TRAINING WORKSHOP ON
JENI MOBILE GAME BASED LEARNING

at

Royal University of Phnom Penh, Cambodia
September 2010

Collaboration Program
Southeast Asian Ministries of Education Organization Regional Open Learning
Centre (SEAMEO SEAMOLEC), Indonesia,
Ministry of Education Youth and Sports
and
Royal University of Phnom Penh, Cambodia

2010

Jeni Mobile Game Based Learning Training Program

1. Background

The development of Information and Communication Technology (ICT) has changed the way of study, work and implementation in the field of learning, which is marked by the emergence of new terms such as e-Book, e-learning, cyber campus, and mobile learning. ICT is supported by three main components: Computer, Communication and Content. Content, the material is very varied, but must be tailored to the users. The content component is not fully guaranteed success because it depends on the users. ICT-based learning program using mobile learning needs to be carried out in this stages, because the quality of educational equity need to be held in new way. New education improvement both in quality and quantity has always been the concern and shall get special treatment as an alternative in developing education and increasing pedagogic competence.

As for the implementation, SEAMOLEC Indonesia established JENI ASEAN RESEARCH CENTER (JARC) to manage training, research and development using mobile learning. JAVA EDUCATION NETWORK INDONESIA (JENI) is an integrated service for students and the community in Indonesia, to learn, share and develop applications based on Java (www.jeni.diknas.go.id). JENI declared by the Ministry of National Education, Indonesia and supported by the Go Open Source (IGOS), JUG Indonesia, and SUN Microsystems. JARC is an integrated service for students and society in Indonesia and all ASEAN countries, to learn, share, develop and produce applications based on Java Mobile.

Java is a programming language that can run on many different Operating Systems. Java programming is applicable to produce for PC Desktop applications, Client Server and Mobile Phone. Java 2 Micro Edition (J2ME) is one of the Java technologies that are devoted to develop applications based on mobile (handphone, PDA and others). Application can be a game as well as other applications such as Phonebook and Browser.

2. Objectives

The objectives of the program are:
a. To improve quality of learning through mobile learning;
b. To be familiar with the use of J2ME sofware to build Java Game Based Learning Programme;
c. To build collaboration in new improvement on mobile learning between SEAMOLEC and Royal University of Phnom Penh;
d. To provide pathways for teachers/lecturer to do research and development; and
e. To share knowledge, culture and values.

3. Expected Output

The expected output of this program is:

1. Participants have knowledge the basic of programming.
2. Participant understand and able to use object oriented programming in their application.
3. Participant will be able to prepare resource to be used in mobile application.
4. Participant will be able to create simple mobile application.
5. Participant will be able to create mobile based learning application.
6. Simple mobile game to be developed further.

4. Activities

To meet the objectives above, some possible activities could be put in the action plan:

a. Collaborative learning in Mobile Game Based Learning Technology provided by SEAMOLEC. In this activity, teachers or lecturers of particular subjects from participating universities or schools need to bring learning materials for the specified learners. Participating students will have the same standard of learning and assessment.

b. Joint training for teachers, school principals, and other education personnel.

5. Strategy

The workshop is scheduled for 5 days. SEAMOLEC will provide trainers to teach and assist for developing Java Mobile Edu-Game Programming to all of RUPP participants.

RUPP are expected to be representative in developing similar programs for the education offered to other institutions. For universities/schools, become as a local campus, which is collaborated and managed with SEAMOLEC as partners.

Terms of participants are as follows:

1. Lecturers /Teachers/Instructors/Students appointed by the principals.
2. Have learned programming language (Recommended Java Programming).
3. Bring a laptop or personal computer provided with minimal memory specification 512MB.
4. Bringing a mobile phone Java supported CLDC 1.1 and MIDP 2.0/2.1, including the cable data and supporting software.

6. Resource Persons

There are five resource persons of the training. They are: Ith Vuthy, Erdih Ibrahim, Sajarwo Anggai, Kristinanti Charisma, and Dedi Endianto Pribadi.

7.   Schedule

Date	Activities
1st Day	
08.00 – 08.30	Registration
08.30 – 10.00	Opening Ceremony
10.00 – 10.30	*Coffee Break*
10.30 – 12.00	1. SEAMOLEC Profile 2. Introduction to JENI ASEAN RESEARCH CENTER
12.00 – 13.30	*Lunch*
13.30 – 15.00	Introduction to Java
15.00 – 15.30	*Coffee Break*
15.30 – 17.00	Java Environtment Development
2nd Day	
08.00 – 10.00	Fundamental Object Oriented Programming
10.00 – 10.30	*Coffee Break*
10.30 – 12.00	Object Oriented Programming (continued)
12.00 – 13.30	*Lunch*
13.30 – 15.00	Introduction to Mobile Programming
15.00 – 15.30	*Coffee Break*
15.30 – 17.00	Netbeans Visual Builder
3rd Day	
08.00 – 10.00	Low Level User Interface
10.00 – 10.30	*Coffee Break*
10.30 – 12.00	Introduction to Game Programming
12.00 – 13.30	*Lunch*
13.30 – 15.00	Game Programming
15.00 – 15.30	*Coffee Break*
15.30 – 17.00	Game Programming (2)
4th Day	
08.00 – 10.00	Game Programming (3)
10.00 – 10.30	*Coffee Break*
10.30 – 12.00	Game Programming (4)
12.00 – 13.30	*Lunch*
13.30 – 15.00	Game Programming (5)
15.00 – 15.30	*Coffee Break*
15.30 – 17.00	Game Programming (6)
5th Day	
08.00 – 10.00	Advanced Technique (additional)
10.00 – 10.30	*Coffee Break*
10.30 – 12.00	Advanced Technique (additional)
12.00 – 13.30	*Lunch*
13.30 – 15.00	Closing

8.   Budget Resources

The expenses of the workshop to be borne by cost sharing between SEAMOLEC, Ministry of Education Youth and Sports and Royal University of Phnom Penh, Cambodia.