

Student-centered CLIL methods to develop critical thinking skills

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Critical Thinking: *Main role of school education*

The main role of a school environment is to enhance “critical thinking skills”

- studying a subject or problem with open-mindedness,
 - determining the facts of a new situation or subject without prejudice,
 - placing these facts and information in a pattern so that students can understand them and accept or reject the source value, and
 - reach conclusions based upon experience, judgment, and beliefs.
- (Cubukcu, 2011)

Low Critical Thinking Ability of Japanese Students

2013 OECD PISA

- Mathematical literacy = best among 35 countries
- Scientific literacy = 5th
- Ability for comprehension and integration of information = **low (X critical thinking)**
- Ability to connect information to their own experience and knowledge = **low (X critical thinking)**

Japan now focuses on English education & critical thinking skills

Japanese 12 graders: CEFR A1

Japanese Government announced they will focus on English Education (2014)

- Starting early (elementary school)
- Focusing on speaking skills,

***developing critical thinking skills
in English***



Goals of This Study

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To observe how Japanese college students appreciate being introduced to a new academic field in English

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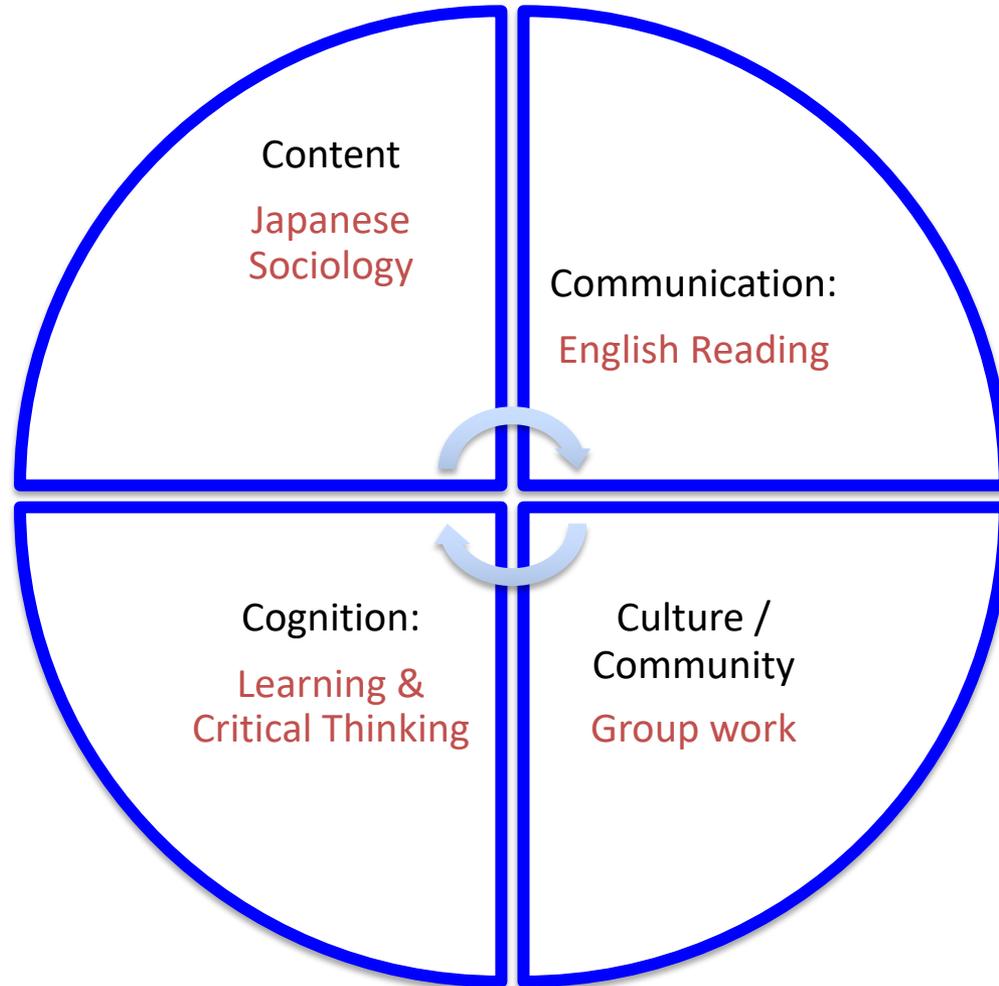
How their critical thinking skills can be developed by CLIL style learning

