The National Curriculum Standards in Japan
(The Course of Study)

-From the Perspective of Teachers-

Keyword
1. <u>active learning</u> (proactive, interactive, and authentic learning)

2. <u>curriculum management</u> & <u>collaborative curriculum with society</u>

Tetsuo Kuramoto,

Ph.D./Professor

Shizuoka University of Art & Culture <t-kura@suac.ac.jp>

Tetsuo Kuramoto, Ph.D./Professor

Shizuoka University Art & Culture
~2022/March, Yokohama National University   (Master & Ph.D. programs)   Chief Professor
~2019/March, Aichi University of Education   (Master & Ph.D. programs)   Chief Professor

Academic Society council
1) The Japan School Improvement Research Association (vice president)
2) The Japanese Society for Curriculum Study (council member)
3) The Ministry of Education, Culture, Sport, Science, and Technology   Japan (MEXT) (chief evaluation council)
4) World Association of Lesson Studies
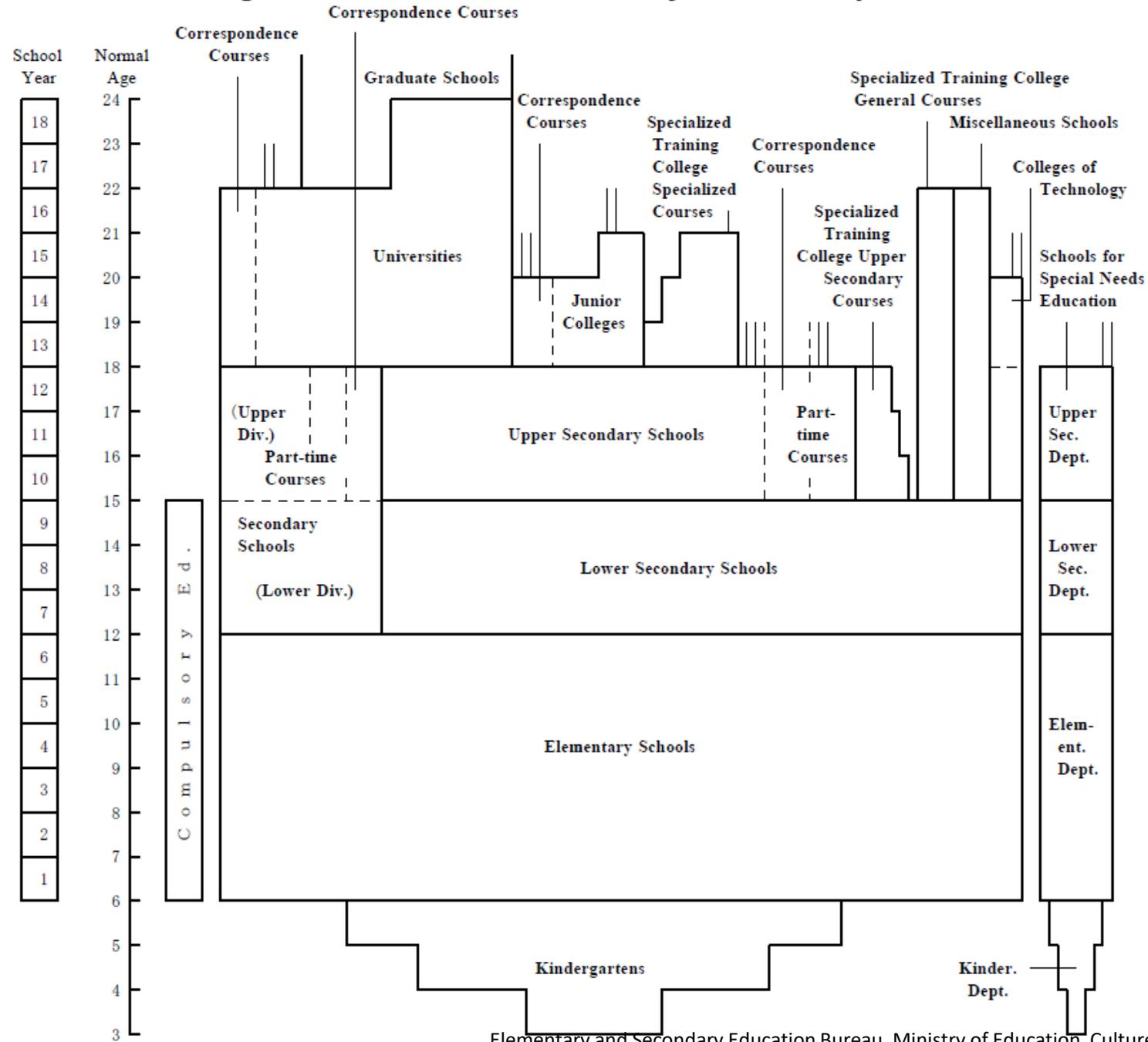
Main Academic Book.
1)   Tetsuo Kuramoto & Associates, Lesson Study and Curriculum Management in Japan -Focusing on Action Research-, pp.1-270. (Kindle version) Discover 21, 2021, October, ISBN:9784861868375
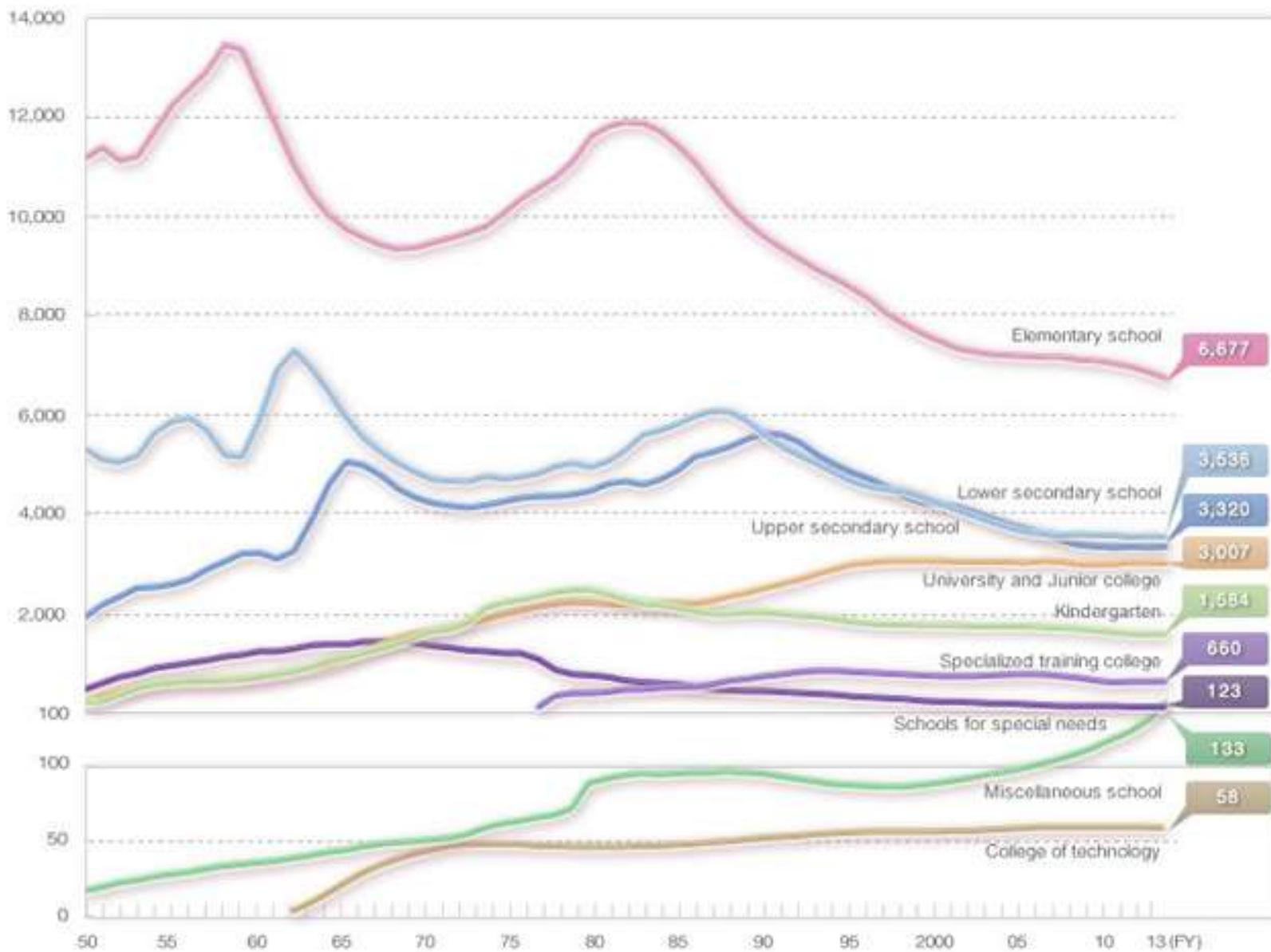2)   倉本哲男『アメリカにおけるカリキュラムマネジメントの研究- Service-Learningの視点から -』
[A Study of Curriculum Management in the USA - Service-Leaning-] pp.1-345.
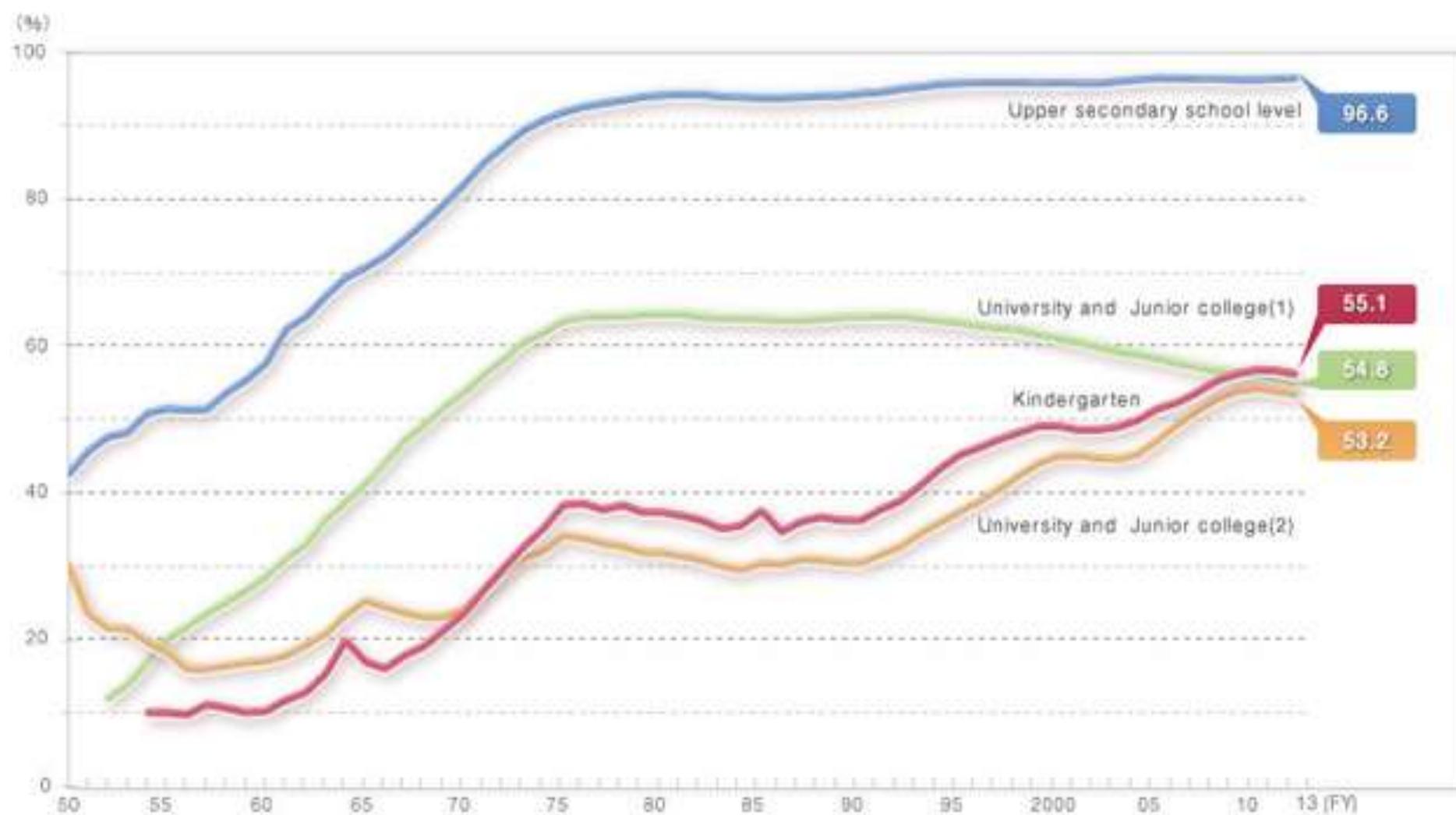（Kindle version）ふくろう出版 2021年10月 ISBN:9784861863332

Organization of the School System in Japan

School Year / Normal Age chart:

School Year	Normal Age
18	24
17	23
16	22
15	21
14	20
13	19
12	18
11	17
10	16
9	15
8	14
7	13
6	12
5	11
4	10
3	9
2	8
1	7
	6
	5
	4
	3

Compulsory Ed.

Correspondence Courses

Correspondence Courses

Graduate Schools

Correspondence Courses

Specialized Training College Specialized Courses

Correspondence Courses

Specialized Training College General Courses

Miscellaneous Schools

Colleges of Technology

Universities

Junior Colleges

Specialized Training College Upper Secondary Courses

Schools for Special Needs Education

(Upper Div.)

Part-time Courses

Upper Secondary Schools

Part-time Courses

Upper Sec. Dept.

Secondary Schools

(Lower Div.)

Lower Secondary Schools

Lower Sec. Dept.

Elementary Schools

Elem-ent. Dept.

Kindergartens

Kinder. Dept.

Elementary and Secondary Education Bureau, Ministry of Education, Culture, Sports, Science, and Technology (MEXT)

(unit: thousand persons)

Students

(%)

- Upper secondary school level — 96.6
- University and Junior college(1) — 55.1
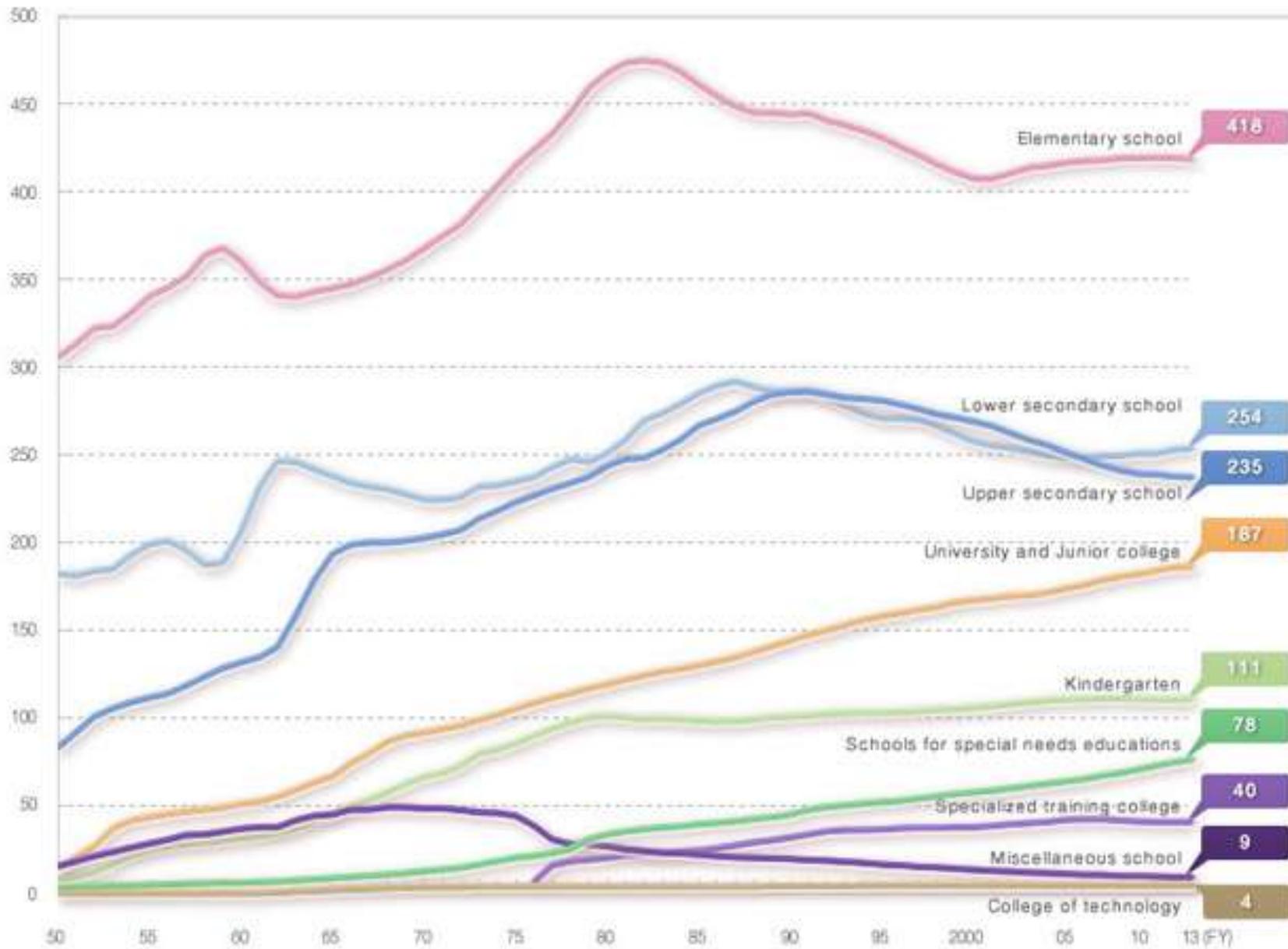- Kindergarten — 54.6
- University and Junior college(2) — 53.2

(1)New entrants to university and junior college, as a percentage of the 18-year old age cohort.

