INTEGRATING TRANSVERSAL COMPETENCIES IN EDUCATION POLICY AND PRACTICE (PHASE II)

Country Case Study: JAPAN

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Outline

1. Background
2. Research Design
3. Findings: School Policies and Practice in Japan; the Case of Akita
   1) Local and School Policies
   2) Teaching Practice
   3) Questionnaire Survey with School Principals and Teachers
4. Achievements and Challenges
Zest for Living

Solid academic Prowess

- Basic Knowledge
- Learn & think themselves
- Make decisions

Well-rounded character

- Self-Control (discipline)
- Cooperate with others
- Empathy

Healthy Body

- Physical Health
- Mental Health

Balance between acquisition of knowledge/skills & sense of judgment / critical thinking

Need for strengthening ability to “think”, “express” and “make decisions”

Source: MEXT (2011)
1. Background: Findings from Phase I

• Reviewed “the 2008 New Courses of Study” (2011~)
  1) Principle of “Zest for Living”
     • Verbal activities across all academic subjects,
     • Fostering abilities to “think, express and make decisions”
  2) Challenges
     • Definitional ambiguity of targeted skills,
     • Lack of assessment system
     • Lack of teacher support and
     • Pressure from the academic oriented society
2. Research Design

- **Research Questions**
  - How educational policies of the MEXT are transferred into local and school levels?

- **Research Focus: Akita Prefecture**
  - 450km North of Tokyo, 11,363.30km², Pollution; 1,040,764 Education budget: 18.3%
  - Top ranking in the National Achievement Examination since 2007
  - Akita Yuzawa City, Ugo town, Higashi Naruse Village

- **Data Collections**
  - Desk study of policy documents
  - Classroom observation in sampled schools;
  - Interviews with education leaders; and
  - Questionnaire survey with school principals and teachers

Source: http://wikitravel.org/upload/shared//4/4c/Japan_akita_map_small.png

1) Local and School Policies
2) Teaching Practice
3) Teachers’ perceptions
3.1. Findings: Local and School Policies

3.1.1.1. Transversal Competency in Prefectural Level

• Akita’s Shared Missions
  o Richness in Mind
  o Hometown education
  o A quality of teachers

• Current Policies in Akita;
  Transversal competencies as a base of learning
  o 10 basic principles for learning in Akita
  o Four Educational goals (2014)
    1. Fostering considerate personality
    2. Building strong mind and body
    3. Enhancing basic academic skills
    4. Improving teacher’s quality

10 basic principles for learning in Akita
1) Keeping a consistent lifestyle habits
2) Having a good family time with laughter
3) Building creativity through reading
4) Communicating with speaking and writing
5) Keep-trying challenges
6) Discovering through the Integrated study
7) Following rules
8) Being considerate of others
9) Constructing logical explanation
10) Applying what you learned
3.1. Findings: Local and School Policies

3.1.1.2 Transversal Competency in School Level

**Required Interpersonal Skills**
communication skills, teamwork, initiative, presentations skills and collegiality,

Other transversal competencies: resourcefulness, application skill, reflective thinking, self-motivation, tolerance, and ability to resolve conflicts.

**Interpersonal Skills**
(Higashi Naruse Primary School)

**Intrapersonal Skills**
(Yuzawa Higashi Primary School)

- Goals: to raise 1) students who have compassion, 2) students who possess self-discipline, and 3) students who learn proactively.

- Nurture from daily life: 1) daily life habits, 2) study habit and 3) home study habit.

- Fourteen lifestyles habits

- A column to fill their own evaluation (◎/〇/△), and comment from parents.