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Participants

- 72 College students
from 4 English reading classes in the entire
2016 school year (30 weeks)
- Freshmen and Sophomores
Males and females
- Their proficiency level: CEFR A2-B1

Efficacy of CLIL + English Language in Critical Thinking Education



Courses

Academic Subject and Materials

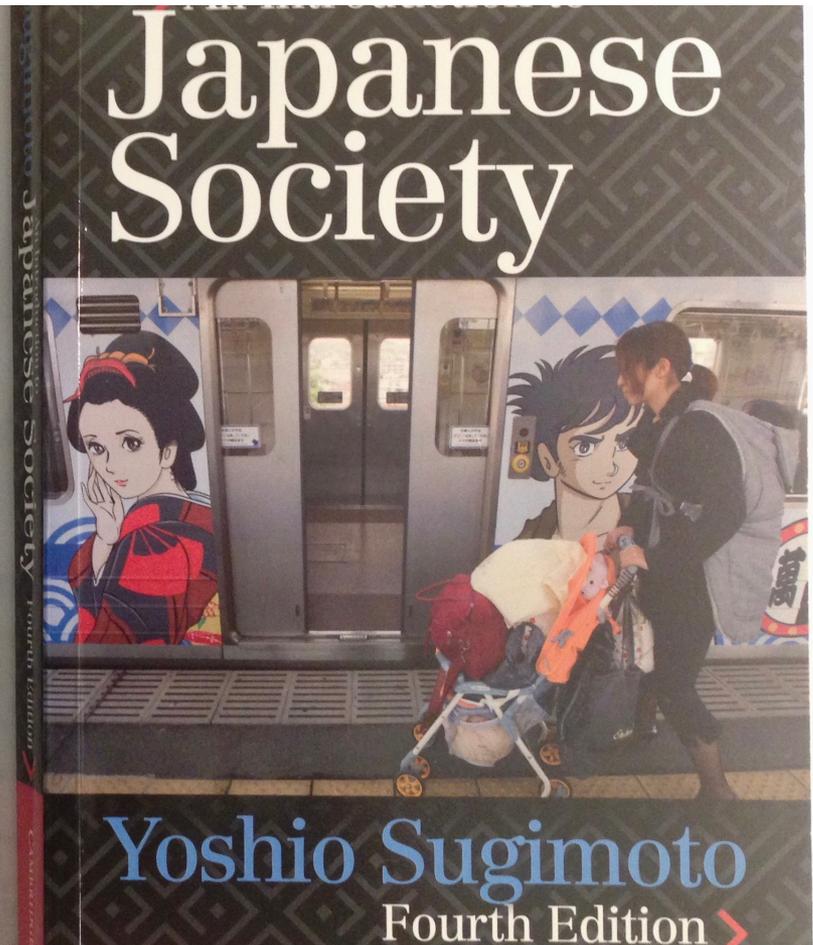
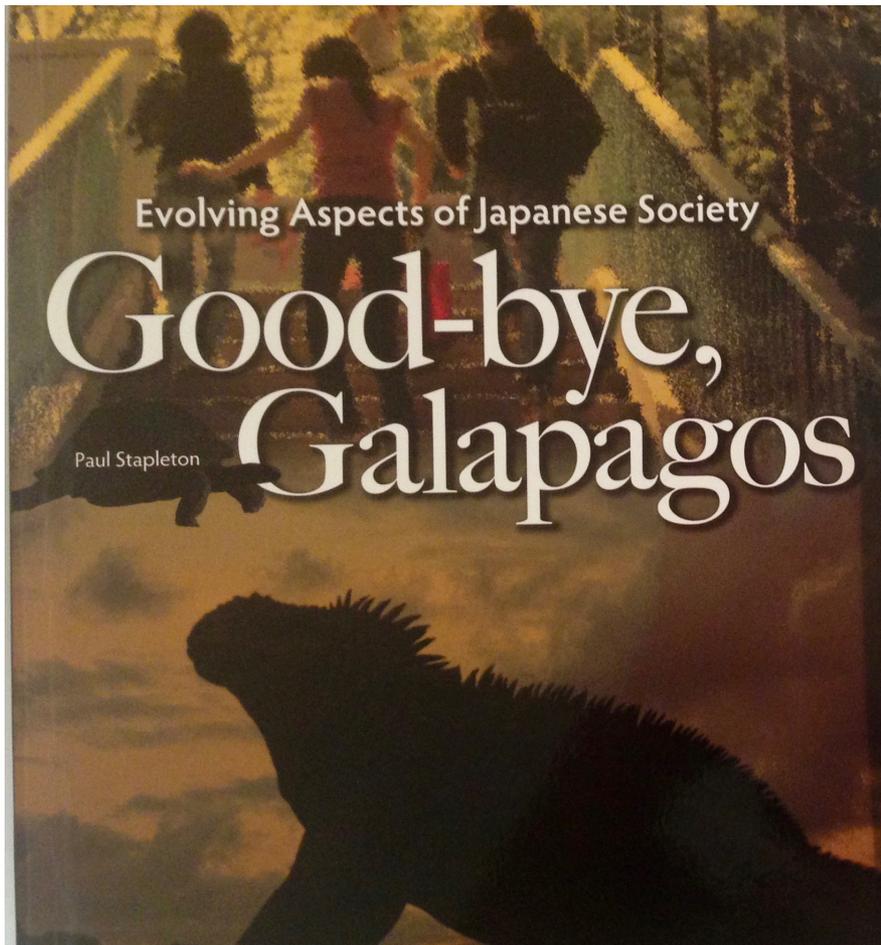
Academic subject: **Japanese sociology**