(2)New graduates from upper secondary school who advanced to university and junior college upon graduation, as a percentage of the total upper secondary school graduates for each year. Figures

Enrollment and Advancement Rate
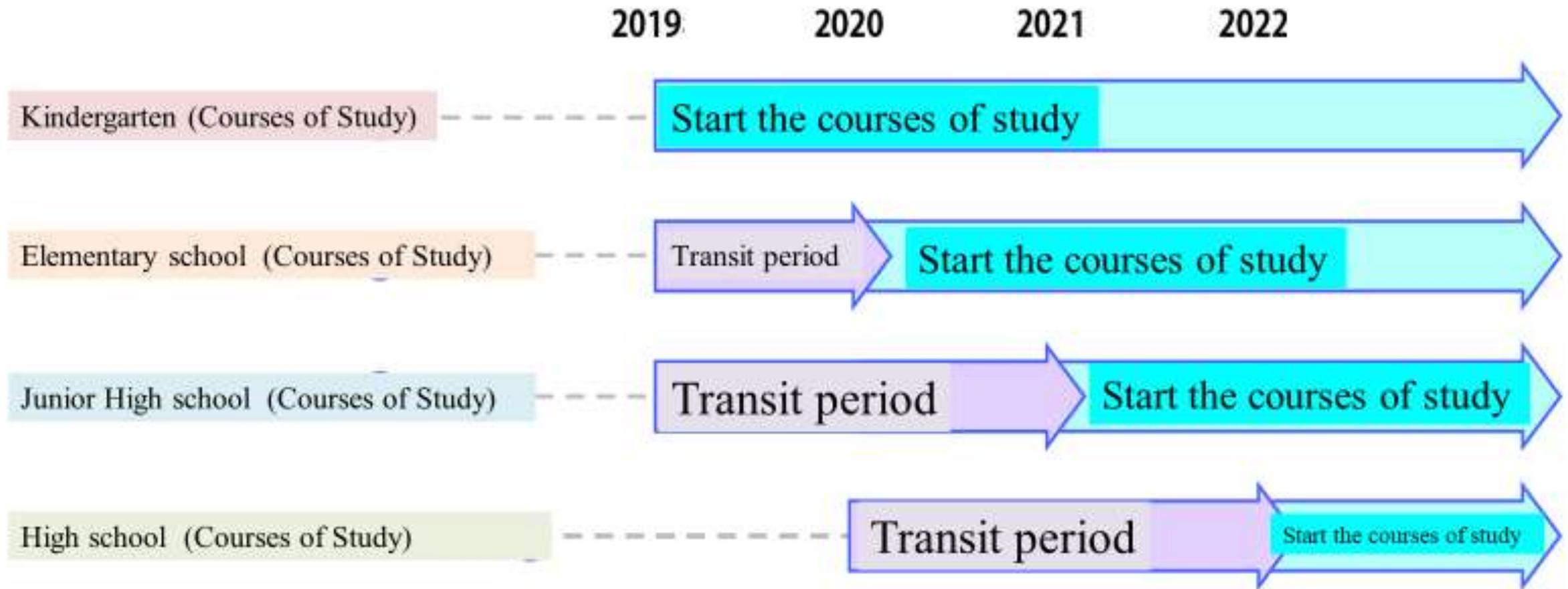
(unit: thousand persons)

Teachers

The Ministry of Education, Culture, Sport, Science, and Technology Japan (MEXT) determines the National Curriculum Standards (the Courses of Study) as broad standards for all schools, from kindergarten through upper secondary schools, to organize their programs to ensure a fixed standard of education throughout the country.

It is generally revised every ten years.

The new National Curriculum Standards (the Courses of Study) enrich education content, emphasizing the balance between acquiring fundamental knowledge and skills and fostering the ability to think, make decisions, and express oneself.

The Ministry of Education, Culture, Sport, Science, and Technology Japan (MEXT)
the National Curriculum Standards (the Courses of Study)

Article 1 of the Basic Act on Education must be provided with the followings.

Keywords

1. <u>active learning</u> (proactive, interactive, and authentic learning)
2. <u>curriculum management</u> & collaborative curriculum with society

General Provisions

Chapter1. FOUNDATION OF SCHOOL EDUCATION AND THE ROLE OF THE CURRICULUM

1. active learning (individual and collaborative authentic learning)
2. curriculum management & collaborative curriculum with society

Chapter2. FORMATION OF THE CURRICULUM

1. Formation of the educational goals and curriculum of each school
2. Development of competencies from an interdisciplinary perspective
3. Common points in the formation of the curriculum
4. Connections between school stages

Chapter3. IMPLEMENTATION OF THE CURRICULUM AND LEARNING ASSESSMENT

1. Class improvements toward the realization of proactive, interactive, and authentic Learning, each school should
2. Enhancement of learning assessment, each school should

Chapter4. SUPPORT FOR THE DEVELOPMENT OF STUDENTS

1. Instruction to students who require special considerations

Chapter5. CAUTIONS REGARDING SCHOOL OPERATION

1 Improvement of the curriculum and school assessment, each school should
2 Cooperation with families, the local community, and other schools

Chapter6. MORAL EDUCATION

Two main concepts of the National Curriculum Standards (the Courses of Study)

1) Active Learning (proactive, interactive, and authentic learning)

一つ一つの知識がつながり、「わかった！」「おもしろい！」と思える授業に

周りの人たちと共に考え、学び、新しい発見や豊かな発想が生まれる授業に

見通しをもって、粘り強く取り組む力が身に付く授業に

自分の学びを振り返り、次の学びや生活に生かす力を育む授業に

Humanity for positive learning

2) Curriculum Management

学校教育の効果を常に検証して改善する

教師が連携し、複数の教科等の連携を図りながら授業をつくる

地域と連携し、よりよい学校教育を目指す

Knowledge & Information for the future

Critical thinking, decision-making, creating cognition.

The balance of 3 abilities

Modified Kuramoto 2022

Important Learning themes of the National Curriculum Standards (the Courses of Study)

ICT/Programming Study

コンピュータがプログラムによって動き、社会で活用されていることを体験し、学習します。

Foreign Language Activities

に加えて、「読むこと」「書くこと」の力を育みます。

Moral Education

「考え、議論する」授業などを通じて道徳性を育みます。

Language Art/Study

全ての教科等で子供たちの言葉の力を育みます。

Science Education

観察、実験などにより問題を科学的に解決する学習活動や、データを分析し、課題を解決するための統計教育を充実します。

Respecting Tradition learning

我が国や郷土が育んできた日本の伝統や文化を学びます。

Civic Education

社会の中で自立し、他者と連携・協働して社会に参画する力を育みます。

Consumer education

買物の仕組みや消費者の役割などについて学習します。

Special Needs Education

応じた指導を行い、一人一人の能力や可能性を最大限に伸ばします。

Modified Kuramoto 2022

Curriculum Management with Lesson Study

1) It is required to approach the common educational content for students from the interrelation of each subject, and to systematically develop integrated curriculum based on school goals.

2) It is required to establish a PDCA cycle, a planned series of steps, do, check and action, formulate curriculum, practice, evaluate and improve, for developing teaching skills based on examinations concerning the conditions of the whole school, and various data for improving the quality of school education.

3) It is required to effectively manage the common educational content, human and material internal resources in the school, as well as utilizing external resources in the community.

Curriculum Management

   Each school should be committed to improving the quality of its educational activities organizationally and systematically based on the curriculum by correctly ascertaining the circumstances of the students, school, and local community, assembling the contents of education necessary for realizing the objectives and goals of education from a perspective that transcends subjects, assessing the status of implementation of the curriculum to work on its improvement, and ensuring the personnel and facilities necessary for the implementation of the curriculum and working its progress.

Active Learning (proactive, interactive, and authentic learning)

(1) Ensure that knowledge and skills are acquired.

(2) Develop the students' abilities to think,
    make judgments and express themselves.

(3) Cultivate the motivation to learn and humanity.

Active Learning (proactive, interactive, and authentic learning)

Students apply the knowledge and skills, they have acquired through subject learning and other educational activities to exert their abilities to think, make the judgment and express themselves and, to demonstrate their motivation to learn, and humanity so that they will grasp and consider targeted subject matter appropriately and deeply,

It should also promote learning with a focus on the process where pupils can deepen their understanding by integrating sporadically acquired fragments of knowledge, weaving close exam-wearing information into thoughts, and working out the solutions on to the problems they have detected.

Curriculum Management & Collaborative Curriculum with Society

Consider the circumstances of the students, school, and local community and the developmental stages of the students and utilize the features of each school to form a curriculum that ensures that the competencies required to respond to modern issues for the realization of rich lives and the formation of a next-generation society that can overcome disasters, etc. can be developed from a perspective transcending subjects.

Education, in Article 1 of the Basic Act on Education, must be provided with the followings.

1. having students acquire wide-ranging knowledge and culture, fostering the value of seeking the truth and cultivating a rich sensibility and sense of morality.

2. developing individuals' abilities, cultivating creativity, and fostering a spirit of autonomy and independence by respecting the value of the individual.

3. fostering the values of respect for justice, responsibility, equality between men and women, and mutual respect and cooperation, as well as the value of actively participating in building our society.

4. fostering the values of respecting life, caring about nature, and desiring to contribute to the preservation of the environment.

5. fostering the value of respect for tradition and culture and love of the country and regions, as well as respecting other countries and the desire to contribute to world peace.

Lesson study and ==School Curriculum Management== with the perspective of Intellectual Capital

SCM 1st circle	SCM 1st circle	SCM 2nd circle	SCM 2nd circle	SCM 3rd circle	SCM 3rd circle
Lesson study (Teacher's PDCA process)	**Lesson study (Student's learning study)**	**Human capital (Intellectual Capital)**	**Structural capital (Intellectual Capital)**	**Relational capital (Intellectual Capital)**	**Relational capital (Intellectual Capital)**
Curriculum/instructional goal development (Lesson plan 1)	Student learning skills Individual /peer /group /whole classroom levels	Leadership competencies	School policy and procedures	School image and reputation	Teacher Learning and Online Pedagogy
Curriculum/instructional content development (Lesson plan 2)	Cross-curricular from Service-Learning activities Social contribution	Management skills	Operational mechanisms	Relationship with stakeholders	Triangle Network Online (Principal) Training Phase 1: Federal-Level
Curriculum/instructional method development (Lesson implementation)	Problem-solving skills Decision-making skills Critical thinking skills	Professional skills	School culture	External relationship	Triangle Network Online (Principal) Training Phase 2: Prefecture-level
Curriculum/instructional evaluation development (Lesson reflection & improvement)	==Active Learning (proactive, interactive, and authentic learning)==	Teaching competencies	ICT Infrastructure		Triangle Network Online (Principal) Training Phase 3: Local school-level
Understanding Student learning interests & Student life guidance	Student's programming thinking with ICT tools				

(Kuramoto modified Eric Cheng, Managing School Capital for Strategic Development, 2022, p207.)

National Curriculum Standard

Phase 1 (Federal-Level), Triangle Network Online Principal Training

NITS and GSTT
2021.Apr-2022.Dec, 11times, N = 1200

Principal Knowledge and Ability of School Management (Index development)

Phase 2 (Prefecture-level) Triangle Network Online Principal Training

NITS, GSTT and BoE
2021.Apr-2022.Dec, ●prefectures, N=900

School Curriculum Management with Lesson Study (lecture development)

Phase 3 (Local school-level) Triangle Network Online Principal Training

GSTT, BoE, and School Principal
2021.Apr-2022.Dec, ●times, N=29

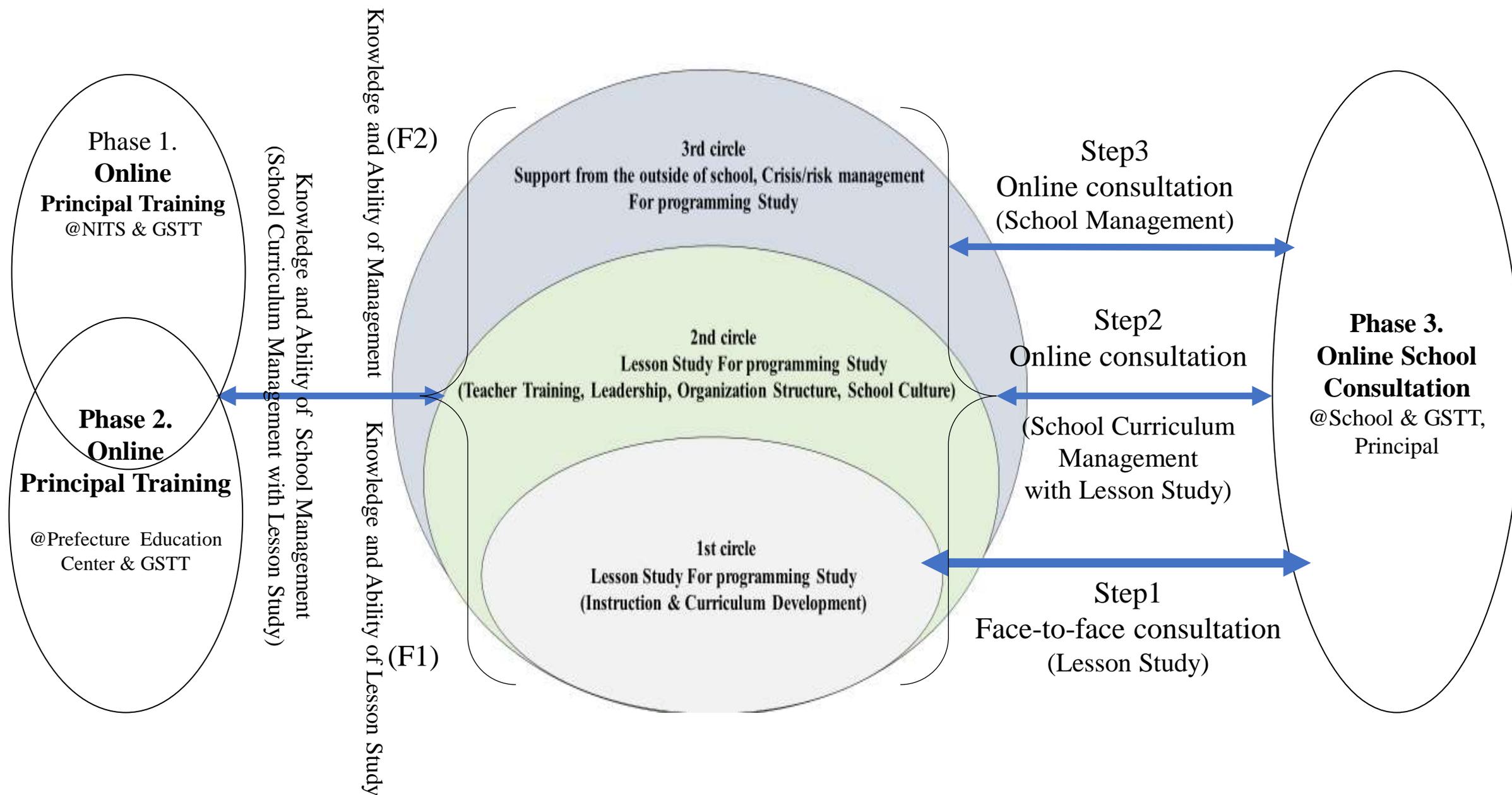Lesson Study Research School Consultation (Tokyo case: Programming Study)

National Institute for School Teachers and Staff Development（NITS）

Graduate Schools for Teacher Training (GSTT)

Board of Education (BoE)

The Structure of Triangle Network Principal Training and National Curriculum Standard

		[Principal]			[Principal]
Knowledge and Ability of Lesson Study	Understanding of contents of specialized subjects	guiding teachers in school for the improvement in class teaching to further promote specialty and to reduce overall school problems	**Knowledge and Ability of Management**	Human resources development and leadership	playing a role to promote effective development in human resources, with consideration of the importance of human resources development, according to individual teachers' experiences and characteristics
	Comprehension of actual states and setting up goals (Plan 1)	supervising the improvement of teaching materials and tools based on their specialized knowledge		Cooperation as a team with co-workers	understanding individual teachers' roles and capacities, promoting collaborative systems and establishing measures for systems which collaborate with families, communities and related organizations
	Preparation of teaching plan and assessment plan (Plan 2)	guiding not only with clarifying meaning of preparation of teaching plans based on individual school policies, but also with comprehension of problems in individual school teaching and for the improvement of teaching plans		Cooperation and collaboration with parents, gradians and institutions outside school (establishment of communities with the school as the core)	play a role to enhance the system with establishment in a cooperative and collaborative network
	Perceptions of teaching skills and forms (Plan 3)	playing a role not only of comprehension of actual states of individual teachers, but also of guidance for the improvement of class teaching		Taking advantage of resources (human, things, events, information, time and funds)	play a role to effectively utilize available resources which they have in/outside school, to promote systems and to provide appropriate guidance to other teachers
	Guidance and assessment during class (Do)	play a role to appropriately evaluate class lessons which each teacher performs and to motivate teachers with instructions		Risk managements and safety management	play a role to establish cooperative systems with schools, families, communities and various related organizations regarding risk management and safety management in the school, to determine and conduct appropriate countermeasures in emergency, to comprehend the management system and to deal with the aftermath
	Check and Action	play a role in presenting and conducting concrete schemes regarding in-school systems for the improvement of class lessons		Team School: System correspondence toward problems of education at present (Ex, ICT, ESD)	always being cautious about the latest information to enforce systematic correspondence with the school regarding problems in education at present

Knowledge and Ability in School Management   (School Curriculum Management with Lesson Study)

Phase 1.
Online
Principal Training
@NITS & GSTT

Phase 2.
Online
Principal Training

@Prefecture Education
Center & GSTT

Knowledge and Ability of Management (F2)

Knowledge and Ability of School Management
(School Curriculum Management with Lesson Study)

Knowledge and Ability of Lesson Study (F1)

3rd circle
Support from the outside of school, Crisis/risk management
For programming Study

2nd circle
Lesson Study For programming Study
(Teacher Training, Leadership, Organization Structure, School Culture)

1st circle
Lesson Study For programming Study
(Instruction & Curriculum Development)

Step3
Online consultation
(School Management)

Step2
Online consultation

(School Curriculum
Management
with Lesson Study)

Step1
Face-to-face consultation
(Lesson Study)

Phase 3.
Online School
Consultation

@School & GSTT,
Principal

Figure●. Online consultation for School Curriculum Management with Lesson Study for Programming Thinking Study

5th level: Educational sociology

4th level: Educational Administration & Law

Pedagogical Content Knowledge-

3rd level: School Management

Article 1 of the Basic Act on Education

2nd level: Curriculum Development
-Action Research-

1st level: Teaching Instruction
-Action Research-

Kuramoto 2014

<Objectives> Equip teachers with knowledge and skills for appropriate school management and promotion of characteristic teaching activities and to train teachers to be the core of individual school and community as "a teacher with continuous learning"

<Contents> Goal for training "teachers who can continue learning" and improve overall independent abilities for solutions and management, coping systematically with problems and difficulties which individual schools confront

constant improvement in quality and specialty through stages of education, employment and training

Initial teacher

Middle teacher

Top leader Principal

1 Ability/knowledge of lesson teaching

2. Ability/knowledge of management skills

3. Ability/knowledge of Student Guidance

What is teacher's knowledge (PCK) ?

Teacher's Knowledge Management
(Teacher's competency and standard)

Teaching knowledge by Lesson Study

Teaching and management knowledge
by Curriculum Management

Student Guidance is also teacher's knowledge

Isobe & Kuramoto 2016

General Provisions

Chapter1. **FOUNDATION OF SCHOOL EDUCATION AND THE ROLE OF THE CURRICULUM**

1. active learning (individual and collaborative authentic learning)

(1) Ensure that knowledge and skills are acquired.
(2) Develop the students' abilities to think, make judgments and express themselves.
(3) Cultivate the motivation to learn and humanity.

2. curriculum management & collaborative curriculum with society

Each school should be committed to improving the quality of its educational activities organizationally and systematically based on the curriculum by correctly ascertaining the circumstances of the students, school, and local community, assembling the contents of education necessary for realizing the objectives and goals of education from a perspective that transcends subjects, assessing the status of implementation of the curriculum to work on its improvement, and ensuring the personnel and facilities necessary for the implementation of the curriculum and working its progress (curriculum management).

