Venturing Non-cognitive Learning

(Abridged)

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at
UNESCO ERI-Network
Bangkok, 17 October, 2013
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The Trend
Based on the Reports

- Most systems have launched major reforms very recently.
- Non-cognitive learning is a new dimension on most nations’ agenda.
- Most systems are serious about this dimension.
The Proceeding

Important in Concept among academics

Included in Mission documents

Included as Target Goals in Policies

Action Plans for implementation

Initial outcomes/achievements
The Context

Old Traditions
New Demands
New Concepts
New Names
New way of classifying Learning
2

Rationale
## Attempting a Framework

<table>
<thead>
<tr>
<th></th>
<th>Economic Discourse</th>
<th>Social Discourse</th>
<th>Humanity Discourse</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global</strong></td>
<td>Competitiveness</td>
<td>Understanding/Peace</td>
<td>Global Citizenship</td>
</tr>
<tr>
<td><strong>National</strong></td>
<td>GDP</td>
<td>HDI</td>
<td>Citizenship/Patriotism</td>
</tr>
<tr>
<td><strong>Individual</strong></td>
<td>Employment</td>
<td>Community</td>
<td>Moral/</td>
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The Reality in the Context
Why?

Society has changed!
The workplace has changed!
Expectations on individuals have changed!
Education is turning human beings into human resources.

Knowledge and skills are all that are expected in well-structured pigeon-holes in the workplace.

Workers are protected from non-cognitive challenges by the bureaucracy.

A purely economic and manufacturing discourse!
Knowledge and skills no longer adequate for the workplace.

Front-line workers in increasingly smaller one-stop units are decision-makers on their own.

Increasingly complex societies expect more sophisticated human beings.

Challenging the Economic Discourse in Education!
Expectations on individuals...

- Team Work
- Human Interactions
- Integrated Expertise
- Self-Management
- Personal Responsibility
- Innovations & Design
- Risk Taking
- Mindfulness
- Commitment
- Passion
- Self-Management
- Responsibility
- Communications
- Presentations
- Brainstorming
- Negotiation
- Persuasion
- Debates
- Networking
- Lifelong Learning
- Emotional Challenges
- Indecent Temptations
- Moral Judgments
- Ethical Dilemmas
- Commitment
- Passion
- Mindfulness
- Self-Management
- Personal Responsibility
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- Indecent Temptations
- Moral Judgments
- Ethical Dilemmas
“21 Century Skills”? 

Three possible approaches to planning education:

1. **Improvement**
   - Do more and better of what we are doing

2. **Catching-up**
   - Anticipate and preempt changes

3. **Reform**
   - Go to the basics and construct capacity for change
3

Definition
Vertical Disciplines
Curriculum as Learning Experiences
### Vertical Disciplines

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### Transversal Competency

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The table and diagram illustrate the distribution and alignment of vertical disciplines and transversal competencies in an educational or professional context.
## The Skills Discourse (UNESCO)

<table>
<thead>
<tr>
<th>Foundation Skills</th>
<th>Specialized Skills</th>
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<tbody>
<tr>
<td>Physical and Psychological Health</td>
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<tr>
<td>Global Citizenship</td>
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<td>Intrapersonal Skills</td>
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<td>Interpersonal Skills</td>
<td></td>
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<tr>
<td>Critical and Innovative Thinking</td>
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<tr>
<td>Domains</td>
<td>Examples of key characteristics</td>
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<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Critical and innovative thinking</td>
<td>Creativity, entrepreneurship, resourcefulness, application skills, reflective thinking, reasoned decision-making</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>Presentation and communication skills, leadership, organizational skills, teamwork, collaboration, initiative, sociability, collegiality</td>
</tr>
<tr>
<td>Intrapersonal skills</td>
<td>Self-discipline, enthusiasm, perseverance, self-motivation, compassion, integrity, commitment</td>
</tr>
<tr>
<td>Global citizenship</td>
<td>Awareness, tolerance, openness, respect for diversity, intercultural understanding, ability to resolve conflicts, civic/political participation, conflict resolution, respect for the environment</td>
</tr>
<tr>
<td>Optional</td>
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</tbody>
</table>
What is it?

Skills?
Abilities?
Competencies?
Attributes?
Attitudes?
Values?
Ethics?
Emotions?

………
Zest for living

Practical ability to act for the world

Collaborative thinking & problem solving ability

Basic literacy as thinking tools
The spectrum

- Spirituality
- Global citizenship
- Cultural identity
- National identity
- Citizenship
- Community harmony
- Human relations beyond job
- Human relations on job
- Work related attributes
<table>
<thead>
<tr>
<th>The Learning Discourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation Competency Learning</td>
</tr>
<tr>
<td>Others</td>
</tr>
<tr>
<td>Physical and Aesthetic Experiences</td>
</tr>
<tr>
<td>Global Citizenship Experiences</td>
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<tr>
<td>Intrapersonal Experiences</td>
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<tr>
<td>Interpersonal Experiences</td>
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<tr>
<td>Critical and Innovative Experiences</td>
</tr>
</tbody>
</table>

Liberal Space
Delors

Learning to Know
Learning to Do
Learning to Live Together
Learning to Be
Key competencies (OECD, DeSeCo)

Interacting in socially heterogeneous groups
- The ability to relate well to others
- The ability to cooperate
- The ability to manage and resolve conflicts

Acting autonomously
- The ability to act within the “big picture”
- The ability to form and conduct life plans and personal projects
- The ability to defend/assert one’s rights, interests, limits, needs

Using tools purposively and interactively
- The ability to use language, symbols, and text
4

