Flipped EFL Learning and COIL During the COVID-19

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Outline

Paradigm shift

Required skills for 21s century

Pedagogy

Technologies

Two Case Studies

Feedback

Summary

Conclusion

Society 5.0

Integration of Cyber Space & Physical Space
Economic Development and Social Problems
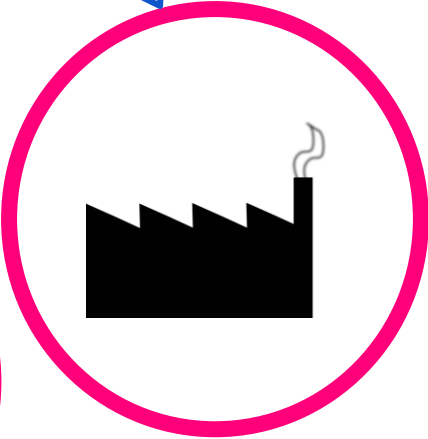Algorithm

Society 1.0
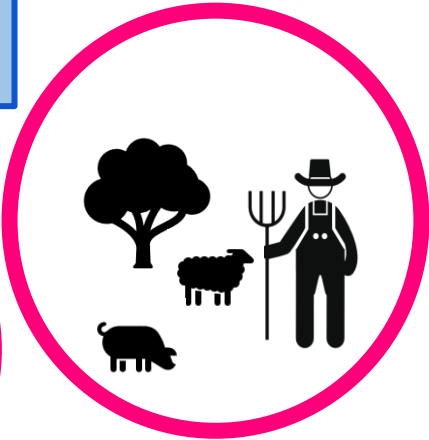Hunting

Society 2.0
Agrarian

Society 3.0
Industrial

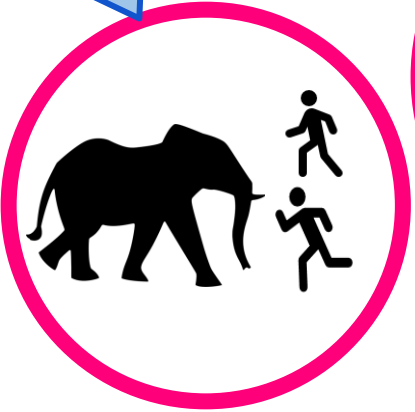Society 4.0
Information

Society 5.0
Super-Smart

Data-driven Society
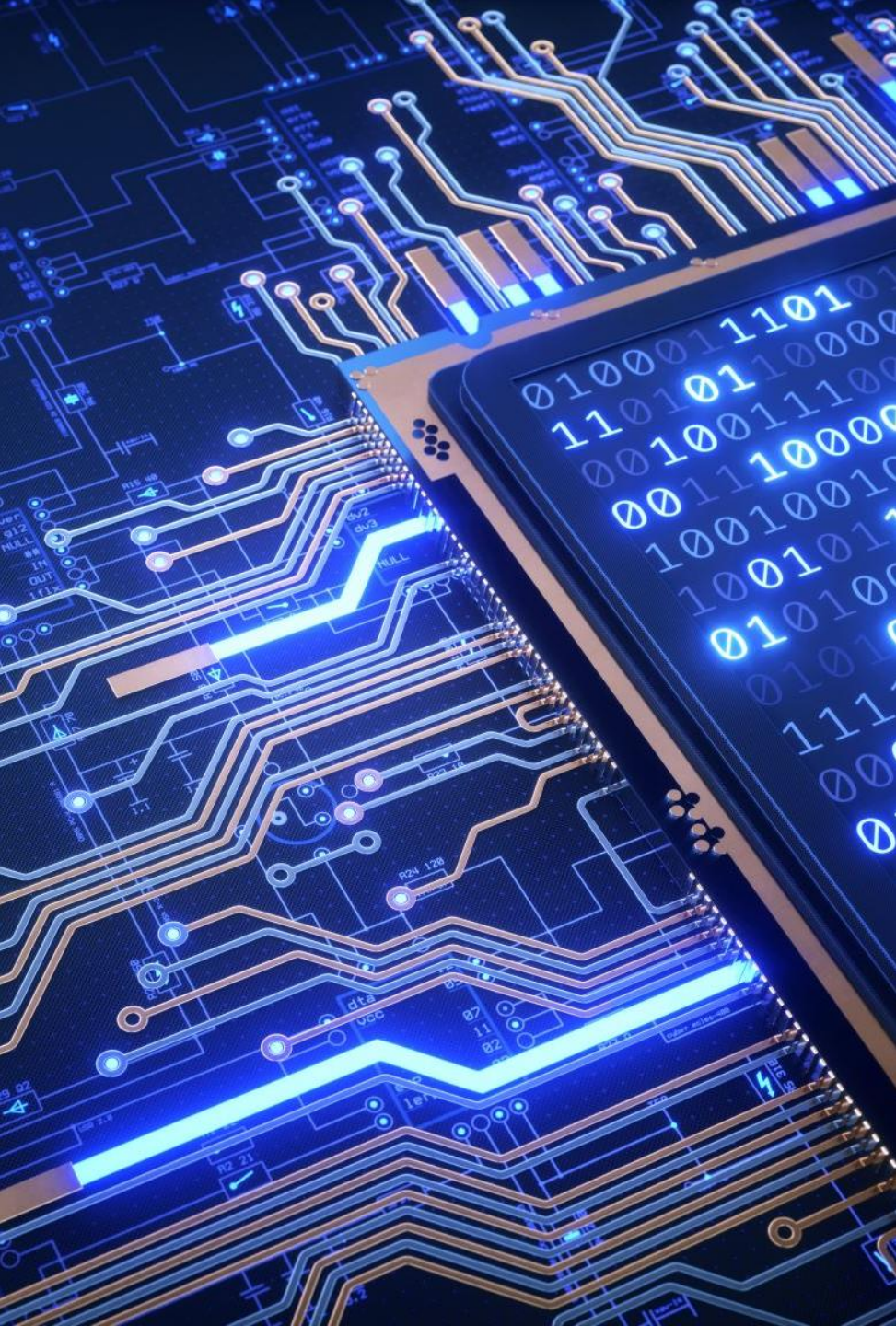
21st century, Society 5.0, DX

The 21st century has already brought astonishing technological achievements.

Internet of Things, AI Cyber-physical systems, VR/AR/MR, Big Data

Our lives are transformed in many ways, and education is dramatically affected.