Chapter2.   FORMATION OF THE CURRICULUM

1.   Formation of the educational goals and curriculum of each school

2. Development of competencies from an interdisciplinary perspective

3. Common points in the formation of the curriculum

4. Connections between school stages

Current State of Education and Learning in Japan

◆From the results of the OECD Programme for International Student Assessment (PISA)

		Year 2000 Surveyed in Jul. 2000 Publicised in Dec. 2001		Year 2003 Surveyed in Jul. 2003 Publicised in Dec. 2004		Year 2006 Surveyed in Jun./Jul. 2006 Publicised in Dec. 2007
Reading literacy	Ranking within OECD member nations	8th of 27 countries		12th of 29 countries		12th of 29 countries
	within participating nations	8th of 31 countries	Significant drop	14th of 40 countries	No change	15th of 56 countries
Mathematical literacy	Ranking within OECD member nations	1st of 27 countries	No change for correct answers in common areas. (※1)	4th of 29 countries		6th of 30 countries
	within participating nations	1st of 31 countries		6th of 40 countries	Significant drop	10th of 57 countries
Scientific literacy	Ranking within OECD member nations	2nd of 27 countries		2nd of 29 countries	No change for correct answers in common areas. (※2)	3rd of 30 countries
	within participating nations	2nd of 31 countries		2nd of 40 countries		6th of 57 countries

The OECD conducts the PISA study on 15 year-olds (1st year high school in Japan)

※1 Compared with results of common areas for 2000 and 2003.

※2 Comparison based on results of common questions because test framework changed.

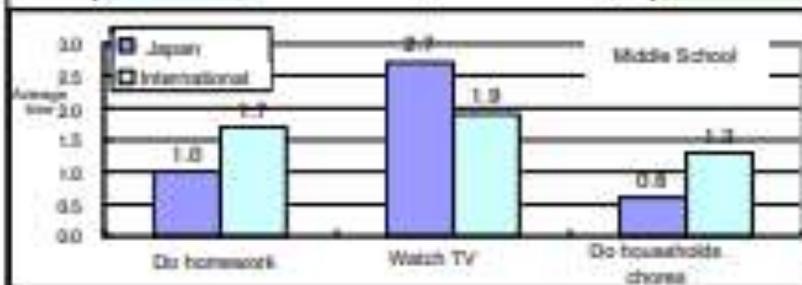◆Results of the IEA Trends in International Mathematics and Science Study (TIMSS 2007)

Primary School

	Arithmetic	Science
2007	568 4th of 36 countries	548 4th of 36 countries
2003	565 3rd of 25 countries	543 3rd of 25 countries

Middle School

	Mathematics	Science
2007	570 5th of 48 countries	554 3rd of 48 countries
2003	570 5th of 46 countries	552 6th of 46 countries

Think study is enjoyable (Primary School)

	Arithmetic	Science
2007	70%	87%
2003	65%	81%
International Ave.	80%	83%

・The IEA (International Association for the Evaluation of Educational Achievement) has been conducting the TIMSS study since 1964. In 2007, the study was conducted on 4th grade primary and 2nd year middle school students in Arithmetic, Mathematics, and Science.

・Unlike the application-oriented PISA study, the IEA study is oriented toward knowledge attained through the school curriculum.
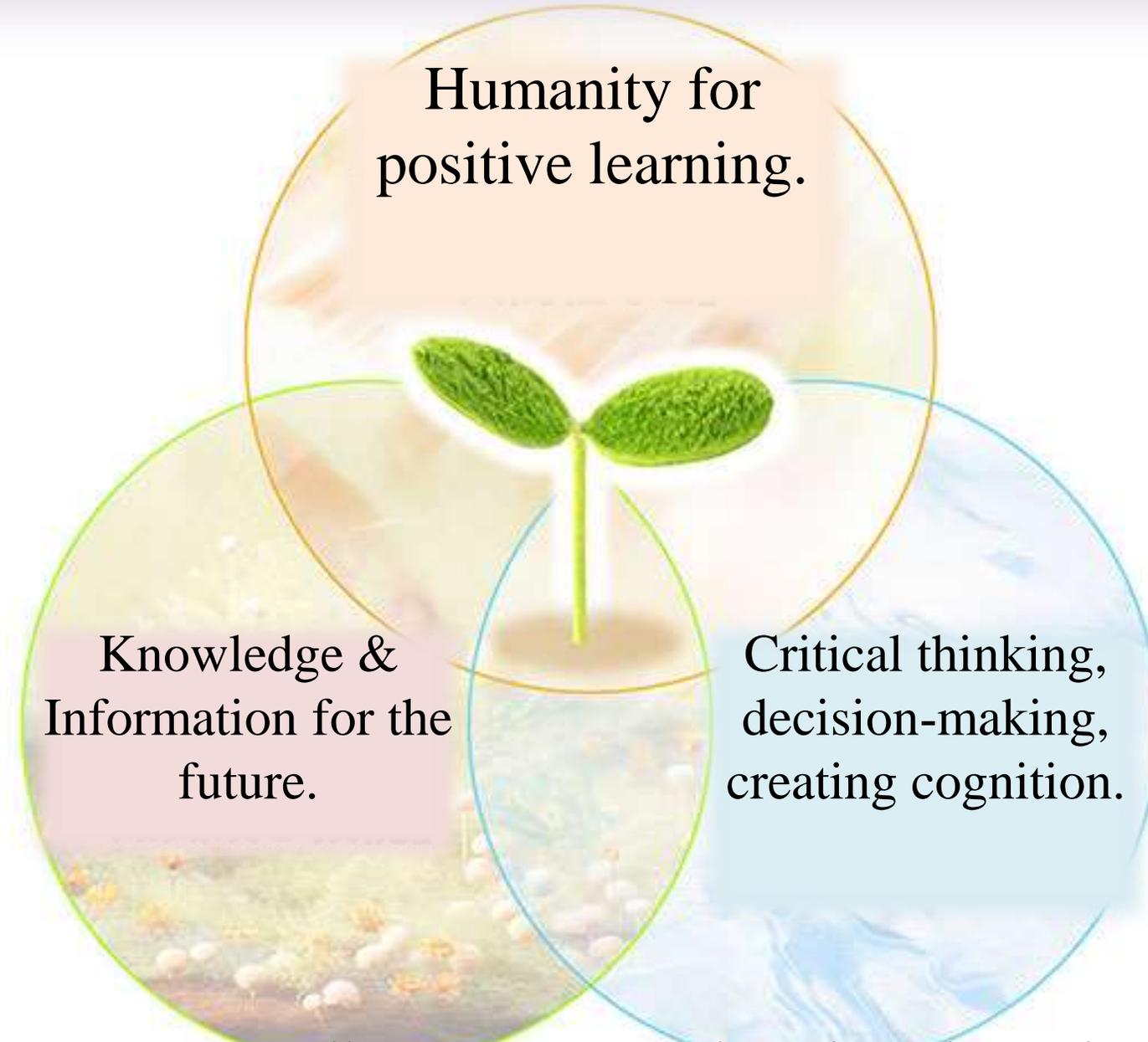
・Japanese students are at an overall high level internationally. All average scores are higher than before. But when considering statistical errors, they are around the same level as before.

・Some improvements have been seen at elementary schools. But, some issues that were raised were the lack of the desire to learn; poor study habits; too little time spent on domestic chores; too much time spent on TV and entertainment.
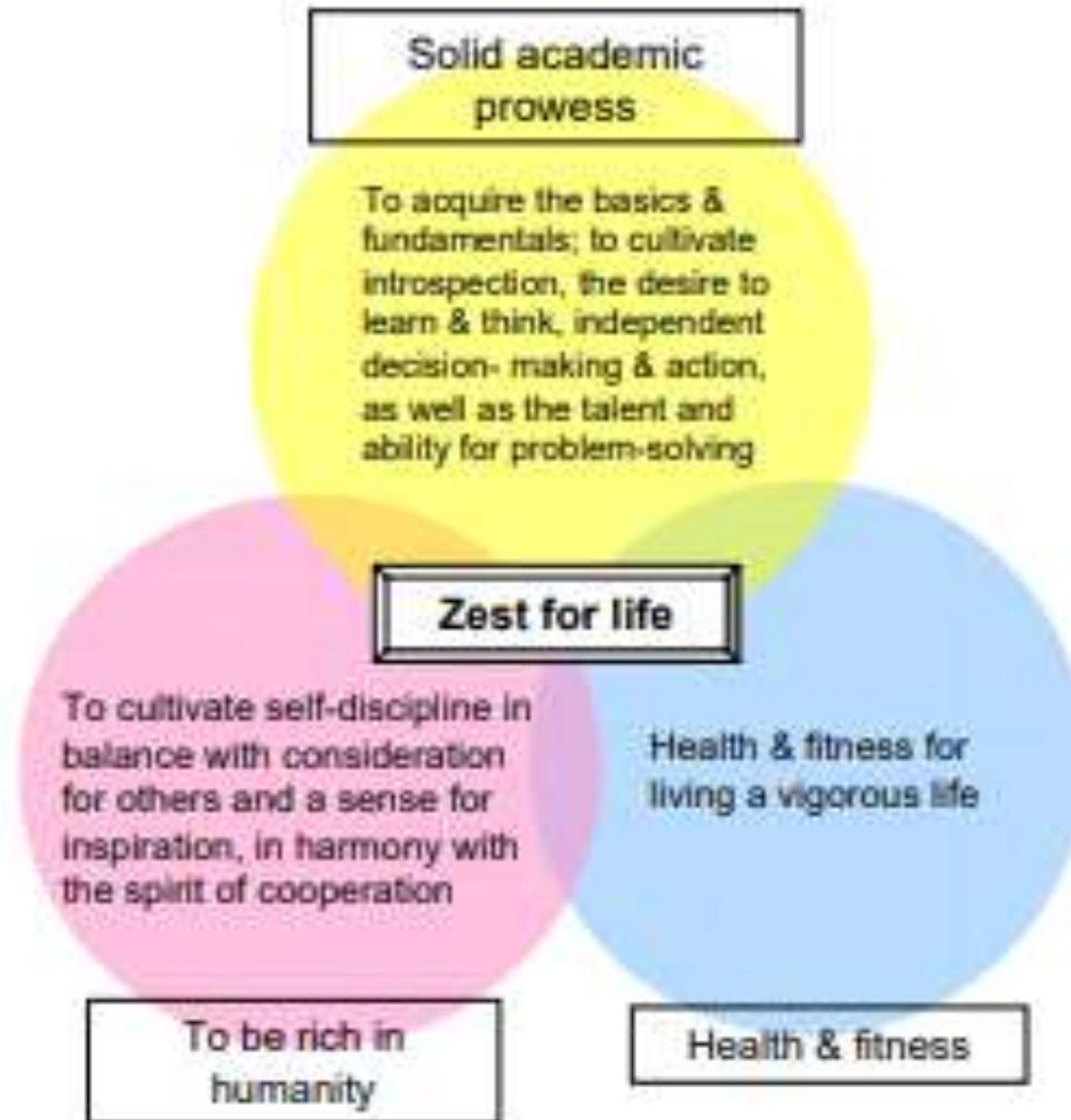
3

Active Learning (proactive, interactive, and authentic learning)

Humanity for
positive learning.

Knowledge &
Information for the
future.

Critical thinking,
decision-making,
creating cognition.

Principles behind the National Curriculum Standards (the Courses of Study)

Solid academic prowess

To acquire the basics & fundamentals; to cultivate introspection, the desire to learn & think, independent decision-making & action, as well as the talent and ability for problem-solving

Zest for life

To cultivate self-discipline in balance with consideration for others and a sense for inspiration, in harmony with the spirit of cooperation

Health & fitness for living a vigorous life

To be rich in humanity

Health & fitness

Conclusion (4) — Structure of School Management, Curriculum Management and Lesson Study

MBCO p1 — Mission

MBCO part2 — Vision, Strategy, plan1

Management By Curriculum Objects part3 — Plan2, Do, Check, Action

Social Community & Parents needs

Management of Organization Structure

- Teachers jobs for School
- School Nurse Room Management
- School Grade Team Management
- Class Room Management
- Others

National Curriculum Goals

Prefecture Curriculum Goals

School District Curriculum Goals

School Educational Goals

School Lesson Study Goals

Top Leadership

Management of Budgets and Info

- School Secretary
- Budget Manager
- School Information

MBO

Administrative CM External Collaboration (Partnership)

School Curriculum Design (Curriculum Philosophy)

Classroom Management Plan

Teacher's Needs   Student's Needs

CG & TS by Teacher's Innovation

Lesson Plan

Teacher's Teaching   management competency

Lesson Study

Teacher's Knowledge Management

Accountability

School Evaluation System

Out Put of CM (LS) = SI

Student's Academic Achievement

Student's Personal Growth

Teacher's Knowledge Development

Empowerment of Teacher's skills

Parents & Community Involvement

School Culture & Curriculum(Knowledge) Leadership
(Collaboration in the school)

School Management Theory from points of Lesson Study (Curriculum Study)=Curriculum Management   (Kuramoto, 2014)

Factors of Curriculum Management (School Management with Lesson Study)

①**Action Research Object**
-

②**Action Research Analysis**
-

③**Action Research Originalities**
-

-

3rd circle
: Supports from the outside of school
Crisis/risk management

2nd circle
Leadership /Organization Structure
/School culture /Lesson Study

1st circle: Curriculum/Teaching Students

(My leadership)

Kuramoto 2022

3rd circle
Support from the outside of school, Crisis/risk management

○online consultation by the university, NITS, Board of Education
○online talk by IT educational company
○parents' participation & community involvement

2nd circle
Lesson Study, Leadership, Organization Structure, School Culture

○ lesson study for teacher training in ICT usage for the classroom
○ cultivate a positive school culture for programming study
○ top & middle leadership (school mission, vision for programming study)

1st circle
Lesson Study, Instruction & Curriculum Development

○ students' programming study development
○ instruction & curriculum development for programming study
○ programming curriculum goals/contents/ICT methods/evaluations
○ curriculum philosophy & school educational goal for programming study

Knowledge and Ability of Management

(School Curriculum Management with Lesson Study)

Knowledge and Ability of School Management

Knowledge and Ability of Lesson Study

Figure ● 1st, 2nd, 3rd Curriculum Management for programming study

Chapter3. IMPLEMENTATION OF THE CURRICULUM AND LEARNING ASSESSMENT

1. **Class improvements toward the realization of proactive, interactive, and authentic Learning, each school should**

(1) implement class improvements to realize proactive, interactive, and authentic learning while anticipating integrating contents such as units and subject matter.

(2) put in place the necessary language environment and enhance the language activities of the students by the characteristics of the subjects.

(3) put the necessary environment for utilizing information devices, such as computers and information and communications networks to enhance learning activities that properly use these devices.

(4) emphasize experiential learning activities tailored to the characteristics of the subjects cooperating with families and the community.

(5) devise ways to promote autonomous and self-motivated learning while stimulating students' interest.

