Report on Efforts in the Japan-OECD Joint Initiative Project

Can Competency Be Fostered in Class?

Efforts by Tokyo Gakugei University

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Topic Content

1. Assumptions: Present the assumptions for fostering competency in class

2. Subjects: Reveal the competency elements when teaching subjects

(1) Differences in content depending on subject
(2) Diverse interaction

3. Teaching: Practical implementation of fostering competency in class

(1) Inventive techniques used in teaching plans
(2) System of cooperation among teachers
(3) Indication of teaching methods

4. Dissemination: Create a system for the dissemination of classes fostering competency

⇒ 21CoDOMoS

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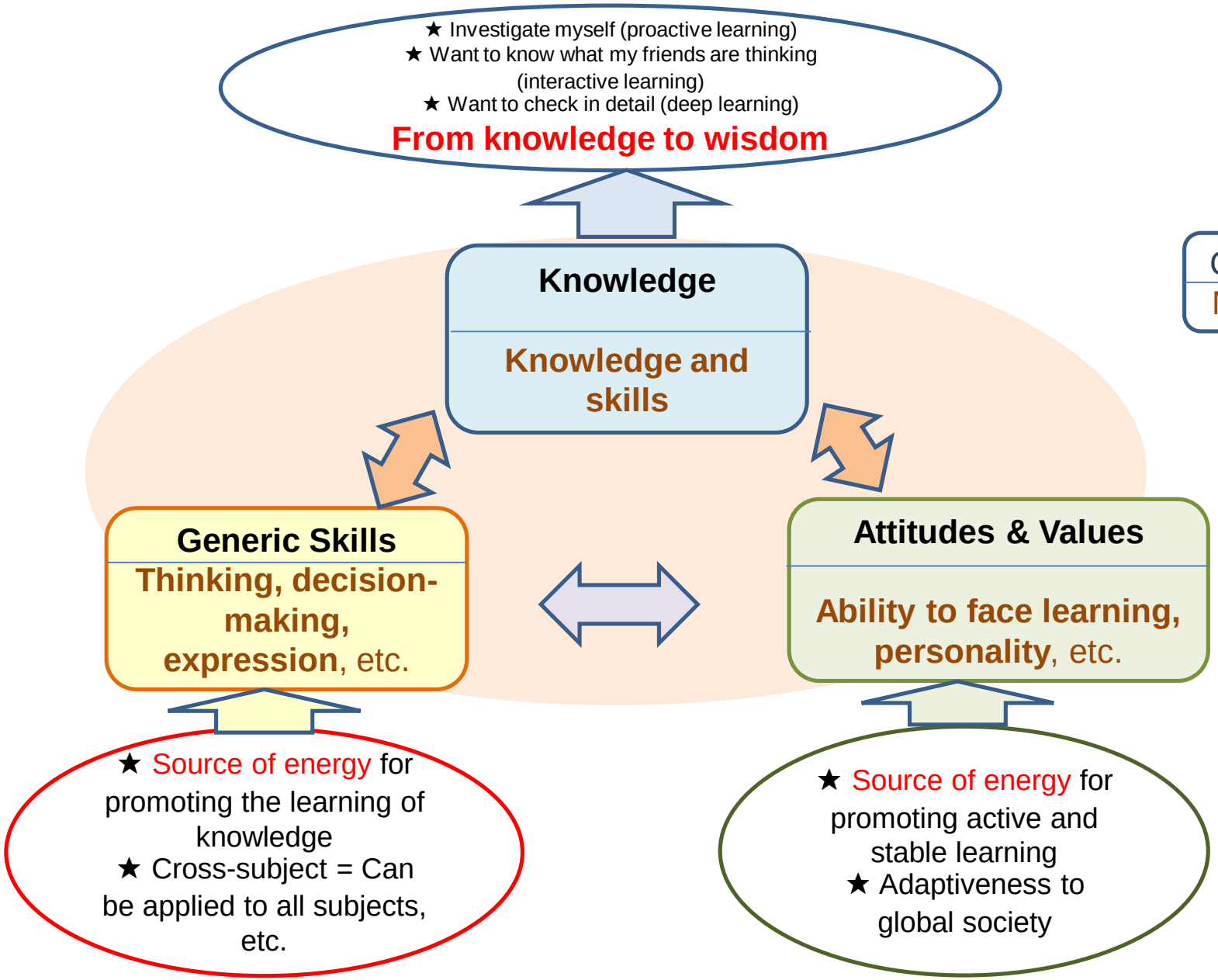
1. Assumption: What are the elements of generic skills and attitudes & values?

