Inspirational Talk : Experiences as a Lecturer and Other Tasks

Musliar Kasim
Andalas University, Padang
Indonesia

As Rector, I endorsed several activities which later made Andalas University nationally recognized. Andalas University, then out of blue, became the 14th best University in Indonesia.

Significant Activities As Rector

1. Opening New Study Programs (depart)
2. Improving students' activities by:

- Developing Enterpreunership program for students by inviting famous enterpreuners from all around Indonesia to give General Lectures every week.
- Enhancing student Character Building.

Significant Activities As Rector

3. Endorsing Collaboration with other Universities and Institutions. During the Rector visited to the Searca and University of the Philippines, we had MoU signing ceremony here at Searca Office and UP President .
4. Expanding Research, collaboration with other institution
5. In 2009 we conferred a Honorary Doctoral for the President of Republic of Indonesia (Susilo Bambang Yudhoyono). It meant that our University was believed by Mr. President as one of outstanding universities in Indonesia.

Significant Activities As Rector

6. Dissemination of SRI to field officers of Agricultural Office, public figures and farmers in the many District and Regencies In Sumatra were carried out in 2004.

   Our more than ten-year-research experience in various areas in West Sumatra, demonstrates that SRI can increase rice production. The average rice production, with SRI ranges from 6 – 9 tons per hectare.

Academic Work

- Albeit being occupied with my official duty as a Rector, Beside a rector task, I did also activity related with my field
- I initiated the implementation of The System of Rice Intensification (SRI) to increase Rice Production in West Sumatra.
- From 2004 till now, I and my team conducted various research projects, trainings/ workshops and socialization of SRI concept, coordinating with the Provincial Government of West Sumatra and many others institutions in national level.

The concept of SRI

1. Early seedling transplanting (7-11 days old),
2. One seedling per each planting spot,
3. Wider row spacing (>25 x 25 cm), and
4. Water management (water saving).

The SRI concept will be more productive if two additional elements provided;

(1)Weeding that results in soil loosening; and,

(2)Incorporating of organic matter.

Conventional Rice Production

1. Late seedlings transplanting (at 30 days or later),
2. Numerous seedling planted in each hole (5-7 seedlings),
3. Water is provided at almost all growth period,
4. Narrow grow spacing (15 x 15 cm),
5. Rarely incorporate organic matter.

Rice Production With SRI in Several Field Trial in West Sumatra

1. Padang (2004) : 8,5 t/ha
2. Padang (2005) : 11.9 t/ha
3. Tanah Datar (2005) : 9,25 t/ha
4. Sawah Lunto (2005) : 8,3 t/ha
5. Sawah Lunto (2006) : 8,5 t/ha
6. Padang (2006) : 9,6 t/ha -10,8 t/ha
7. Padang (Sept 2006) : 9.0 t/ha
8. Lubuk Alung (2006) : 9,67 t/ha IR64,
   9,96 t/ha Batang Piaman
9. New rice field in di Sitiung (2006)
   SRI : 5,75 t/ha,
   Conventional : 1,96 t/ha

Harvesting of SRI in Padang (2006) by Coordinating Minister for People Welfare Republic of Indonesia, yield 9,6 ton/ha

Harvesting of SRI with local variety in Tanah Datar (2006) Yield 9.2 ton/ha

Harvesting SRI With Organic Fertilizer (2010) Yield 9.0 t/ha

SRI Field Trial Visited by Scientist From Hiroshima, Japan in Padang (2009)

Rector Andalas University Visited SRI Farmer Field, Collaboration With Padang City Govenment

Harvesting SRI in Padang (2010) Rector of Andalas University with Major of Padang City

Norman Uphoff in International Seminar on SRI in Padang

SRI Implementation Sponsored by Directorate Research of Ministry of Education

We teach a farmer how to put the young seedling to the spot

Growth and Development of Brown Rice With SRI in Padang (2013)

Field Trial of SRI With Farmer in Tanah Datar

Result of PhD Dissertation With SRI

SUMARDI	SRI with Organic fertilizer , production 6,76t/ha
NALWIDA ROZEN	Higher production of weed resistant cultivar 11,9 t/ha in Field Experimen
AGUSTAMAR	SRI in new paddy field in Sitiung 5,75 t/ha, while conventional methodes only produce 1,96 t/ha
SUNADI	SRI with 3 seedling and 1 seedling used, non signicant yield, 9,67 t/ha IR64, 9,96 t/ha respectively.
DAMRES UKER	Eventhough SRI can increace the rice production, but not all farmer followed SRI method coz the system much different than they used before (conventional one).