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(Yuzawa Higasi Primary School and Yuzawa Kita Junior High School)
3.1. Findings: Local and School Policies

3.1.2. Teachers Training and Support

- High Level of commitment of the teachers
  - Local government level: Shido-shuji (Academic Advisor)
  - School Level: School-based teacher’s trainings
    1. “Open Lessons”
    2. Skill development for student-centered lessons
    3. Informal trainings

- Motivation maintenance through colleagues and community members
  - Close communication with teachers and school management
  - Having a sense of pride and responsibility as a teacher

Facilitator Skills

1. Setting Plot (Shikakeru)
2. Stirring Idea (Yusaburu)
3. Expanding (Hirogeru)
4. Connecting (Tsunageru)
5. Eliciting (Hikidasu)
3.1. Findings: Local and School Policies

<< Summary >>

• Overall intentions of the central policies are well reflected in the school level policies, and perceptions of education leaders in Akita
• Important role played by “Shido-shuji” (academic supervisor)
• Motivated teachers are supported by colleagues and community members
# 3.2. Findings: Teaching Practice

## 3.2.1. Standardized Lesson Plan

<table>
<thead>
<tr>
<th>1. Three components of Lesson: Goal, Development, and Reflection</th>
<th>2. Blackboard utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Tools and charts on a blackboard" /></td>
<td><img src="image2" alt="Classroom setups" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="Notebook pages" /></td>
<td><img src="image4" alt="ICT tools and classroom" /></td>
</tr>
</tbody>
</table>
### 3.2. Findings: Teaching Practice

#### 3.2.2. Introducing Diverse Verbal Activities

<table>
<thead>
<tr>
<th>1. Combination of individual activity and group work</th>
<th>2. Teachers as a facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image 1](127x427 to 313x451) ![Image 2](316x427 to 461x451) ![Image 3](473x428 to 588x451)</td>
<td>![Image 4](63x200 to 170x356) ![Image 5](66x77 to 247x198) ![Image 6](205x77 to 369x345) ![Image 7](397x70 to 687x234) ![Image 8](521x236 to 679x341)</td>
</tr>
</tbody>
</table>
# 3.2. Findings: Teaching Practice

## 3.2.3. Strengthening Interrelations

<table>
<thead>
<tr>
<th>1. Environment to enhance Learning</th>
<th>2. Cross-subject learning Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image of a classroom setting" /></td>
<td><img src="image2.png" alt="Diagram of educational interrelations" /></td>
</tr>
<tr>
<td><img src="image3.png" alt="Image of a library" /></td>
<td></td>
</tr>
<tr>
<td><img src="image4.png" alt="Image of a science laboratory" /></td>
<td></td>
</tr>
<tr>
<td><img src="image5.png" alt="Image of a history exhibit" /></td>
<td></td>
</tr>
</tbody>
</table>

- **Science**
- **Social science**
- **Career Education**

**Notes:**
- Local government
- Communities
- Home
- Primary school
- Middle school
- History
- Culture
- Nature
3.2. Findings: Teaching Practice

<< Summary >>

• Teachers in Akita are trained to be equipped with skills to organize lessons with high standard.
• School activities are organized in the way that students are expressing their opinion freely and listening to others.
• Schools provide various learning opportunities in and outside of the classroom.
3.3. Teachers’ Perception: Preliminary Survey Result

Used mixed methods (questionnaire survey & interviews)
July 2013 - July 2014

Questionnaire categories

- ERI-Net categories
  - Curriculum framework, achievements and challenges

- Newly added
  - Role of teachers, changes in pedagogy, clarity of descriptions of non-cognitive aspects in the 2008 New Courses of Study, changes in students’ attitude, desirable support from the government

Open-ended questions
- Expectations of the 2008 New Courses of Study

School Principals/Teachers
- 277 responses

School Curriculum Experts
- Professors
- Journalist

National Institute Research Specialist
- Private Institute Researchers
- MEXT Officers

School Principals/Teachers
- 12 survey responses
- 18 interviews
3.3.1. Rational behind policy towards non-cognitive skill integration

- Meeting societal changes: 218%
- Low interpersonal skills due to diluted...: 217%
- Decreased level of students' self-...: 134
- Increased international competition: 108
- Increasing the "employability" of students: 78
- Excessive pressure on students to...: 33
- Declining students' learning achievement: 22
- Decreased level of students' physical...: 18
- Boosting economic development: 13
- Others: 4
3.3.2. Essential Skills and Competencies for Development of Students