* Categorization and naming based on results of the survey for subject education and subject specialist teachers

Generic skills (7)	Attitudes & values (8)
• Critical thinking • Problem solving • Collaboration • Communication • Foresight • Sensitivity/expression/ creativity • Metacognition	• Mind to love • Acceptance/sympathy/respect for others • Cooperativeness • Awareness of better society • Curiosity/inquisitive mind • Desire to be right • Ability to overcome difficulty • Ambition

1. Assumption: Correlation between knowledge, generic skills, and attitudes & values



1_Assumption: Can generic skills be fostered?

Responses by elementary school teachers (N=500)

	Critical thinking	Problem solving	Collaboration	Communication	Foresight	Sensitivity Expression Creativity	Metacognition
Japanese language	**5.24**	**5.04**	4.92	**5.87**	4.85	**5.18**	4.92
Social studies	**5.27**	**5.35**	**5.03**	**5.35**	**5.03**	4.46	4.77
Arithmetic	**5.16**	**5.75**	4.81	**5.32**	**5.39**	4.37	4.87
Science	**5.33**	**5.72**	**5.20**	**5.28**	**5.52**	4.80	4.91
Foreign language activities	3.83	4.01	4.53	**5.13**	3.97	4.51	4.21
Music	3.97	4.18	**5.24**	4.88	4.14	**5.67**	4.39
Arts and crafts	4.00	4.38	4.68	4.76	4.70	**5.77**	4.40
Physical education	4.19	4.91	**5.41**	4.51	4.88	4.73	4.68
Home economics	4.25	4.79	**5.18**	4.53	4.83	4.80	4.49
Living environment studies	4.17	4.92	**5.28**	**5.23**	4.68	**5.13**	4.47
Moral education	4.92	4.62	4.81	4.99	4.64	4.47	4.89
Integrated studies	4.98	**5.50**	**5.50**	**5.63**	**5.22**	4.98	4.92
Special activities	4.96	**5.35**	**5.69**	**5.48**	**5.17**	4.71	4.94

Responses by junior high school teachers (N=400)

	Critical thinking	Problem solving	Collaboration	Communication	Foresight	Sensitivity Expression Creativity	Metacognition
Japanese language	**5.26**	4.90	4.80	**5.63**	4.75	**5.06**	4.85
Social studies	**5.19**	**5.08**	4.82	**5.15**	4.90	4.29	4.71
Mathematics	4.80	**5.35**	4.54	4.76	**5.02**	4.13	4.65
Science	**5.00**	**5.36**	**5.04**	4.93	**5.21**	4.49	4.79
English	4.33	4.48	4.68	**5.32**	4.26	4.51	4.45
Music	4.05	4.19	**5.00**	4.88	4.04	**5.56**	4.31
Art	4.15	4.20	4.47	4.82	4.26	**5.61**	4.35
Physical education	4.16	4.68	**5.33**	4.50	4.66	4.66	4.48
Home economics	4.30	4.77	**5.11**	4.57	4.75	4.79	4.42
Technical course	4.23	4.80	4.84	4.45	4.84	4.86	4.35
Moral education	**5.01**	4.76	4.81	4.96	4.63	4.47	4.77
Integrated studies	4.82	**5.16**	**5.30**	**5.27**	**5.01**	4.71	4.78
Special activities	4.93	**5.22**	**5.47**	**5.24**	**5.08**	4.70	4.80

* Cells with an average score of 5-7 (can be developed) are indicated in red according to the size of the value

⇒ It is thought that generic skill elements can be fostered in almost all subjects (the same applies to attitudes & values)

2-(1) Subjects: “Collaboration” varies depending on the subject

Collaboration Skills

Find common grounds

Japanese language
Ability to find a point of agreement that the other person can accept

Science
Ability to form a consensus based on scientific grounds

Expanding each other’s thinking

Arts and crafts
Ability to create new ideas from friends’ ideas and work toward joint creation

Social studies
Ability to solve problems with emphasis on the enjoyment and meaning of working together