History of Problem-Solving Learning in Japan

Kuramoto 2022

The Student Experience
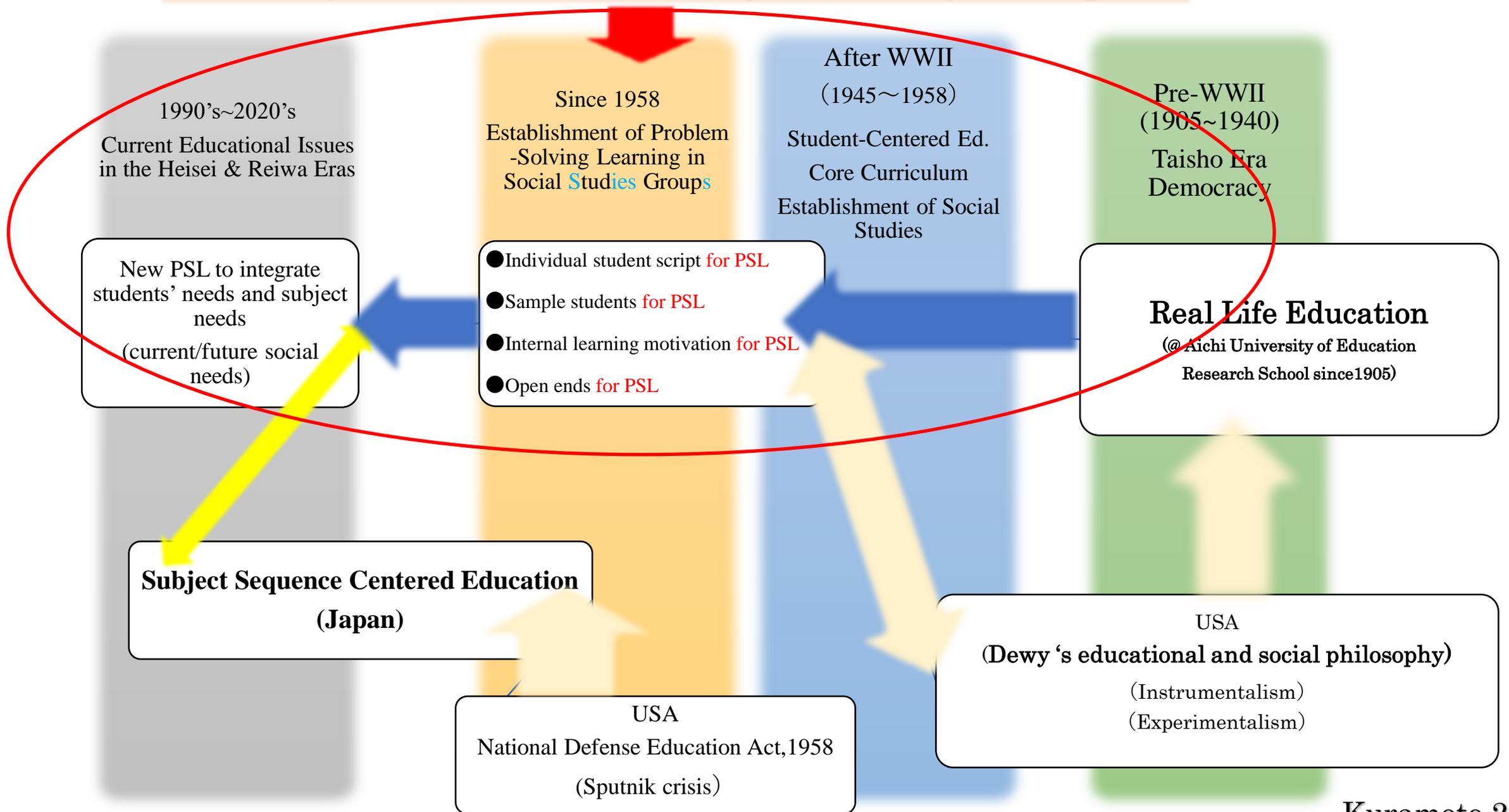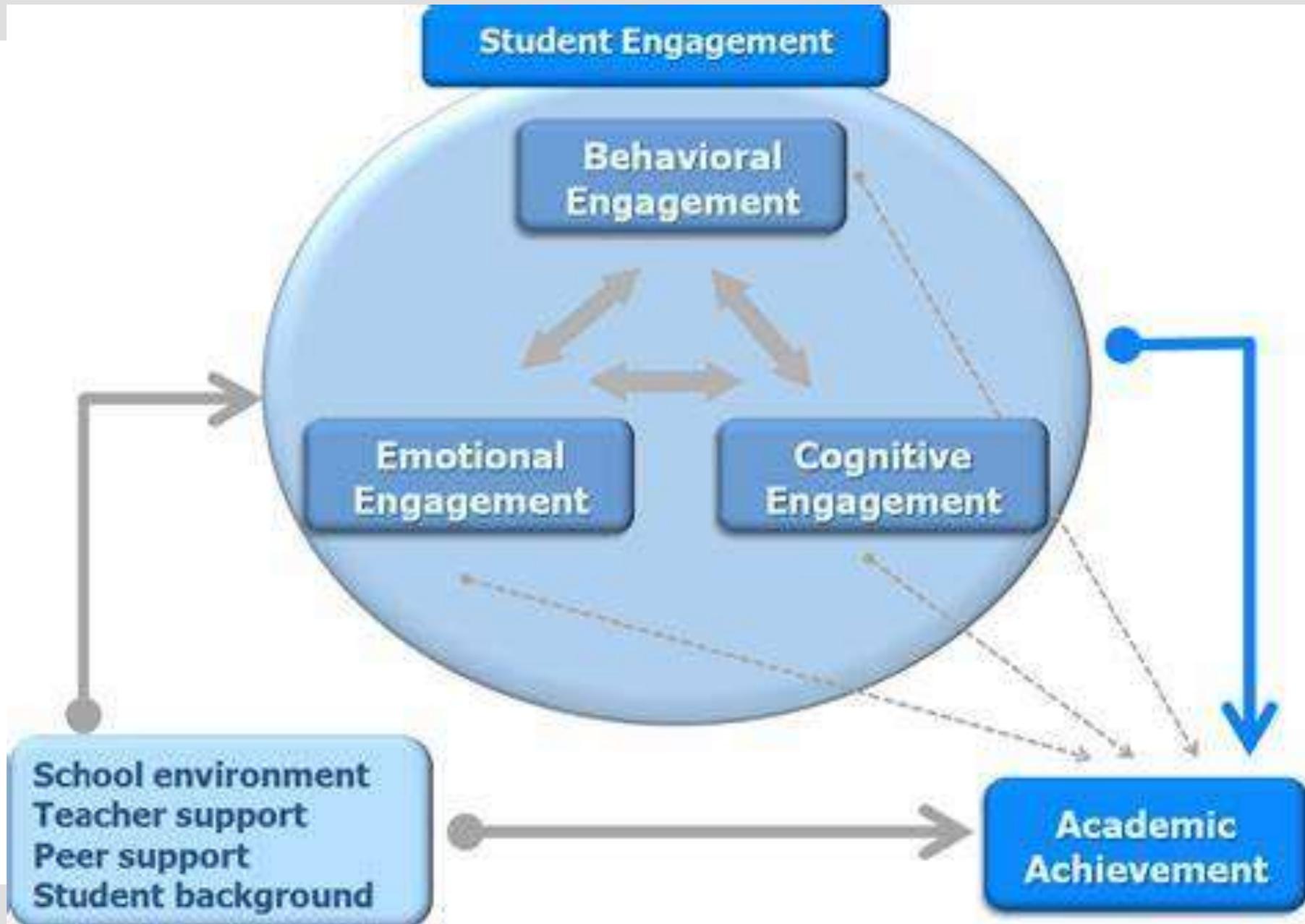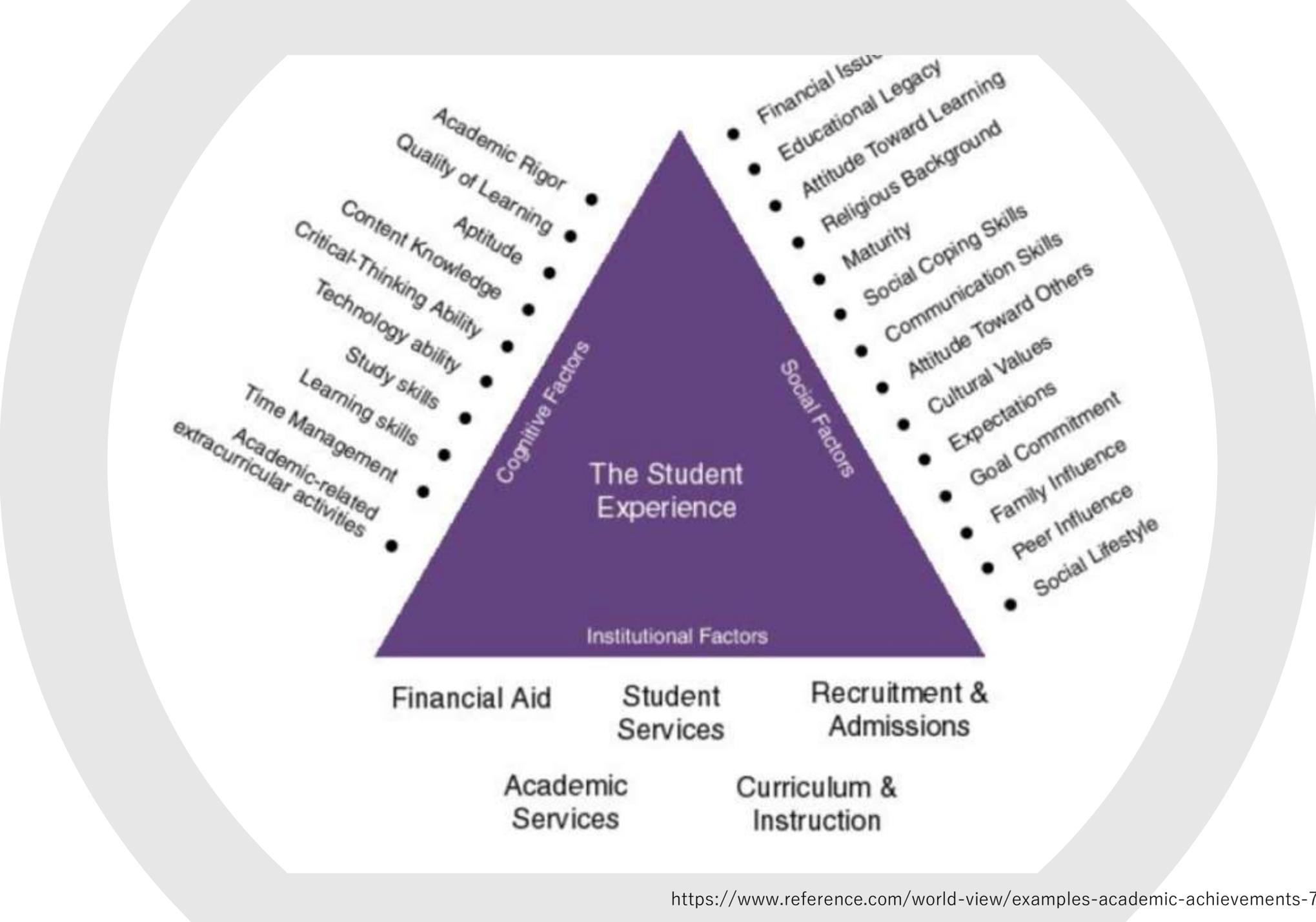
Cognitive Factors:
- Academic Rigor
- Quality of Learning
- Aptitude
- Content Knowledge
- Critical-Thinking Ability
- Technology ability
- Study skills
- Learning skills
- Time Management
- Academic-related extracurricular activities

Social Factors:
- Financial Issues
- Educational Legacy
- Attitude Toward Learning
- Religious Background
- Maturity
- Social Coping Skills
- Communication Skills
- Attitude Toward Others
- Cultural Values
- Expectations
- Goal Commitment
- Family Influence
- Peer Influence
- Social Lifestyle

Institutional Factors:
- Financial Aid
- Student Services
- Recruitment & Admissions
- Academic Services
- Curriculum & Instruction

2. Enhancement of learning assessment, each school should

(1) positively evaluate the strengths and progress of the students so that they can strongly sense the significance and value of what they have learned.

(2) come up with evaluation situations and methods while anticipating the integration of the contents, such as the units and subject matter.

(3) promote organized and systematic initiatives and come up with ways to ensure the outcomes of the learning of the students are smoothly connected across grades and school stages.
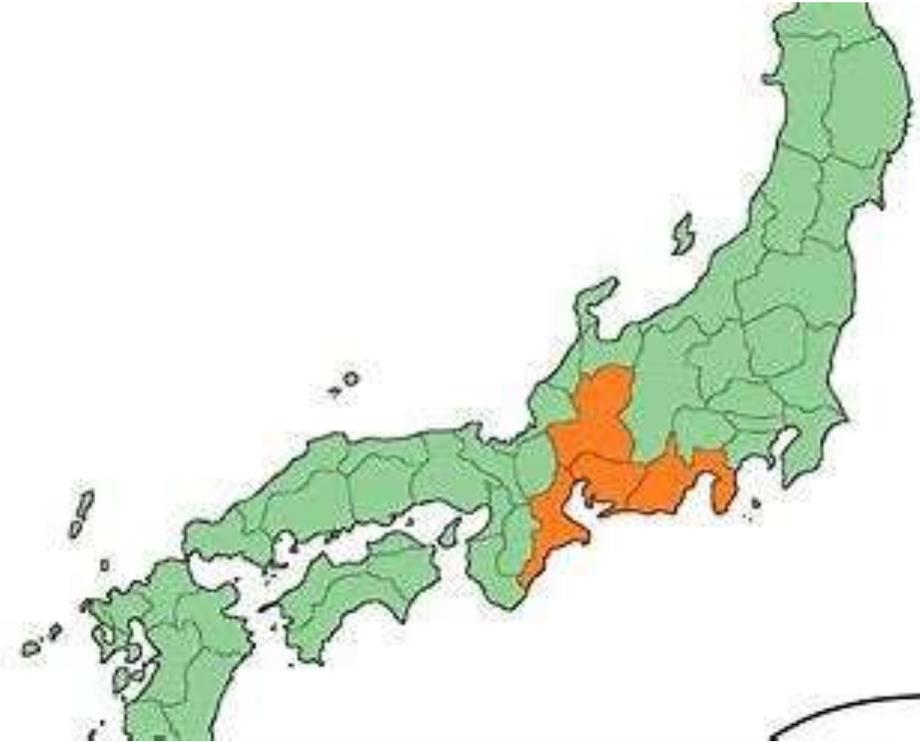
Tokai region

What should the Mikawa region Consider regarding Disaster Prevention Measures?
(Social Studies for 6th grade)

Aoi	Onosuke	Rena		Mitsuki	Riisa	Jin
I think that Okazaki City should directly let citizens know that they should have at least a 3-day food supply through posters and fliers.	I would like to make friends with the people of shops selling food so that we may be able to get food from them.	Looking at the hardened glass of cake shops, I came up with the idea that all glass should be changed to hardened glass.		Okazaki City has prepared enough for disaster. However, it has its own limits. "So it is necessary to appeal to citizens to increase the preservation of water and food for each family."	"Recently, as there is no big earthquake in Okazaki City, many citizens are not worried about disasters. So the city should appeal to them through workshops on earthquakes."	"In order to make buildings safer for the occasion of earthquakes, it is important to set up the shop decorations and lighting equipment in shops, thinking what will happen when earthquake occurs."
Yuki	**Mayu**	**Ryosuke**		**Ayu**	**Dan**	**Yuma**
Because citizens do not know what the disaster-prevention department is preparing and what it desires from them, it should to let them know about its' activity and what it wants them to do.	Citizens think they are safe because the ground of Okazaki City is stable enough, so they are depending upon the city. Therefore, it is better to instruct them to prepare by themselves.	Okazaki City should increase the preservation of food in its disaster prevention warehouse, and at the same time, it should strictly instruct them that what is the most important is to protect themselves.		I am worried because there are many citizens who are not prepared with disaster prevention measures among those who were investigated.	I am relieved because I have heard that citizens are prepared to save their own lives, thinking of various things in the cases of emergency.	"Citizens and shop owners are worried about damage to buildings and falling goods, and they are trying to find the way to be relieved from them."
Yui	**Ruu**	**Sayo**		**Taiki**	**Aya (sample student)**	**Hiroki**
I would like to let them know that it is important that the cooperation between the city and citizens, also the cooperation among citizens are important in order to overcome the difficulties.	It is important that Okazaki City appeals to citizens to make preparation of emergency goods such as food and first aid.	I know that many citizens are misunderstanding Okazaki City's activities, so that it is important to let them know its' activities.		I think citizens should be prepared themselves, so that they will be safe whenever an earthquake comes.	Since citizens do not know well about disaster prevention, it is desirable that citizens and shopworkers cooperate with each other with what they know and what they can do.	Since not so many citizens prepare first-aid boxes and other items, I think that the more food and other items should be increased in the disaster prevention warehouse.
Takuto	**Shuna**	**Masahiro**		**Hina**	**Yoshiki**	**Aina**
Some citizens consider that they can get food from the city in an emergency. However, I think each citizen should	"I think cooperation is important, such as appealing to citizens, not only depending on the city, but they should find what they can	Because there are some citizens who are not prepared themselves, I am worried if water and food would become short in an		Since it was known that citizens did not know the fear of a tsunami by the investigation, I think that the Disaster Prevention Department should	Some citizens are misunderstanding that they can receive relief supplies in the super market, the City should inform them and instruct them to prepare	I want the city to increase shelters so that citizens can feel easy, and at the same time, they also should be prepared themselves.

Individual Student Script for PSL

To understand each student's idea for the lesson study (before the lesson).

In individual student scripts, to understand each student's cognition and all students' learning structures for a successful lesson study.

(Problem-Solving Learning)

Yellow sampling student

Blue
The consciousness that the extension of disaster prevention measures is required.
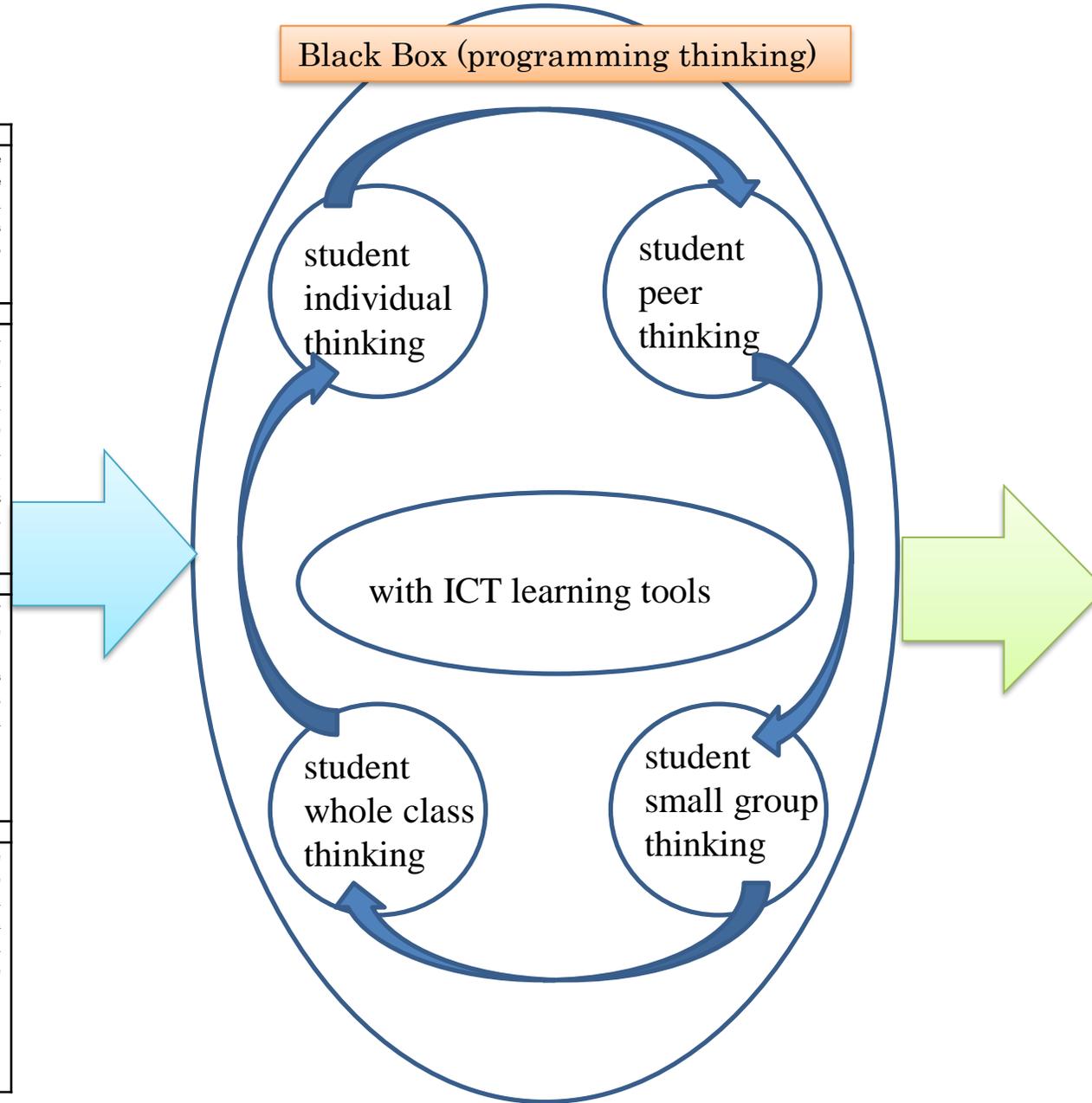
Red
The consciousness that citizens' consciousness of disaster prevention and preparation for disaster are important.

Green
Children's consciousness of whether there is anything that they can do for Okazaki City and its citizens.

Kuramoto 2022

Student 1	Student 2	Student 3
I think that Okazaki City should directly let citizens know that they should have at least a 3-day food supply through posters and fliers.	I would like to make friends with the people of shops selling food so that we may be able to get food from them.	Looking at the hardened glass of cake shops, I came up with the idea that all glass should be changed to hardened glass.

Student 4	Student 5	Student 6
Because citizens do not know what the disaster-prevention department is preparing what it desires from them. It should let them know about its' activity and what it wants them to do.	Citizens think they are safe because the ground of Okazaki City is stable enough, so they are depending upon the city. Therefore, it is better to instruct them to prepare by themselves.	Okazaki City should increase the preservation of food in its disaster prevention warehouse, and at the same time, it should strictly instruct them that what is the most important is to protect themselves.

Student 7	Student 8	Student 9
I would like to let them know that it is important that the cooperation between the city and citizens, also the cooperation among citizens are important in order to overcome the difficulties.	It is important that Okazaki City appeals to citizens to make preparation of emergency goods such as food and first aid.	I know that many citizens are misunderstanding Okazaki City's activities, so that it is important to let them know its' activities.

Student 10	Student 11	Student 12
Some citizens consider that they can get food from the city in an emergency. However, I think each citizen should prepare it by themselves.	"I think cooperation is important, such as appealing to citizens, not only depending on the city, but they should find what they can do by themselves and also asking shops for cooperation."	Because there are some citizens who are not prepared themselves, I am worried if water and food would become short in an emergency.

student individual thinking

student peer thinking

with ICT learning tools

student whole class thinking

student small group thinking

Student 1	Student 2	Student 3
Okazaki City has prepared enough for disaster. However, it has its own limits. "So it is necessary to appeal to citizens to increase the preservation of water and food for each family."	"Recently, as there is no big earthquake in Okazaki City, many citizens are not worried about disasters. So the city should appeal to them through workshops on earthquakes."	"In order to make buildings safer for the occasion of earthquakes, it is important to set up the shop decorations and lighting equipment in shops, thinking what will happen when earthquake occurs."

