



ที่ ปน ๐๐๒๓.๒/๑๗๗๖

ถึง สำนักงานส่งเสริมการปกครองท้องถิ่นอำเภอสายบุรี , องค์การบริหารส่วนจังหวัดปัตตานี
และเทศบาลเมืองปัตตานี

กรมส่งเสริมการปกครองท้องถิ่นแจ้งว่า สำนักความสัมพันธ์ต่างประเทศ สำนักงานปลัดกระทรวง
ศึกษาธิการ ประชาสัมพันธ์ให้ครูวิทยาศาสตร์และคณิตศาสตร์สมัครเข้าขอรับทุนฝึกอบรมของศูนย์ระดับภูมิภาคว่า
ด้วยการศึกษาวิทยาศาสตร์และคณิตศาสตร์ของซีมีโอ (ศูนย์เรคเซม) เมืองปีนัง ประเทศมาเลเซีย ซึ่งจะดำเนินการ
จัดหลักสูตรฝึกอบรม ประจำปี ๒๕๕๖-๒๕๕๗ ให้แก่ประเทศสมาชิกซีมีโอ ระหว่างวันที่ ๓๑ มีนาคม ๒๕๕๗ ถึงวันที่
๒๕ เมษายน ๒๕๕๗ รวม ๔ หลักสูตร ผู้ประสงค์สมัครขอรับทุนให้จัดส่งใบสมัคร ให้ส่วนวิชาการและมาตรฐาน
การศึกษาท้องถิ่น สำนักประสานและพัฒนากิจการการศึกษาท้องถิ่น กรมส่งเสริมการปกครองท้องถิ่น ภายในวันที่ ๑
พฤศจิกายน ๒๕๕๖ รายละเอียดปรากฏตามสำเนาหนังสือกรมส่งเสริมการปกครองท้องถิ่น ที่ มท ๐๘๙๓.๒/ว ๒๑๙๔
ลงวันที่ ๑๖ ตุลาคม ๒๕๕๖ ที่ส่งมาพร้อมหนังสือฉบับนี้

จึงเรียนมาเพื่อทราบและประชาสัมพันธ์



สำนักงานส่งเสริมการปกครองท้องถิ่นจังหวัด
กลุ่มงานมาตรฐานการบริหารงานบุคคลท้องถิ่น
โทร. ๐-๗๓๓๓-๙๕๑๙ , ๐-๗๓๓๓-๖๐๔๔ ต่อ ๑๑๔
โทรสาร ๐-๗๓๓๓-๖๕๘๑



เลขที่หนังสือออก
10473
วันที่ 18 ต.ค. 2556
10.00

☐ จ.ปท.
☒ ก.มบ.
☐ ก.พธ.
☐ ก.กร.
☐ ก.งบ.

ที่ มท ๐๘๙๓.๒/ว ๒๑๕๔
ถึง สำนักงานส่งเสริมการปกครองท้องถิ่นจังหวัด ทุกจังหวัด

ด้วยสำนักความสัมพันธ์ต่างประเทศ สำนักงานปลัดกระทรวงศึกษาธิการ ได้ขอความร่วมมือกรมส่งเสริมการปกครองท้องถิ่นพิจารณาเสนอชื่อผู้ที่มีคุณสมบัติเหมาะสมเพื่อสมัครขอรับทุนฝึกอบรมของศูนย์ระดับภูมิภาคว่าด้วยการศึกษาวิทยาศาสตร์และคณิตศาสตร์ของซีมีโอ (ศูนย์เรคแคม) เมืองปิ่นัง ประเทศมาเลเซีย ซึ่งจะดำเนินการจัดหลักสูตรฝึกอบรม ประจำปี ๒๕๕๖ - ๒๕๕๗ ให้แก่ประเทศสมาชิกซีมีโอ ระหว่างวันที่ ๓๑ มีนาคม ๒๕๕๗ ถึงวันที่ ๒๕ เมษายน ๒๕๕๗ รวม ๔ หลักสูตร โดยศูนย์เรคแคมจะรับผิดชอบค่าบัตรโดยสารเดินทางระหว่างประเทศ (ไป-กลับชั้นประหยัด) ค่าที่พัก และค่าอาหารให้กับผู้ที่ได้รับการคัดเลือกให้ได้รับทุนดังกล่าว รายละเอียดปรากฏตามเอกสารที่ส่งมาพร้อมนี้

กรมส่งเสริมการปกครองท้องถิ่นจึงขอความร่วมมือสำนักงานส่งเสริมการปกครองท้องถิ่นจังหวัดแจ้งองค์กรปกครองส่วนท้องถิ่นที่จัดการศึกษาได้ประชาสัมพันธ์ให้ครูวิทยาศาสตร์และคณิตศาสตร์ในสังกัดทราบ และสมัครขอรับทุนโดยทั่วกัน ทั้งนี้ ผู้สมัครรับทุนควรเป็นครูผู้สอนวิชาวิทยาศาสตร์หรือคณิตศาสตร์ระดับชั้นประถมศึกษาและมัธยมศึกษา มีอายุไม่เกิน ๕๐ ปี และมีความรู้ความสามารถด้านภาษาอังกฤษเป็นอย่างดี โดยมีคะแนนสอบ IELTS เท่ากับ ๕.๐ หรือเทียบเท่า และหากมีผู้ประสงค์สมัครขอรับทุนให้จัดส่งใบสมัครและสำเนาใบสมัคร รวมจำนวน ๕ ชุด ให้ส่วนวิชาการและมาตรฐานการศึกษาท้องถิ่น สำนักประสานและพัฒนาการจัดการศึกษาท้องถิ่น กรมส่งเสริมการปกครองท้องถิ่น ภายในวันที่ ๑ พฤศจิกายน ๒๕๕๖ เพื่อกรมส่งเสริมการปกครองท้องถิ่นจะได้ดำเนินการพิจารณาคัดเลือกผู้สมัครรับทุนหลักสูตรละ ๒ คน เสนอให้สำนักความสัมพันธ์ต่างประเทศ สำนักงานปลัดกระทรวงศึกษาธิการ ภายในวันที่ ๖ พฤศจิกายน ๒๕๕๖ ต่อไป



