *La main à la pâte* Foundation not only encourages active participation in science lessons but also develops the spirit of teamwork among children. By introducing children to argumentation, The *La main à la pâte* Foundation purports to give a better understanding of words that are spoken, written and read. By encouraging children to debate among themselves when they solve problems, *La Main à la Pâte* also encourages constructive citizenship.

## OBJECTIVES

At the end of the workshop, participants should be able to:

- Recognise the importance of inquiry-based science education (IBSE) in teaching science;
- Recognise the philosophy and ten principles of *La main à la pâte*;
- Experience the process of inquiry-based science teaching and learning; and
- Develop an action plan for disseminating and sharing of experiences on *La main à la pâte* with colleagues and teachers in their respective home countries.

## PARTICIPANTS

The participants in this training workshop will be teacher trainers in Science.

## WORKSHOP DURATION AND VENUE

The training workshop will be held in Kuala Lumpur, Malaysia from 25-30 October 2015.

## TRAVEL

International participants will be expected to cover their own travel expenses and make their own travel arrangements to Kuala Lumpur, Malaysia. Participants should plan to arrive on 25 October 2015 (morning) and departing on 30 October 2015 (afternoon).

## FEE

There is no registration fee and meals will be provided by the organiser during the duration of the training workshop.

## HOSPITALITY

Local hospitality will be provided by the organizer to the selected participants. This includes accommodation and meals from 25 October 2015 to 30 October 2015. Participants will have to make their own arrangement if they wish to stay beyond these days and therefore should arrange their flight schedules accordingly.

## PROGRAMME

Date/Time	25 October 2015 Sunday	26 October 2015 Monday	27 October 2015 Tuesday	28 October 2015 Wednesday	29 October 2015 Thursday	30 October 2015 Friday	
8.30 am – 9.00 am	Travel					Feed-back and recommendations on professional development of teachers/ implementation plan, proposition for the future workshops (focusing on languages, assessment, resource production, conceptual scenarios...)	
9.00 am – 9.30 am		Opening Remarks: <ul style="list-style-type: none"> <li>• Dato' Ir. (Dr.) Lee Yee Cheong, Chairman, ISTIC Governing Board</li> <li>• David Wilgenbus, La main à la pâte Foundation</li> <li>• Dato' Sulaiman Wak, Rector, Malaysia Teacher Education Institute</li> </ul>	Hands-on activity III: day dedicated to an integrated project on natural disasters (volcanoes, earthquakes, tsunamis)	Video analysis: roles of the teacher in an ISBE lesson	Micro-teaching, continued		
9.30 am – 10.00 am		Official Opening and Keynote Address by YB Dato' Seri Mahdzir Khalid, Minister of Education, Malaysia					Workshop Evaluation
10.00 am – 10.30 am							Tea Break
10.30 am – 11.00 am			Tea Break				Conclusion, Closing and presentation of certificate of attendance
11.00 am – 12.00 pm		Hands-on activity I: According to the <i>La main a la pate</i> approach	Hands-on activity III, continued	Micro-teaching, group constitutions, first drafts	Micro teaching, continued		
12.00 pm – 1.00 pm							Lunch and End of the programme
1.00 pm – 2.00 pm			Lunch				Check-out hotel
2.00 pm – 3.00 pm			Hands-on activity II: According to the <i>La main a la pate</i> approach	Hands-on activity III, continued	Micro-teaching, continued	Micro-teaching, continued	Travel
3.00 pm – 3.30 pm		Check-in hotel					
3.30 pm – 4.00 pm	Tea Break						
4.00 pm – 5.00 pm	Registration		Hands-on activity III, continued	Resources and support for trainers and teachers, example from France	Micro teaching, end		
5.00 pm – 5.30 pm		Analysis of the activities: What is Inquiry based science education?	Presentation of "When the Earth rumbles" project				
6.30 pm – 8.30 pm	Dinner						
8.30 pm – 10.30 pm	<ul style="list-style-type: none"> <li>• Welcome Address by Dato' Dr Samsudin Tugiman, Director of ISTIC</li> <li>• Program Briefing by Dato' Dr. Sharifah Maimunah Syed Zin, Coordinator of the STEM Education Consultative Unit, ISTIC</li> </ul>	Review of 1 <sup>st</sup> day Hands-on activity	Science and Language	Resources for trainers	Strategy of implementation		

*Note: This programme schedule may be subjected to minor changes without prior notice.*

## APPLICATION AND CLOSING DATE

**Online application is encouraged to expedite the selection process** that can be accessed via [Application Online \(click here\)](#).