How?
<table>
<thead>
<tr>
<th>Well-rounded character</th>
<th>Solid academic prowess</th>
<th>Examples of “Zest for Living” (Draft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values and ethics</td>
<td>National Language</td>
<td>Independence and self-reliance for individual life</td>
</tr>
<tr>
<td>Proactive and practical attitude</td>
<td>Sociology</td>
<td>(1) Self-understanding</td>
</tr>
<tr>
<td>(through moral education class period)</td>
<td>Mathematics</td>
<td>(2) Self-responsibility</td>
</tr>
<tr>
<td>- Self-perspective</td>
<td>- Integral numbers, decimal numbers, common fraction/four arithmetic operations</td>
<td>(3) Promotion of health</td>
</tr>
<tr>
<td>- Relationship with others</td>
<td>- Science</td>
<td>(4) Decision-making skill</td>
</tr>
<tr>
<td>- Relationship with nature</td>
<td>- Human-being, animals, plants, oxygen and carbon dioxide</td>
<td>(5) Life planning skill</td>
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<tr>
<td>- Relationship with groups and the society</td>
<td>- Integrated study</td>
<td>Relationship with others in school and family</td>
</tr>
<tr>
<td></td>
<td>- To interact with friends and family, become close to nature/To regulate one’s daily life</td>
<td>Collaboration and responsibility</td>
</tr>
<tr>
<td>(1) Self-esteem, Self-discipline</td>
<td>- Music</td>
<td>Sensitivity Expression</td>
</tr>
<tr>
<td>(2)</td>
<td>- Sound and rhythms/popular Japanese songs</td>
<td>Establishing good relationship with others</td>
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<tr>
<td></td>
<td>- Art</td>
<td>Relationship with the society for career and living in community</td>
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<tr>
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<td>- Drawing with soft color patterns and various types of shapes</td>
<td>(6) Responsibility, rights and work</td>
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<tr>
<td></td>
<td>- Domestic science &amp; Technology</td>
<td>(7) Understanding of society, culture and natural environment</td>
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<tr>
<td></td>
<td>- Designing, producing, information processing and having information moral</td>
<td>Application of language and information</td>
</tr>
<tr>
<td></td>
<td>- Basic cooking and functions of nutrients</td>
<td>Application of knowledge and technology</td>
</tr>
<tr>
<td></td>
<td>- Foreign language</td>
<td>(8) Problem-identification and solving skill</td>
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<tr>
<td></td>
<td>- Greetings, self-introduction, explanation, asking questions and showing application in English</td>
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<tr>
<td></td>
<td>- Healthy body</td>
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<tr>
<td></td>
<td>- Improvement of physical ability (concentration, sustainment, flexibility, skills)</td>
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<tr>
<td></td>
<td>- To acquaint oneself with sleeping, appetite, stress, disease, medicine, environmental health, accident, disasters</td>
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<td></td>
<td>- Ability to express what are learned from experiences</td>
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<td>- ex. To express feelings what students experience through writing, singing, painting and performing art</td>
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<td></td>
<td>- Ability to obtain information, think and express</td>
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<td></td>
<td>- ex. To write one’s own thought after reading materials within 1000 characters</td>
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<td></td>
<td>- Ability to apply knowledge and skills into a daily life</td>
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<td>- ex. By using the concepts of “demand,” “supply,” and “price,” explain the rationale of the rising price of vegetables due to long rain</td>
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<td></td>
<td>- To plan, implement, evaluate the assignment and to further improve through research and experiment</td>
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</tr>
<tr>
<td></td>
<td>- ex. To plan, implement, observe, create, evaluate the assignment and to further improve through research, experiment and creative activity</td>
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</tbody>
</table>
Modes

- Collaborative learning
- Project-based learning
- Problem-based learning
- Experiential learning
- Service learning

- .....
How does learning of non-cognitive competencies take place?

- Theory versus Real-life experiences
- Implicit versus Explicit Learning
- Holistic versus Analytic approach
- Imitation and Enculturation
- Truth? Choice?

Socialization, a process less understood!
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Challenges
Learning: Process or Outcome?

Do all students learn the same with the same experience?

Do all learning outcomes occur immediately?

Do all learning outcomes occur according to design?

Are all learning outcomes direct consequences of the designed learning activities?
The Role of Assessment

Assessment = Improvement?
More assessments = Greater progress?
Competition/screening: Good or Bad?

What does assessment tell us?
Information – Ability
Knowledge – Understanding
Competency – Application
Challenge II
The Myth of Assessment

❖ Modes of Assessment
  ❖ Paper-Pencil, Projects, Problems
  ❖ Creation, Construction
  ❖ Portfolios

❖ Graded Tests
  ❖ Pass/Fail
  ❖ Yes/No
Challenge II
The Myth of Assessment

Everything learnt could be measurable. Right?

Everything learnt should be assessed. Right?
Challenge III
Yesterday and Tomorrow

Cultural Heritage
The Assumed and the Unspoken
Revisiting Traditions with Science
Culture about Key Competencies

Human—Nature Relations
Human—Human Relations

Howard Gardner 1984
Reform vis-à-vis Cultural Heritage
E.g. China: The 5 Dimensions of Education

Moral
Intellectual
Physical
Social
Aesthetic

德 智 體 群 美
After all …

Industrial
- analytic, regulated, structured, clear-cut, uniform, convergent, normative, neat, assertive and reducible to parameters

Post-industrial
- holistic, flexible, loose, fuzzy, plural, divergent, liberal, complex, speculative and tolerant of multiplex concepts
Thank you!

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