สำนักประสานและพัฒนาการจัดการศึกษาท้องถิ่น
ส่วนวิชาการและมาตรฐานการศึกษาท้องถิ่น
โทร. ๐ ๒๒๔๑ ๙๐๐๐ ต่อ ๕๓๔๙
โทรสาร ๐ ๒๒๔๑ ๙๐๒๑-๓ ต่อ ๑๑๒-๓



ส่วนวิชาการและมาตรฐานการศึกษาท้องถิ่น
ที่ ศธ ๐๐๕-๐๓๕-๕๕/๑๒๗
วันที่ ๒๗ ก.ย. ๒๕๕๖
เวลา.....

กรมส่งเสริมการปกครองท้องถิ่น
เลขรับ 62225
วันที่ 27 ก.ย. 2556
เวลา.....
กระทรวงศึกษาธิการ

๓๑๙ ถนนราชดำเนินนอก
ดุสิต กทม. ๑๐๓๐๐

๒๕ กันยายน ๒๕๕๖

เรื่อง ทูลเกล้าทูลกระหม่อมขอพระกรุณาโปรดเกล้าฯ

เรียน อธิบดีกรมส่งเสริมการปกครองท้องถิ่น

สิ่งที่ส่งมาด้วย รายละเอียดหลักสูตร และแบบฟอร์มใบสมัครรับทุน จำนวน ๑ ชุด

สำนักประชาสัมพันธ์
เลขรับ 8484
วันที่.....
เวลา.....

ด้วยศูนย์ระดับภูมิภาคว่าด้วยการศึกษาวิทยาศาสตร์และคณิตศาสตร์ของซีมีโอ (เรคแคม) เมืองปิ่น ประเทศมาเลเซีย แจ้งว่า จะดำเนินการจัดหลักสูตรฝึกอบรมประจำปี ๒๕๕๖ - ๒๕๕๗ ให้แก่ประเทศสมาชิกซีมีโอ รวม ๔ หลักสูตร ระหว่างวันที่ ๓๑ มีนาคม - ๒๕ เมษายน ๒๕๕๗ ดังนี้

๑. หลักสูตร RC-SS-138-1: Linking Secondary Science Learning to Everyday Life and Societal Needs ผู้เข้าอบรมควรเป็นครูวิทยาศาสตร์ระดับมัธยมศึกษา หรือนักการศึกษาด้านวิทยาศาสตร์

๒. หลักสูตร RC-PM-138-2: Making Real Life Connections and Developing Mathematical Ideas in Primary Classrooms ผู้เข้าอบรมควรเป็นครูคณิตศาสตร์ระดับประถมศึกษา หรือนักการศึกษาด้านคณิตศาสตร์

๓. หลักสูตร RC-PM-138-3: Developing Mathematical Thinking through Game-Based Learning in Primary Classrooms ผู้เข้าอบรมควรเป็นครูคณิตศาสตร์ระดับประถมศึกษา หรือนักการศึกษาด้านคณิตศาสตร์

๔. หลักสูตร RC-SS-138-4: Lesson Study: Improving Instructional Practices in Secondary Science Classrooms ผู้เข้าอบรมควรเป็นครูวิทยาศาสตร์ระดับมัธยมศึกษา หรือนักการศึกษาด้านวิทยาศาสตร์

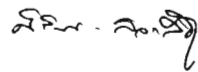
ในการนี้ ศูนย์เรคแคมได้ขอความร่วมมือจากกระทรวงศึกษาธิการในการพิจารณาเสนอชื่อผู้สมัครรับทุนดังกล่าว ภายในวันที่ ๓๐ พฤศจิกายน ๒๕๕๖ ซึ่งผู้สมัครควรมีอายุไม่เกิน ๕๐ ปี มีสุขภาพแข็งแรง และมีความรู้ความสามารถด้านภาษาอังกฤษเป็นอย่างดี โดยมีคะแนนสอบ IELTS เท่ากับ ๕.๐ หรือเทียบเท่า ทั้งนี้ ศูนย์เรคแคมจะรับผิดชอบค่าบัตรโดยสารเดินทางระหว่างประเทศ (ไป-กลับชั้นประหยัด) ค่าที่พัก และค่าอาหารให้กับผู้ที่ได้รับการคัดเลือกให้ได้รับทุนดังกล่าว รายละเอียดดังแนบ

/สำนักงาน..