Reading materials (Input)

- (1) “***Good-bye Galapagos***” by Paul Stapleton, Cengage Learning
- (2) “***Introduction to Japanese Sociology***” (Fourth Edition), by Yoshi Sugimoto, Cambridge University Press
- (3) **Student-chosen reading articles**

Purpose of selecting materials: To review Japanese society from global perspectives.

Reading Materials



Reading Materials

the guardian

Japan says it must look after its own before allowing in Syrian refugees

need
out
ation

Prime minister Shinzo Abe rejects criticism of a policy that has seen only 11 people given asylum in the past year

Justin McCurry in Tokyo

Wednesday 30 September 2015 05.59 BST

Japan must improve the living standards of its own people before it can consider accepting Syrian refugees, the prime minister, Shinzo Abe said, as he announced \$1.6bn in new assistance for Syrians and Iraqis caught up in conflicts in the Middle East.

Abe's consistent refusal to consider allowing even a modest number of refugees to relocate to Japan has prompted criticism of the country's strict policy on asylum: year, it received a record 5,000 applications but accepted just 11 people.

Speaking at the UN general assembly in New York, Abe insisted Japan must first



Sociological Topics for Class Activities

1st semester topics

- (1) Japanese ethnocentrism
- (2) Uniformity in Japanese society
- (3) Japanese inward-looking attitude
- (4) Japanese spirit of mutual assistance

2nd Semester topics

- (1) Aging society & immigrants
- (2) Entrepreneurs in Japan
- (3) Japanese pop culture & high quality products

Teachers' Roles and Classroom Activities

(1) Pre-activity (vocabulary, language focus, pre-reading discussions)



(2) Reading (incl. group reading, jigsaw reading)



(3) Comprehension questions



(4) Class discussion



Teachers' Roles and Classroom Activities

(5) Student-led article teaching & discussion



(1)- (5) in 3-5 class time

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(6) Writing reflective essays



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Student research and presentation & student-led discussion (semester end)



Types of CLIL

Purpose

Soft CLIL **Hard CLIL**
Language teaching Content teaching

Frequency

Light CLIL **Heavy CLIL**
Once in a while Regularly

Proportion

Partial CLIL **Total CLIL**
Part of class Whole class

Language use

Bilingual CLIL **Monolingual CLIL**
Japanese & English English

(Adapted from Watanabe, U., Ikeda, M., & Izumi, S. 2011)

Results (Post-course Questionnaire)

Q5) Have you become able to think about other issues from various viewpoints after exchanging opinions in class?