How to create a successful transition into new ways of language education in the 21st Century.

Digital technologies change

Way of life,

Ways of communication,

Way of thinking, Worldviews

Channels of influence on other people (SNS)

Social skills,

Social behavior

Teacher's roles

Facilitator

Curator

Mentor

Changes in teachers' role

Teachers are expected to **support the learning process** by assigning the appropriate scope of learning to student instead of giving the lectures, creating questions, and marking.

Feedbacks are especially important to **raise students' motivations**.

Changes in teachers' role

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Required skills for 21ˢᵗ century Learning

21ˢᵗ Century Skills: 3Rs and 7Cs

3Rs: Reading, Writing, Arithmetic

7Cs:

- **Critical Thinking & Problem–Solving**
- **Creativity & Innovation**
- **Collaboration, Teamwork & Leadership**
- Cross–cultural understanding
- Communication & Media Literacy
- **Computing & ITC Literacy**
- Career & Learning Self–reliance

–Bernard Trilling and Charles Fadel
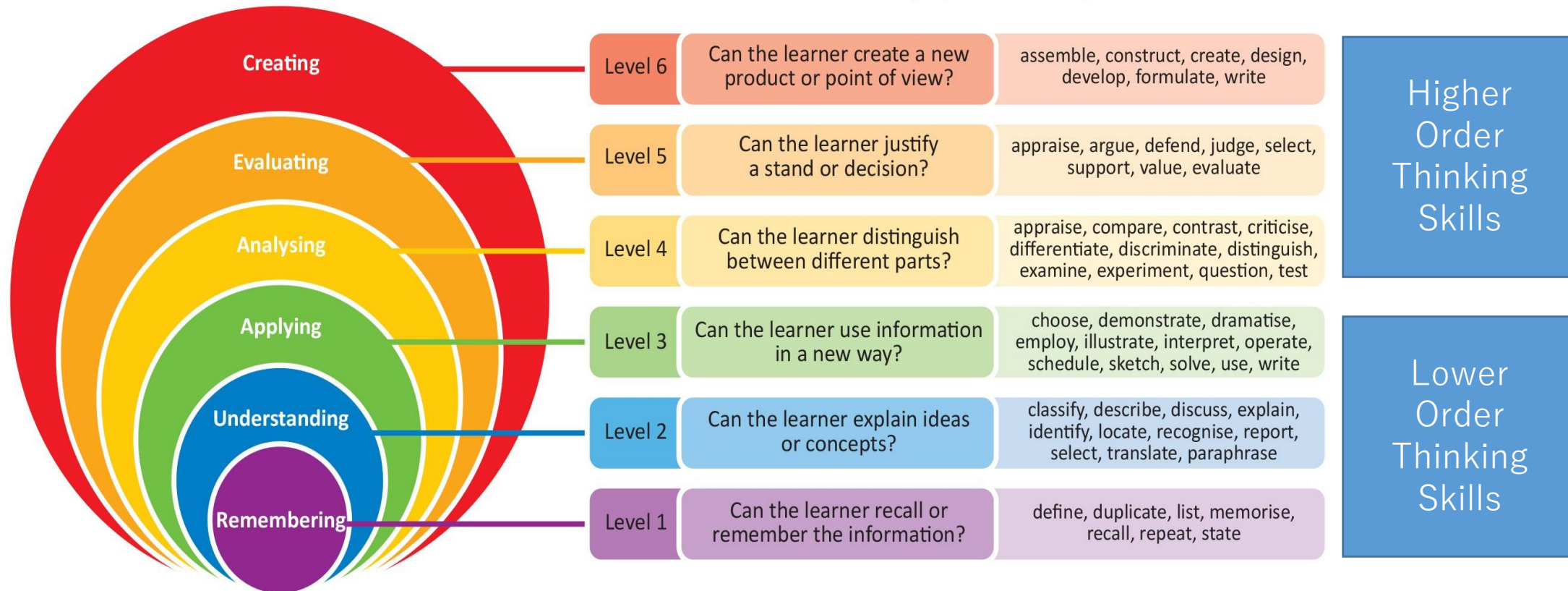 *21ˢᵗ Century Skills*

21st Century Student Outcomes
and Support Systems

20
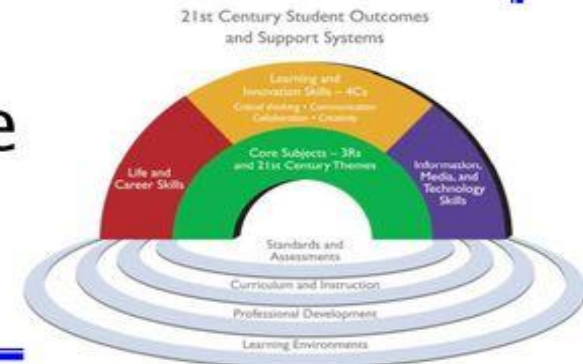
Bloom's Digital Taxonomy (McNulty, 2018)

Educational psychologist Benjamin Bloom developed a taxonomy of learning objectives in 1956, as a structure to understand the learning process

Bloom's taxonomy (revised)

Level	Question	Verbs	
Creating — Level 6	Can the learner create a new product or point of view?	assemble, construct, create, design, develop, formulate, write	Higher Order Thinking Skills
Evaluating — Level 5	Can the learner justify a stand or decision?	appraise, argue, defend, judge, select, support, value, evaluate	
Analysing — Level 4	Can the learner distinguish between different parts?	appraise, compare, contrast, criticise, differentiate, discriminate, distinguish, examine, experiment, question, test	
Applying — Level 3	Can the learner use information in a new way?	choose, demonstrate, dramatise, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write	Lower Order Thinking Skills
Understanding — Level 2	Can the learner explain ideas or concepts?	classify, describe, discuss, explain, identify, locate, recognise, report, select, translate, paraphrase	
Remembering — Level 1	Can the learner recall or remember the information?	define, duplicate, list, memorise, recall, repeat, state	