<table>
<thead>
<tr>
<th>Skill</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication skills</td>
<td>80%</td>
<td>200</td>
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<tr>
<td>Resourcefulness</td>
<td>60%</td>
<td>170</td>
</tr>
<tr>
<td>Compassion</td>
<td>40%</td>
<td>166</td>
</tr>
<tr>
<td>Creativity</td>
<td>20%</td>
<td>163</td>
</tr>
<tr>
<td>Initiative</td>
<td>0%</td>
<td>163</td>
</tr>
<tr>
<td>Self-discipline</td>
<td>80%</td>
<td>147</td>
</tr>
<tr>
<td>Team work</td>
<td>60%</td>
<td>123</td>
</tr>
<tr>
<td>Respect for diversity</td>
<td>40%</td>
<td>123</td>
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<tr>
<td>Reasoned decision making</td>
<td>20%</td>
<td>93</td>
</tr>
<tr>
<td>Presentation skills</td>
<td>0%</td>
<td>92</td>
</tr>
<tr>
<td>Enthusiasm</td>
<td>80%</td>
<td>85</td>
</tr>
<tr>
<td>Reflective thinking</td>
<td>60%</td>
<td>81</td>
</tr>
<tr>
<td>Organizational skills</td>
<td>40%</td>
<td>80</td>
</tr>
<tr>
<td>Tolerance</td>
<td>20%</td>
<td>80</td>
</tr>
<tr>
<td>Skills for using digital equipment</td>
<td>0%</td>
<td>69</td>
</tr>
<tr>
<td>Others</td>
<td>80%</td>
<td>63</td>
</tr>
<tr>
<td>Others</td>
<td>60%</td>
<td>58</td>
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<tr>
<td>Others</td>
<td>0%</td>
<td>10</td>
</tr>
</tbody>
</table>
3.3.3. Comparison of the common learning activities and perceived effective learning activities for transversal competencies

- Lecture by teachers
- Group activities
- Individual works/presentations
- Utilization of ICT tools
- Field study
- Extra-curricular activities

**Perceived effective learning activities**

- **Very much**
- **To some extent**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Very much</th>
<th>To some extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra-curricular activities</td>
<td>42</td>
<td>151</td>
</tr>
<tr>
<td>Field study</td>
<td>106</td>
<td>124</td>
</tr>
<tr>
<td>Utilization of ICT tools</td>
<td>52</td>
<td>156</td>
</tr>
<tr>
<td>Individual works/presentations</td>
<td>126</td>
<td>111</td>
</tr>
<tr>
<td>Group activities</td>
<td>164</td>
<td>74</td>
</tr>
<tr>
<td>Lectures by teachers</td>
<td>34</td>
<td>171</td>
</tr>
</tbody>
</table>
## 3.3.4. Changes in Students under the 2008 New Courses of Study

### Creative/Critical Thinking Skills

- Students who are able to analyze and evaluate the information they obtained
  - Increased: 31%
  - No change: 68%
  - Decreased: 1%

### Interpersonal Skills

- Students who are comfortable with discussing their classmates
  - Increased: 61%
  - No change: 39%
  - Decreased: 0%

- Students who are comfortable with making a presentation in public
  - Increased: 74%
  - No change: 26%
  - Decreased: 0%

- Students who are able to express their thoughts and impressions
  - Increased: 84%
  - No change: 16%
  - Decreased: 0%

### Intrapersonal Skills

- Students who are motivated to learn
  - Increased: 56%
  - No change: 43%
  - Decreased: 2%

### Global Citizenship

- Students who respect the diversity
  - Increased: 32%
  - No change: 68%
  - Decreased: 0%

- Students who are interested in global issues
  - Increased: 26%
  - No change: 74%
  - Decreased: 0%

- Students who have understanding on community environment and society
  - Increased: 38%
  - No change: 61%
  - Decreased: 1%

### Others

- Students who acquire basic knowledge and skills
  - Increased: 51%
  - No change: 48%
  - Decreased: 1%

- Students who understand the facts clearly
  - Increased: 28%
  - No change: 71%
  - Decreased: 1%

- Students who are able to present their thoughts in organized way
  - Increased: 61%
  - No change: 39%
  - Decreased: 0%