สำนักงานปลัดกระทรวงศึกษาธิการ ขอความร่วมมือจากหน่วยงานของท่านในการพิจารณาเสนอชื่อผู้มีคุณสมบัติเหมาะสม หลักสูตรละ ๒ คน พร้อมทั้งส่งใบสมัครและสำเนารวม ๕ ชุด ให้สำนักงานความสัมพันธ์ต่างประเทศ สป. ภายในวันที่ ๖ พฤศจิกายน ๒๕๕๖ สำหรับกำหนดการสอบข้อเขียนและสัมภาษณ์ผู้สมัครรับทุน จะแจ้งให้ทราบในภายหลัง

จึงเรียนมาเพื่อโปรดพิจารณาให้ความร่วมมือในเรื่องข้างต้นด้วย จะขอบคุณมาก

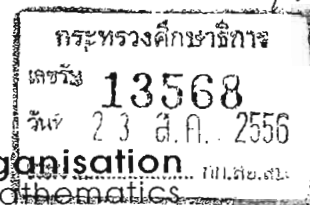
ขอแสดงความนับถือ



(นางศิริพร กิจเกื้อกูล)

รองปลัดกระทรวง ปฏิบัติราชการแทน
ปลัดกระทรวงศึกษาธิการ

สำนักความสัมพันธ์ต่างประเทศ
สำนักงานปลัดกระทรวง
โทร ๐ ๒๒๘๑ ๖๓๗๐ ต่อ ๑๑๐
โทรสาร ๐ ๒๒๘๑ ๐๙๕๓



Southeast Asian Ministers of Education Organisation
Regional Centre for Education in Science and Mathematics

Our Ref.: RCP/GEN/157/V.22(59)
28 June 2013

Permanent Secretary / Director-General / Secretary-General / Undersecretary
Ministries of Education, SEAMEO Member Countries:

Ms Panita Kambhu
Permanent Secretary
Ministry of Education
Rajdamnern Avenue
Bangkok 10300, THAILAND

Dear Sir/Madam,

RECSAM REGULAR COURSES FOR FISCAL YEAR 2013/2014 (31 MARCH 2014 ~ 25 APRIL 2014)

We are honored to inform you that this Centre will be offering courses for senior educators and teacher trainers from SEAMEO member countries. Herewith are the information and condition that will assist the various Ministries of Education in their selection of nominees to attend RECSAM Regular Courses.

2.0 NOMINATION OF PARTICIPANTS

2.1 Please send the list of **Nominees, Participants' Application Forms and the Scholarship Agreements for the courses as stipulated in the following table.** It is much appreciated if the Ministries of Education could cooperate to meet with the deadlines suggested. The participants may be nominated to the courses according to the allocations as stated below.

Title of Courses	No. of Scholarships Offered Per Country	Deadline for documents to reach RECSAM
RC-SS-138-1: Linking Secondary Science Learning to Everyday Life and Societal Needs	2	30 November 2013
RC-PM-138-2: Making Real Life Connections and Developing Mathematical Ideas in Primary Classrooms	2	30 November 2013
RC-PM-138-3: Developing Mathematical Thinking through Game-based Learning in Primary Classrooms	1	30 November 2013
RC-SS -138-4: Lesson Study: Improving Instructional Practices in Secondary Science Classrooms	2	30 November 2013

Member Countries are welcome to send fee-paying participants for the above courses (see item 5.0 for conditions). Applications for places could be made earlier through telephone call or e-mail at director@recsam.edu.my followed by an official letter.

2.2 The qualifications required for the course participants are described in the annexures of the different courses. **Please follow the required qualifications as strictly as possible in your selection of** participants for the respective courses. This is to ensure active participation during the course and to allow participants to derive full benefit from the courses. In addition, to enhance the impact of these courses it is suggested that the nominated participants are key personnel who are/will be likely to effect considerable multiplier effects upon their return to their respective positions.

2.3 The nominated participants must be in good health both physically, mentally and certified medically fit in order to complete the course (Applicants must submit his/her **medical certificate** together with the application form).

2.4 Nominations would normally be considered only upon receipt of the duly completed application forms of the nominees. Please notify RECSAM soonest possible if your country is unable to fill the number of scholarships specified. The vacant places may be offered to other member countries with due notice.

2.5 Applicants should also submit a photocopy of the front page of their passports with their particulars clearly printed. Applicants who do not have a passport at the time of application will need to submit the documents **two weeks** after notification of acceptance.

2.6 **Attention.** Application forms are to be completed in duplicates by each candidate. Kindly reproduce more copies of the forms if necessary. Completed application forms and scholar agreement, medical report, photocopy of International passport and other relevant documents of the nominated candidates must be sent to RECSAM before the deadline given (see table). If this is not possible, then a list of the names of potential candidates with the certified copy of their qualifications in Science / Mathematics must be sent in advance to RECSAM. All member countries are expected to **NOMINATE AT LEAST THREE NAMES** as candidates for each course. RECSAM will select two candidates from these nominees for courses RC-SS-138-1, RC-PM-138-2 and RC-SS-138-4, and one candidate from these nominees for course RC-PM-138-3. If any of the candidate's qualification does not meet the requirements stated, RECSAM has the right to **reject** that particular candidate and the scholarship be given to candidates from other **member countries**.

3.0 COURSE INFORMATION

3.1 *Details of the Courses*

Please refer to attached booklet on course descriptions.