ZOOM
LMS
Course Power
Moodle
PowerPoint
MP4 movie
SNS
Facebook
Messenger
Line
Slack
Flipgrid
Deep L
Grammarly
Trinka
Quizlet
PeerEval
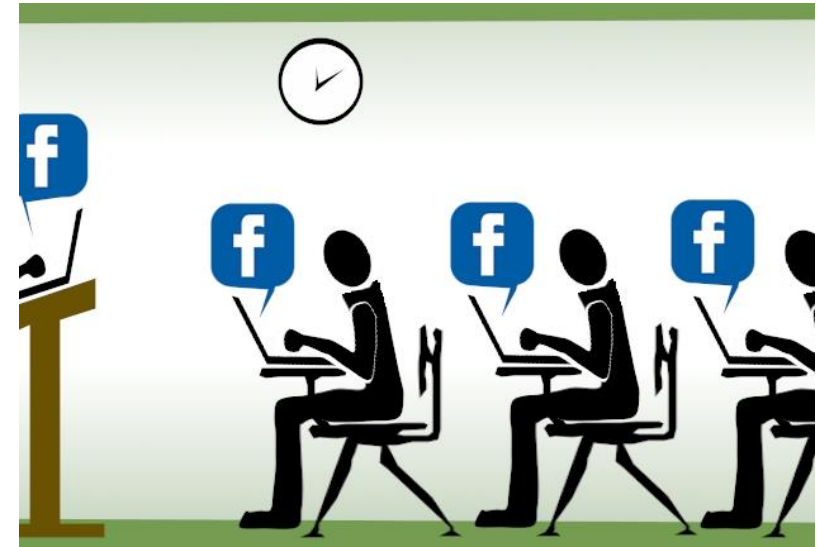
What is a Digital Storytelling?
PPT slides → MP4 Movie

Digital story is a first-person narrative that tells a personal story in one's voice and style.

DS is a process blending media to enrich and enhance the written or spoken word.

DS merges the traditional art of storytelling with the power of new technologies.

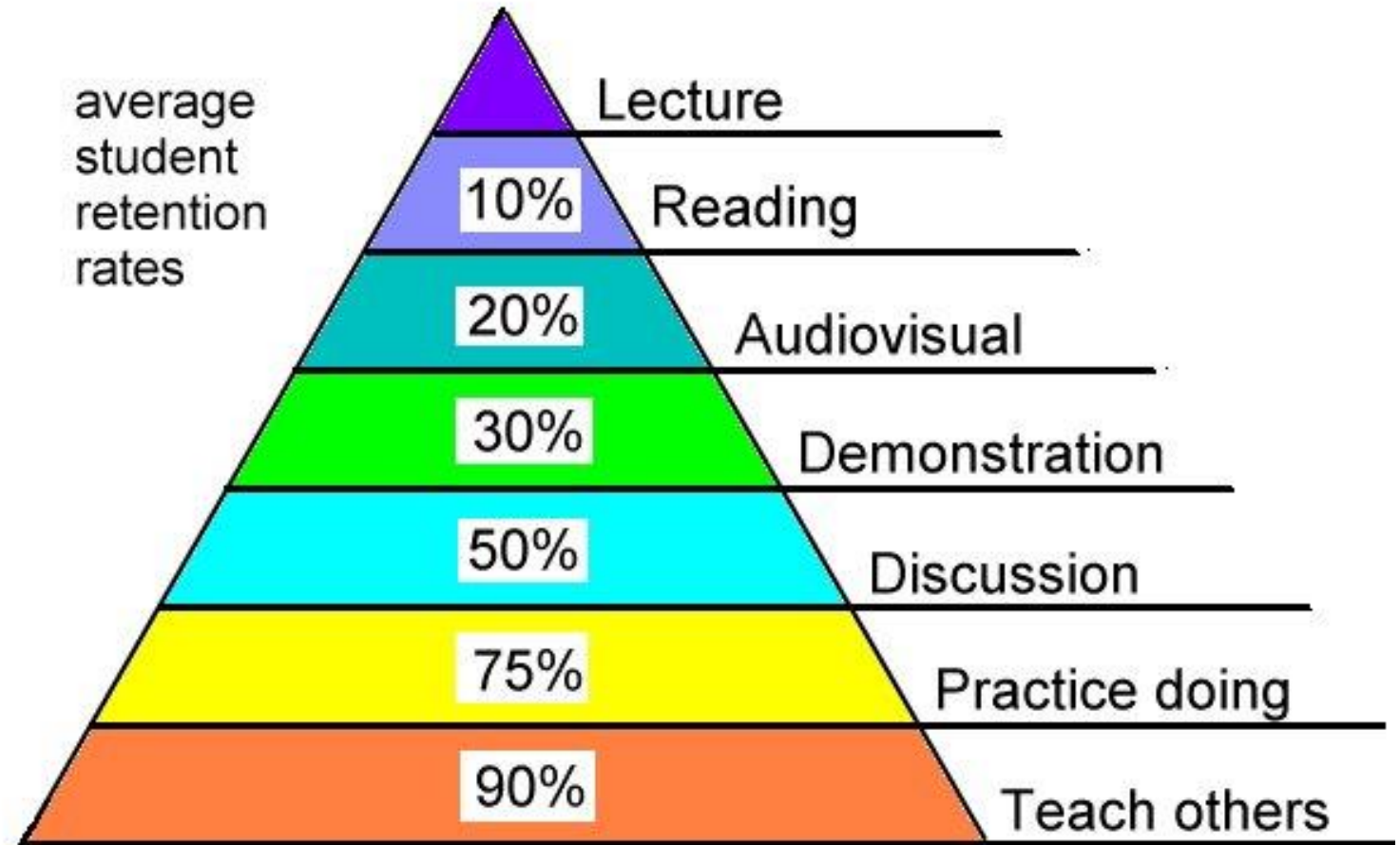Students can demonstrate creative thinking, construct knowledge, and develop innovative products.

Social Constructionism

New knowledge through social interaction

and exchanging information (Burr,1995,2003)

Build Ideas through Experiential Learning,

Jean Piaget (Bandura, 1977)

Retention rates

Learning Pyramid

average student retention rates

- Lecture
- 10% Reading
- 20% Audiovisual
- 30% Demonstration
- 50% Discussion
- 75% Practice doing
- 90% Teach others

Source: National Training Laboratories, Bethel, Maine

Assessment

Assessment (Portfolio)

Pre-Test vs Post-test（TOEIC, Versant Speaking, OPIc）

Assess presentation with PeerEval

MPEG-4 movie product（PowerPoint slides＋Voice）

Engagement by Observation（Filiming each lesson）

PeerEval

Technology for Better and More Frequent Presentations

http://peereval.mobi

Making peer evaluations accurate and fun!