Student Activity in Farmer Field

Student Practising in Preparing of Land

Planting

Water Management in SRI

2-3 mst

5-6 mst

Water Management

Student harvesting in 2015


UNIVERSITY
adidas


PROGRAM PENINGKATAN KOMPETENSI
MAHASISWA
SRI (System of Rice Intensification)
2015

Coventional Rice Field

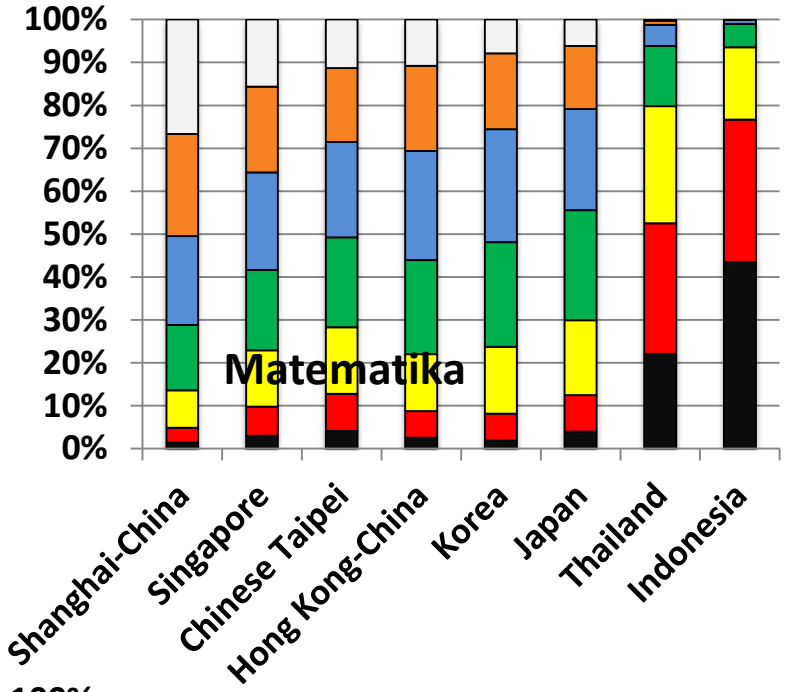
Second Period as a Rector

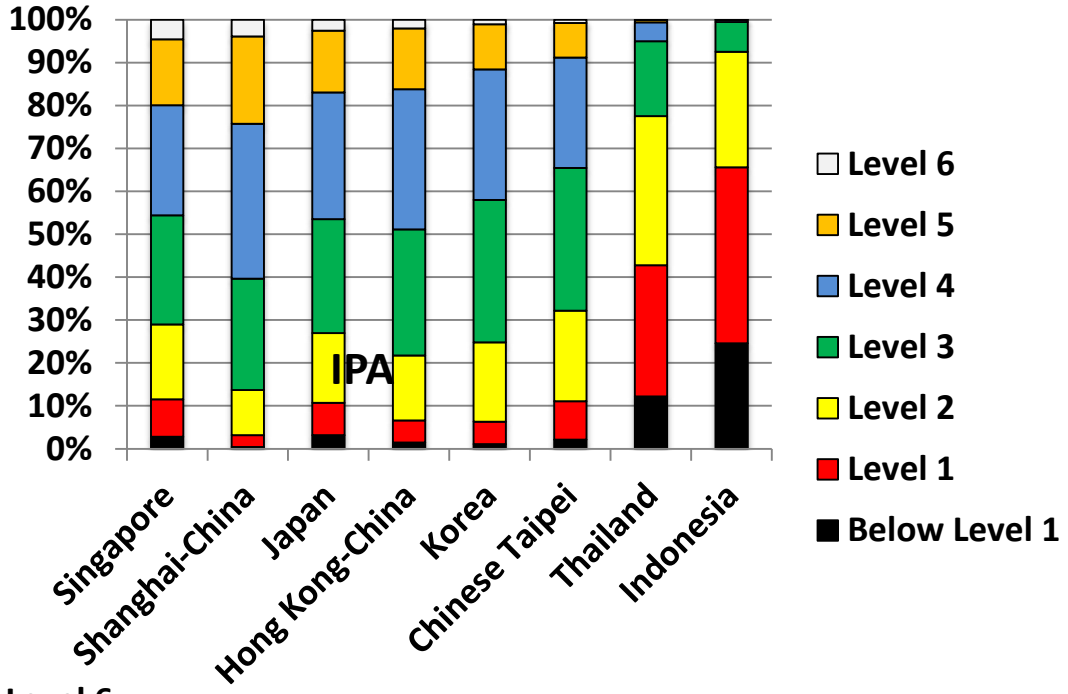
- Activities were ran smoothly and It was then appreciated by the Ministry of National Education.
- ***On July 2011 I was asked to be Inspector General of the Ministry of Education.***
- Three months working as Inspector General of the Ministry of Education, ***President of Republic of Indonesia, Soesilo Bambang Yudhoyono, appointed me as the Vice Minister of Education and Culture.***

