For the possible challenges for reform

Supattra Pativisan
IPST, Thailand
Formal Education System

- Kindergarten Level
- Primary Level (Grade 1-6)
- Lower Secondary Level: Grade 7-9
- Upper Secondary Level: Grade 10-12
- Undergraduate Level (Bachelor degree)
- Postgraduate Level (Diploma, Master, and Ph.D.)
- Tertiary Vocational Level

Ages:
- 0: Kindergarten Level
- 3: Primary Level
- 6: Lower Secondary Level
- 12: Upper Secondary Level
- 15: Undergraduate Level
- 18: Postgraduate Level
- 22: Tertiary Vocational Level
Basic Education

Grade 10-12

Grade 7 -9

Grade 1 - 6

Additional

Fundamental

Compulsory Level

Basic Education Curriculum (2001 revised 2008)
(Divided in eight subject areas)
Thailand Curriculum Development

Centralized

Before 2001
All schools used same textbooks developed by MOE and IPST

2001
Standard & Grade-band indicators

2008
Standards & Grade Level Indicators
The Institute for the Promotion of Teaching Science and Technology (IPST)

- officially established in 1972 to develop new science and mathematics curricula for all levels of schooling
Curriculum Models used by IPST

- Students are able to think, to do, and to solve problems
- Development of curriculum, instructional materials, teacher’s guide, laboratory equipment, audio visual media, teacher training.
- Curriculum implementation

- Revising, improving according to evaluation data
- Trial teaching, implementing, following up
- Gathering data from schools
- Research and evaluation
Information for curriculum development

- Survey
- Other countries’ present national curriculum
- Research and documents
- Experts’ recommendation
  - IPST and other institutes
  - Domestic and international
- Public hearing
Challenges of the reform

• Curriculum:
  - The standard-based curriculum
  - The school-based curriculum

• Curriculum authorities:
  - change from MOE/IPST to Schools

• Decision making on textbooks and instructional materials
  - change from MOE/IPST to Schools
  - criteria for approval textbooks
Challenges of the Reform

• Compulsory education
  - extend from 6 to 9 years
  - free education

• School population has been increased
  - Teacher shortage
  - Teacher workload and expertise
  - Material resources shortage
## Concerns for math curriculum change

<table>
<thead>
<tr>
<th>2008 Curriculum</th>
<th>Future Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some Mathematics contents are not conform with science contents.</td>
<td>Re-organize the contents in order to conform with science contents.</td>
</tr>
</tbody>
</table>
Concerns for math curriculum change

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<tr>
<td>• The curriculum was outdated, too many contents, uninteresting.</td>
<td>• Update the contents to support the learning in the 21st century.</td>
</tr>
<tr>
<td></td>
<td>• Focus on applying knowledge to real world situation.</td>
</tr>
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<td>• Reduce contents, emphasis on foundation of knowledge, and increase time to do activity.</td>
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<td>• The curriculum is not promoting students’ thinking skill.</td>
<td>• Focus on learning activities that promote students to think, analyze, solve problem, communicate with others, and understand their own thought through reasoning.</td>
</tr>
<tr>
<td></td>
<td>• More relation to everyday lives and integration with skills for learning in the 21\textsuperscript{st} century.</td>
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