Total Score

Name	Coherence/logic	Delivery/ speed/ volume	Enthusiasm/ content	Prosody/ pronunciation	Structure / organization	Visual aids /Slide design	Average
	4.0	5.0	3.0	5.0	5.0	5.0	4.5
	4.3	3.3	3.3	3.3	4.3	4.7	3.9
	3.0	4.0	3.0	4.0	3.0	4.0	3.5
	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	4.0	4.0	3.0	3.0	4.0	3.0	3.5
	4.7	3.7	4.3	3.7	4.3	4.7	4.2
	3.0	3.0	3.0	3.0	4.0	4.0	3.3
	3.0	3.0	3.0	3.0	4.0	3.0	3.2
	4.0	4.0	3.0	4.0	4.0	3.0	3.7
	5.0	4.0	5.0	4.0	5.0	5.0	4.7
	3.0	3.0	3.0	3.0	4.0	3.0	3.2
	4.0	3.0	3.0	3.0	3.0	3.0	3.2
	4.0	3.0	5.0	3.0	4.0	4.0	3.8
	4.0	4.0	5.0	3.0	5.0	5.0	4.3
	4.0	2.5	2.5	3.0	4.0	4.0	3.3
	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	3.0	3.0	3.0	4.0	3.0	4.0	3.3
	4.3	3.3	3.7	3.0	4.3	5.0	3.9
	5.0	4.7	4.3	5.0	4.3	4.7	4.7
Average	4.0	3.5	3.6	3.5	4.1	4.2	3.8

Student Scores

Comments about the use of PeerEval

➢It is easy to **reflect** on presentation to improve weakness and quickly to get the mean score among evaluators.

➢ **Quick feedback**

Two Case Studies

➢ **Case Study 1: During COVID-19** （AGU, n＝19）

➢ **Case Study 2: COIL** （Collaborative Online International Learning n＝38）
 AGU （n＝19） **vs. NUS** （National University of Singapore, n＝19）

 CBL（Challenge-based learning）
 TBL（Task-based learning）
 PBL（Problem-based learning）
 MPEG4 video ＋ Flipgrid

The Specific Purposes:

➢ **To develop students' higher order thinking skills and worldviews.**
  ➢ **What is your life purpose? Metaphysics**
    ➢ **Interaction with CCC students from U.S.A.**

➢ **To acquire 21st century skills to prepare for digitalized societies.**

➢ **To acquire a more cross-culturally sensitive understanding via ICT COIL（Collaborative Online International Learning） Development of CQ.**

➢ **To improve English proficiency and presentation skills.**

1st Case Study
April 2020~January 2021
Beyond the classroom
Task-based or Challenge-based Learning

Pedagogy

Flipped learning: CBL(Challenge-based Learning), TBL (Task-based Learning),

Input: Outside the class

- SNS, AI, Web, Digital text, Mobile Technologies

Output: Inside the class

- Presentation, Discussion, Interaction, Evaluation

Flipped Learning (Input →Output)

PeerEval

Outside the class

Global Education

LMS

Materials

PPT slides

Essay writing

Facebook

Share

AI + VR

https://www.trinka.ai/jp/
https://app.grammarly.com/
https://www.deepl.com/ja/
translator

Interaction

Q & A

Assessment

Presentation

Recording

MP4

ZOOM Room

Flipgrid for Speaking

Curator's role

10 Topics to be covered:
(15 lessons)
URL links
Documents
Videos
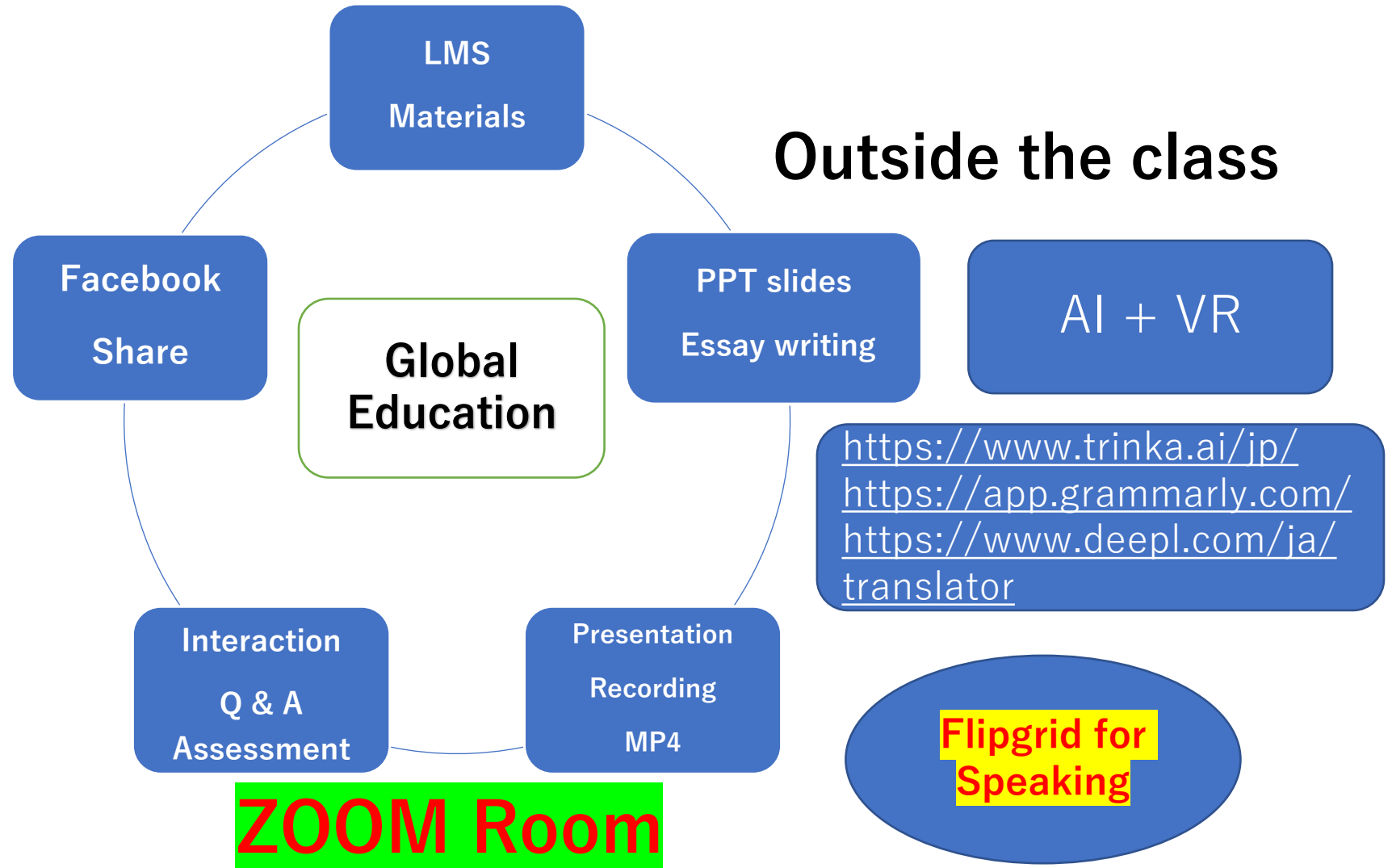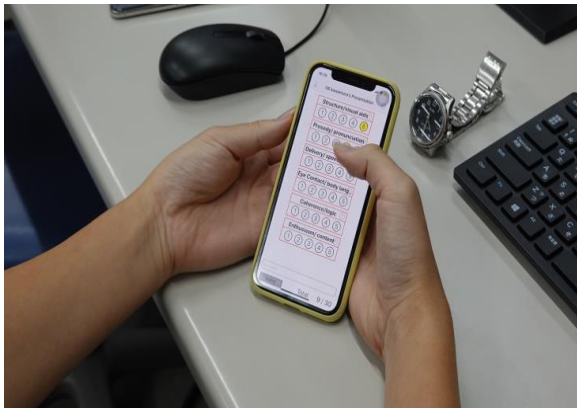
Digitalized Society 5.0