Student 4	Student 5	Student 6
I am worried because there are many citizens who are not prepared with disaster prevention measures among those who were investigated.	I am relieved because I have heard that citizens are prepared to save their own lives, thinking of various things in the cases of emergency.	"Citizens and shop owners are worried about damage to buildings and falling goods, and they are trying to find the way to be relieved from them."

Student 7	Student 8	Student 9
I think citizens should be prepared themselves, so that they will be safe whenever an earthquake comes.	Since citizens do not know well about disaster prevention, it is desirable that citizens and shopworkers cooperate with each other with what they know and what they can do.	Since not so many citizens prepare first-aid boxes and other items, I think that the more food and other items should be increased in the disaster prevention warehouse.

Student 10	Student 11	Student 12
Since it was known that citizens did not know the fear of a tsunami by the investigation, I think that the Disaster Prevention Department should teach them about earthquakes and countermeasures for it.	Some citizens are misunderstanding that they can receive relief supplies in the super market, the City should inform them and instruct them to prepare themselves.	I want the city to increase shelters so that citizens can feel easy, and at the same time, they also should be prepared themselves.

The structure of programming study in the case of social study（6th grade） Kuramoto 2022

CONSIDERATIONS TO BE TAKEN IN DESIGNING LESSON PLANS

(1) When teaching subjects, learning activities that necessitate students to use essential and fundamental knowledge and skills should be emphasized. Language activities should be enhanced by preparing a solid linguistic environment to deepen students' understanding.

(2) When teaching subjects, emphasis should be placed on experiential and problem-solving-oriented learning, which necessitates students to use essential and fundamental knowledge and skills.

(3) When teaching subjects, effort should be made to include well-planned activities in which students can plan their learning and reflect upon what they have learned.

(4) Student guidance should be enhanced to cultivate trust between teachers and students and positive personal relationships among students.

(5) Systematic, organized career guidance should be carried out throughout the overall educational activities of schools to enable students to think about their ways of life and independently select a career.

(6) When teaching subjects, each school should improve teaching methods and learning systems: for example, individual or group-specific instruction, repetitive instruction, differentiated instruction according to the level of proficiency achievement, task-based learning activities according to the student's interest, instruction incorporating learning activities such as additional or advanced contents, and team-taught lessons where teachers work cooperatively together.

(7) For the benefit of students such as returnees from abroad, adaptation to school life should be promoted and guidance provided in such a way as to make the most of their experience in foreign countries.

(8) When teaching subjects, each school should improve learning activities so that students develop information ethics and become capable of utilizing information devices, such as computers and information and communications networks, such as audiovisual materials and teaching and learning devices.

(9) In addition to the positive evaluation of the strengths and the progress of the students, the process and results of teaching should be assessed to improve education, which would help improve students' motivation toward learning.

(10) To achieve the schools' objectives, each should strengthen collaborative relationships with students' homes and the local community. Furthermore, each school should provide students with opportunities for exchange and joint learning with disabled preschoolers, students, and opportunities for discussion with the elderly, etc., while seeking close ties and relationships with other junior high schools, elementary schools, high schools, and special needs schools.

Survey of the Mikawa Region for Problem-Solving Learning

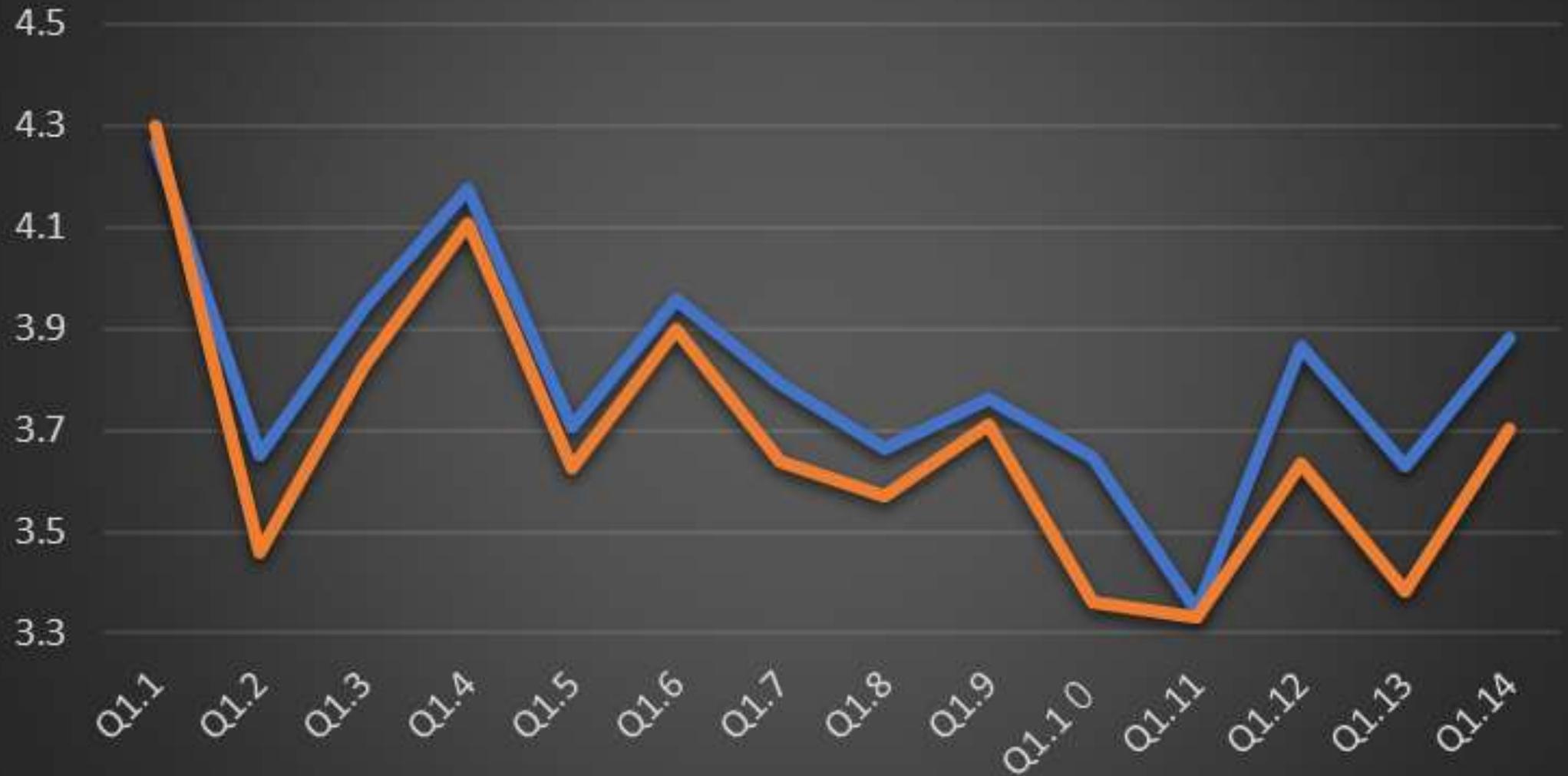|	Number	Survey period
Elementary & junior high schools in Toyohashi	1,288	(July 26 ~ September 7, 2018) by internet (August 7, 2018)
Elementary & junior high schools in Toyota	285	(July 25, 2018)
Elementary & junior high schools in Toyokawa	125	(August 27, 2018)
Elementary & junior high schools in Okazaki	72	(September, 2018)
Others	726	(August 8, 2018) (August 24, 2018)
合計	2,496	

Kuramoto 2018

Problem Solving Learning Strategies (Mikawa Region & Others %)

Category	Mikawa (N=1770)	Others (N=726)
Individual student script	0.73	0.52
Student records	0.28	0.14
Sample students	0.65	0.26
Student-centered Education	0.39	0.26
Teacher's leadership	0.55	0.1
Internal learning motivation	0.42	0.14
Continuous questions	0.18	0.2
Whole teaching perspective	0.16	0.14
Lesson study Records	0.49	0.5
Open ends	0.23	0.12
Classroom management	0.56	0.32

Kuramoto 2018
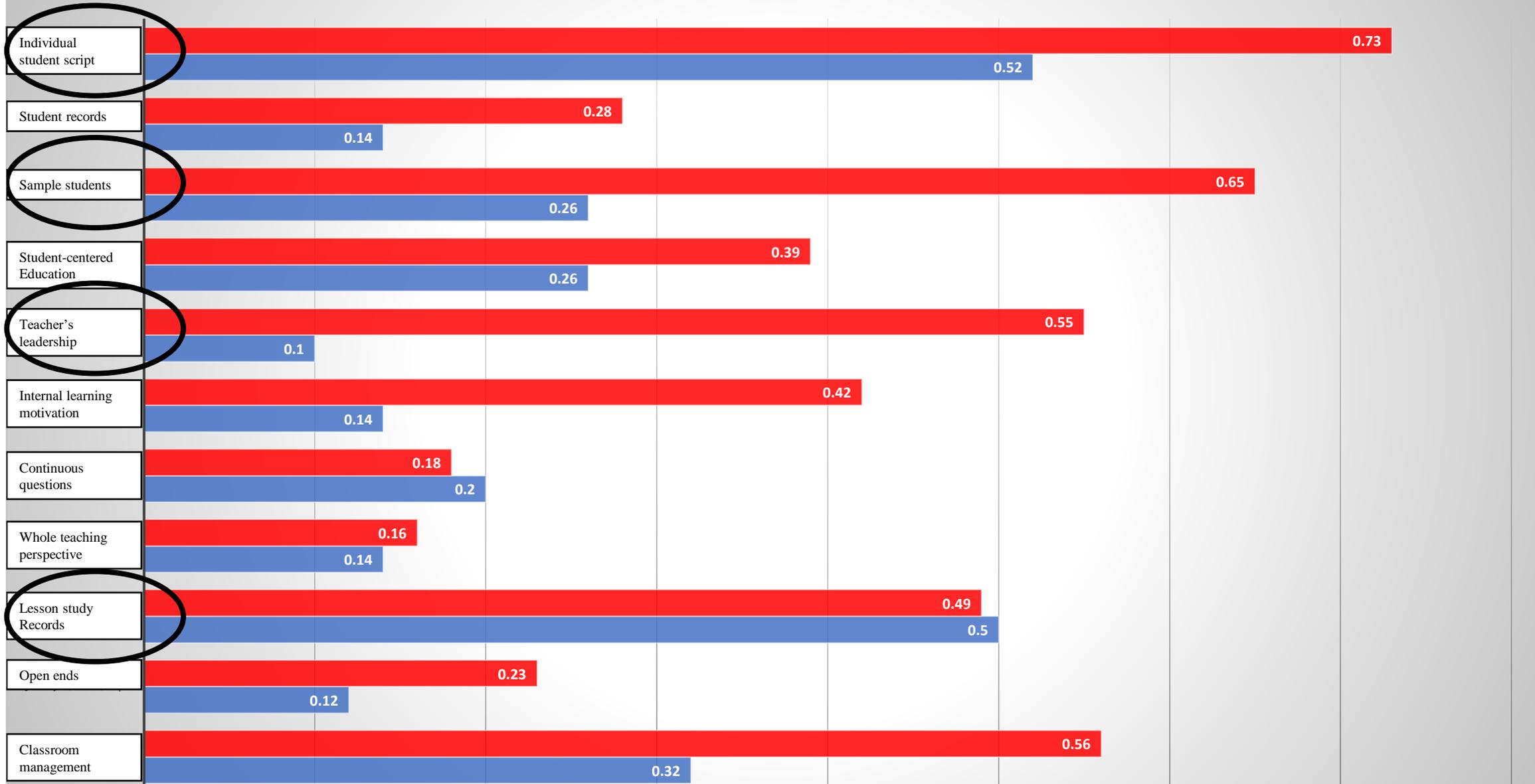
Problem Solving Learning Strategies (Mikawa region & Others)

Mikawa (N=1770)
Others (N=726)

Kuramoto 2018

1. Instruction to students who require special considerations

(1) For students with disabilities or special needs, each school should devise instructional content and methods appropriate for the conditions of the disabilities of individual students.

(2) Adaptation to school life by students who have returned to Japan from overseas and Japanese language instruction for students who have difficulty acquiring the Japanese language.

(3) Considerations for non-attendance students.

3. Teacher's Knowledge Student Guidance Ability

|		Stage I [education – employment] a teacher who is equipped with a basic attitude of continuous learning and meet requirements for employment by Nagoya City and Aichi Prefecture to start working	Stage II [starting rank – several years experience] only a teacher with basic attitude as a teacher but also a class teacher gaining comprehensive capability	Stage III [to ten-year training course] acquisition of teaching specialty with expanded practical ability	Stage IV [from mainstay] heightened specialty as a member of a team school or a middle leader, deepening cooperation or collaboration, and exerting propulsive force	Stage V [from veteran] playing a role with a wider perspective in both the school and community	
						1. veteran teachers	2. managerial position
Ability of corresponding to students	**Student guidance**	able to understand the importance of respecting individual characteristics and personality of students through meeting a diverse variety of children	able to provide flexible and appropriate measures, understanding diverse children through teaching practice and experiences of volunteer activities	aiming to understand that individual students act independently and being able to systematically correspond with them in accordance with student guidance policies	able to provide systematic and deliberate guidelines for students with an aim of understanding a diverse variety of children	able to provide teachers with support and advice including preventive measures along with the construction of a promotion system in enhanced cooperation with related institutions	playing a role to establish promotion systems in enhanced cooperation with related institutions, and to provide guidance to teachers, including preventive measures
	Understanding of school children	capability to actively talk to children, learning how to provide appropriate actions with consideration to concerns of surrounding situations	understanding of the importance of attentive listening and being able to provide proper support based on educational needs of students	grasping situations regarding the class, grade and measures, being able to actively consult with coworkers, senior and managerial persons, and to provide proper support	understanding of students with consideration of guardians' thoughts and family background, being capable of instructing students to have mutual understanding between students	able to provide teachers with appropriate and concrete support and advice, where individual teachers are involved with school children on all fronts in/outside school	play a role to provide appropriate guidance for individual teachers to act properly, being involved with school children on all fronts in/outside school
	Responding to community issue education: non-Japanese education, scientific monozukuri education (productive activities) and problem-solving education (education in Aichi)	able to acquire, based on local characteristics, knowledge and understanding in non-Japanese education, scientific monozukuri education (productive activities) and problem-solving education	able to make an effort to exert support and guidance for children regarding community issue education	able to provide correspondence, to a certain level, based on appropriate knowledge and understanding regarding community issue education	able to plan and prepare training sessions and report on meetings regarding community issue education	making continuous effort to gain the latest information regarding community issue education and being capable of sending and spreading the information to the overall school, and also to provide support and advice for teachers	play a role, making continuous effort to gain the latest information regarding community issue education, to send and spread the information to the overall school and also to guide teachers

Isobe & Kuramoto 2016

Ability/knowledge of Student Guidance

-Student guidance

-Understanding of school children

-Responding to community issue education: non-Japanese education, scientific education (productive activities) and problem-solving education (education in Aichi)
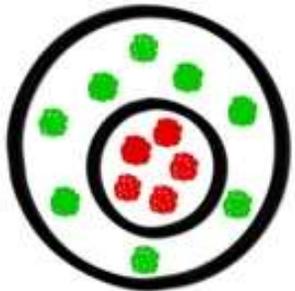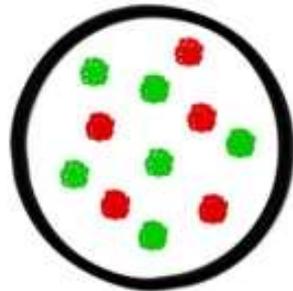
EXCLUSION
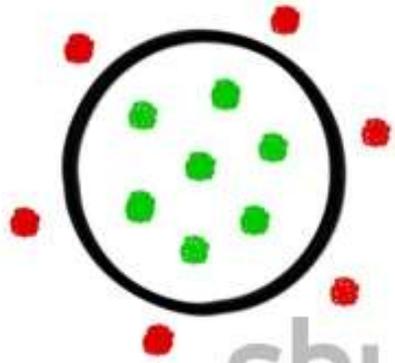
SEPARATION
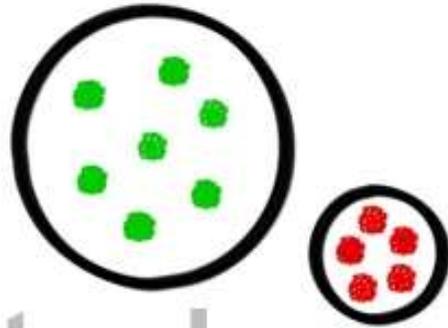
INTEGRATION

INCLUSION

Chapter5.   CAUTIONS REGARDING SCHOOL OPERATION
-    curriculum management & collaborative curriculum with society-

1 Improvement of the curriculum and school assessment, each school should

a. be committed to ensuring that under the policy of the school principal, the school staff divides their roles adequately based on the division of school duties, cooperate, and carry out curriculum management utilizing the features of each school.

b. takes care to implement the school assessment carried out by each school, taking into account the fact that formation, implementation, and improvement of the curriculum will be the core of the educational activities and school operation while linking it to curriculum management.

2 Cooperation with families, the local community, and other schools

a. school to achieve its objectives, it should deepen cooperation and joint initiatives with families and the local community.

b. provides students with opportunities for exchange and joint learning with disabled preschoolers, and students and fosters an attitude of living cooperatively while respecting one another.