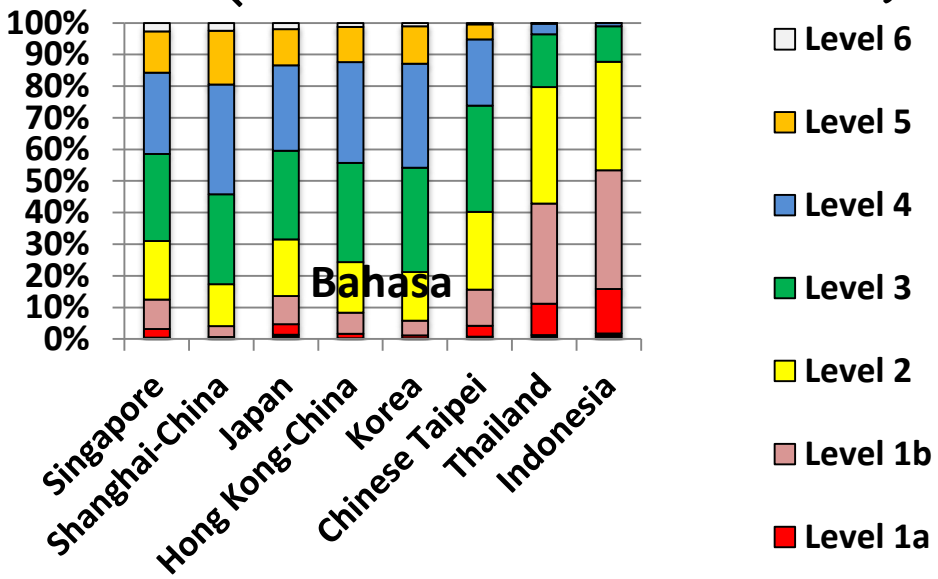
Significant Work As a Vice Minister

- Reform the Curriculum from the Teacher Centered Learning system to the Student Centered Learning system which consisted of three main competencies (Attitude, Skill and Knowledge).
- The new curriculum known as Curriculum 2013 (K 2013)