Edutec (21st century skills)

AI and Society

Cross-Cultural IQ

Global leadership

Worldviews / Ontology & Epistemology

Science & Theology

World Heritage

17 SDGs

Global issues from Oxford Martin School

Presentation skills

Worldviews related to Higher Order Thinking

The way you look at the world

What you believe in(religious belief)

Cosmology (universe, etc.)

Evolution vs. Creation

The meaning of Humans

Cause and Effect

Concept of Time (past, present, future)

Rituals (funeral, marriage, New Year, etc.)
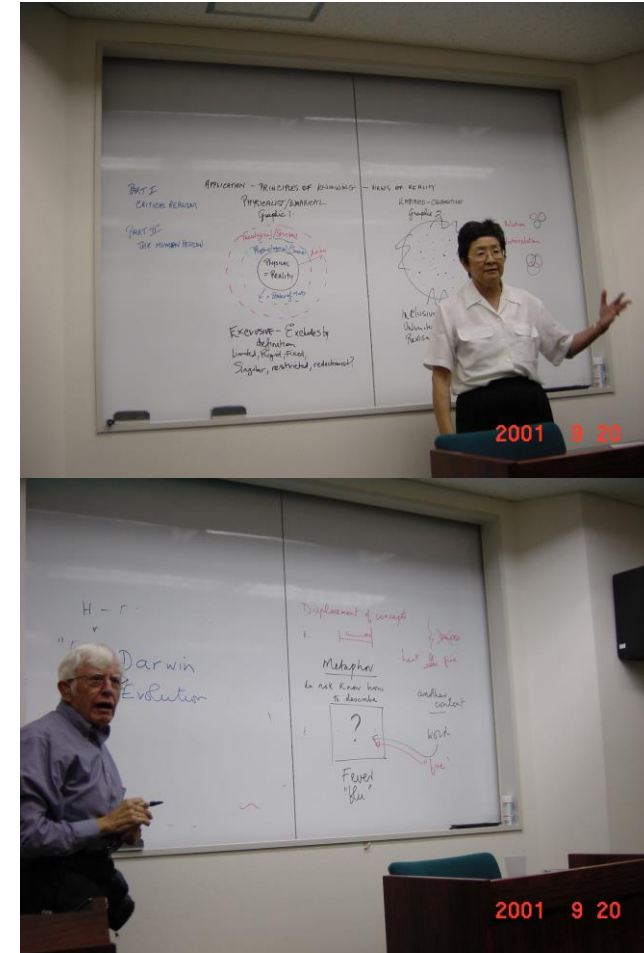
Development of Intercultural Sensitivity

Experience of Difference

Denial | Defense | Minimalization | Acceptance | Adaptation | Integration

Ethnocentric Stages | **Ethnorelative Stages**

| First experience is not to experience the difference. | Polarization of us/them. | False sense of cultural sensitivity, assumes we are all the same. | Growing awareness of one's own culture and recognition of the other. | Recognition that one needs to be effective in interactions with others. | Internalizing two or more cultures – typically takes 3+ years. |

The Globalization of our world requires us to develop CQ and understand worldviews!

Flipped lessons

Active participation (Output)

More interactive activities

Improve English proficiency

Feel more inspired and satisfaction

Autonomous learning

Assessment (Portfolio)

Pre-test　vs　Post-test（TOEIC, OPIc Speaking）

Assess presentation with PeerEval

MPEG-4 movie product（PowerPoint slides ＋ Voice）

Engagement by Observation（videotape each lesson）

Questionnaire

5: I totally agree

4: I somewhat agree

3: Neutral

2: I somewhat disagree

1: I totally disagree

Did flipped learning help to improve your autonomous learning? 100% (n=19)