Improving each other

Physical education
Ability to improve each other’s skills by teaching each other

Music
Ability to observe each other to find issues and create a performance in harmony

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2-(2) Subjects: “Collaboration” interacts with other competency elements

Examples of competency elements and subjects, etc. that interact with “collaboration”

Generic Skills

Sensitivity/ expression/ creativity

Problem solving

Foresight

Art

Home economics

Science

Collaboration

Science

Knowledge

Physical education

Social studies

Home economics

Social studies

Art

Acceptance/ sympathy/ respect

Awareness of better society

Curiosity/ Inquisitive mind

Attitudes & Values

⇒ Teachers work together to foster various types of competencies in a variety of subjects, etc.

3-(1) Teaching: Create a common teaching plan intended to foster competencies

★ **Create a common teaching plan intended to foster competencies**
★ **Common format in all subjects in elementary and junior high school**
★ **Clear statement of fostering goals for competency elements**
★ **Indication of "inventive methods" in teaching**

Explanation of the aspects of critical thinking, collaboration and awareness of better society included in the unit

(i) Generic skills (example of list)
- Critical thinking for thinking from various perspectives about whether there are other views or ways of thinking
- Collaboration for creating a safe environment, acting based on appropriate decisions and tending to simple wounds

(ii) Attitudes & values (examples of list)
- Awareness of participating in a better society linked to awareness of "what can I do for my surroundings (society)?"

Teaching Plan (Items Only) Health and Physical Education - Health

Lesson provider: ●●●●
1. Basic information
   - Time and date - Location - Grade: Grade 5, 36 students
2. Unit title
   "Preventing injuries" - You can do it too so let's try it! Connecting lives (Health)
3. About the unit
   3.1 Characteristics of the unit
   (1) Characteristics based on the subject
   (2) Characteristics based on the perspective of fostering generic skills and attitudes & values
   3.2 Objectives of the unit
   (1) Objectives of the unit
   (2) Priority content to be developed as a new education model
   (i) Generic skills
   (ii) Attitudes & values
   3.3 Situation of children
   3.4 View of teaching materials
   3.5 Inventive techniques used in teaching
   Perspective 1: Methods for enabling problem solving
   Perspective 2: Methods for enhancing thinking and judgment, etc.
   Perspective 3: Methods for enhancing awareness of acting in cooperation with others
   3.6 Unit evaluation plan (evaluation criteria and evaluation method)
   3.7 Unit teaching plan (5 hours in total)
4. About this period
   4.1 Objectives of the period
   4.2 Evaluation criteria
   4.3 Learners until the previous period
   4.4 Learning activities and teaching materials in this period
   4.5 Items to be prepared
   4.6 Teaching course during this period (5/5)
   4.7 Board writing plan
   4.8 Classroom layout (open space)

3-(2) Teaching: Engage in competency fostering lessons throughout the entire school

Created by Hiroshima Prefecture Hiro Senior High School

Efforts by Hiroshima Prefecture Hiro Senior High School

- **Creation and operation of systems for fostering competency throughout the entire school**
- **Development and evaluation committee operation centered on headmaster**
- **Teachers are encouraged to audit the colleagues at any time**
- **Clarify the cross-subject perspectives using a common teaching plan format (example on the right) , and utilize them in classroom visits**

Points of the common simple teaching plan (STP)

- **Indication of target in section for competency used (knowledge, skills, attitude)**
- **Indication of questions for deepening thinking**
- **Indication and aggregation of rubrics for competencies**

- **Curriculum management and operation throughout the entire school**
- **Practical implementation of teacher collaboration**
- **Fostering competency across subjects**