2. Teacher's Knowledge Management Ability

		Stage I [education – employment] a teacher who is equipped with a basic attitude of continuous learning and meet requirements for employment by Nagoya City and Aichi Prefecture to start working	Stage II [starting rank – several years experience] only a teacher with basic attitude as a teacher but also a class teacher gaining comprehensive capability	Stage III [to ten-year training course] acquisition of teaching specialty with expanded practical ability	Stage IV[from mainstay] heightened specialty as a member of a team school or a middle leader, deepening cooperation or collaboration, and exerting propulsive force	Stage V [from veteran] playing a role with a wider perspective in both the school and community	
						1. veteran teachers	2. managerial position
Management skills	Human resources development and leadership	understanding the importance of continuous learning, attentively listening to others' advice and making efforts to improve themselves	able to consult and share points of uncertainty and troubles	able to improve practical skills through consulting and sharing points of uncertainty and troubles	able to promote environmental improvement for mutual support, sharing problems and troubles and supporting each other	able to consider the importance of training human resources, and being able to improve the environment for effective development in human resources focusing on experience of individual teachers	playing a role to promote effective development in human resources, with consideration of the importance of human resources development, according to individual teachers' experiences and characteristics
	Cooperation as a team with co-workers	able to work collaboratively in various groups	able to work collaboratively as a member of an organization through teaching practice and volunteer activities	listening to coworkers, senior and managerial persons with modesty, and being capable to actively participate in the organization	capable of promoting a teacher group, which has the same direction for the goal, as a head teacher of a grade or a division	able to understand individual teachers' roles and capacities, to promote collaborative organization and to prepare policies for schools, families, communities related organizations and collaborative organizations	understanding individual teachers' roles and capacities, promoting collaborative systems and establishing measures for systems which collaborate with families, communities and related organizations
	Cooperation and collaboration with parents, gradians and institutions outside school (establishment of communities with the school as the core)	understanding the importance of cooperation and collaboration with parents and guardians, and other organizations	understanding necessity to build harmonious relationship with parents and guardians, and other organizations, providing information to them	able to build harmonious relationships with parents and guardians, and communities based on cooperation and collaboration	able to prevent and solve problematic behaviors through cooperation and collaboration with various related organizations	able to establish networks to achieve cooperation and collaboration with parents and guardians, communities and various related organizations	play a role to enhance the system with establishment in a cooperative and collaborative network
	Taking advantage of resources (human, things, events, information, time and funds)	capacity to find a countermeasure for troubles when they are involved in a diverse variety of problem-solving while they are university students	having a full understanding of necessary resources for solutions of class problems, learning how to take advantage of methods with resources	when solving problems in a class or a grade, being capable of finding necessary resources and taking advantage of various resources in/outside school, such as different types of schools and communities	determining effective resources for problems overall school and teaching activities and utilizing them	able to effectively utilize available resources which they have in/outside school to promote systems and to provide appropriate support and advice to other teachers	play a role to effectively utilize available resources which they have in/outside school, to promote systems and to provide appropriate guidance to other teachers
	Risk managements and safety management	able to learn basic knowledge regarding school security and risk avoidance	able to learn necessary knowledge for risk management and safety management	able to adopt appropriate measures for risk management and safety management for the class	able to plan and conduct training sessions regarding risk management and safety management of the school	able to establish a cooperative system with schools, families, communities and various related organizations regarding risk management and safety management in the school, and to determine and conduct appropriate countermeasures in emergency, comprehending the management system	play a role to establish cooperative systems with schools, families, communities and various related organizations regarding risk management and safety management in the school, to determine and conduct appropriate countermeasures in emergency, to comprehend the management system and to deal with the aftermath
	Team School: System correspondence toward problems of education at present (Information and Communication Technology, ICT, career education, human rights, social integration, Education for Sustainable Development, ESD)	able to actively learn basic knowledge and understanding of problems in education at present	able to make efforts to exert support and guidance for children regarding problems in education at present	able to have appropriate knowledge and understanding as an organization, to a certain level, regarding problems in education at present	able to plan, prepare and conduct training sessions and report meetings regarding present educational issues	able to make continuous effort to gain the latest information regarding present educational issues and to enforce systematic correspondence with the school	always being cautious about the latest information to enforce systematic correspondence with the school regarding problems in education at present

Isobe & Kuramoto 2016

Ability/knowledge of management skills

-Human resources development and leadership

-Cooperation as a team with co-workers

-Cooperation and collaboration with parents, gradians and institutions outside school (establishment of communities with the school as the core)

-Taking advantage of resources (human, things, events, information, time and funds)

-Risk managements and safety management

Isobe & Kuramoto 2016
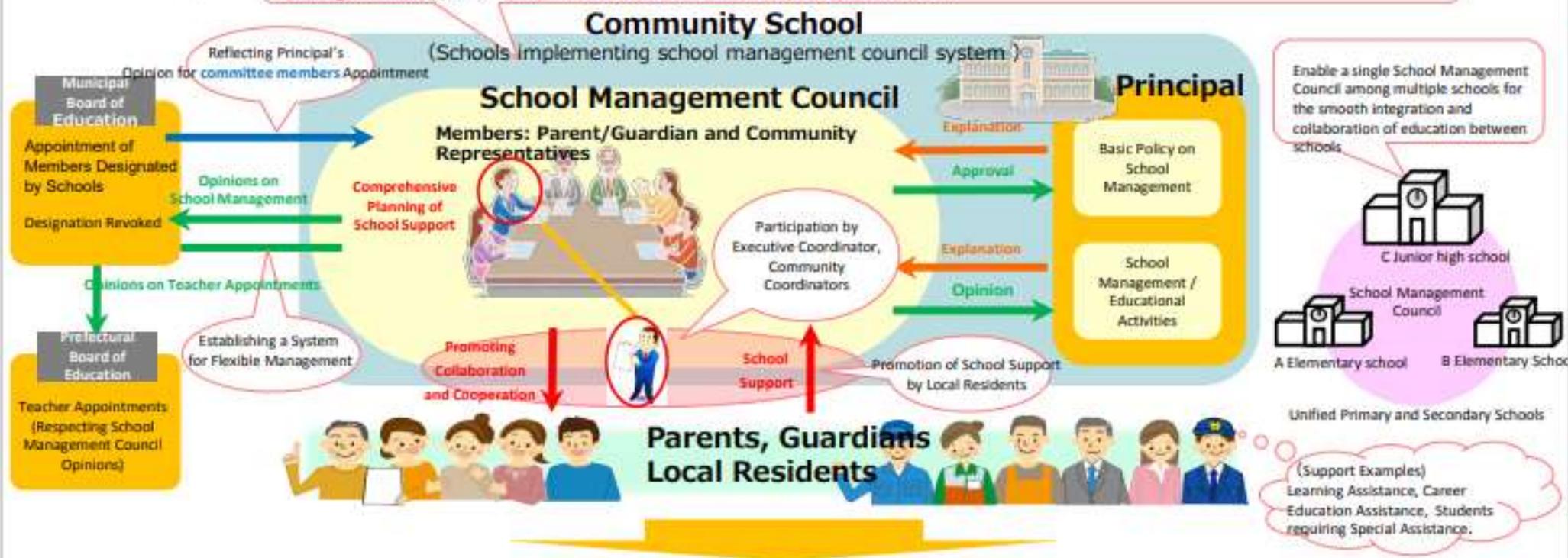
Visualization of Model Community School System

○ Community Schools must solve diverse and complex issues- participation and cooperation by the community members is necessary to foster children with the skills needed to survive in the future

○ In order for Community Schools to transform into schools which collaborate with the community, Community Schools must share their targets and vision with community residents in order for both parties to work together in fostering children.

○ The establishment of Community Schools must further advance from the standpoint of securing an organizational and continuous collaborative system between schools and communities.

Basic Direction

- The School Management Council shall support schools and clarify its role upon advancing characteristic school-building which reflects the actual situation of communities;
- Establish a system to secure the flexible operation of teacher appointments while providing functions of current School Management Councils;
- The School Management Council must develop and design a comprehensive plan on school support and create a system to promote a collaborative structure between schools and communities;
- Create a system which reflects the school principal's opinion when appointing members of the School Management Council;
- Create a system which enables the establishment of a single School Management Council among multiple schools to facilitate smooth connections between schools such as unified primary and secondary schools.
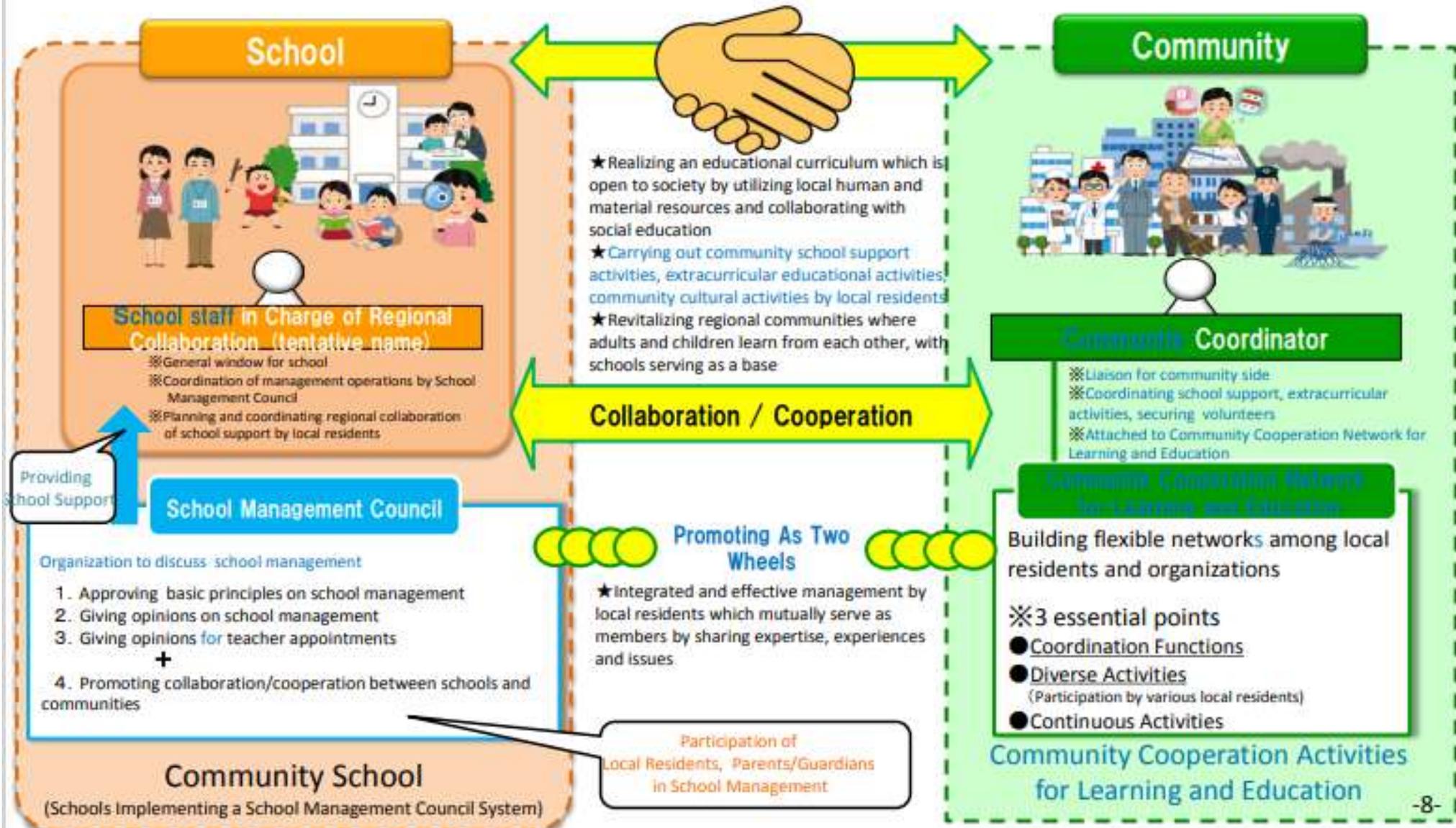
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Promoting participation of community members in school management. Clarifying roles upon advancing characteristic school-building which support schools and reflects the community's actual situation.
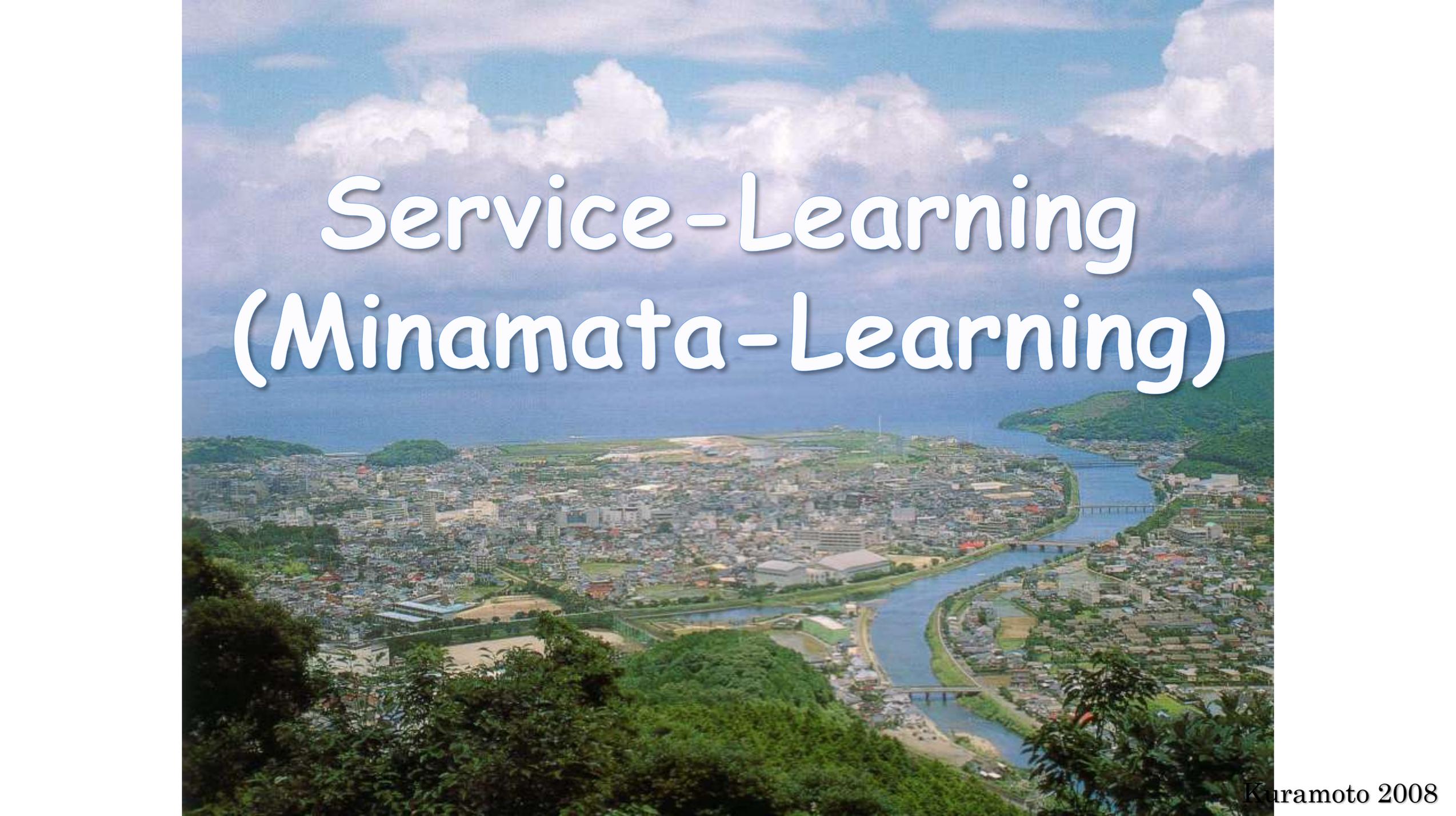
Community School
(Schools implementing school management council system)

School Management Council
Members: Parent/Guardian and Community Representatives

Principal

Reflecting Principal's Opinion for committee members Appointment

Municipal Board of Education

Appointment of Members Designated by Schools

Opinions on School Management

Designation Revoked

Comprehensive Planning of School Support

Basic Policy on School Management

Explanation

Approval

Participation by Executive Coordinator, Community Coordinators

School Management / Educational Activities

Explanation

Opinion

Opinions on Teacher Appointments

Prefectural Board of Education

Teacher Appointments (Respecting School Management Council Opinions)

Establishing a System for Flexible Management

Promoting Collaboration and Cooperation

School Support

Promotion of School Support by Local Residents

Enable a single School Management Council among multiple schools for the smooth integration and collaboration of education between schools

C Junior high school

School Management Council

A Elementary school   B Elementary School

Unified Primary and Secondary Schools

(Support Examples) Learning Assistance, Career Education Assistance, Students requiring Special Assistance.

Parents, Guardians Local Residents

Institutional Placement

- All public schools must aim to transform into Community Schools. Policies must be established to review the systematic placement of School Management Councils which are currently established voluntarily. Schools and Boards of Education must also consider the its establishment preferably by the voluntary will of Schools and Boards of Education, in addition to defining the systematic placement of Boards of Education upon actively promoting the establishment of Community Schools.

-3-

Visualization of a Promotion System for Effective Collaboration and Cooperation between Schools and Communities

—Education for a New Era Based on Partnership Building, Realizing Regional Revitalization

School

School staff in Charge of Regional Collaboration (tentative name)
※General window for school
※Coordination of management operations by School Management Council
※Planning and coordinating regional collaboration of school support by local residents

Providing School Support

School Management Council

Organization to discuss school management

1. Approving basic principles on school management
2. Giving opinions on school management
3. Giving opinions for teacher appointments
+
4. Promoting collaboration/cooperation between schools and communities

Community School
(Schools Implementing a School Management Council System)

Collaboration / Cooperation

★Realizing an educational curriculum which is open to society by utilizing local human and material resources and collaborating with social education
★Carrying out community school support activities, extracurricular educational activities, community cultural activities by local residents
★Revitalizing regional communities where adults and children learn from each other, with schools serving as a base

Promoting As Two Wheels
★Integrated and effective management by local residents which mutually serve as members by sharing expertise, experiences and issues

Participation of Local Residents, Parents/Guardians in School Management

Community

Community Coordinator
※Liaison for community side
※Coordinating school support, extracurricular activities, securing volunteers
※Attached to Community Cooperation Network for Learning and Education

Community Cooperation Network for Learning and Education

Building flexible networks among local residents and organizations

※3 essential points
●Coordination Functions
●Diverse Activities
（Participation by various local residents）
●Continuous Activities

Community Cooperation Activities for Learning and Education

-8-

Service-Learning (Minamata-Learning)

Kuramoto 2008

Service-Learning SOFAR model -Curriculum Management-

Students

Faculty

Administrators

Community Organization

Community Residents

SOFAR

1st circle: Curriculum/Teaching Students

2nd circle Leadership /Organization Structure /School culture /Lesson Study

3rd circle : Support from the outside of school Crisis/risk management

Kuramoto 2022

The Educational Goals of SL

Self-esteem, Civic Responsibility,

Academic contents

Student Interests

S
L

Community needs

The practice of SL

Evaluation of SL
Students' Reflection

The concepts of self-esteem and civic-responsibility

Kuramoto 2008
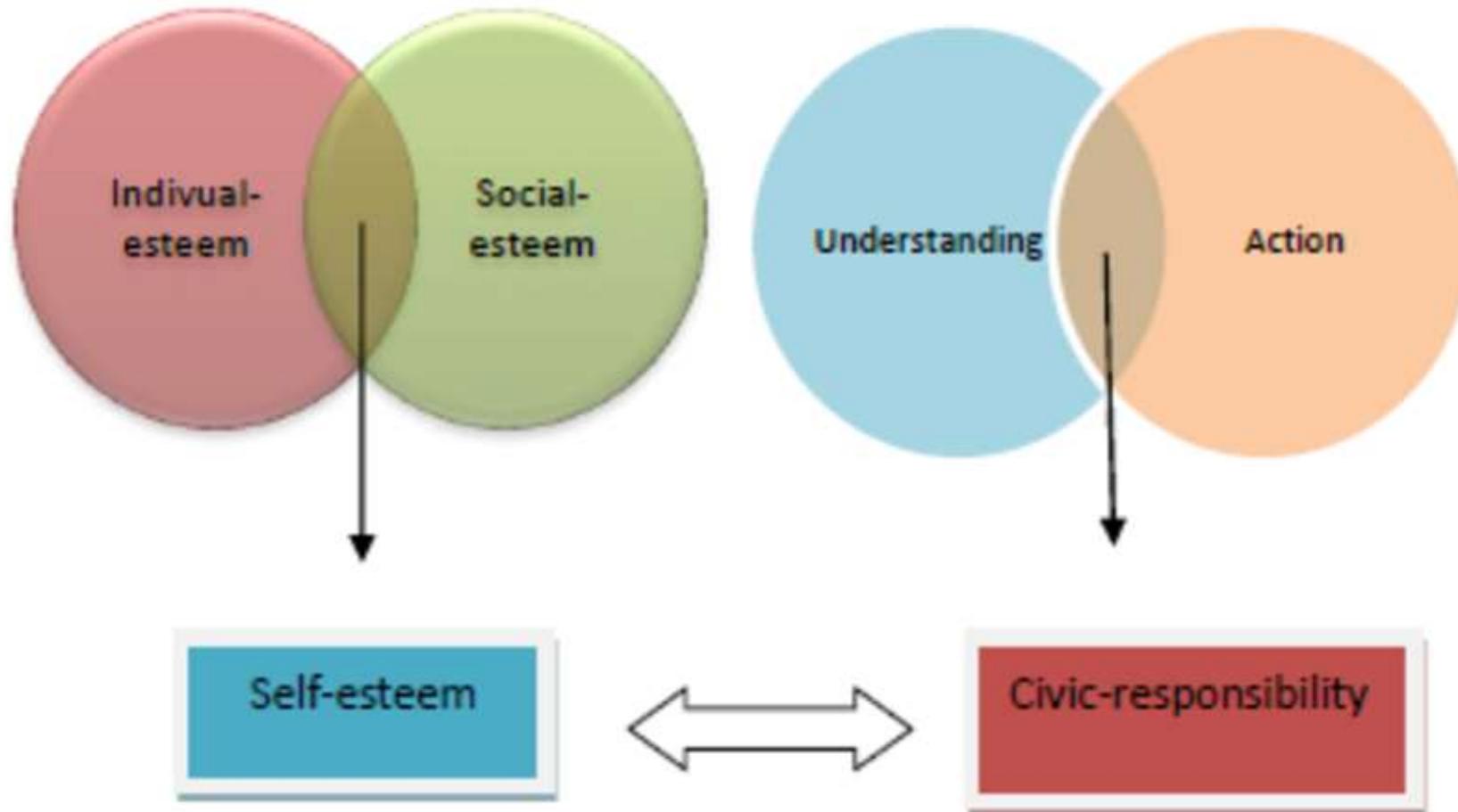
Ⅰ.　Definition of Minamata-Learning

Minamata-Learning combines students life issues, which are related to Minamata disease, with learning objectives to improve Minamata's community.
 This is accomplished by combining service tasks for Minamata with the task of self-reflection, self-discovery, and the acquisition and comprehension of values, skills, and subject knowledge.
 Minamata-Learning is a form of experiential education where learning occurs through a cycle of action and reflection, The students work with environmental recovery from Minamata disease problems and, at the same time, reflecting upon their experience as they seek to achieve real objectives for the community and deeper understanding and skills for themselves.