Reflection of PISA 2009

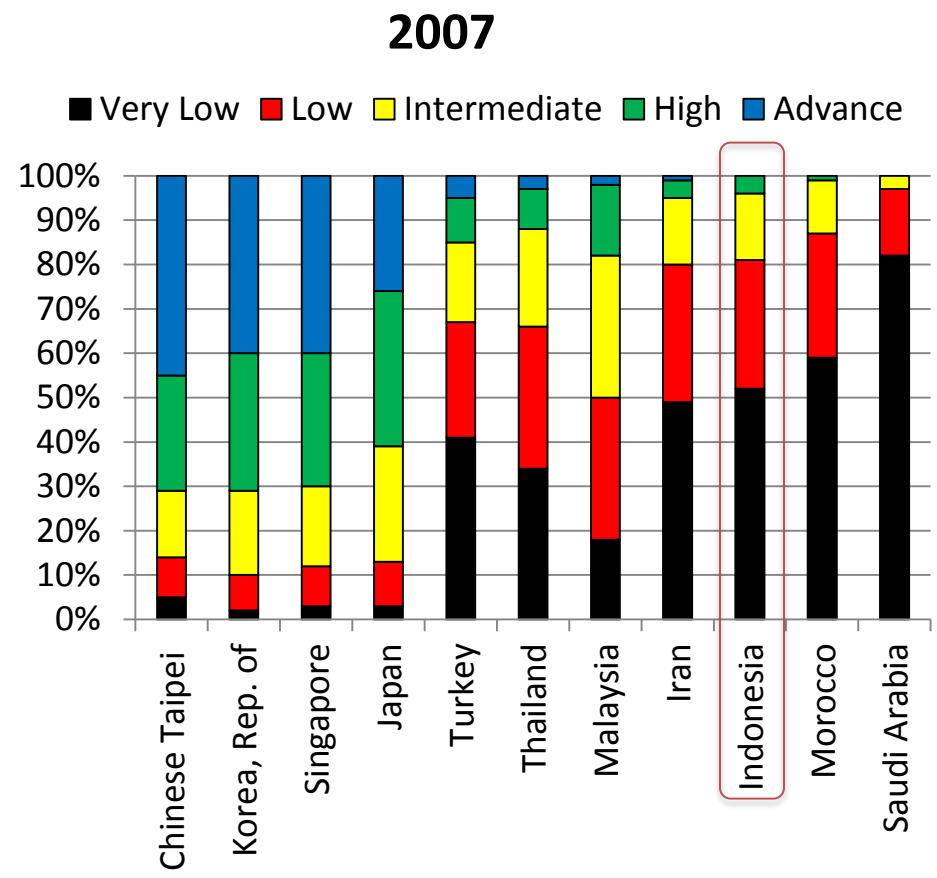


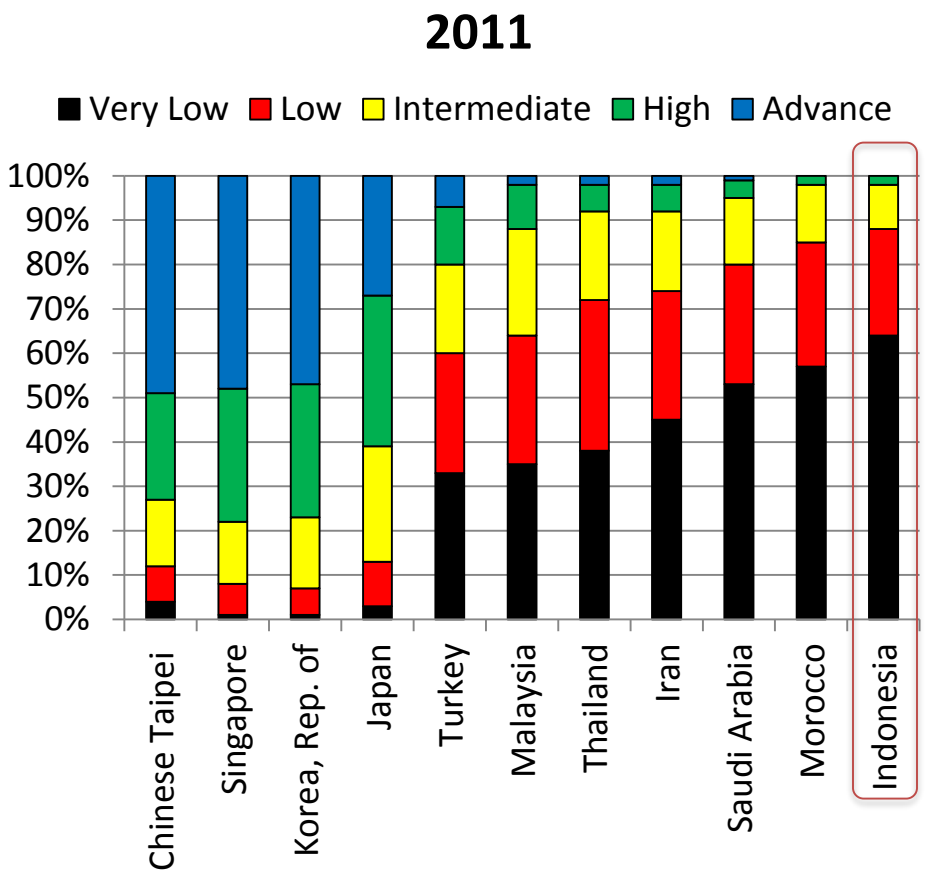




Hampir semua siswa Indonesia hanya menguasai pelajaran **sampai level 3** saja, sementara negara lain banyak yang sampai level 4, 5, bahkan 6. Dengan keyakinan bahwa semua manusia diciptakan sama, interpretasi dari hasil ini hanya satu, yaitu: **yang kita ajarkan berbeda dengan tuntutan zaman → penyesuaian kurikulum**