3.2 *Compulsory Requirement*

All participants must have a good working knowledge of spoken and written English in order to get the maximum benefit out of the courses. **A certified copy of their proficiency in English must be attached with the participants' form.**

4.0 GENERAL INFORMATION

4.1 *Air Travel and Personal Accident Insurance*

Participants should secure their own air-travel and personal insurance themselves throughout the duration of the course. RECSAM will not be responsible for taking insurance to cover air-travel and personal insurance accidents. **No responsibility for any form of insurance or any other expenses such as passport fee, visa fee, exit fee, airport tax, insurance premium, etc. will be assumed by RECSAM, SEAMEO Secretariat or the Government of Malaysia.**

4.2 Health and Age Limit

The nominated participant must be in excellent health and should not be more than 50 years of age.

4.3 Expectant Mothers

Because of the intensive nature of the training programme, it may not be advisable for female participants who are in the family way to attend these courses. Moreover, most airlines generally do not accept passengers who are in an advanced stage of pregnancy, normally around 7 months and above. As such, nominating Ministries should ensure that participants will not face this problem particularly on their homeward journey. RECSAM reserves the right to terminate the training programme of any participant who is likely to face such a problem. However, the termination procedure will, as usual, be made in consultation with the nominating Ministry.

4.4 Terms of Scholarships

Participants from SEAMEO countries on SEAMEO Scholarships will be provided with:

- i. Economy class air-ticket from capital city/or nearest International Airport from participant's work station to Penang and back (excluding any air-travel tax). As soon as nominations are received and accepted by RECSAM Office, airline tickets will be dispatched to the respective Ministries of Education unless otherwise requested by the Ministries of Education to be sent to the nearest city where the participants live.
- ii. Food and accommodation on twin-sharing basis are provided at RECSAM International House for the duration of the course.

Attention: Any fee incurred by a participant due to last minute cancellation of ticket or replacement of participant, after the ticket is issued, should be borne by the Ministry of Education of that nominating country. SEAMEO RECSAM will not take on the responsibility for such penalty charge or extra charge of any kind pertaining to the above.

4.5 Each participant is requested to complete and sign 3 copies of the "SEAMEO-RECSAM Scholar Agreement" Forms. Kindly reproduce more copies of the agreement if necessary. Two fully completed copies are to be returned following the date as specified in 2.1 and one copy to be kept by the Ministries of Education for reference.

4.6 Accommodation, Food and Attire

Participants will be accommodated at RECSAM International House and food will be provided at RECSAM Cafeteria. On occasions when meals are not catered for, food allowance will be given. The rooms are of double occupancy with bathroom attached. RECSAM has the right to allocate room-mates to the participants. All participants are expected to be properly dressed for classes — no T-shirts and jeans during class sessions.

4.7 Early Issue of Exit Permits and Entry Visas to Malaysia

It is requested that the following be done as early as possible:

- i. Exit permit for nominated participants (except for Malaysians and Singaporeans) must be obtained from their own Government, and
- ii. Entry visa for nominated participants (except for Malaysians, Singaporeans and Bruneians) into Malaysia must be obtained from the **Malaysian Embassy in the participants' own country**. The visa should be a minimum of 6 weeks to cover the 4 week period of the course, with multiple entries for the participants, should they require to go back in case of emergencies. RECSAM will send the participants a letter of offer to help expedite the visa application process when we receive the participants' names from the Ministries of Education.

4.8 National Costume for Closing Ceremony

It is requested that each participant from the various member countries bring along with him/her the **country's national costume to be worn during the Closing Ceremony**.

4.9 Cultural Performance

It is a normal practice in RECSAM that at the end of every batch of courses, there will be a cultural performance held after the closing ceremony and certificate presentation. Participants from different SEAMEO countries are expected to give a cultural presentation (eg. dance, drama, and the like) that depicts the culture of their countries. It would certainly be very helpful if they could come prepared with the necessary items such as costumes, musical instruments, etc. related to their culture.

4.10 Gifts Exchange

Before the participants leave for their home countries, there will usually be the exchanging of souvenirs and gifts among participants. It is advisable that the participants bring along souvenirs for this purpose.

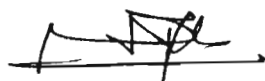
5.0 PARTICIPANTS FROM MEMBER COUNTRIES ON FEE-PAYING BASIS

The following are the conditions for participants from Member Countries on fee-paying basis:

- i. They will also abide by the stipulations of the RECSAM Scholar Agreement and follow the requirements of the programme;
- ii. They are physically fit and meet the necessary qualifications to attend the course;
- iii. They pay a minimum course fee which does not cover airfare, medical expenses, insurance, and extension of visa fees. (For further enquiries, kindly write to Director, SEAMEO RECSAM, Jalan Sultan Azlan Shah, 11700 Gelugor, Penang, Malaysia, or email director@recsam.edu.my; Fax: +6-04-6522-737 or +6-04-6522-742).

Thank you.