All applicants are required to complete the application form as attached in this brochure and submit as early as possible but at the latest by Friday, **18 September 2015** through email to: [info@istic-unesco.org](mailto:info@istic-unesco.org) or the ISTIC secretariat office:

International Science, Technology and Innovation Centre  
for South-South Cooperation under the auspices of UNESCO (ISTIC),  
c/o Academy of Sciences Malaysia,  
902- 4, Jalan Tun Ismail,  
50480 Kuala Lumpur,  
Malaysia.  
Tel: +603-2694 9898  
Fax: +603-2698 4549  
E-mail: [info@istic-unesco.org](mailto:info@istic-unesco.org)

The application form can also be downloaded from <http://www.istic-unesco.org>. The organiser will inform the successful applicants not later than 12 October 2015.

## ORGANISERS

### **International Science, Technology & Innovation Centre (ISTIC) for South-South Cooperation under the Auspices of UNESCO**

The creation of the International Science, Technology and Innovation Centre for South-South Cooperation under the Auspices of UNESCO (ISTIC) is a follow-up of the Doha Plan of Action, which has been adopted by the Head of States and Government of the Group of 77 and China, during the meeting in Doha, Qatar, from 12th to 16th June 2005 on the occasion of the Second South Summit of the Group of 77.

The Summit urged UNESCO to develop and implement a program for South-South cooperation in science and technology with the objective of facilitating the integration of a developmental approach into national science, technology and innovation policies, capacity building in science and technology through providing policy advice and exchange of experience and best practices, and creating a problem solving network of centers of excellence in developing countries as well as supporting the exchange of students, researchers, scientists and technologists among developing countries.

As reflected by its name, the Centre will act as an international platform for South-South cooperation in science, technology and innovation and make use of the network of the G77 plus China and the Organization of the Islamic Conference. The overall goal of the Centre is to increase the capacity for management of science, technology and innovation throughout developing countries.

### **Malaysian Teacher Education Institute**

On July 13, 2005, the Cabinet approved the 27 Teacher Training Colleges in Malaysia upgraded to Institute of Teacher Education (IPG). Instead of just issuing institution diploma and certificate graduates, these institutions now have a mandate that entitles awarded a Bachelor of Teaching. The implications of this upgrade makes IPG an institution of higher education at university level. In accordance with the standard changes, IPG has implemented the Bachelor of Teaching (PISMP). ITE first batch have already completed their studies and received a Bachelor of Teaching in 2011.

Institute of Teacher Education produces teachers who are competent and passionate through dynamic teacher development programs in creating a world-class education teachers.

## CO-ORGANISER

### ***La main à la pâte* Foundation**

*La main à la pâte* aims to renew and develop science teaching in primary schools in France and to contribute to achieving the same aim in many countries. It recommends that teachers implement an inquiry-based approach, combining exploring the world, scientific learning, experiments, mastery of language and argumentation.

For many years, *La main à la pâte* has been widely implemented abroad and its expertise is regularly solicited in order to inform and train foreign delegations, to organise training sessions abroad, to contribute to the renewal of science teaching in many countries and to make its resources available to its partners. This action falls within the framework of the many relationships maintained by the Academy of Sciences with a number of other academies throughout the world.