Yes, very much	10 students (18.5%)
Yes, to some extent	43 students (79.6%)
No, I have not	1 student (1.9%)
N/A	1 student (1.9%)
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SUM	55 students (100%)

Results (Post-course Questionnaire)

Q6) Have you become able to think about various issues objectively after reading a variety of materials in class?

Yes, very much	7 students (12.7%)
Yes, to some extent	48 students (87.3%)
No	0 student (0%)
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SUM	55 students (100%)

Results (Post-course Questionnaire)

Q4) What do you think about learning sociology in an English course?

Yes, a good idea	31 students (56.4%)
Good, but difficult	20 students (36.3%)
Normal English class	
Is better	4 student (7.3%)
SUM	55 students (100%)

Results (Post-course Questionnaire)

The course was difficult for me because there were no single answer to the issues.

The topics were very interesting, but the reading materials were challenging.

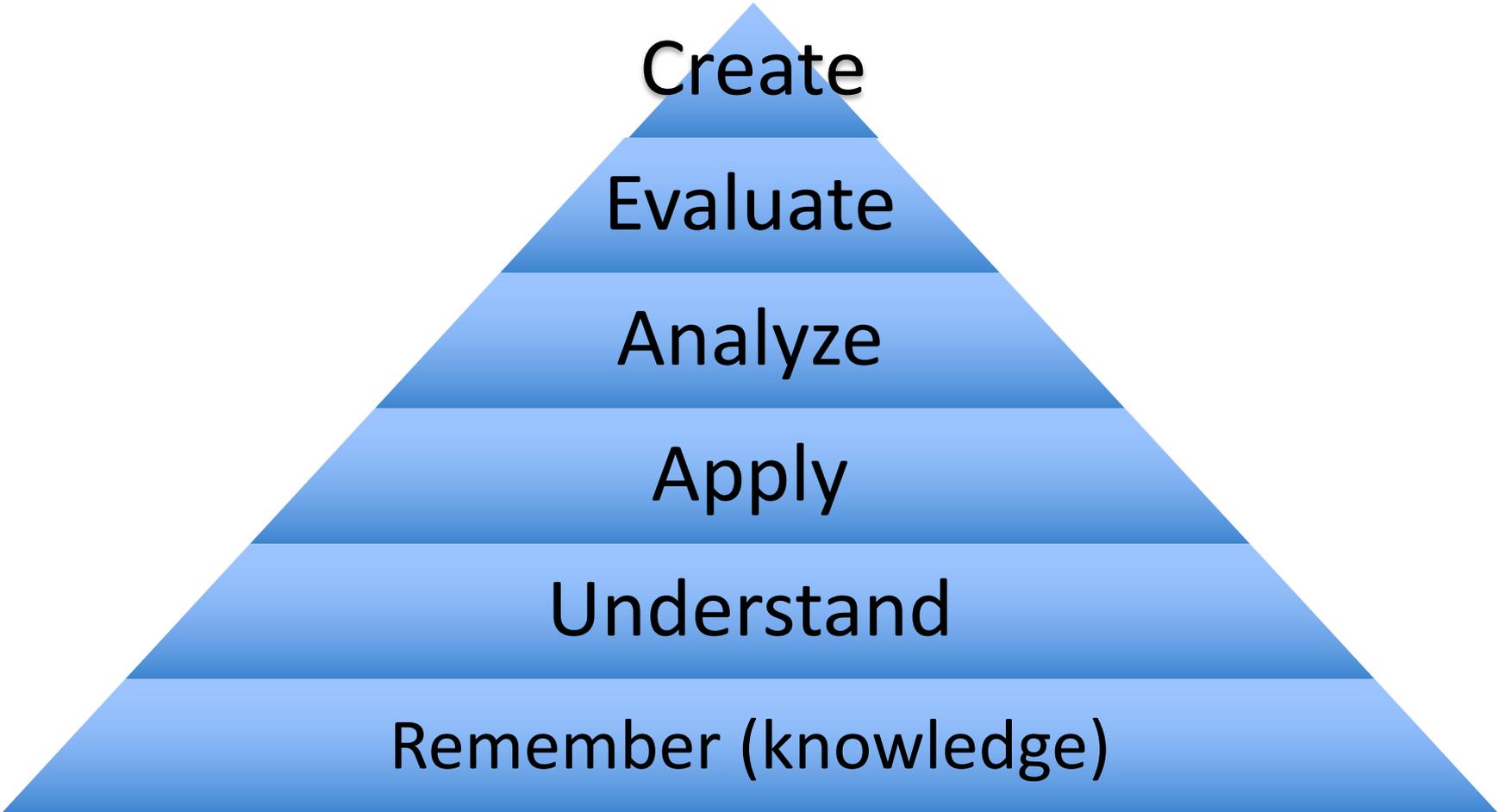


Results (Pre-test vs. Students' Essays Written in the 2nd Semester)

Source	Types of Data	Class 1	Class 2	Class 3	Class 4	Average
Pre-test	Overall average test scores	65.8	59.3	68.6	82.9	69.2
	Percentage of students who responded to the opinion question (wrote something)	21.7% ↓	9.1% ↓	82.4% ↓	75% ↓	47.1% ↓
Essays (the 2 nd semester)	Percentage of students who wrote opinion essays	100%	100%	100%	100%	100%
Pre-test	Average opinion question scores for those who provided an answer	5.6 ↓	6.0 ↓	8.09 ↓	8.0 ↓	6.92 ↓
	Average scores for students' essays written in the 2 nd semester	7.0	8.43	8.58	8.81	8.2

Bloom's Modified Taxonomy

(Anderson and Krathwool, et. al., 2001)



Create

Evaluate

Analyze

Apply

Understand

Remember (knowledge)