Yours sincerely,



Dr. HJ. MOHD JOHAN BIN ZAKARIA
Centre Director
SEAMEO RECSAM

Copies to:
Chairman & Members of RECSAM Governing Board
SEAMEO Affairs Officers, Ministries of Education, SEAMEO Member Countries.
Director, SEAMEO Secretariat, Bangkok 10110, Thailand

*Enclosed please find the following documents for your perusal and action:

- i. Application Form
- ii. SEAMEO RECSAM Scholarship Agreement
- iii. Course description for fiscal year 2013/2014
- iv. Checklist for the documents to be submitted to SEAMEO RECSAM by each participants

REGULAR COURSES (For Fiscal Year 2013/2014)

Course Description

RC-SS-138-1: Linking Secondary Science Learning to Everyday Life and Societal Needs

RC-PM-138-2: Making Real Life Connections and Developing Mathematical Ideas in Primary Classrooms

RC-PM-138-3: Developing Mathematical Thinking through Game-based Learning in Primary Classrooms

RC-SS -138-4: Lesson Study: Improving Instructional Practices in Secondary Science Classrooms



**SOUTHEAST ASIAN MINISTERS OF EDUCATION ORGANISATION
REGIONAL CENTRE FOR EDUCATION IN SCIENCE AND MATHEMATICS**

Jalan Sultan Azlan Shah, 11700 Gelugor, Penang, Malaysia

Telephone: 604-652-2700 | Fax: 604-652-2737

<http://www.recsam.edu.my/>

REGULAR COURSES FOR FISCAL YEAR 2013/2014

(All courses are of 4 weeks duration)

No.	Title of Courses
1	RC-SS-138-1: Linking Secondary Science Learning to Everyday Life and Societal Needs
2	RC-PM-138-2: Making Real Life Connections and Developing Mathematical Ideas in Primary Classrooms
3	RC-PM-138-3: Developing Mathematical Thinking through Game-based Learning in Primary Classrooms
4	RC-SS -138-4: Lesson Study: Improving Instructional Practices in Secondary Science Classrooms

Level:

P: Primary

S: Secondary

Subject:

S: Science

M: Mathematics

REGULAR COURSES FOR FISCAL YEAR 2013/2014

Course Code: RC-SS-138-1

Course Title:

LINKING SECONDARY SCIENCE LEARNING TO EVERYDAY LIFE AND SOCIETAL NEEDS

Rationale:

Science and technology play a fundamental role in supporting the continued functioning of the Earth as the life sustaining system. Scientific and technological knowledge and skills are increasingly important for the prudent management of the environment and for the socio-economic development to meet daily survival needs as well as for the sustainability of resources and future development of humanity. Hence, the teaching and learning of secondary science should link directly to the development of life skills in students in facing the ever increasing challenges of the socio-economic and environmental changes in this modern era. The present young generation must be equipped with scientific and technological knowledge to be literate and creative in line with societal needs, now and in the future, to make informed decisions, solve problems, and acquire life skills to improve quality of life and the environment. As such, teaching and learning of science must be made relevant and responsive to the emerging needs and changes of the Earth system and technological development.

Objectives:

The main objective of this course is to expose participants to the various strategies that can be used in primary science classroom to inculcate scientific and technological literacy and acquire basic life skills through investigative inquiry based on local and real life issues.

At the end of the course, participants are able to:

1. apply various strategies and instructional resources to make science lessons interesting and meaningful for learning;
2. link classroom science lessons to real life issues to inculcate scientific and technological literacy;
3. design science inquiry activities to acquire life skills for problem solving and making informed decisions; and
4. use the lesson quality improvement process to develop quality and learner-centred lesson plans to promote scientific literacy and attainment of life skills.

Course Contents:

This course showcases the effective application of theory into classroom practice by carrying out various investigative inquiry activities based on selected local and real life

issues. Special effort will be made to bridge the gap between classroom science lessons to meaningful learning for inculcating scientific and technological literacy and acquisition of life skills.

The major areas include:

1. Current issues and trends in science education relating to socio-economic and environmental development;
2. The concepts of scientific and technological literacy and life skills;
3. Strategies, including emerging technologies, ICT and multimedia resources to promote meaningful learning of science and attainment of life skills;
4. Inquiry approach to investigate real life issues and problems relating to socio-economic and environmental development;
5. Alternative assessment strategies for life skills development; and
6. Planning, designing, developing and trying out sample lesson plans/ activities/materials with emphasis on the principles of instructional design and subject to lesson quality improvement process to produce science inquiry lesson plans and related teaching materials.

Duration: Four weeks

Participants: Science educators or key secondary science teachers

Expected Output: Project work report (Group report)

Multiplier effect action plan (Individual action plan)

Course Code: RC-PM-138-2

Course Title:

**MAKING REAL LIFE CONNECTIONS AND DEVELOPING MATHEMATICAL IDEAS IN
PRIMARY CLASSROOMS**

Rationale:

In traditional mathematics classrooms, teachers teach mathematics using direct instruction. Students learn mathematics passively and they find mathematics uninteresting, difficult and isolated because they are unable to connect to the concepts taught. However, when connections are made, mathematics instantaneously come alive, become real and applicable. Making real life connections lets the students experience for themselves how they can use mathematics in their daily lives, as well as how they could use it in their future careers. These connections can best be made possible by using approaches like problem-based learning and realistic mathematics education. Strong grounding of mathematics content and conception is integrated with various skills and values that the students will find essential in life. Interests in the subject are rekindled and passion instilled. Students become motivated as they will realise that mathematics are not only easy but can be fun as well.

Objectives:

At the end of the course, participants are able to:

1. describe and explain certain trends and issues in mathematics education;
2. develop mathematical concepts using real life examples;
3. use effective approaches in mathematics learning that can connect mathematics to real life;
4. assess learning of mathematics in real life; and
5. plan, develop, try-out and improve strategies, skills and values which can make connections between mathematical concepts with real life happenings using the lesson quality improvement process.