Reference of NYCL home page(Defining Service-Learning)

● Structure of Minamata-Learning

Expected student's development

（Minamata Disease＝MD）

9 years Sequence ③

（Academic diciplines）

（Minamata Resources)

（Integration ②）

(Collaboration④）

Subject Contents

Decision-Making

Planning（ability）

IT（ability）

Cooperation（ability）

Expression（ability）

Identity of Minamata

Self Esteem

Problem -Solving

Social Performance

Communication

Critical Thinking

Minamata-Learning

at Junior High Level

Common theme of Minamata-

Learning in 9 years

Minamata-Learning

at Elementary School Level

ISO system for ecology

Professional for ecology

Ecology center

Minamata daycare center

MD fire Festival

Dividing 23 recyclables

MD history museum

MD social museum

MD storyteller

MD work Company

MD hospital

● *Integration with Minamata Disease ①*

Kuramoto 2008

1. Minamata disease

Accumulation of Methylmercury in the Food Chain

Wastewater from factories

Methylmercury

Methylmercury

Accumulation via food chain

Passive absorption (via surface of body)

Plankton

Aquatic insects

Methylmercury

Humans

Kuramoto 2008
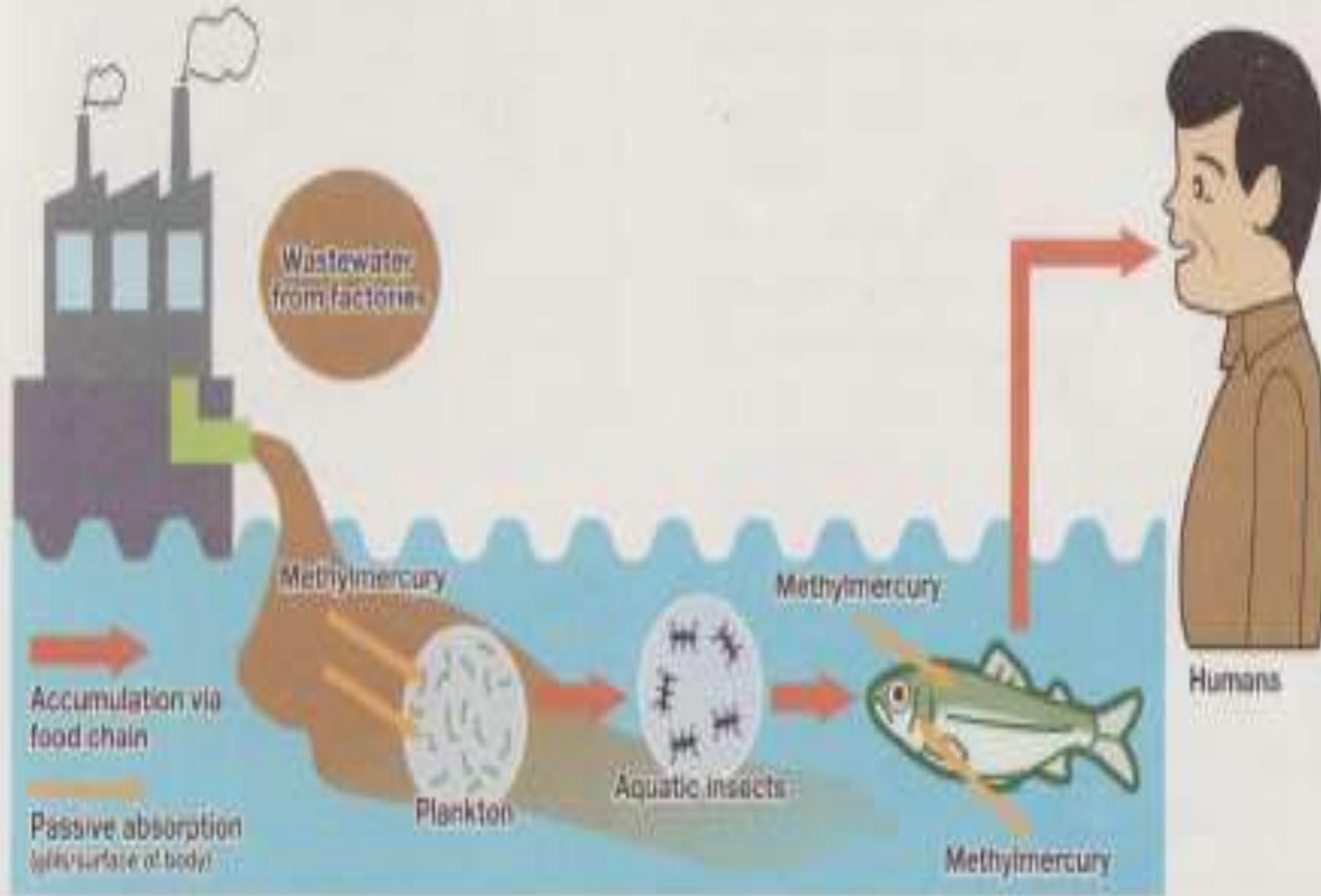
Influences of Minamata Disease

Destruction of Nature
Extent of Opposition
Blame and Slander

Damage to Health
Prejudice and Discrimination
Mutual Distrust

Confusion and Collapse of Internal Society

Kuramoto 2008

ごみ分別収集体験場

Kuramoto 2008

Kuramoto 2008

STUDENT NEED

ZZZZ

SERVICE-LEARNING

Human Need

SERVICE-LEARNING

Chapter6. MORAL EDUCATION, each school, should

(1) give proper instruction not just during the moral education classes but during the lessons for all subjects, the period for integrated studies, and special activities. The objectives of moral education are based on the essential spirit of education stated in the Basic Act on Education and the School Education Act.

(2) be given to having the students respect their own lives and those of others, lead disciplined lives, think about their futures, deepen their understanding of the significance of laws and rules, participate proactively in building society, and foster in them an awareness as Japanese people living in an international community.

The last two sentences

When I reflect on my elementary school days, I still have strong feelings of regret.

I had a girl classmate whose name was T, who had two younger brothers but had lost her mother. Also, her father was a fisherman who was not at home to take care of the family much.

To be honest, I hate to say this, but she smelled bad and looked very dirty compared to her classmates.

I often told her "You are so dirty, don't come near me. Go away." I was a so cruel kid and bullied her a lot in front of other classmates.

One day, we had art language exam in our class, I tried to get a full mark, however, I couldn't understand one question. Therefore, I took a look at girl T's answer sheet because her seat was next mine. I cheated on the examination and as a result, I got a perfect score.

I felt so guilty about my behavior, so, as a defense mechanism, I strongly blamed her in front of our other classmates. I said, "I saw you looking at my answer sheet. You cheated on the exam. That's why you got a good score!"

She vehemently cried and denied it saying, "I was absolutely not cheating on the exam. Why do you keep bullying me so much? I might look dirty, but my heart and my soul is not."

That was the miserable tragedy I caused regarding girl T in my school days.

An even more shocking thing about me and her was, when I read the graduation memorial book, in her personal quote, the last two sentences said, "The only things I truly want is not my mother anymore. I just want a friend, and clean clothes."

Ever since then, I cannot forget my huge guilt and my mistakes, and I can't forgive myself even now.

Kuramoto 2022

1. Theme for the lesson
    <mark>"How to achieve the fair school society from the perspective of social justice."</mark>

2. Teaching material for the lesson
    "The last two sentences in the graduation memorial book"

3. The purposes of the teaching
    (1) The moral value of the teaching
    (2) The condition(situation) of the class students.
   (3) The teaching material

4. Language activities to reach the teaching goals

5. "Teacher's Omoi" (educational purposes regarding the students)
    In my school I am teaching, there almost no bullying. Since the situation of the school, the prevention of the bullying education as the character education (Moral Teaching) Education, which is also required from the Ministry of Education in Japan, has the meaningful teaching issues.   In my lesson today, I have a teaching Omoi, I will motivate the students how to achieve the fair school society from the perspective of social justice.

6． The process of teaching and learning the lesson

The learning process/time plan	The student's learning activities	The important points of teaching	Evacuation the student's learning
Starting the lesson	The results of questionnaire regarding the students' bullying.	Realize the bullying around you in the school.	Whether students recognize the bullying issue.
	Understanding the meaning of the learning material.	Check the students' understandings.	Whether students understand the meaning of the material.
Developing the lesson	Discuss the author's feelings regarding"The last two sentences in the graduation memorial book"		
	1) Why was the author crying after reading the last two sentences of student T?	The author recognized that she has been bullying student T in the school, when she read the last two sentences. She strongly regretted her behavior against student T.	Whether students understand the author's regret.
	1) What was the feeling the last two sentences of student T?	Why did student T write the last two sentences? (what was her true intention?)	
	1) At the time, supposed to be, the author had to do to help the student T?	If you are there, what do you act in the situation to achieve school justice?	Whether students motivate <mark>to act as "from someone's issue to my issue"</mark>.
Concluding the lesson	Teacher's final comments. Refection by writing own ideas (what did you learn and think?)	Comments regarding how to achieve the fair school society from the perspective of social justice.	Whether I (teacher) could reach the teaching goal of the social justice for students.
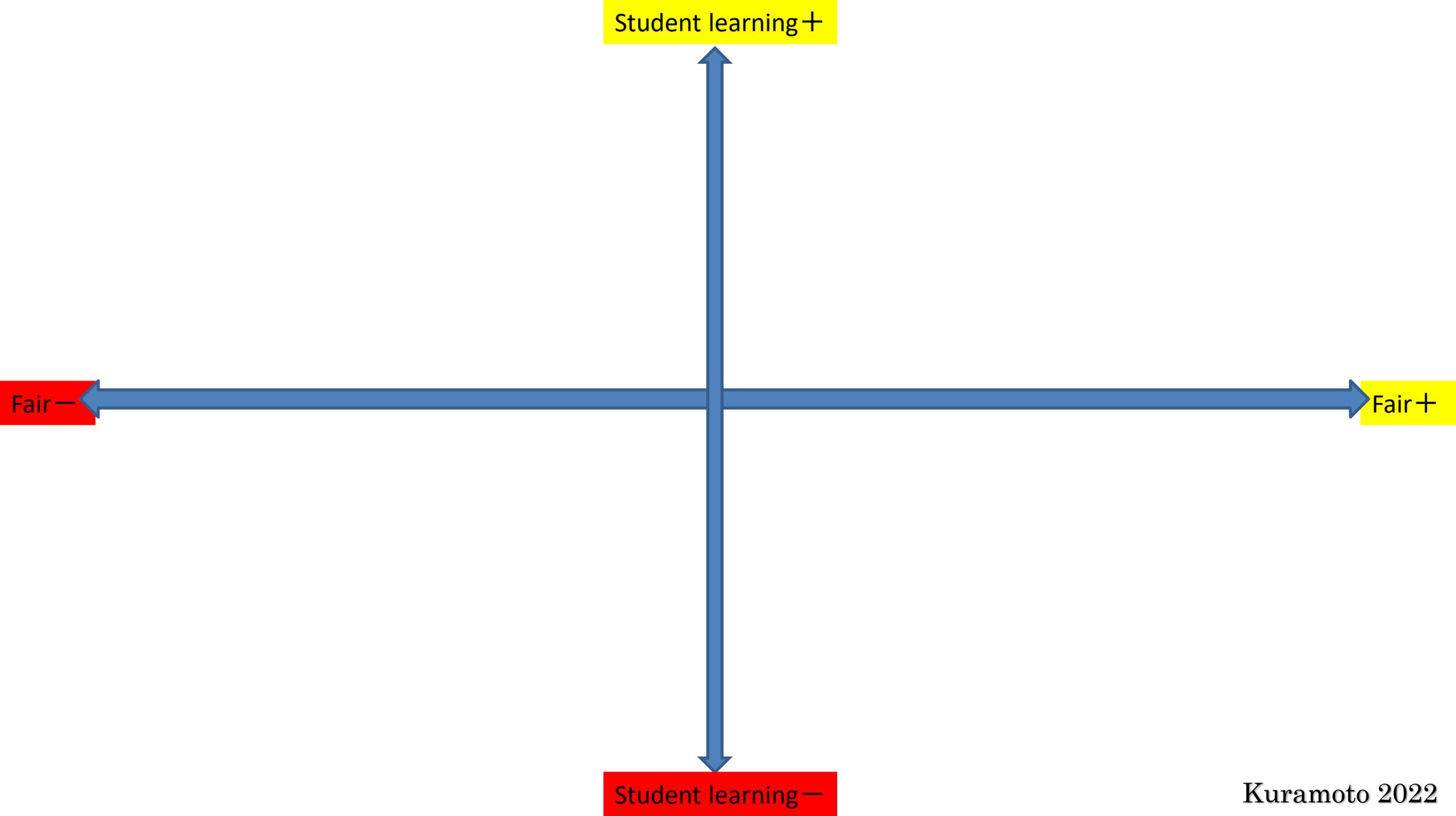
Student learning＋

Fair－   Fair＋

Student learning－

Kuramoto 2022

P.S. JHS. CONSIDERATIONS TO BE TAKEN IN DESIGNING LESSON PLANS

(1) When teaching subjects, learning activities that necessitate students to use essential and fundamental knowledge and skills should be emphasized. Language activities should be enhanced by preparing a solid linguistic environment to deepen students' understanding.

(2) When teaching subjects, emphasis should be placed on experiential and problem-solving-oriented learning, which necessitates students to use essential and fundamental knowledge and skills.

(3) When teaching subjects, effort should be made to include well-planned activities in which students can plan their learning and reflect upon what they have learned.

(4) Student guidance should be enhanced to cultivate trust between teachers and students and positive personal relationships among students.

(6) When teaching subjects, each school should improve ==teaching methods== and learning systems: for example, ==individual or group-specific instruction, repetitive instruction, differentiated instruction== according to the level of proficiency achievement, task-based learning activities according to the student's interest, instruction incorporating learning activities such as additional or advanced contents, and team-taught lessons where teachers work cooperatively together.

(7) For the benefit of students such as ==returnees from abroad==, adaptation to school life should be promoted and guidance provided in such a way as to make the most of their experience in foreign countries.

(8) When teaching subjects, each school should improve learning activities so that students develop information ethics and become capable of utilizing ==information devices==, such as computers and information and ==communications networks==, such as audiovisual materials and teaching and learning devices.

(9) In addition to the ==positive evaluation== of the strengths and the progress of the students, the process and results of teaching should be assessed to improve education, which would help improve students' motivation toward learning.

(10) To achieve the schools' objectives, each should strengthen ==collaborative relationships with students' homes and the local community==. Furthermore, each school should provide students with opportunities for exchange and joint learning with disabled preschoolers, students, and opportunities for discussion with the elderly, etc., while seeking close ties and relationships with other junior high schools, elementary schools, high schools, and special needs schools.