- Students who are able to keep up with the lesson
  - Increased: 15%
  - No change: 79%
  - Decreased: 0%

- Students who are fatigued
  - Increased: 7%
  - No change: 93%
  - Decreased: 0%

- Standard of academic performance of students
  - Increased: 29%
  - No change: 69%
  - Decreased: 1%

- Students who are able to analyze and evaluate the information they obtained
  - Increased: 29%
  - No change: 71%
  - Decreased: 0%

- Students who have difficulty to keep up with the lesson
  - Increased: 6%
  - No change: 79%
  - Decreased: 15%

- Students who understand the facts clearly
  - Increased: 28%
  - No change: 71%
  - Decreased: 1%

- Students who are able to express their thoughts and impressions
  - Increased: 61%
  - No change: 39%
  - Decreased: 0%

- Students who are able to present their thoughts in organized way
  - Increased: 75%
  - No change: 24%
  - Decreased: 1%

- Students who are able to analyze and evaluate the information they obtained
  - Increased: 31%
  - No change: 68%
  - Decreased: 1%

- The achievements gap among students
  - Increased: 20%
  - No change: 74%
  - Decreased: 6%

- Standard of academic performance of students
  - Increased: 29%
  - No change: 69%
  - Decreased: 1%
3.3.5. Available training opportunities and its effectiveness perceived

Effectiveness of Training Opportunities

- Demonstration lessons at schools: 159
- Exchanging ideas with colleagues: 111
- Visiting other schools: 88
- Training organized by city, village and town: 59
- Training organized by prefecture: 94
- Training with experts from the partner universities: 13
- Online training: 4
- Others: 7
3.3.6. Challenges for implementation of the 2008 New Courses of Study

- Lack of understanding from communities: 2% Very much, 18% To some extent, 66% Very little, 10% Not at all, 4% Don’t know.
- Lack of understanding from parents: 2% Very much, 26% To some extent, 60% Very little, 7% Not at all, 4% Don’t know.
- Lack of IT equipments: 10% Very much, 38% To some extent, 46% Very little, 3% Not at all, 3% Don’t know.
- Lack of practical advice: 6% Very much, 44% To some extent, 46% Very little, 2% Not at all, 3% Don’t know.
- Lack for lesson time: 14% Very much, 45% To some extent, 37% Very little, 3% Not at all, 3% Don’t know.
- Ambiguity in skills and competencies to be nurtured: 15% Very much, 46% To some extent, 34% Very little, 3% Not at all, 3% Don’t know.
- Academic/exam oriented society: 19% Very much, 45% To some extent, 32% Very little, 2% Not at all, 2% Don’t know.
- Lack of education materials: 14% Very much, 53% To some extent, 31% Very little, 1% Not at all, 8% Don’t know.
- Lack of time for preparation: 41% Very much, 47% To some extent, 10% Very little, 1% Not at all, 1% Don’t know.
### 4. Achievement and Challenges

#### 4.1. Achievement

<table>
<thead>
<tr>
<th>Domains</th>
<th>Examples of key characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical and innovative thinking</td>
<td>critical thinking, innovative thinking, creativity, entrepreneurship, resourcefulness, application skills, reflective thinking, reasoned decision-making</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>Presentation skills, 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, respect for the environment</td>
</tr>
<tr>
<td>Physical and psychological health</td>
<td>healthy lifestyle, healthy feeding, physical fitness, empathy, self-respect</td>
</tr>
</tbody>
</table>
## 4. Achievement and Challenges

### 4.2. Challenges

1. Difficulty in Executing Ambiguous Objectives at School Level is Identified

2. Time Constrain for the Teachers is Evident in Practicing New Curriculum

3. Multiple Skills Required to Become a Good Facilitator

4. Assessing the Transversal Competencies remain to be a Challenge

5. Introduction of Information Education Varies among Schools
Thank you very much

Tokyo Institute of Technology

Shinobu Yamaguchi
Yukiko Yamamoto
Akina Ueno
Mihoko Kurokawa
Naoko Enomoto