The Country Study on Pedagogical Approaches
Case of Japan

Tokyo Institute of Technology
Shinobu Yamaguchi
Akina Ueno
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3. Analysis of New Courses of Study
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Changing society and community
- Less bonding within the local communities

Global challenging issues
- Economic stagnation
- Depletion of natural resources
- Environmental issues
- Food security

Demographic Change
- Aging Society
- 2060 estimate: 30% decline in population (as in 2010)
- 40% of population – 65 years+

Changing society and community
- Less bonding within the local communities

Accelerating globalization
- Further mobilization of people, money, information, etc
- More international competition with emerging nations

Great East Japan Earthquake 2011

Need for new approaches to development and education

Further direction
- Establishment of lifelong learning society based on three principles

Creativity
- Issues
- Creation of new values

Self-reliance
- Development of social competency for survival

Collaboration
- Development of human resources for brighter future
- Establishment of learning safety net
- Establishment of vibrant communities
- Social participation with sense of collaboration
- Creation of new values
- Development of diverse abilities
- Self-reliance
- Collaboration
1. Background/Motivation (1)

Basic Questions

① 次の平行四辺形の面積を求める式と答えを書きましょう

![Parallel quadrilateral diagram]

Correct answer: 96.0%
6th grade

Applied Questions

書きましょう。また、そのわけを、言葉や式などを使って書きましょう

![Map with circled areas]

Correct answer: 18.2%
6th grade

Source: National Exam Analysis (2007)
## 1. Background/Motivation (2)

Interest in math and science (TIMSS2007)

<table>
<thead>
<tr>
<th>Grade 4th</th>
<th>Japan</th>
<th>World Average</th>
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<tbody>
<tr>
<td>I enjoy Math</td>
<td>70%</td>
<td>80%</td>
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<td>I like to study Math</td>
<td>66%</td>
<td>80%</td>
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<th>8th Grade</th>
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<tr>
<td>I enjoy Math</td>
<td>39%</td>
<td>67%</td>
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<td>I like to study Math</td>
<td>37%</td>
<td>65%</td>
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<table>
<thead>
<tr>
<th>Grade 4th</th>
<th>Japan</th>
<th>World Average</th>
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<tbody>
<tr>
<td>I enjoy Science</td>
<td>87%</td>
<td>83%</td>
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<tr>
<td>I like to study Science</td>
<td>82%</td>
<td>83%</td>
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<tbody>
<tr>
<td>I enjoy Science</td>
<td>59%</td>
<td>78%</td>
</tr>
<tr>
<td>I like to study Science</td>
<td>52%</td>
<td>75%</td>
</tr>
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</table>

[TIMSS2007 International Comparison on Math and Science]
Q: My participation may be able to change social environment in the better direction.

1. Background/Motivation (3)

< Societal participation >

(source) Life and consciousness of secondary school students - international comparison: Japan, USA, China, South Korea (2009. February), Hitotsubashi Liberal Arts Association, Japan Youth Research Institute
2. Educational reforms: Zest for Living

The Concept was first introduced in 1998

Competencies required in Knowledge-based society
- Problem-solving skills, life-long learning, co-existence

Amendment of “School Education Act” (2006)
① Learn basic knowledge and skills
② Acquire skills to think, express, and make decisions to solve issues
③ Positive attitude toward learning

Challenges / issues surrounding young generation
- Reading comprehension, applied learning
- Learning attitude, study habit, lifestyle
- Lack of confidence, uncertainty about future
- Decline in physical strength

The 2008 New Courses of Study aims to fulfill the concept

Source: MEXT (2011)
Zest for Living

Solid academic Prowess
- Basic Knowledge
- Learn & think themselves

Need for coping with rapidly changing environments in knowledge-based society

Enhancement of verbal activities in the 2008 New Course of Study

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

Cooperate with others
- Empathy

Mental Health

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

Source: MEXT (2011)
3. Analysis & curriculum: Enhancement of verbal activities

As a tool to achieve objectives of each subject

Enhancing Verbal Activities

Japanese
Ensuring basic ability of Japanese language as well as experiencing beauty of the language. Nurturing abilities to utilise language such as record, summary, explanation, dissertation and debate according to students’ stage of development.
Learning through Experience

Source: Central Council for Education (2007)

Express your experience and opinion

Interpret and explain concepts/equations

Analyze information for discussion

Understand and communicate information correctly

Structure - do - evaluate - revise (assignment)

Communicate and develop consensus

Japanese
Express experiences and learn how to persuade others

Science
More experiments related to daily activities and present in groups

Social Science
Use current affairs, and discuss with reasons

General Studies
Inviting community worker for discussion

3. Analysis & curriculum: Enhancement of verbal activities
3. Enhancement of verbal activities: Example 2 – Mathematics

Example:
What is the area of this figure?

