Progress Report of
the APEC HRD 02/2007 Project
Thailand and Japan

Collaborative Studies on Innovations for
Teaching and Learning Mathematics in
Different Cultures (II)
- Lesson Study focusing on Mathematical Thinking -
The project HRD 03/2006, succeeded to share:

1. Lesson Study as for a Method of Improvement
2. Videos for innovative mathematics Teaching
3. A collaborative network on Lesson Study among member economies.
Approved four years for the expansion of the project 2006

Based on the success and shared approaches of Lesson Study and videos, we proposed next four year’s project in relation to topics in below and its approved:

- 2006 Sharing Lesson Study as for method
- 2007 Mathematical Thinking
- 2008 Mathematical Communication,
- 2009 Evaluation
- 2010 Integration

Mathematical Thinking is necessary ability for science, technology and economical life.
Each economy started to share the ideas on movement of Lesson Study December, 2006 Japan as a host.

Encourage to use developed TA for MT and videos for LS Movement by Teachers in each economy.

Each economy challenged to develop Teaching Approaches for Mathematical Thinking via. Lesson Study by involving school teachers.

Each economy shared the results of Lesson Study August, 2007 Thailand as a host.
How many are there the unit squares?

Counting: One, Two, Three, ....

Adding: 8 + 9 + 10

Multiplying: 3 × 9

Mathematical Thinking enabling us looking at the world differently. By D. Tall
If you are selling or buying,

Developing Concept of Equality

Multiplication (1)
Before the meeting:
If we want to develop students’ mathematical thinking, we should begin to train teachers enabling to think mathematically.

At the meeting, we explored:
On your national curriculum, How is Mathematical Thinking described? How can you define it for what? How can we develop it?

Achievement of the meeting:
Shared Mathematical Thinking, learned to develop it, and began to challenge Lesson Study for developing Mathematical Thinking.

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<thead>
<tr>
<th>Country</th>
<th>Name</th>
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<tbody>
<tr>
<td>Australia</td>
<td>Kaye Stacey</td>
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<td>Brunei</td>
<td>Madiah Khalid</td>
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<td>Chile</td>
<td>Francisco Bonomo</td>
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<td>China</td>
<td>Shangzhi Wang</td>
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<td>Chinese Tapei</td>
<td>Chang-Shou Lin</td>
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<td>Japan</td>
<td>Kazuyoshi Okubo</td>
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<td>Hong Kong</td>
<td>ChengChunChor Litwin</td>
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<td>Korea</td>
<td>Inchul Jung</td>
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<td>Malaysia</td>
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<td>Mexico</td>
<td>Marcela Santillán</td>
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<td>Soledad A Ulep</td>
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<td>Suladda Loipha</td>
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<td>USA</td>
<td>Patsy Wang-Iverson</td>
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<td>Vietnam</td>
<td>Tran Vui</td>
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Pedagogical Content Knowledge

- Mathematical content and processes
- Teaching knowledge
- Solve a teaching problem
Panel for sharing ideas
Lesson Study in Tokyo & Sapporo

December 5: Lesson Study in Hokuto Elementary School
Specialists sharing the target
Dr. Rin: Why?

2.3

X 1.2 5

Correct?

Dr. Wang: Yes, it is a very good example to consider the curriculum to develop mathematical thinking.
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