Singapore’s Curriculum Reform for Developing 21st Century Competencies

18th OECD/Japan Seminar
10 December, 2015
The Little Red Dot

• An artificial diamond created by stress from 1965
• Small population, too few babies, no hinterland
• Need to prepare our young to respond to a complex world

• Advantages
  - Location
  - Multiracial Society
  - Human Capital

Education enables students to:
• develop values, skills and competencies for life and work
• be plugged into innovation-driven global economy
• engage the region and the world
Drivers of change

❖ Globalisation
❖ Changing Demographics
❖ Mega trends & Issues
❖ Technology Advancements
Implications on Education

❖ Globalisation

- Increase awareness and knowledge of world issues
- Develop skills and abilities to learn continuously and manage complex situations
- Nurture civic and social responsibility, a sense of service to community and nation and an understanding of Singapore’s perspectives
Implications on Education

❖ Changing Demographics

- Flexible, customised and collaborative education
- Language skills, civic and multi-cultural literacies
Implications on Education

❖ Mega trends & Issues

- Dynamic curriculum that is responsive to rapid change
- Develop new skills and mind-sets to be flexible and adaptable and cope with complexity and ambiguity
Implications on Education

❖ Technology Advancements
  ▪ Skills to navigate technology responsibly and safely
  ▪ Broaden students’ learning experiences
  ▪ Provide strong foundation and deep skills for greater flexibility
# Desired Outcomes of Education

<table>
<thead>
<tr>
<th>Confident Person</th>
<th>Self-directed Learner</th>
<th>Concerned Citizen</th>
<th>Active Contributor</th>
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<tbody>
<tr>
<td>Thinks independently</td>
<td>Takes responsibility for own learning</td>
<td>Is informed about world and local affairs</td>
<td>Exercises initiative and takes risks</td>
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<tr>
<td>Communicates effectively</td>
<td>Questions, reflects, perseveres</td>
<td>Empathises with and respects others</td>
<td>Is adaptable, innovative, resilient</td>
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<tr>
<td>Has good inter-personal skills</td>
<td>Uses technology adeptly</td>
<td>Participates actively</td>
<td>Aims for high standards</td>
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Future Learning – 21st Century Competencies Framework

Social and Emotional Competencies
Core Values
Respect, Responsibility, Resilience, Integrity, Care, Harmony
Emerging 21st Century Competencies
Core Values

Respect
A person demonstrates respect when he believes in his own self-worth and the intrinsic worth of all people.

Responsibility
A person who is responsible recognises that he has a duty to himself, his family, community, nation and the world, and fulfils his responsibilities with love and commitment.

Harmony
A person who values harmony seeks inner happiness and promotes social cohesion. He appreciates the unity and diversity of a multi-cultural society.

Integrity
A person of integrity upholds ethical principles and has the moral courage to stand up for what is right.

Resilience
A person who is resilient has emotional strength and perseveres in the face of challenges. He manifests courage, optimism, adaptability and resourcefulness.

Care
A person who is caring acts with kindness and compassion. He contributes to the betterment of the community and the world.
Social and Emotional Competencies

Self-Awareness
A person who understands his own emotions, strengths, inclinations and weaknesses is able to develop positive self-concept and self-worth.

Social Awareness
A person who has social awareness is able to accurately discern different perspectives, recognise and appreciate diversity and demonstrate empathy and respect for others.

Self-Management
A person who manages himself effectively is able to manage his own emotions, exercise self-discipline and display strong goal-setting and organisational skills.

Relationship Management
A person who manages relationships well is able to establish and maintain healthy relationships through effective communication and is able to work with others to resolve conflicts.

Responsible Decision Making
A person who makes responsible decisions is able to identify and analyse the implications and consequences of decisions made based on sound moral considerations.
Emerging 21st Century Competencies

1. Civic Literacy, Global Awareness & Cross Cultural Skills
   - Active Community Life
   - National and Cultural Identity
   - Global Awareness
   - Socio-Cultural Sensitivity and Awareness

2. Critical and Inventive Thinking Skills
   - Curiosity and Creativity
   - Sound Reasoning and Decision-Making
   - Metacognition
   - Managing Complexities and Ambiguities
Emerging 21st Century Competencies

3. Communication, Collaboration and Information Skills

- Effective Communication
- Effective Collaboration
- Management of Information
- Responsible Participation in the Information Landscape
## Standards and Benchmarks