Course Contents:

This course emphasises a good exposure to trends and issues in mathematics education, a good grounding of strong mathematical content and concepts through real life examples, effective approaches, a variety of assessment techniques & skills, values and passion in teaching.

The major areas include:

1. Trends & issues in mathematics education:
 - 1.1. Constructivism in mathematics education
 - 1.2. The nature of mathematics
 - 1.3. The core areas in mathematics education
- content, mental processes, skills & values
 - 1.4. Conceptions & misconceptions
2. Using real life examples to develop mathematics concepts in
 - 2.1. Numbers
 - 2.2. Algebra
 - 2.3. Geometry
 - 2.4. Data Presentation
3. Making real life connections through:
 - 3.1. Problem-based learning
 - 3.2. Realistic mathematics education
4. Assessment for learning:
 - 4.1. Assessment in real life mathematics
 - 4.2. Instruments & techniques of assessment
 - 4.3. Facilitating & questioning techniques
 - 4.4. Observation skills
5. Planning, developing, trying-out and improving strategies, skills and values which can make connections between mathematical concepts with real life happenings using the lesson quality improvement process.

Duration: Four weeks

Participants: Mathematics educators or key primary mathematics teachers

English proficiency: Minimum IELTS band 5.0 or equivalent

Expected Output: Project work report (Group report)

Multiplier effect action plan (Individual action plan)

Course Code: RC-PM-138-3

Course Title:

DEVELOPING MATHEMATICAL THINKING THROUGH GAME-BASED LEARNING IN PRIMARY CLASSROOMS

Rationale:

Thinking and reasoning mathematically are integral to children's construction of mathematical knowledge. In view of the vast development in technology, game-based learning has gained popularity as an effective and innovative instructional strategy among 21st century mathematics teachers. Exploring mathematical ideas is made possible through the use of games in educational setting. By designing games that are supported by well-researched mathematical pedagogy, games can develop mathematical skills and processes among young learners, with fun and creativity injected into their learning experience. Thus, game-based learning can bridge the gap between students' interest and how mathematics lessons are taught. Moreover, Mathematical processes such as problem solving, reasoning, communication, making connections and representation can be promoted through game-based learning approach. By integrating appropriate games in mathematics lessons, the quality of Mathematics education can also be improved. As such, game-based learning is a promising way to develop students' mathematical thinking. This course aims to encourage mathematics teachers and educators to use games to promote mathematical processes and mathematics pedagogy in their classroom practice.

Objectives:

The main objective of the course is to provide participants the necessary knowledge and skills in conducting game-based learning in their own classrooms. At the end of the course, participants should be able to:

1. identify and evaluate the use of games available for teaching and learning of mathematics which can promote mathematical thinking;
2. create mathematics lessons that integrate the use of games to promote mathematical thinking;
3. assess learning of mathematics when using games;
4. use the lesson quality improvement process to develop quality lesson plans that illustrate the integration of games in mathematics lessons that promote mathematical thinking;

Course Contents:

This course focuses on activity-oriented and allows participants to be engaged in group discussing, sharing of experiences, demonstrations, planning and developing sessions in the area of Mathematical thinking and Games.

The major areas include:

- 1 Game-based Learning
 - 1.1 Philosophy and current Issues;
- 2 Types of Games
 - 2.1 Technological games;
 - 2.2 Non-technological games;
- 3 Characteristics of Educational Games
 - 3.1 Selection of games;
 - 3.2 Evaluation of games;
- 4 Mathematical Thinking
 - 4.1 Difficulties and issues in mathematical learning and thinking;
- 5 Mathematical Process Skills
 - 5.1 Problem solving;
 - 5.2 Reasoning and proving;
 - 5.3 Mathematical connection;
 - 5.4 Representation;
 - 5.5 Communication;
- 6 Metacognitive Process
 - 6.1 Metacognitive knowledge;
 - 6.2 Metacognitive regulation;
 - 6.3 Metacognitive experiences;
- 7 Integration of Games in Mathematics Lessons to promote Mathematical Thinking
 - 7.1 Issues and Challenges;
- 8 Assessment for Learning
 - 8.1 Assessment in game-based learning
 - 8.2. Observation skills;
 - 8.3. Facilitating and questioning techniques;

9 Lesson Quality Improvement Process

9.1 Lesson quality improvement process (Theory into Practice);

9.2 Planning, developing, trying-out and involving quality lesson plans that illustrate the integration of games in mathematics lessons that promote mathematical thinking;

Duration: Four weeks

Participants: Primary Mathematics teachers or Mathematics educators. Participants must have prior knowledge of basic ICT

English proficiency: Minimum IELTS band 5.0 or equivalent

Expected Output: Project work report (Group Project)

Multiplier effect action plan (Individual action plan)

COURSE CODE: RC-SS-138-4

COURSE TITLE:

LESSON STUDY: IMPROVING INSTRUCTIONAL PRACTICES IN SECONDARY SCIENCE CLASSROOMS

Rationale:

Effective teaching requires good planning and implementation of thoughtful lessons. In most cases effective lessons are designed by good teachers who spend a great deal of time reflecting on their teaching and reviewing the results from the previous classes taught. As a form of embedded Continuing Professional Development (CPD) for teacher, Lesson Study is now widely used to harness teachers' reflective skills more systematically. Lesson Study processes include the major steps of lesson planning and development, lesson presentation/observation and reflection on the lesson. Lesson Study processes enable teachers to systematically study their teaching strategies and lessons. Through Lesson Study educators are encouraged to develop their own theories and pedagogy from their classroom practices to enhance professional growth through collaborative efforts. Thus Lesson Study is well suited as a form of self-reflective inquiry widely used in school-based curriculum, school improvement and teachers' Continuing Professional Development.