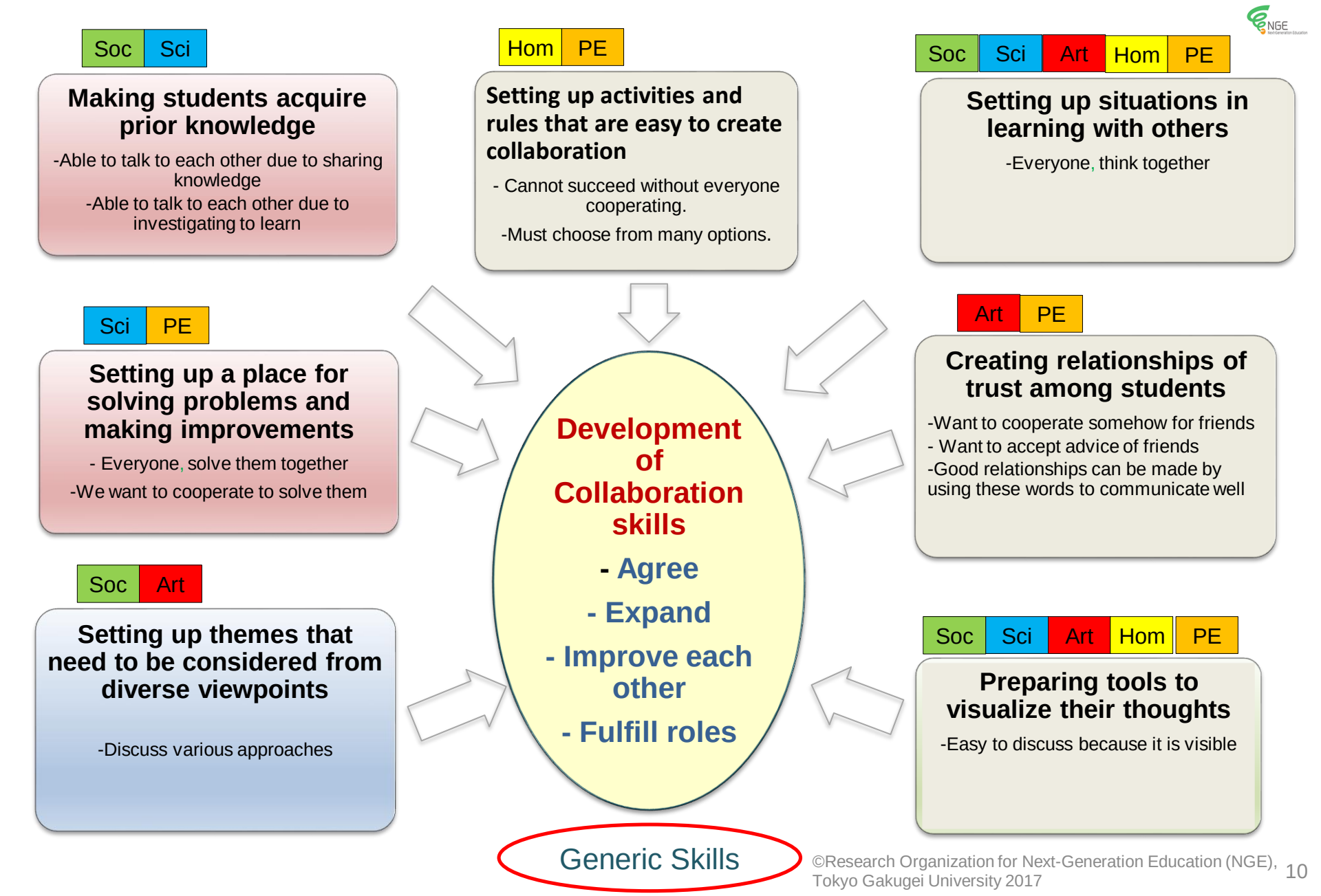
STP (Simple Teaching Plan) Hiroshima Prefectural Hiro Senior High School

Subject		Name of Subject		
Instructor		Classroom	Grade Class (Classroom)	
Date		Duration	: ～ :	
Name of Unit				
Target Competencies				
Competencies in Effective Use	【Core Knowledge】			
	【Core Skill】 ①Discussion ②Sessions ③Pair Work ④Study Skills ⑤Research Skills ⑥Speech Skills ⑦Logical Thinking ⑧Writing			
	【Core Attitude】 ⑨Cooperation ⑩Flexibility ⑪Adaptability ⑫Grit ⑬Resilience ⑭Leadership ⑮Proactiveness ⑯Responsibility			
Tasks				
Inquiries to Deepen Thoughts				
Rubrics for Competencies in Effective Use	5			
	4			
	3			
	2			
	1			
Teaching Process		Learning Activities	Teaching	Consideration in Teaching
	Introduction			
	Development			
	Consolidation			

Please put "★" to the Development sections that require attention.