0%

8%

92%

■ Strongly Agree   ■ Agree   ■ Neutral   ■ Disagree   ■ Strongly Disagree
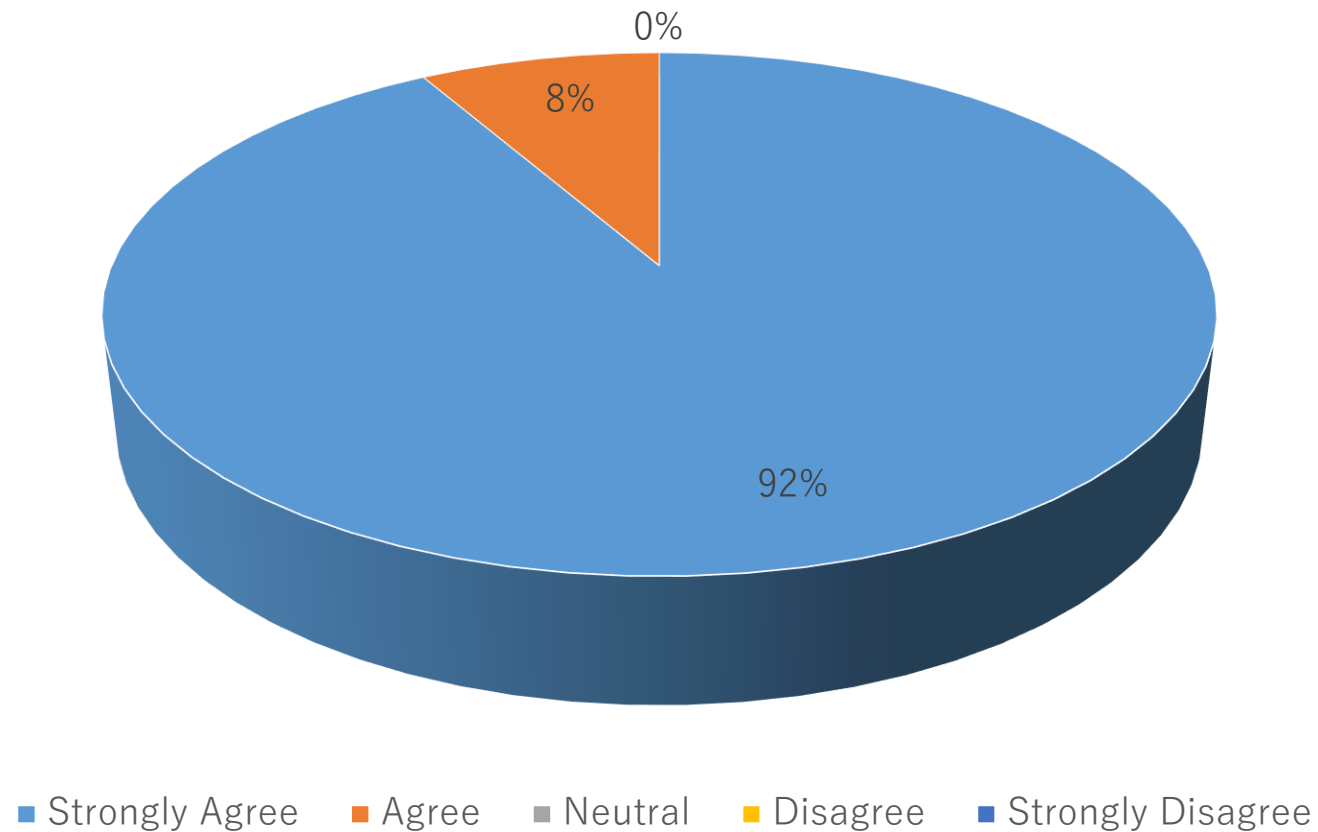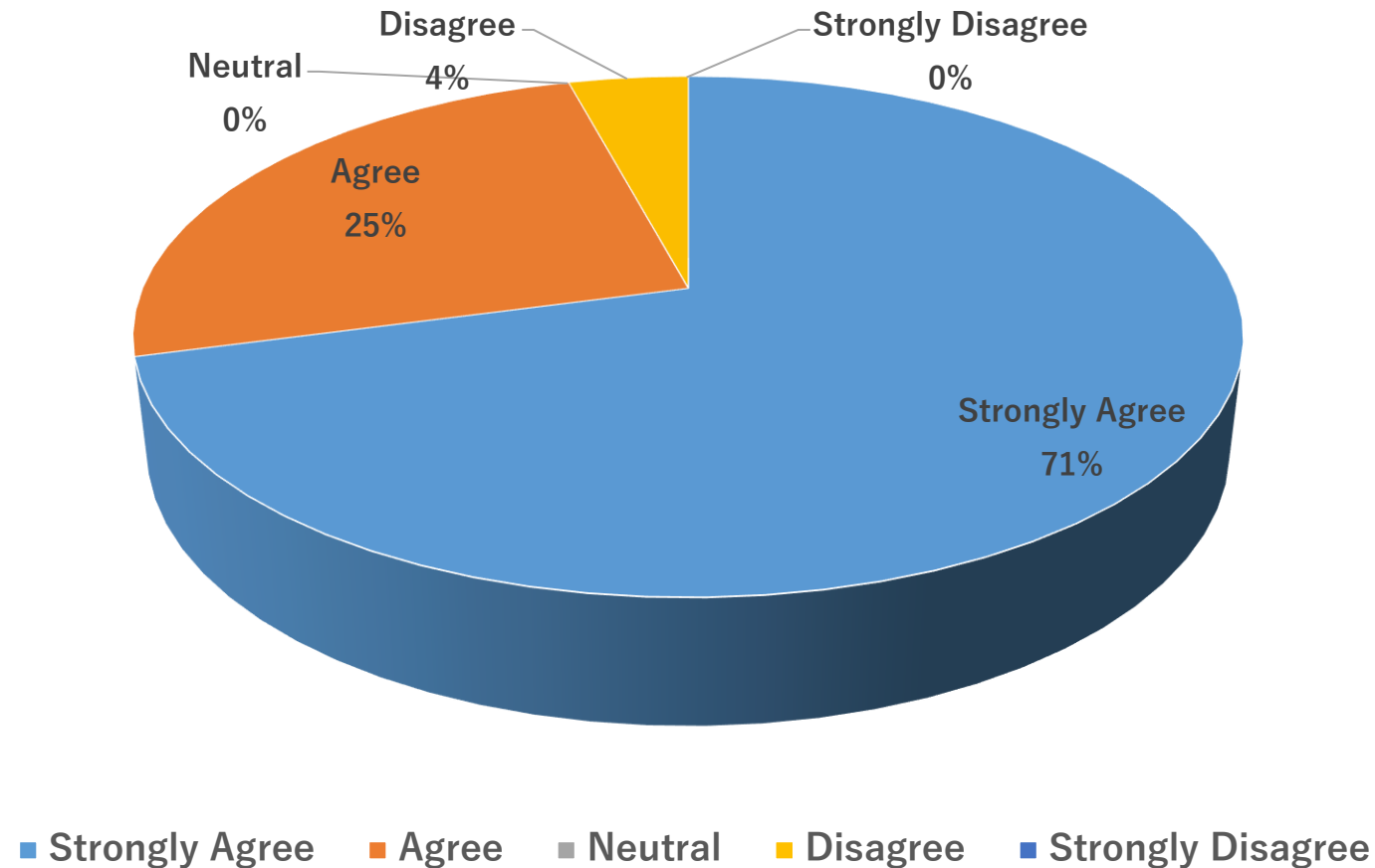
Did Prof. Weakley's lecture change your worldviews to be more open-minded?
90% (N=19)