Elementary and Secondary Education Bureau, Ministry of Education, Culture, Sports, Science, and Technology (MEXT 2019)

Lesson Study in Japan

Spread of LS Through WALS: 24 countries
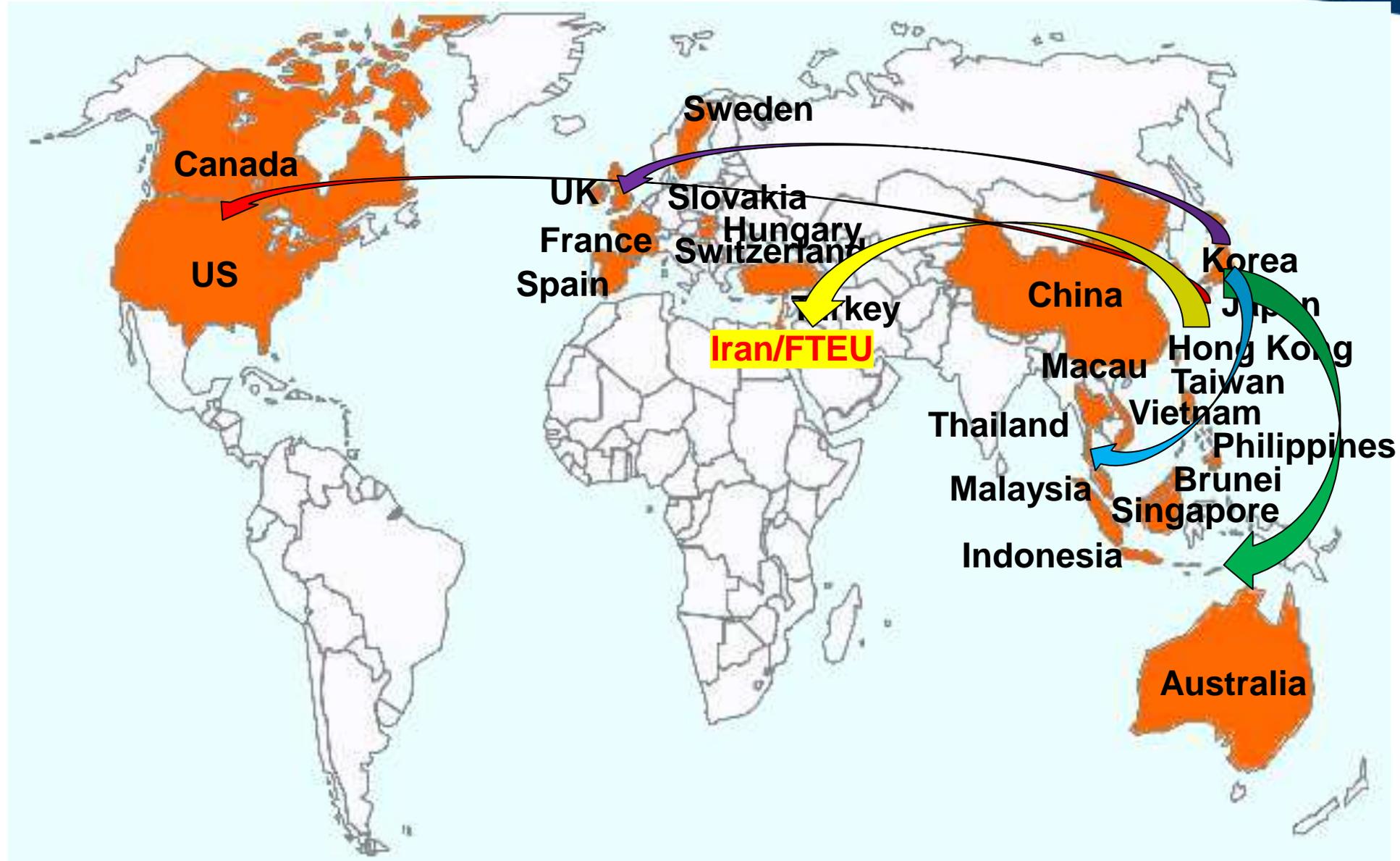
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倉本哲男編　『開発的生徒指導と学校マネジメント-金泉中の学校再生カリキュラム-』pp.1-141. ふくろう出版　2007年

Appendix

Knowledge Management with Lesson Study (SECI model)

Learning Kits for Teachers

Ability/knowledge of lesson teaching

-Understanding of contents of specialized subjects

-Comprehension of actual states and setting up goals (Plan 1)

-Preparation of teaching plan and assessment plan (Plan 2)

-Perceptions of teaching skills and forms (Plan 3)

-Guidance and assessment during class (Do)

-Check and Action

1.Teacher's Knowledge Teaching Ability

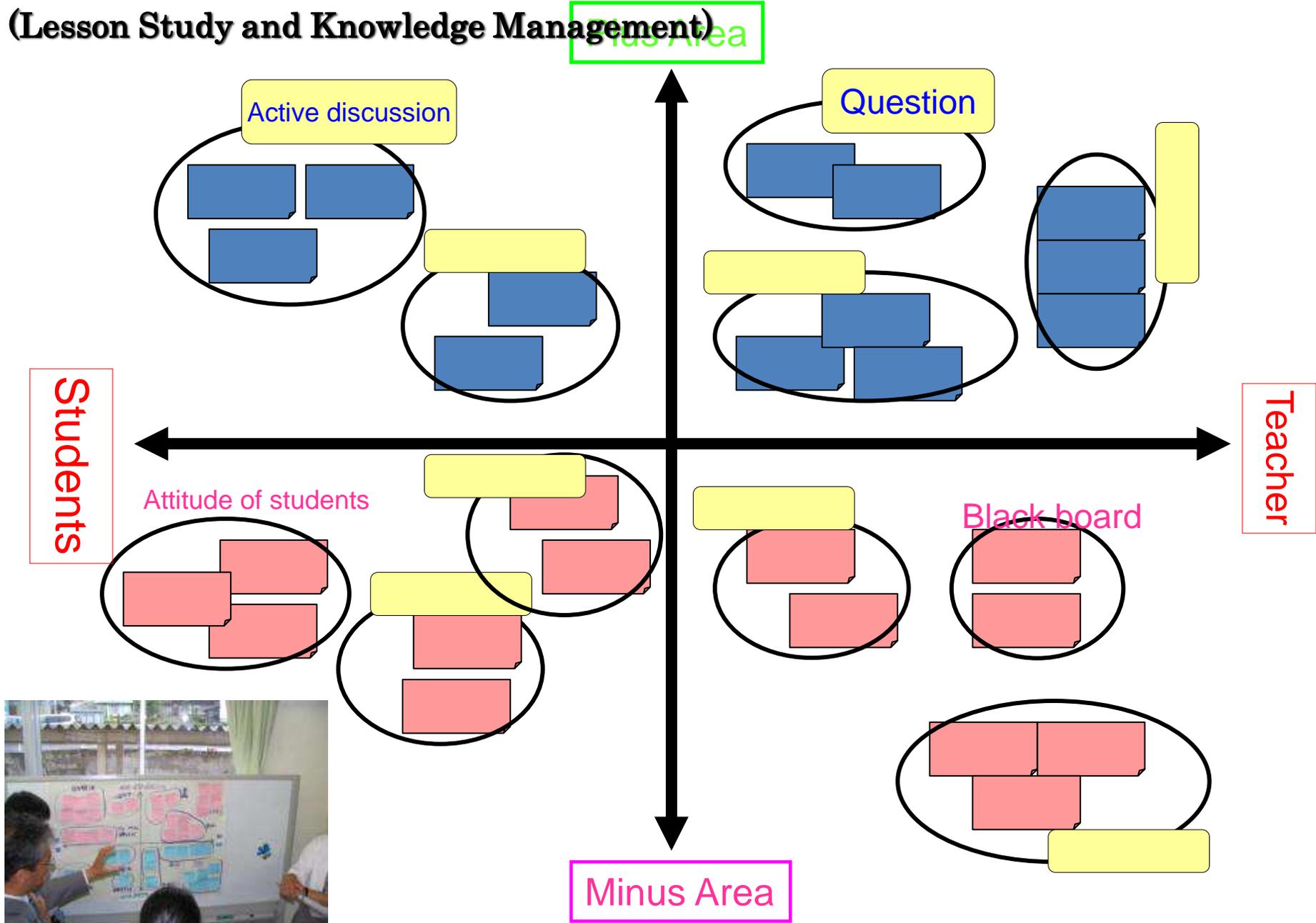|		Stage I [education – employment] a teacher who is equipped with a basic attitude of continuous learning and meet requirements for employment by Nagoya City and Aichi Prefecture to start working	Stage II [starting rank – several years experience] only a teacher with basic attitude as a teacher but also a class teacher gaining comprehensive capability	Stage III [to ten-year training course] acquisition of teaching specialty with expanded practical ability	Stage IV[from mainstay] heightened specialty as a member of a team school or a middle leader, deepening cooperation or collaboration, and exerting propulsive force	Stage V [from veteran] playing a role with a wider perspective in both the school and	
						1. veteran teachers	2. managerial p
Ability of class teaching	**Understanding of contents of specialized subjects**	capable of preparation of teaching models based on teaching plans and performance of class teaching	capable of preparation and performance of teaching plans based on the guidelines for the course of study, considering teaching procedures	capable of setting up and the appropriate performance of learning plans in accordance with guidelines for the course of study and the managements plans and teaching policies of school	capable of conducting appropriate examinations, modification and improvement of teaching plans with overall perceptions on various learning problems of subject depending on schools and grades	ability to perform and contrive class teaching and supporting and advising, regarding teaching classes, to teachers in the school for the improvement in various issues in overall school teaching and also in a specialty subject	guiding teachers in schoo improvement in class tea promote specialty and to school problems
	Comprehension of actual states and setting up goals (Plan 1)	capable of understanding meanings and necessities of conducting studies on learning materials which meet students' needs for understanding	capable of conducting appropriate examinations on learning materials to achieve teaching goals	capable of reconstructing learning materials and/or tools to adjust to actual situations of school children and to correct teaching plan procedures	capable of learning specialized knowledge regarding teaching plans and utilizing that knowledge to enhance teaching material study	ability to provide support and advice based on their specialized knowledge to improve teaching materials and tools	supervising the improvem materials and tools based specialized knowledge
	Preparation of teaching plan and assessment plan (Plan 2)	not only learning basic and fundamental skills regarding contents, guidance, and assessments of the guidelines for the course of study, but also understanding the forms of teaching plans	deeply understanding teaching units (theme) and materials, and being able to prepare teaching unit (theme) plans with clear goals	not only relating goals to teaching contents and assessments, but also being able to prepare teaching models with clear plans and methods for assessment	ability to set up an overall plan for each teaching unit (theme) focusing on the development and learning level of school children	ability to support and advise, not only clarifying meanings of teaching plan preparation based on individual school teaching policies, but also understanding various issues of teaching in individual schools to improve teaching plans	guiding not only with clar of preparation of teachin on individual school polic with comprehension of p individual school teaching improvement of teaching
	Perceptions of teaching skills and forms (Plan 3)	learning and acquiring skills of how to talk, write on a blackboard and how approach to students	learning and acquiring skills of approach (asking questions, instructions and explanations)	capable of writing on blackboards, focusing students' flow of understanding and thinking	able to develop a teaching lesson according to development and learning level of school children	not only comprehension of actual states of individual teachers regarding their class teaching, but also able to give appropriate support and advice to them for the improvement of class teaching	playing a role not only of of actual states of indivi but also of guidance for of class teaching
	Guidance and assessment during class (Do)	understanding meaning of classroom lesson for school children to acquire scholarly ability	capable of asking a question which can elicit diverse opinions from students	capable of asking proper questions with a deep understanding of the thinking flow of students	capable of performing a model workshop class for in/outside the school	ability to appropriately evaluate class lessons which each teacher performs, and to promote teachers' motivation by giving them support and advice	play a role to appropriate class lessons which each performs and to motivate instructions
	Check and Action	able to understand the importance of preparation in evaluation criteria based on goals	able to prepare evaluation criteria based on goals	able to reexamine skills and goals that teachers want students to acquire, and reconstruct evaluation criteria and teaching contents	able to improve class teaching on their own through observing multiple teachers' classroom lessons	able to set up concrete schemes regarding in-school systems for the improvement of class lessons	play a role in presenting concrete schemes regar systems for the improvem lessons

Isobe & Kuramoto 2016
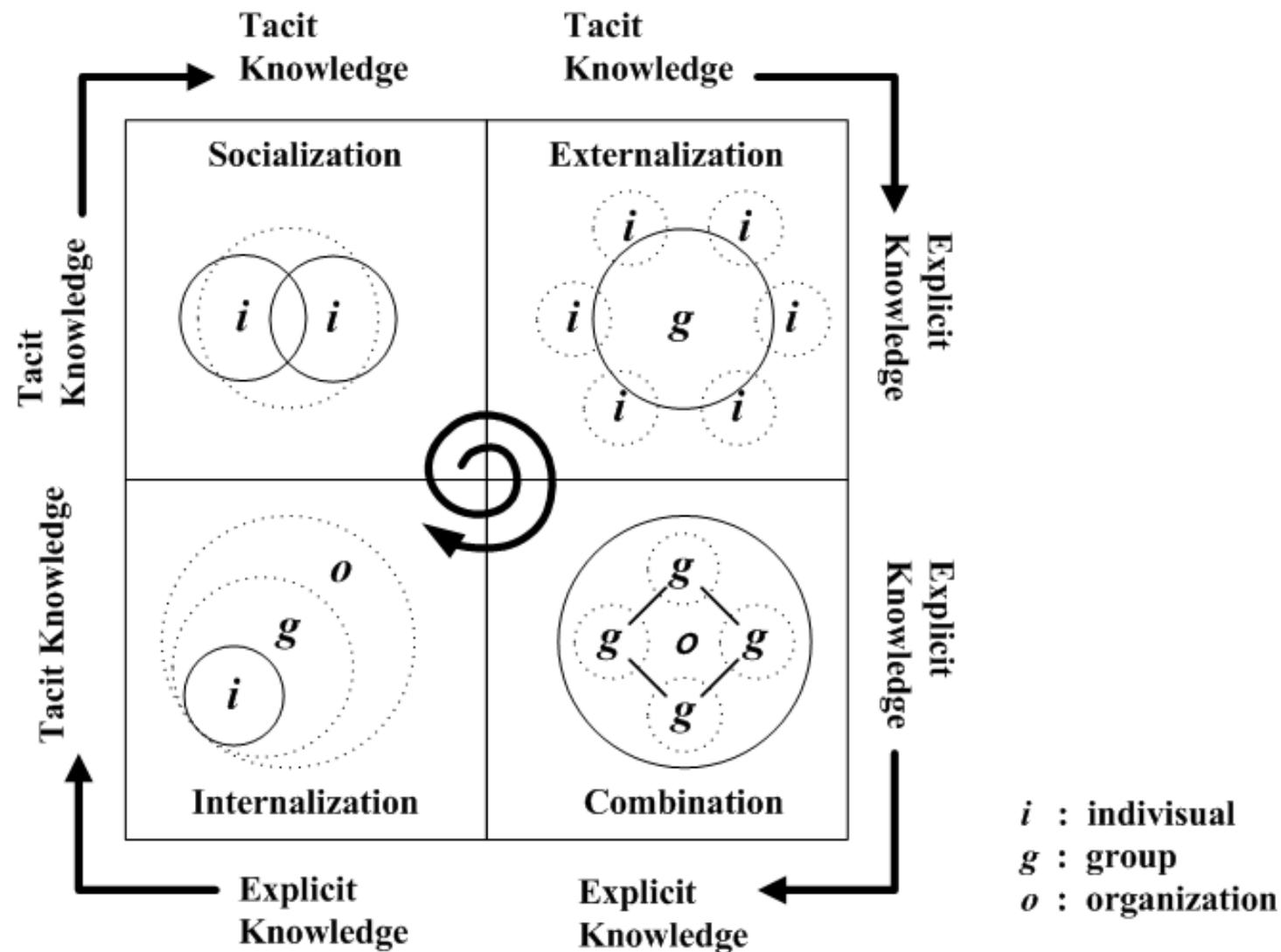
Figure 1. Knowledge Creation as the Self-Transcending Process

Source : Nonaka and Konno (1998) , p.43

KJ method
(Lesson Study and Knowledge Management)

Plus Area

Active discussion

Question

Students

Teacher

Attitude of students

Black board

Minus Area

Miyashita 2012

Lesson Study (Observe the teaching)

Socialization

Educational center of Ibaragi pe.
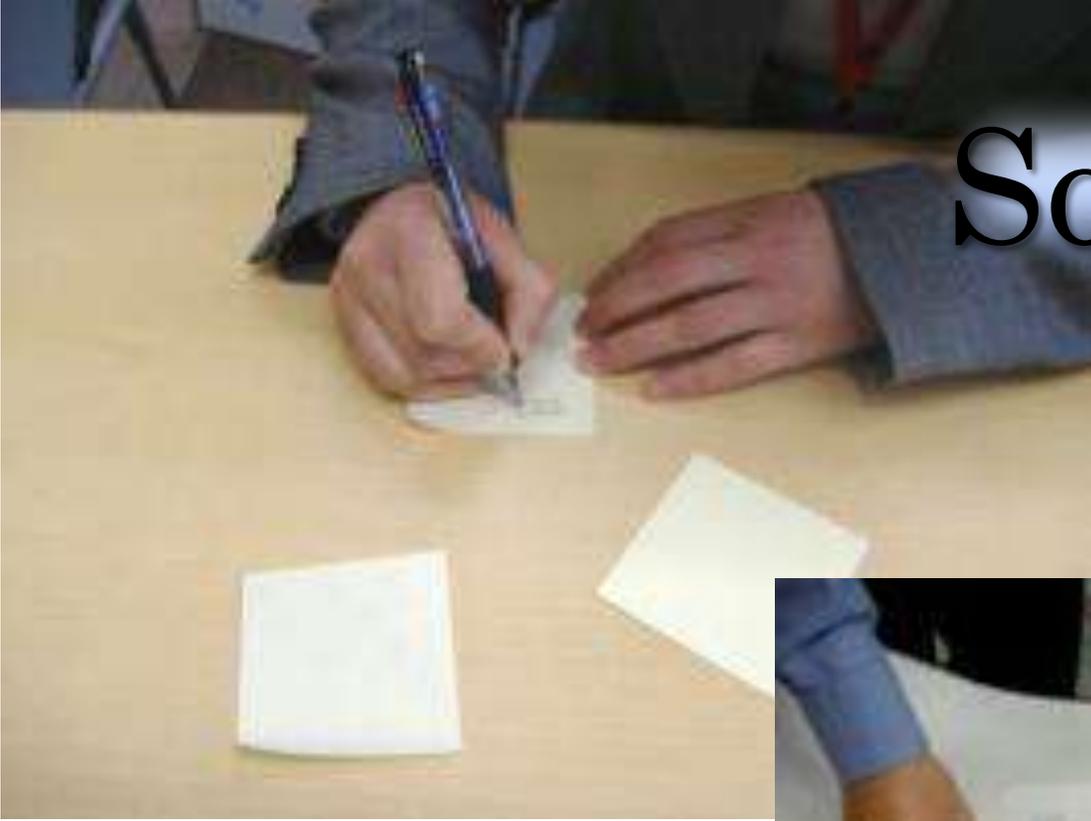
Externalization

Combination & Internalization

Educational center of Ibaragi pre

Ex. The Period for Integrated Studies (Elementary School) OVERALL OBJECTIVES

To enable students to think in their way about life through cross-synthetic studies and inquiry studies while fostering the qualities and abilities needed to find their tasks, learn and think on their own, make proactive decisions, and solve problems better. At the same time, students acquire the habits of studying and thinking, cultivating their commitment to problem-solving and inquiry activities in a proactive, creative, and cooperative manner.

Ex. Foreign Language Activities (Elementary School) OVERALL OBJECTIVE

To form the foundation of students' communication abilities through foreign languages while developing an understanding of languages and cultures through various experiences, fostering a positive attitude toward communication, and familiarizing students with the sounds and basic

expressions of foreign languages.

Ex. Living Environment Studies (Elementary School) OVERALL OBJECTIVES

To help students become interested in the relationship between themselves and people around them, society and nature through concrete activities and experiences, and to have them contemplate themselves and their own lives and, in the process, to help them acquire basic habits and skills essential for life and develop the foundation for independence.

Ex. Technology and Home Economics (Junior High School) OVERALL OBJECTIVES

To deepen understanding of the relationship between our lives and technology through acquiring fundamental knowledge and skills necessary for life, and developing the ability to and a positive attitude toward planning and creating a proactive life.

Ex. Science (Junior High School) OVERALL OBJECTIVES

To enable students to take an active interest in natural things and phenomena and to carry out observations and experiments with a sense of purpose while also fostering conditions for the ability to perform investigations scientifically and their positive attitude for doing so. To enable students to deepen their understanding of natural things and phenomena and to cultivate scientific ways of looking and thinking.