Objectives:

The main objective of this course is to provide participants the knowledge and skills required to conduct Lesson Study in their own classrooms.

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

1. acquire the basic knowledge on the nature, historical background and elements of Lesson Study
2. use alternative teaching methods/strategies through the Lesson Study processes
3. acquire skills necessary to improve the teaching and learning of science
4. collaboratively design, implement, evaluate and report Lesson Study processes in secondary science classroom.

Course Contents:

This course emphasises a good grounding of theory with reflective classroom practices. Participants will be involved in hands-on and minds-on activities that facilitate discussions and team work. It is expected that participants will acquire knowledge and skills to initiate and design small-scale Lesson Study projects aimed at improving secondary science classroom practices in their respective schools.

The major areas include:

1. Introduction to Lesson Study
 - 1.1 Overview and historical background of Lesson Study
 - 1.2 Nature and characteristics of Lesson Study
2. Trends, issues and values in secondary science education
 - 2.1 Continuing Professional Development (CPD) for teachers
 - 2.2 Student-centred strategies to improve secondary science teaching and learning
 - 2.3 Assessment for learning
3. The essential elements of Lesson Study process
 - 3.1 Lesson planning and lesson development
 - 3.2 Lesson presentation/observation
 - 3.3 Lesson reflection
 - 3.4 Lesson improvement
4. Design and implement Lesson Study project in school
 - 4.1 Lesson planning for collaborative Lesson Study
 - 4.2 Lesson development through the Lesson quality improvement process
 - 4.3 Try-out: Implementing lesson plan projects in local school and lesson observation
 - 4.4 Lesson reflection and lesson improvement
 - 4.5 Documenting Lesson Study process

Duration: Four weeks

Participants: Science educators or key secondary science teachers

English proficiency: Minimum IELTS band 5.0 or equivalent

Expected Output: Project work report (Group report)

Multiplier effect action plan (Individual action plan)

**Fee Paying Schedule for SEAMEO RECSAM Regular Courses (Wef 1 July 2012)
For Residential and Non-Residential Participants**

All components provided are for duration of 4 weeks

PACKAGE ITEM	A RESIDENTIAL WITH FOOD/POCKET ALLOWANCE	B NON-RESIDENTIAL WITH FOOD/POCKET ALLOWANCE
	RM	RM
Tuition fees	780.00	780.00
Accommodation (Twin-sharing)	1,260.00	-
Facilities	670.00	670.00
Food	980.00	980.00
Materials	400.00	400.00
Local travel	100.00	100.00
Medical (outpatient)	50.00	50.00
TOTAL	4,240.00	2,980.00

Note:

The fee excludes participant's airfares, in-patient medical and health expenses, and travel insurance.

รายละเอียดเกี่ยวกับผู้สมัครรับทุนเรคแฮม

ชื่อหลักสูตร _____

- ชื่อและนามสกุล _____
Name _____
วุฒิ _____
- วิชาเอก _____ วิชาโท _____
- วันเดือนปีเกิด _____ อายุ _____ ปี อายุราชการ _____ ปี
- ตำแหน่งและที่ทำงานปัจจุบันพร้อมหมายเลขโทรศัพท์ (เขียนให้ละเอียดและชัดเจน)

ที่อยู่โรงเรียน _____
โทรศัพท์ _____ โทรสาร _____

- ความรู้ภาษาอังกฤษ ☐ ดี ☐ ปานกลาง ☐ พอใช้
- ความรู้ภาษาอื่น ๆ ☐ จีน ☐ ญี่ปุ่น ☐ อื่น ๆ โปรดระบุ _____
- ความรู้ด้านคอมพิวเตอร์ ☐ ดี ☐ ปานกลาง ☐ พอใช้
- ประสบการณ์และพินความรู้ทางด้านภาษาที่เกี่ยวข้องกับหลักสูตรการอบรมที่เสนอขอรับทุน
 - 8.1 _____
 - 8.2 _____
 - 8.3 _____
 - 8.4 _____
 - 8.5 _____
 - 8.6 _____
 - 8.7 _____
 - 8.8 _____

- เคยเดินทางไปศึกษา/ฝึกอบรม/ ดูงาน/ประชุม/สัมมนาต่างประเทศหรือไม่

☐ เคย ☐ ไม่เคย

(ถ้าเคยให้แจ้งด้วยว่า เคยไปศึกษา/ฝึกอบรม/ ดูงาน/ประชุม/สัมมนาในเรื่องใด ที่ไหน และเมื่อไร)

10. หน้าที่การงานปัจจุบัน

10.1 การสอนหรือการนิเทศ _____

10.2 งานพิเศษ _____

10.3 งานอื่น ๆ _____

11. เหตุผลที่ประสงค์จะไปอบรมที่ศูนย์เรคแคม _____

12. งานที่จะทำเมื่อกลับจากการอบรมแล้ว (หากได้รับทุน)

13. ข้าพเจ้าขอรับรองว่า ข้อความดังกล่าวข้างต้นถูกต้อง และเป็นความจริง

ผู้สมัครลงนาม _____

ผู้บังคับบัญชา _____

ตำแหน่ง _____

REF NO.