0% 3%
7%
42%
48%
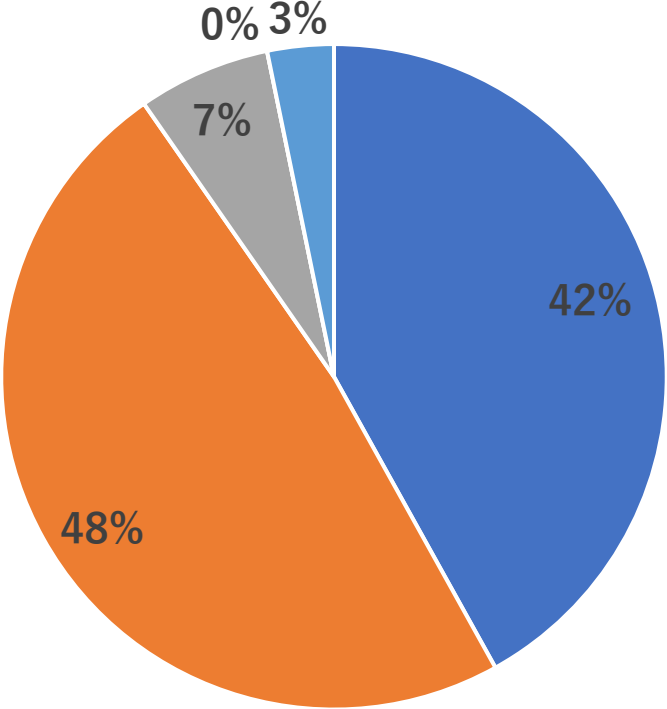
Totally agree Somewhat agree Netural Not agree Not much agree

2nd Case Studies

International Exchange with NUS

Enjoyed the exchange program in person
for 10 years
Online Virtual Exchange

I：Joint Research Project
8 weeks, Joint Seminar 90 minutes

① **Group 1: 今日行くよ**

Survey on attitudes toward the home study environment

ALEXIS **TONG** CHUAN YAN　　沢崎 俊介
LIM YI XUAN　　　　　　　竹内 梨緒
TAN CHANG LOONG MATTHEW　蒔田 雄志
TANG JIAWEN CHERYL　　　松本 悠生

② **Group 2: パンダ**

Contact tracking technology for new COVID-19　and
Data Privacy Survey

CHEN SU　　　　青沼 周平
I-SHIN **SU**　　　須田 有香
NG JIA SHENG　　辻　和泰
XU ENWEI　　　　若松 天

③ **Group 3: 環境の教官隊 C**

Littering Problems in Japan and Singapore and
Attitudes toward the Environment

CHIANG YI CHEN REBECCA　　木村 優作
LOH JONINA　　　　　　　武長 毅
SUN YU HSIANG　　　　　　田丸 幸四郎
　　　　　　　　　　　　　　西尾 碧凜

④ **Group 4: 当たり馬**

Attitudes toward the relationship between environment
and health among university students

ARIVARUN **ANBUALAGAN**　　神尾 賢治
CHOO LI YING　　　　　サイ・フ
ITO AYUMI　　　　　　　酒井 基揮
MAKI TAMAMI

⑤ **Group 5: 環境守り隊**

Attitudes towards veganism among university students
in Singapore and Japan

CHAN YIN HAN　　　池原 由莉果小
LEE CHEE HONG　　澤 秀仁
TAN YI LING　　　加藤 智哉
WONG QING-NING　三浦 歩
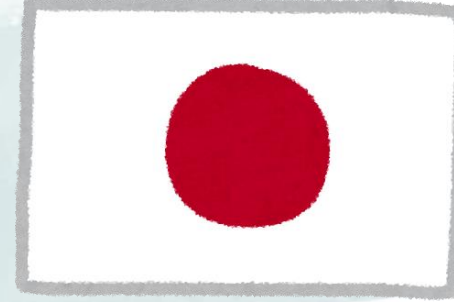
Joint Research Project Presentation