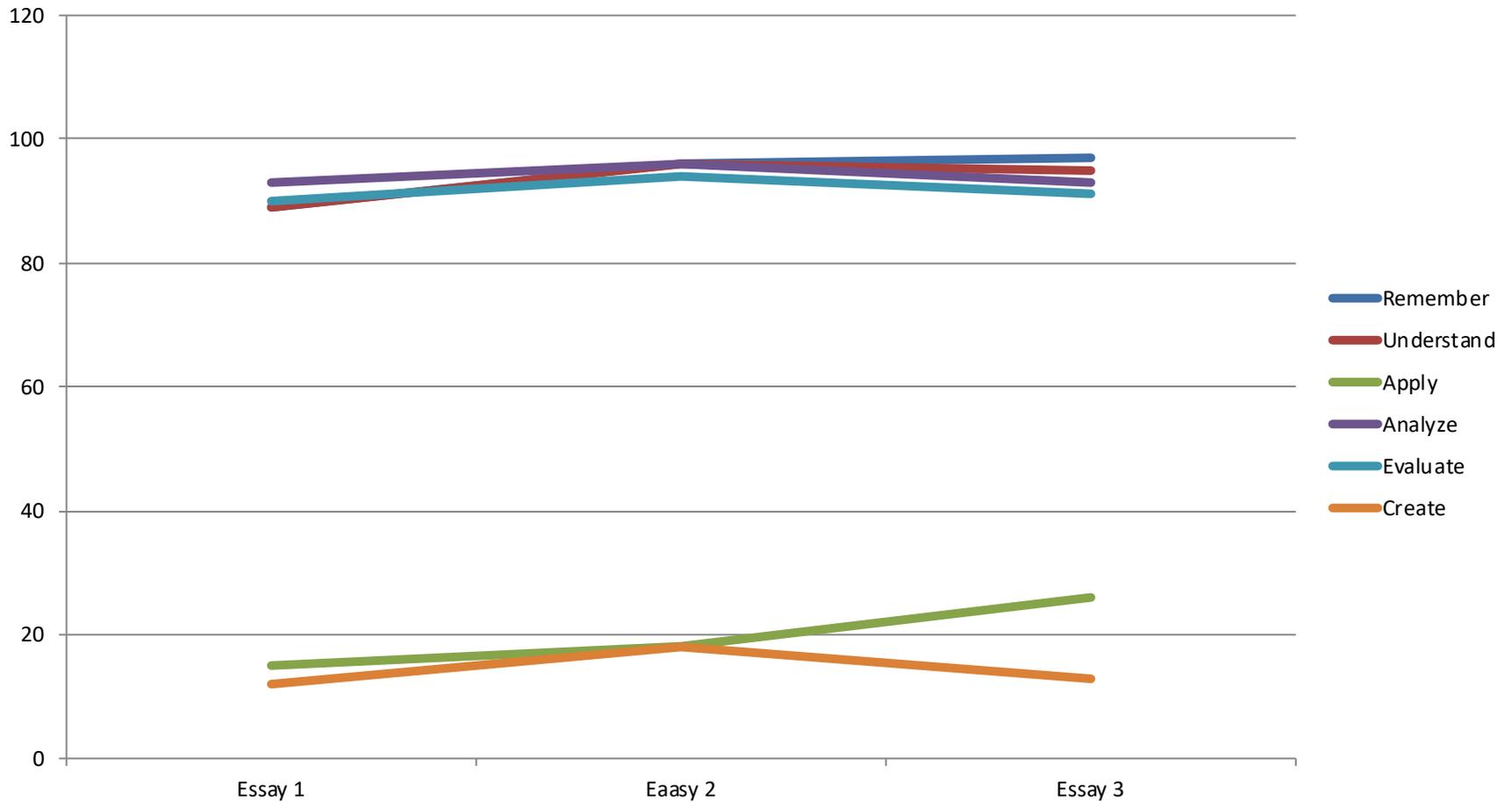
Results

(Japanese Students' Weak Points)

Cognitive Process	Average score of students' essays (N = 178)
Create	0.15
Evaluate	0.92
Analyze	0.94
Apply	0.20
Understand	0.93
Remember	0.94

Results

(Japanese Students' Weak Points)



Implications

(Development of Students' Critical Thinking Skills)

Learning Materials (Textbook)

Content: Textbooks which contain strong writer's **opinions** rather than only facts are useful to develop students' critical thinking skills.

Topic: Topics **about their own country and society** can be thought-provoking because students have already have background knowledge to help them think critically.



Implications

(Development of Students' Critical Thinking Skills)
Learning Materials (Other Teaching Materials)

Teachers should provide students with multiple materials from **different** or even **contrasting** points of view.

Drawing a conclusion by **fairly judging information** from **different points of view** is essential to think critically. (Facione and Facione, 1994, 2009)



Implications

(Development of Students' Critical Thinking Skills)

Activities (Development of Students' Creative Application Skills)

Japanese students are **good at** applying what they believe to be true in other contexts to make sure that the rule is correct by finding a **single** answer.

Japanese students are **poor at** interpreting passage content of **by understanding relationships** among various information in the passage as well as **connecting** the content of the passage **to their knowledge and experiences.** → Important skills in CLIL



Teachers should help students relate their experiences and knowledge to the class topics on a daily basis.

Implications