(FOR OFFICIAL USE ONLY)

SEAMEO RECSAM SCHOLAR AGREEMENT

THIS DEED is made the _____ day of _____ Two Thousand and Fourteen (2014) between _____ of _____

(hereinafter called 'the Scholar') of the first part and the Southeast Asian Minister of Education Organization (hereinafter called 'SEAMEO') of the second part.

WHEREAS the Scholar will pursue the course of training specified in the Schedule hereto (hereinafter called 'the Course') at the SEAMEO Regional Centre for Education in Science and Mathematics in Penang, Malaysia under a scholarship granted by SEAMEO. AND WHEREAS the Scholar has expressed his willingness to accept the Scholarship upon the terms hereafter set out:

NOW THIS DEED witnesseth as follows:

1. In this deed unless the context of otherwise requires:

Words importing the masculine gender include females;

Words in the singular include the plural and words in the plural include the singulars;

2. The Scholar hereby covenants:

- (i) that he will enter upon and diligently continue in the Course and that he will complete the Course within the prescribed time specified in the Schedule hereto;
- (ii) that he will devote his whole time to the Course and will, to the best of his ability apply himself to the Course to the satisfaction of the supervisors, tutors or instructors associated therewith;
- (iii) that he will follow all the sessions of the Course and sit for all the assessment tests prescribed, if any, for the Course within the limits of time prescribed in the Schedule hereto;
- (iv) that he will conform to the regulations and discipline in force from time to time at his place of study or training and at his place of residence;
- (v) that he will reside in RECSAM's hostel, or other place as directed by the Director of the SEAMEO Regional Centre for Education in Science and Mathematics (hereafter called 'the Director');
- (vi) that all rights, including title, copyright and patent rights, in any work produced by him as part his course/project of RECSAM shall be vested in the Course;
- (vii) that he will not undertake any occupation, either remunerative or otherwise, outside the course except with prior approval of the Director;
- (viii) that he will, if in receipt of any remuneration, whether in money or money's worth for any work or service which he is required to undertake or perform as part of the Course or any award gained during the Course, report the same to the Director and shall if so required by the Director surrender to the Director all or such proportion of any such remuneration or award as the Director may determine, retaining any remainder thereof for himself;
- (ix) that he will refrain from participation in political activities not normally permitted in the institution in which the Course is taken;
- (x) that he will not change his subjects of study or programme of training or take any additional courses without the prior written permission of the Director; and
- (xi) that he will not leave the country unless with the joint approval of his Ministry of Education as well as that of the Centre Director.

3. If the Scholar shall:-

- (i) be idle or grossly misbehaves himself towards the supervisors, tutors, or instructors associated with the Course or commit a breach of his obligations under this deed; or
- (ii) by reason of illness or injury be unable to carry out his obligations under this deed;

Then in either of those cases SEAMEO may forthwith terminate the scholarship by giving notice to the Scholar but without prejudice to the rights of the parties hereunder in respect of any antecedent breach of the covenants and stipulations herein contained.

4. The Scholar for himself and his/her personal representative hereby further undertakes:-

- (i) to absolve SEAMEO including its servants from any liability to the Scholar for loss of life or injury to his person or damage or loss to his property arising from the negligence of the servants of SEAMEO; and
- (ii) to indemnify and keep harmless SEAMEO against all proceedings, suits, actions, claims, demands, costs and expenses whatsoever which may be taken or made against SEAMEO or incurred or become payable by SEAMEO in respect of injury (whether fatal or otherwise) to any person or damage or loss to any property occasioned directly or indirectly by any act, omission or other default by the Scholar while on or otherwise in relation to or arising out of the Course.

5. It is hereby agreed that any right, function or power conferred on SEAMEO under this deed may be exercised by the Director or any person duly authorized by him in that behalf.

IN WITNESS WHEREOF the Scholar and SEAMEO by its duly authorized representative have set their hands and seals hereunto the day and year first above written.

THE SCHEDULE ABOVE REFERRED TO

Signed, sealed and delivered by	)	
The SCHOLAR in the presence of:	)	
	)	
	)	
Signature	)	
(Witness)	)	(Signature of SCHOLAR)
	)	
Name	)	
Address	)	
.....	)	
Signed, sealed and delivered by the DIRECTOR of the SEAMEO	)	
Regional Centre for Education in Science and Mathematics in Penang	)	
Malaysia, who has been duly authorized to act in that behalf for the	)	
	)	
Signature	)	
(Witness)	)	(Signature of DIRECTOR)
	)	RECSAM
Name	)	
Address	)	
.....	)	

**CHECKLIST OF THE DOCUMENTS TO BE SUBMITTED TO SEAMEO RECSAM
BY EACH APPLICANT**

Name: _____

Country: _____

No	ITEM	QUANTITY	YES/NO
1	APPLICATION FORM	2	
2	SCHOLAR AGREEMENT	2	
3	PHOTOCOPY OF PASSPORT* (Only the front page with participants' particular are required)	2	
4	MEDICAL REPORT	1	
5	ENGLISH PROFICIENCY CERTIFICATE	2	

**Refer to item 2.5 in the announcement letter*

Note: Deadline for nomination form submission is 30 November 2013