* Tokyo Gakugei University NGE_Project provides support to Hiro Senior High School as an advisor

3-(3) Teaching: Methods for fostering “collaboration”



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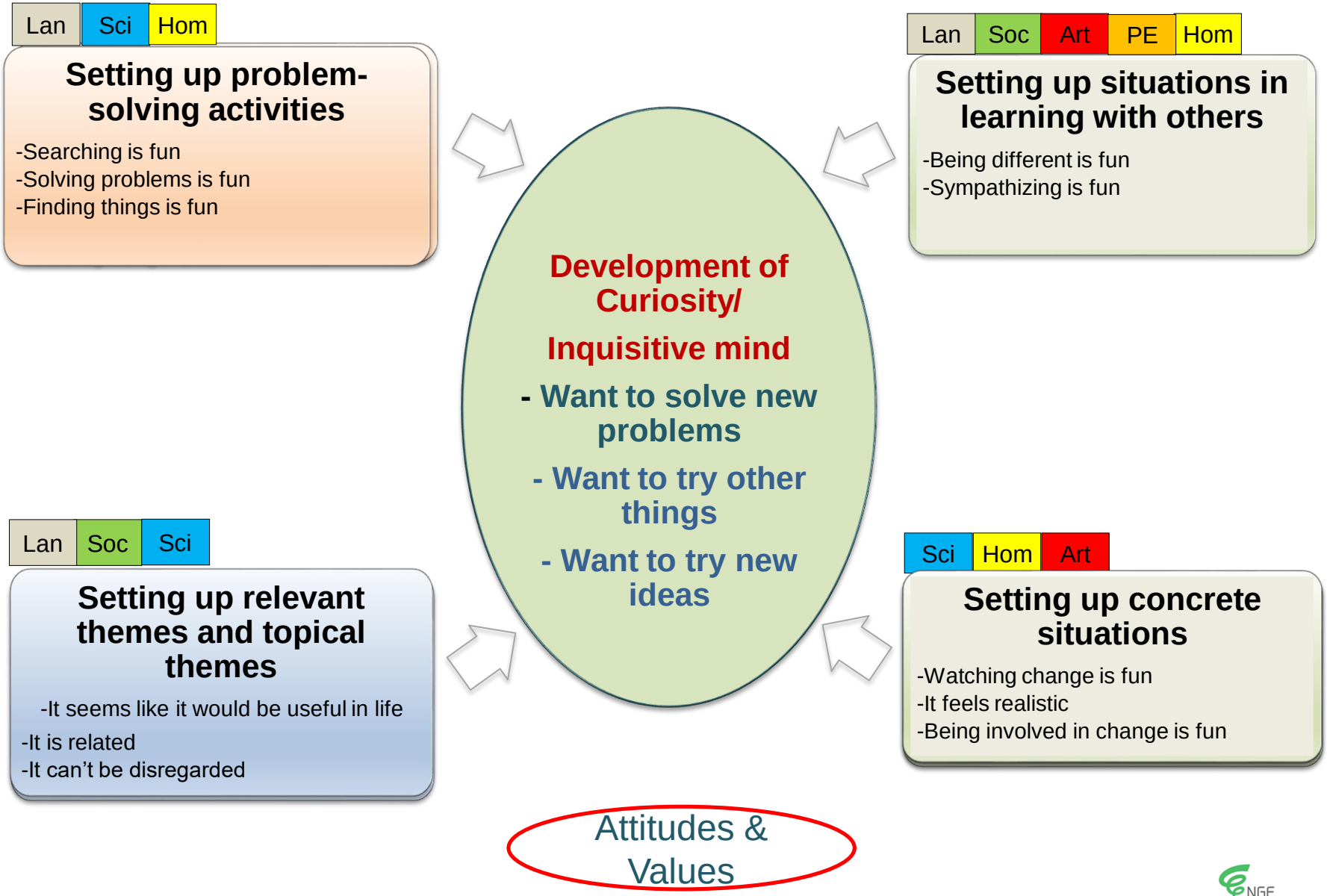
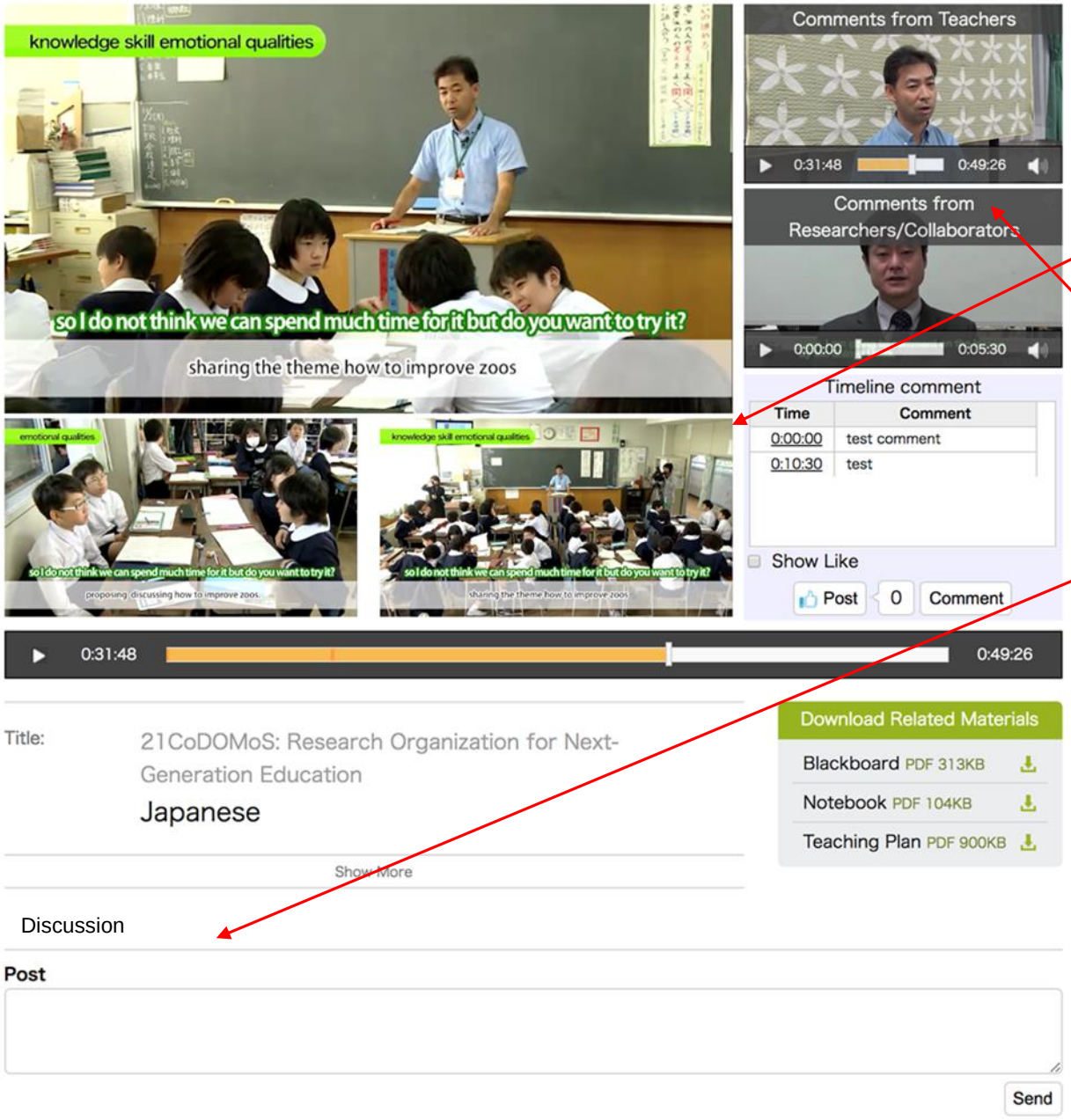
3-(3) Teaching: Methods for fostering "curiosity and inquisitive mind"



4_Dissemination: Utilization of class video streaming system (21CoDOMoS)



* View videos of classes from multiple perspectives

* Listen to explanations by teachers and researchers

* Conduct discussion about classes

Results and issues

Results and issues to date

- Indication of possibility of fostering competency in class
- Practical implementation of Curriculum Contents Mapping (CCM), support for collaboration by teachers

Achievement obtained through activities with OECD

- Clear awareness of the future image of children by viewing learning results over a long span
- Consideration of common perspectives and methodology among subject education and subject specialized researchers and teachers

http://www.u-gakugei.ac.jp/~jisedai/index.html

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Thank you

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