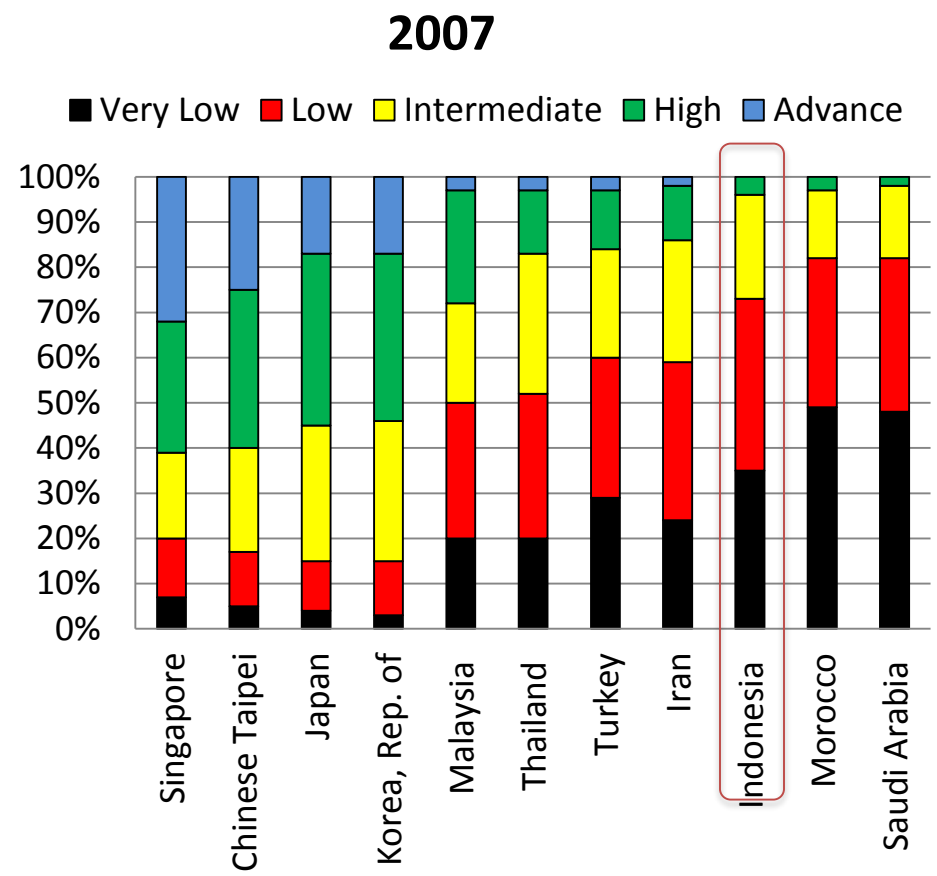
Results of Mathematics (8th Grade)

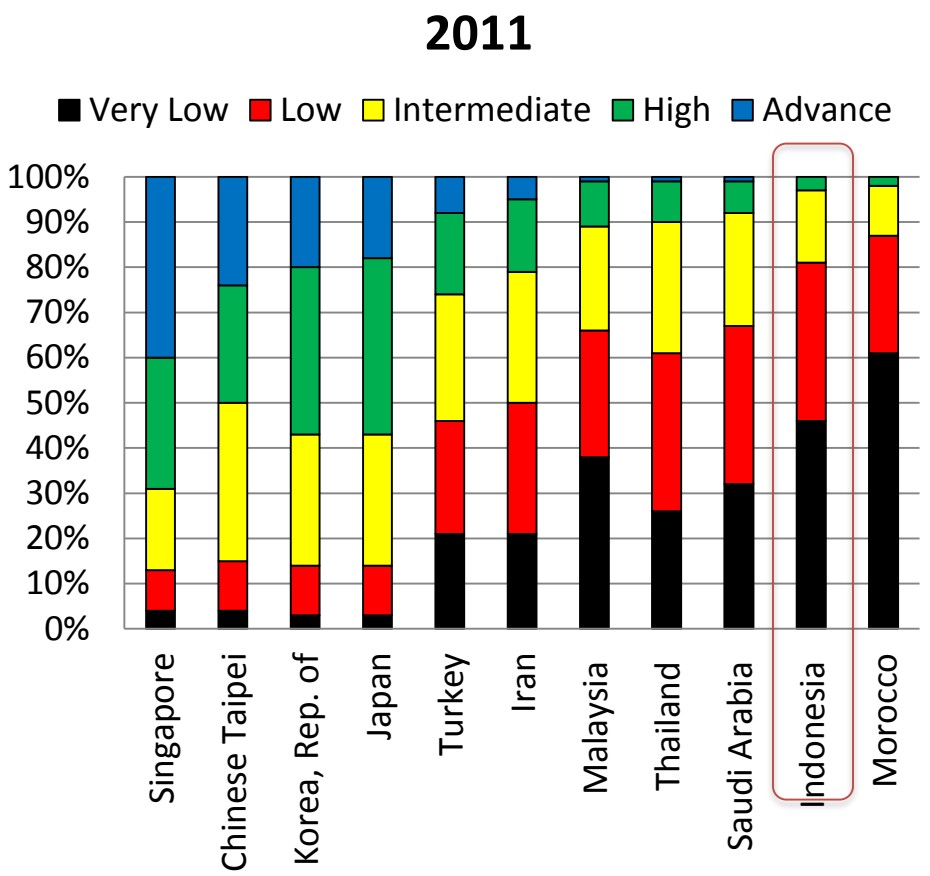




Lebih dari 95% siswa Indonesia hanya mampu sampai level menengah, sementara hampir 50% siswa Taiwan mampu mencapai level tinggi dan advance. Dengan keyakinan bahwa semua anak dilahirkan sama, kesimpulan dari hasil ini adalah yang diajarkan di Indonesia berbeda dengan yang diujikan [yang distandarkan] internasional