(Development of Students' Critical Thinking Skills)

Activities (Development of Students' Skills to Logically Organize their Ideas)

Teachers should help students carefully evaluate each component of their opinions, identify relationships among them, and **sensibly organize them to justify their opinions.**

For this purpose, learning about basic **English essay structures** such as logical organization and discourse markers can be effective. **Mind maps** can also be useful.

Implications

(Development of Students' Critical Thinking Skills)

Logical thinking vs. Feelings

Teachers should teach students the **difference** between critically expressing their opinions and **emotionally expressing their feelings**.

Teachers should teach students not to use “**I think**” too frequently. (only for Japanese?)



VS.



Conclusion

(Development of Students' Critical Thinking Skills)

Purpose of this study: How Japanese students' **critical thinking skills** could be developed through CLIL-based classes.

In spite of students' weak points (their immature skills in applying their learning contents to new contexts, creating new ideas and organizing their thoughts logically), most students positively responded to their new-style learning to encourage them to think critically, and showed slight improvement in forming and expressing their opinions.



These results may show that the project encouraged students to think critically.

Conclusion (CLIL)

This multifaceted project was possible because it was designed based on the **CLIL** framework and **the blueprints of CLIL lessons** (Ikeda et al, 2016) (see handouts).

Development of **age-appropriate** CLIL lessons to train students' critical thinking skills is a valuable activity.



Thank you for your
interest in our study!