Individual exercise to calculate the area using the figure

Learn from each other by explaining and discussing the ways and ideas
** Explain logically by using Let students explain clearly and logically associating figures with formulas

Make them learn to accept other’s way of thinking through an activity to explain each other’s thoughts and identify common ideas and differences

For example • • •

Dividing into two

Consider it as a rectangle
By adding ①

Move ① and make a rectangle
3. Enhancement of verbal activities: Example 3 – Integrated study

Developing Skills to

- Interpret concept
- Effective use of graphics and visuals

1. Decide the main theme
2. Expand the imagination
3. Analyse the completed webbing map

Webbing map enables students
① to think from various perspectives
② to breaking up the themes into details
③ to contributes to broaden their imagination.

Source: MEXT
3. Enhancement of verbal activities: Collection of Cases

For discussion
- Pair work
- Group work using white board, memo

For presentation
- Presentation by students
- Poster presentation
- Debate

For writing activities
- Compiling reports
- Creating newspapers using ICT
4. Characteristics of Special Activities

Its origin goes back to Meiji era.

Current activities:

- **Home room activities**
- **School activities**
- **Government activities**
- **Academic learning**

Combination of academic learning and the special activities to promote balanced comprehensive education.

**What is special activities?**

Collective activities for developing students' independence and interpersonal communication skills through group works such as homeroom activities.

Source of photos:

-釧路市漁業協働組合: [http://www.gyokyou.or.jp/blog/2006/03/](http://www.gyokyou.or.jp/blog/2006/03/)
Community school has a "Board of school administration" which is composed of appointed parents and community representatives. The board has a certain level of authority and responsibility to review basic policy of school management.

4. Characteristics:

- **Community School Principle**: Create basic school management policy and activities
- **Board of School Administration**:
  - Municipal Board of Education:
  - Prefectural Board of Education:
  - Parents and community representatives

To reflect voice of community into school management, educational goals and assessment

**Number of Community School**

- **2005**: 17 schools
- **2006**: 53 schools
- **2007**: 197 schools
- **2008**: 341 schools
- **2009**: 629 schools
- **2010**: 789 schools
- **2011**: 1183 schools
- **2012**: 1570 schools
- **2013**: 1,570 schools (April, 2013)
- **2016**: 3,000 schools

**Graph**

- Y-axis: Number of schools
- X-axis: Years (2005-2013)
- Key milestones:
  - 1,570 schools (April, 2013)
  - 3,000 schools (2016)
5. Innovative Approach: 96 MEXT Pilot Schools

Otemachi Primary Schools
Case Study: Otemachi Primary School

Education Philosophy

Development of social competencies for survival

The ability to inquire
The ability to utilize information
Communication skills
Creativity
Self-determination
Sense of collaboration

Otemachi Primary School, 2013
Case Study: Otemachi Primary School
Educational structure

<2011>

Life / General Education

Academic Subjects
- Language
- Social science
- Math
- Science
- Music
- Art
- House economics
- Physical Education
- Foreign language

Special Activities

Reflective notes

<since 2013>

Life / General Education

Math and Science

Languages

Creativity and Communication

Health

Human relationship

Reflective learning

Transform into six fields+ focusing on competencies
Case Study: Otemachi Primary School Lesson observation

Date: July 11th, 2013
Place: Otemachi primary school, Joetsu City, Niigata
Grade: 2nd grade (7,8 year-old)
Subject: Math - primary level multiplication
Case Study: Otemachi Primary School: Findings 1: Focusing on “process” of learning

- Using teaching materials often seen in their daily life
- Drawing, discussion and explanation to be linked to solve the problem
Case Study: Otemachi Primary School
Findings 2: Promoting verbal activities

- Using reasoning, describing process, group discussion and presentation
- Nurturing students’ attitude of respecting others’ ideas and different opinion
Case Study: Otemachi Primary School
Findings3: Teacher seeing as a facilitator

- Helping slow learners in the class
- Encouraging students to share their opinion
- Promoting student-centred approach
Case Study: Otemachi Primary School
Participatory evaluation

- Ability to inquire
- Creativity
- Communication skills
- Ability to utilize information
- Self-determination
- Ability to live together

6 skills

Participatory Evaluation

- Detailed assessment criteria for each grade
- Shared assessment information and its criteria with parents

Teachers
Parents
Students
7. Conclusions

1. Japan’s experience of promoting verbal activities can serve as innovative example for skill-oriented pedagogy

2. Balance between collaborative learning and individual uniqueness is a key

3. New approach for teaching/learning requires time and training school levels

4. Developing assessment systems by carefully examining the current examination system is crucial

5. Involvement of parents and community continue to be established
Thank you very much

Tokyo Institute of Technology

- Shinobu Yamaguchi
- Akina Ueno