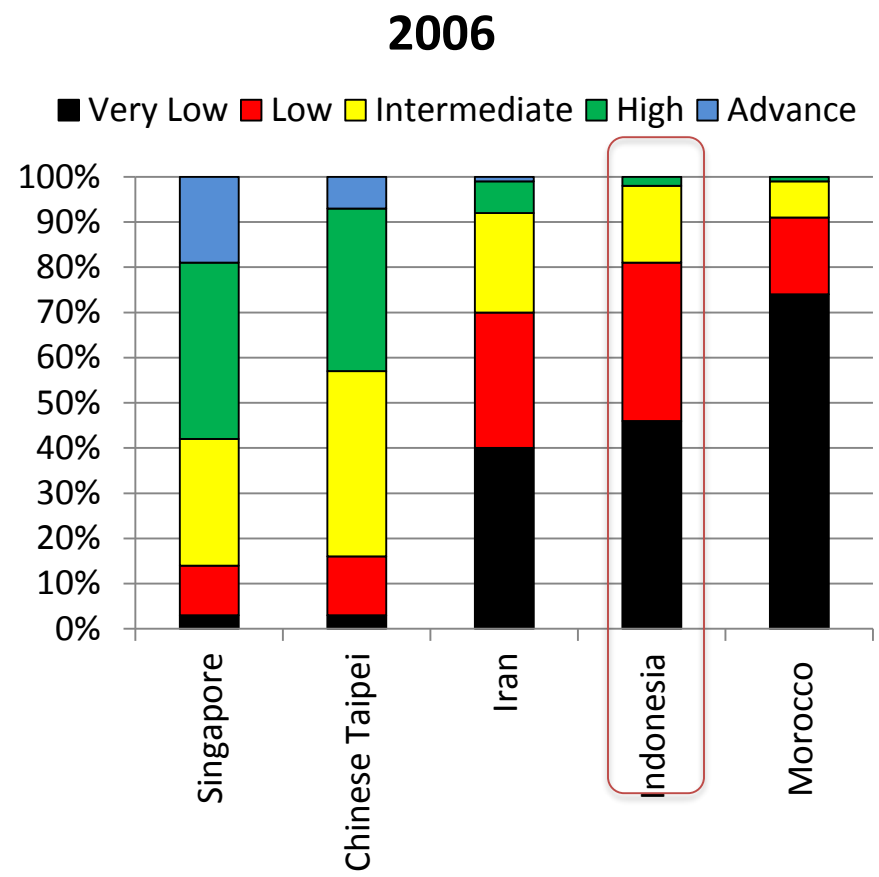
Results of Science(8th Grade)