<table>
<thead>
<tr>
<th>Standards</th>
<th>By end of P3</th>
<th>By end of P6</th>
<th>By end of S2</th>
<th>By end of S4/S5</th>
<th>By end of JC2/PU3</th>
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<tbody>
<tr>
<td><strong>CIT 1</strong></td>
<td>1.1a The student is able to generate ideas to respond to an issue/challenge.</td>
<td>1.1b The student is able to generate ideas and explore different pathways to respond to an issue/challenge.</td>
<td>1.1c The student is able to generate ideas and explore different pathways that are appropriate for responding to an issue/challenge.</td>
<td>1.1d The student is able to generate ideas and explore different pathways that lead to solutions.</td>
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<tr>
<td>Explores possibilities and generates ideas</td>
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<td><strong>CIT 2</strong></td>
<td>2.1a The student is able to explain his/her reasoning and decisions.</td>
<td>2.1b The student is able to use evidence to explain his/her reasoning and decisions.</td>
<td>2.1c The student is able to use evidence and adopt different viewpoints to explain his/her reasoning and decisions.</td>
<td>2.1d The student is able to use evidence and adopt different viewpoints to explain his/her reasoning and decisions, having considered the implications of the relationship among different viewpoints.</td>
<td>2.2a The student is able to recount relevant experiences which he/she has learnt from.</td>
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<tr>
<td>Exercises sound reasoning, decision-making and metacognition</td>
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<tr>
<td><strong>CIT 3</strong></td>
<td>3.1a The student is able to identify the expectations of the task/role and stay focused on them.</td>
<td>3.1b The student is able to identify essential elements of multiple tasks/roles, stay focused on them and persevere when he/she encounters difficulties and unexpected challenges.</td>
<td>3.1d The student is able to identify essential elements of complex tasks, stay focused on them, take on diverse roles and persevere when he/she encounters difficulties and unexpected challenges.</td>
<td></td>
<td>3.2b The student is able to accept different perspectives, solutions and/or methods, even in the face of uncertainty.</td>
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<tr>
<td>Manages complexities and ambiguities</td>
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<td></td>
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<td>3.2d The student is able to manage uncertainty and adapt to diverse demands and challenges in new and unfamiliar contexts.</td>
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Developing 21CC through the Total Curriculum

**Student Outcomes**
Confident Person, Self-directed Learner, Concerned Citizen, Active Contributor

**21st Century Competencies**

- Languages
- Math
- Sciences
- Humanities
- PE, Art & Music
- Character & Citizenship Education
- Co-curricular Activities
- School-based Programmes (e.g., projects, leadership opps., camps, exchange progs)

Total curriculum - learning experiences within and outside structured time-table
Deliberate Design of Learning Opportunities

• Integrate 21CC into curricular documents
  • Help teachers better understand how 21CC development is related to learning outcomes
  • Highlight possible ways to develop students’ 21CC (e.g. through lesson plans)

• Professional development (upgrading of subject content and/or Pedagogical Content Knowledge) to sharpen teachers’ ability to design learning opportunities
# Deliberate Design of Learning Opportunities

## Global Tourism – Is tourism the way to go?

<table>
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<tr>
<th>Key Question</th>
<th>Learning Outcomes</th>
<th>Knowledge/Skills</th>
<th>Key Geographical Concepts / Content Concepts</th>
<th>MOE Initiatives</th>
</tr>
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<tr>
<td>KQ1: How does the nature of tourism vary from place to place?</td>
<td><strong>CONTENT</strong>&lt;br&gt;• Describe and give examples of different types of tourism.&lt;br&gt;• Explain why tourist activities are different at different places.</td>
<td><strong>Knowledge</strong>&lt;br&gt;• Tourists are people who travel and stay away from their normal place of residence for more than 24 hours.&lt;br&gt;• Different places and environments provide different opportunities for tourist activities:&lt;br&gt;  o Places of scenic beauty (e.g., mountain regions, coastal resorts, national parks - honeypot tourism)&lt;br&gt;  o Places with good facilities - MICE (e.g., Singapore), educational facilities - educational tourism (e.g., Singapore), medical facilities - medical tourism (e.g., Thailand), spa facilities – health tourism, theme parks&lt;br&gt;  o Places with rich culture – heritage tourism (e.g., London, Angkor Wat), film-induced tourism (e.g., Korea), gourmet/shopping tourism (e.g., Hong Kong), pilgrimage tourism (e.g., Mecca)&lt;br&gt;  o Places of conflicts - dark tourism (e.g., Killing Fields and Tuol Sleng)</td>
<td><strong>Geographical Concepts</strong>&lt;br&gt;• Place&lt;br&gt;• Space&lt;br&gt;• Physical and human Processes - Environmental and cultural diversity</td>
<td><strong>21st CC: Civic Literacy, Global Awareness &amp; Cross-Cultural Skills</strong>&lt;br&gt;• global awareness, socio-cultural and religious sensitivity and awareness;</td>
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Deliberate Design of Learning Opportunities

Designing Rich Learning Experiences

• Rich learning experiences, with student-centric approaches are designed to help students develop their 21CC
  • These are reflected in lesson plans and instructional materials designed

• Use of assessment to provide formative feedback to support students’ 21CC development
Deliberate Design of Learning Opportunities

Co-Curricular Activities (CCA)
- Clubs and Societies
- Sports and Games
- Uniformed Groups
- Visual and Performing Arts
Deliberate Design of Learning Opportunities

**Intentional** design of activities to create opportunities for 21CC development:
By tweaking design of existing activities

Opportunities created must allow students’ learning of 21CC to be **Visible**
(i.e. to express learning in various ways)

Visibility of learning allows teachers to provide **Feedback** through observation
Challenges in Implementation

❖ Assessment of some 21CC competencies
❖ Some quarters may over-emphasise academic success (particularly examination success) over holistic education
❖ Levelling up teachers’ capacity to be effective in developing students’ 21CC
❖ Ascertaining the effectiveness of our systemic efforts
Moving forward with 21CC Development

❖ Continue learning from international efforts and educational research related to 21CC development
❖ Continued emphasis on holistic education
❖ Continue to improve teachers’ pedagogy and understanding of assessment
Thank you