**APPLICATION FORM**  
(Typewritten or blocked letters)

FOR OFFICIAL USE ONLY	Please affix latest passport photograph
Reference No: Received: Checked:	

<b>Title of Programme:</b> <b>TRAINING WORKSHOP ON INNOVATIVE TEACHING &amp; LEARNING OF SCIENCE THROUGH INQUIRY-BASED SCIENCE EDUCATION (IBSE) FOR TEACHER TRAINERS</b>	<b>Date, duration &amp; venue of course:</b> <b>25-30 OCTOBER 2015, KUALA LUMPUR, MALAYSIA</b>
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**ONLINE APPLICATION PLEASE [CLICK HERE](#)**

**1. PERSONAL PARTICULARS:**

Family name (surname):	Date of Birth: (Date/Month/Year)
First name:	Nationality: (Citizenship)
Other given names:	Gender: (Male/ Female)
City and country of birth:	Marital status: (Single/ Married)
Passport No:	Designation : Prof. / Dr / Mr / Mrs / Ms

**2. COMMUNICATION AND MAILING ADDRESS:**

Applicant's Office Address:	Office Phone No:	
	Office Fax No:	
Email address:		
Mobile No:		
Person to be contacted in case of emergency (name, telephone and address):		

**3. EDUCATION:**

Name of institution and place of study	Major field of study:	Years of study	Degree

**4. EMPLOYMENT RECORD:**

<b>A. Current Post:</b>			<b>B. Previous Post:</b>		
Employer:			Employer:		
<b>Duration of service:</b>	<b>From</b>	<b>To</b>	<b>Duration of service:</b>	<b>From</b>	<b>To</b>
Title of post:			Title of post:		
Current monthly salary(US dollars):			Monthly salary (US dollars):		
Name of supervisor and title:			Name of supervisor and title:		
Type of organization: Government/Semi-Government/ Private/ NGO			Type of organization: Government/Semi-Government/ Private/ NGO		
Main functions of organization:			Main functions of organization:		
Total number of employees in organization:			Total number of employees in organization:		
Description of your current work including your responsibilities:					
*Please use supplementary pages if necessary					

**5. REASONS FOR APPLYING THIS PROGRAM:**

Please briefly state the reasons for applying this program and how you hope to benefit from this program	
Have you participated in any ISTIC training programs before: YES/ NO	
If yes;	
<b>Name of program</b>	<b>Date</b>

**6. CERTIFICATION OF ENGLISH LANGUAGE PROFICIENCY:**

	<b>Excellent</b>	<b>Good</b>	<b>Fair</b>	<b>Remarks</b>
<b>Listening</b>				
<b>Speaking</b>				
<b>Writing</b>				
<b>Reading</b>				
<b>Mother tongue:</b>				

**7. DECLARATION:**

Have you ever been convicted by a Court of Law of any country? Yes/ No  
If yes, please give brief details:

I certify that my statements in answer to the foregoing questions are true, complete and correct to the best of my knowledge and belief.

If accepted to the training workshop, I undertake to:

- i) carry out such instructions and abide by such conditions as may be stipulated by both the nominating government and the host government in respect of this course of training;
- ii) follow the course of study or training, and abide by the rules of the institution in which I undertake to study or train;
- iii) refrain from engaging in political activities, or any form of employment for profit or gain;
- iv) submit any progress reports which may be prescribed; and
- v) return to my home country promptly upon the completion of my course of studies or training.

I fully understand that if I am granted an award it maybe subsequently withdrawn if I fail to make adequate progress or for other sufficient cause determined by the host Government.

Signature of Application : \_\_\_\_\_  
Name : \_\_\_\_\_  
Date : \_\_\_\_\_

**8. OFFICIAL DECLARATION (to be completed by the Head of Department):**

The Government / Organisation of

.....  
nominates  
.....

(name of applicant)

For the program under the International Science, Technology and Innovation Centre for South-South Cooperation (ISTIC) and certifies that:

- i) all information supplied by the nominee is complete and correct;
- ii) the nominee had adequate knowledge and was appropriately tested for English Language proficiency.

Remarks:  
.....

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Signature of responsible Head of Department)

\_\_\_\_\_  
(Designation)

Address of Department/ Ministry  
\_\_\_\_\_

Official seal/ stamp

Office telephone no:

Office fax no:

Date:

Email address:

*Note: INCOMPLETE AND/OR UNENDORSED FORMS WILL NOT BE PROCESSED*