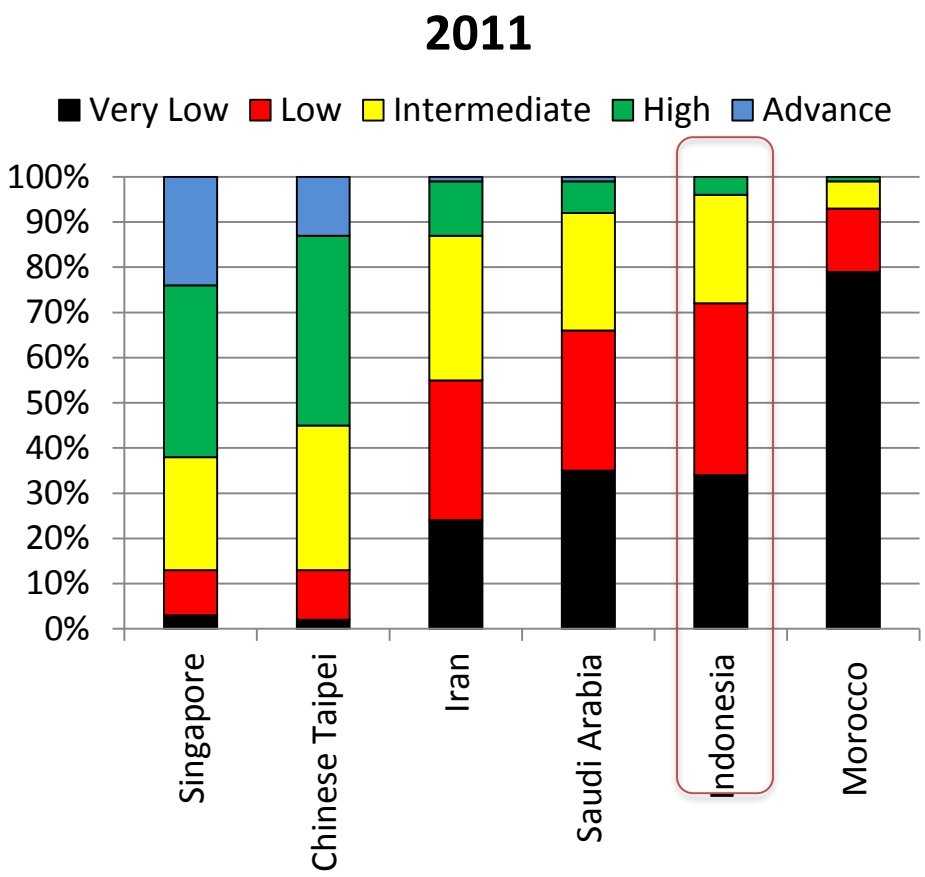




Lebih dari 95% siswa Indonesia hanya mampu sampai level menengah, sementara hampir 40% siswa Taiwan mampu mencapai level tinggi dan advance. Dengan keyakinan bahwa semua anak dilahirkan sama, kesimpulan dari hasil ini adalah yang diajarkan di Indonesia berbeda dengan yang diujikan [yang distandarkan] internasional

Results of Reading (4th Grade)





Lebih dari 95% siswa Indonesia hanya mampu sampai level menengah, sementara lebih dari 50% siswa Taiwan mampu mencapai level tinggi dan advance. Dengan keyakinan bahwa semua anak dilahirkan sama, kesimpulan dari hasil ini adalah yang diajarkan di Indonesia berbeda dengan yang diujikan [yang distandarkan] internasional

Percentage of Eight Grade Students Taught The TIMSS Science Topics

	All Science (20 Topics)	Biology (7 Topics)	Chemistry (4 Topics)	Physics (5 Topics)	Earth Science (4 Topics)
Iran	91	82	98	98	91
Turkey	89	93	99	97	63
Saudi Arabia	88	86	91	85	92
Thailand	74	69	92	67	72
Chinese Taipei	68	92	98	59	5
Indonesia	**67**	**73**	**82**	**79**	**27**
Singapore	65	63	80	83	31
Malaysia	63	61	80	72	38
Morocco	57	56	59	55	62
Japan	57	35	86	76	41
Korea, Rep.Of	54	38	42	79	64

Walaupun hampir semua materi IPA ada pada kurikulum, tetapi tidak semua memperoleh pelajaran tersebut. Menunjukkan banyak materi kurikulum yang tidak diajarkan . Hal ini sangat mungkin terkait dengan kemampuan profesi guru, mengajarkan apa yang mereka pahami, dan melompati yang mereka merasa kurang paham

Source: TIMSS 2011 International Science Report.

Percentage Of Eight Grade StudentsTaught The TIMSS Mathematics Topics

	All Mathematics (19 Topics)	Number (5 Topics)	Algebra (5 Topics)	Geometry (6 Topics)	Data and Chance (3 Topics)
Turkey	94	100	92	89	98
Korea, Rep.Of	92	100	91	92	81
Saudi Arabia	92	99	85	93	88
Japan	91	99	92	93	75
Singapore	88	99	94	75	83
Malaysia	84	98	73	93	63
Iran	80	100	74	81	58
Chinese Taipei	79	99	97	84	4
Thailand	77	98	62	80	65
Indonesia	**69**	**97**	**84**	**61**	**12**
Morocco	62	97	61	46	35

Mengingat tidak semua materi matematika TIMSS terdapat pada kurikulum, sehingga wajar apabila persentase siswa yang telah diajar materi TIMSS adalah rendah

Source: TIMSS 2011 International Mathematics Report.

Comparison of Curiculum Math of SD level 4 with TIMSS

Domain	Topics
Number	1. Concepts of whole numbers, including place value and ordering 2. Adding, subtracting, multiplying, and/or dividing with whole numbers 3. Concepts of fractions 4. Adding and subtracting with fractions 5. Concepts of decimals, including place value and ordering 6. Adding and subtracting with decimals 7. Number sentences 8. Number patterns
Geometry Shapes and Measu-rement	1. Lines: measuring, estimating length of; parallel and perpendicular lines 2. Comparing and drawing angles 3. Using informal coordinate systems to locate points in a plane 4. Elementary properties of common geometric shapes 5. Reflections and rotations 6. Relationships between two-dimensional and three-dimensional shapes 7. Finding and estimating areas, perimeters, and volumes
Data Display	1. Reading data from tables, pictographs, bar graphs, or pie charts 2. Drawing conclusions from data displays 3. Displaying data using tables, pictographs, and bar graphs

Merah: Belum Diajarkan di Kelas IV

Ada beberapa topik yang tidak terdapat pada kurikulum saat ini, sehingga menyulitkan bagi siswa kelas VIII yang mengikuti TIMSS

Comparison of Curiculum IPA SMP Kelas VIII and TIMSS

Domain	Topics
Biology	1. Major organs and organ systems in humans and other organisms 2. Cells and their functions, including respiration and photosynthesis as cellular process 3. Reproduction and heredity 4. Role of variation & adaptation in survival/extinction of species in a changing environ. 5. Interdependence of populations of organisms in an ecosystem 6. Reasons for increase in world's human population and its effects on the environment 7. Human health (infection, prevention, immunity) and the importance of diet & exercise
Chemistry	1. Classification, composition, and particulate structure of matter (inside atom) 2. Solutions (solvent, solute, concentration/dilution, effect of temperature on solubility) 3. Properties and uses of common acids and bases 4. Chemical change (transformation, conservation, oxidation)
Physics	1. Physical states and changes in matter 2. Energy forms, transformations, heat, and temperature 3. Basic properties/behaviors of light and sound 4. Electric circuits and properties and uses of permanent magnets and electromagnets 5. Forces and motion (forces, basic description of motion, effects of density & pressure)
Earth Science	1. Earth's structure and physical features 2. Earth's processes, cycles, and history 3. Earth's resources, their use, and conservation 4. Earth in the solar system and the universe

Merah: Belum Diajarkan di Kelas VIII

Ada beberapa topik yang sebenarnya diajarkan di kelas IX, sehingga belum semua diajarkan pada siswa SMP Kelas VIII yang mengikuti TIMSS

Comparison of Curiculum Mathematic SMP Kelas VIII and TIMSS

Domain	Topics
Number	1. Computing, estimating, or approximating with whole numbers 2. Concepts of fractions and computing with fractions 3. Concepts of decimals and computing with decimals 4. Representing, comparing, ordering, and computing with integers 5. Problem solving involving percents and proportions
Algebra	1. Numeric, algebraic, and geometric patterns or sequences 2. Simplifying and evaluating algebraic expressions 3. Simple linear equations and inequalities 4. Simultaneous (two variables equations) 5. Representation of functions as ordered pairs, tables, graphs, words, or equations
Geometry	1. Geometric properties of angles and geometric shapes 2. Congruent figures and similar triangles 3. Relationship between three-dimensional shapes and their two-dimensional represent. 4. Using appropriate measurement formulas for perimeters, circumferences, areas, surface areas, and volumes 5. Points on the Cartesian plane 6. Translation, reflection, and rotation
Data & Chances	1. Reading and displaying data using tables, pictographs, bar, pie, and line graphs 2. Interpreting data sets 3. Judging, predicting, and determining the chances of possible outcomes

Merah: Belum Diajarkan di Kelas VIII

Ada beberapa topik yang tidak terdapat pada kurikulum saat ini, sehingga menyulitkan bagi siswa kelas VIII yang mengikuti TIMSS

Significant Changed Of Curriculum

Previously, students were overwhelmed by many material from teacher in order to get knowledge. This system of just knowing without fair understanding base nor good skill is unacceptable. The attitude was also not in fair concern.

Significant Changed Of Curriculum

1. Delivering three competencies to student in every class meeting (*Attitude, Skill and Knowledge = ASK).*
2. Reducing subject from 12 to 6 subjects in Elementary School and from 14 to 10 in Senior High School.
3. Thematic and Integrative teaching in every subject for Elementary School. Previously we needed 12 books for 12 subjects, then we changed to 6 subjects by using only 2 book.

Significant Changed Of Curriculum

4. Active-based learning. Student shall start the subject by observing, quetioning, tryng/experiment, thingking and comunicating, (OQTTC).
5. Shifting from the old system Teacher Center Learning yet student will be able to find the knowledge by practising OQTTC /5 M.
6. Applying OQTTC /5 M pattern, students arrive to ASK
7. ASK should make student enjoying class all the time.

Socialization of K2013

TV Dialog To Convince The Community

Teacher Training

Seminar on K2013


KEMENTERIAN
PENDIDIKAN DAN KEBUDAYAAN
DIALOG PENDIDIKAN
Implementasi Kurikulum 2013 di Tahun Pelajaran 2014/2015
Padang, 6 September 2014

Meeting With Parleament

Monitoring of Implementation K2013

Implementation of K2013

- I proudly say that some area in many Provinces in Indonesia already implemented K 2013 system in their school until now.
- New Minister of Education and Culture Prof Muhajir Effendi has announced that he will continue K2013 implementation in all school.

I believe that hardworking and building good teamwork will give us the optimal results.

Thank You,
Maraming Salamat