NUS & AGU

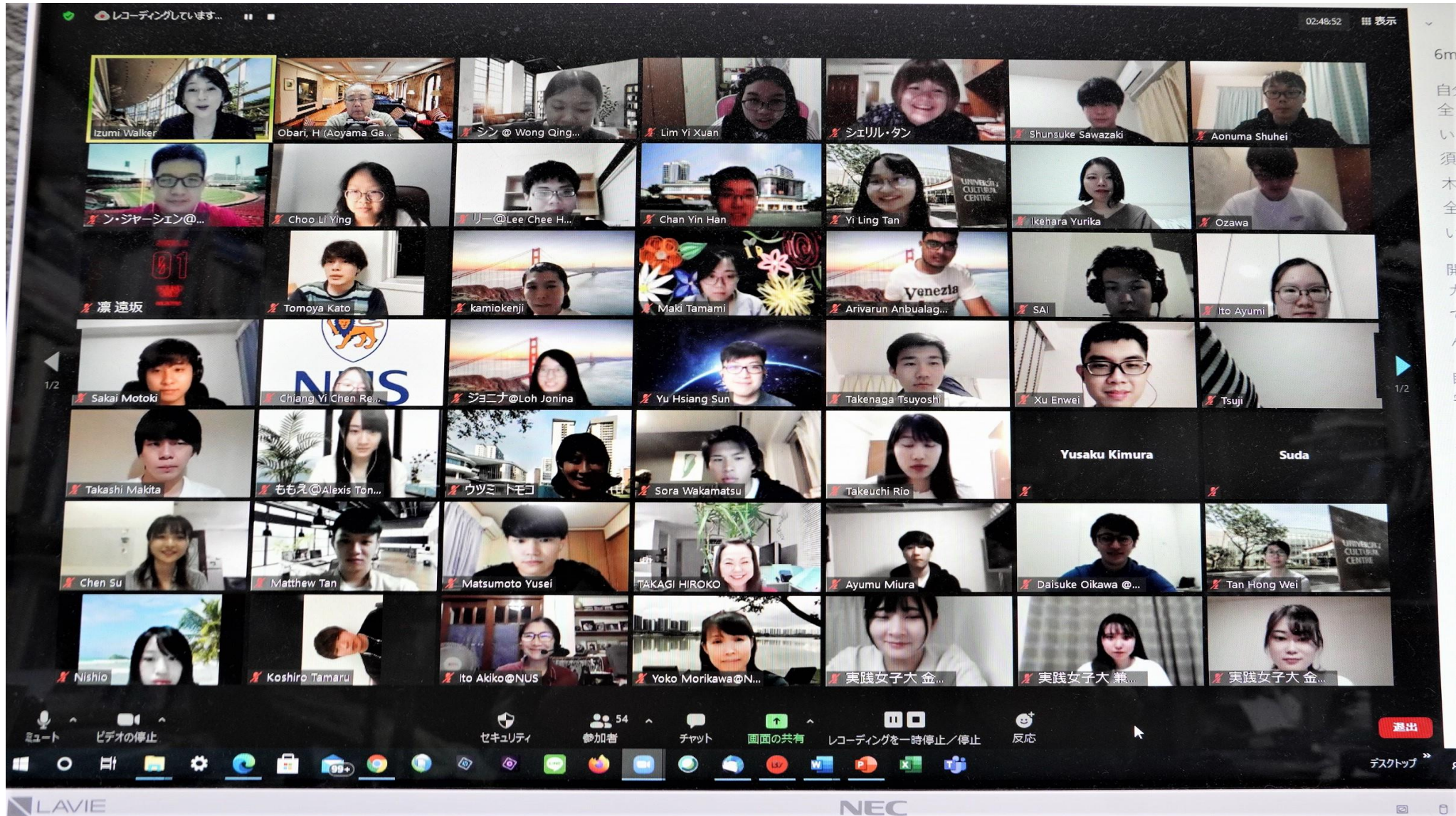**2020, November 10, 2020 (Tuesday)**

Singapore time: 18：00　-　20：00
Japan time: 19：00　-　21：00

ZOOM Link

NUS(n=19) vs AGU(n=19) Presentation

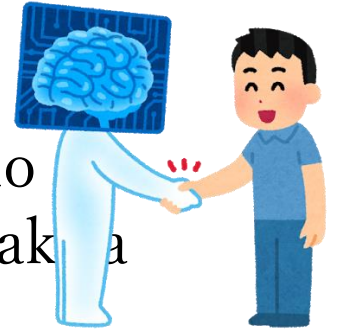# Second part： Challenges and prospects in the Corona disaster

1.「To achieve SDGs」

Presenter: Rio Takeuchi
      Sora Wakamatsu

3.「AI and Society」

Presenter: Kenji Kamio
      Takashi Makita

2.「How to survive with COVID19」

Presenter: Yuuka Suda
      Motoki Sakai

4.「Japan's modern problems」

Presenter: Shuhei Aonuma
      Yurika Ikehara

We had a virtual online international exchange with Singapore University via zoom. Through this exchange, did you learn about cross-cultural communication, cultural differences, and do you think it influenced your own way of seeing things, thinking, and worldviews? **90% agreed. (n=19)**
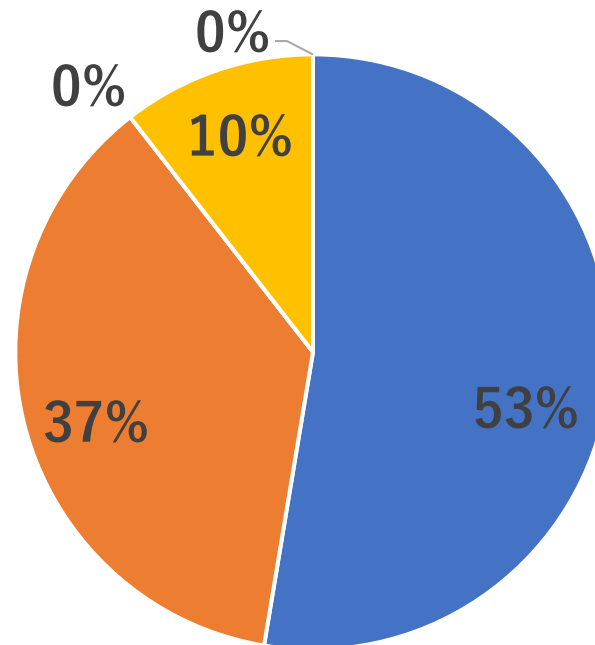
Legend:
- I totally agree
- I somewhat agree
- Neutral
- I somewhat diasgree
- I totally disagree

We had an international exchange with Singapore University through real-delivered ZOOM. Do you think that this exchange helped you to improve your English skills? **79%** agreed.(n=19)
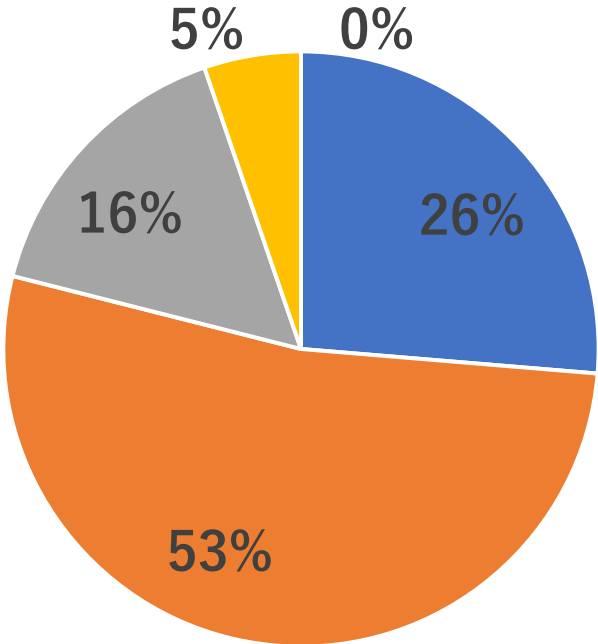
- I totally agree
- I somewhat agree
- Neutral
- I somewhat diasgree
- I totally disagree

Virtual lesson for 8 months （n=60 vs 40）
45 minutes per week (1 vs 3 or 4 students)

Coexistence with VR and Physical Reality

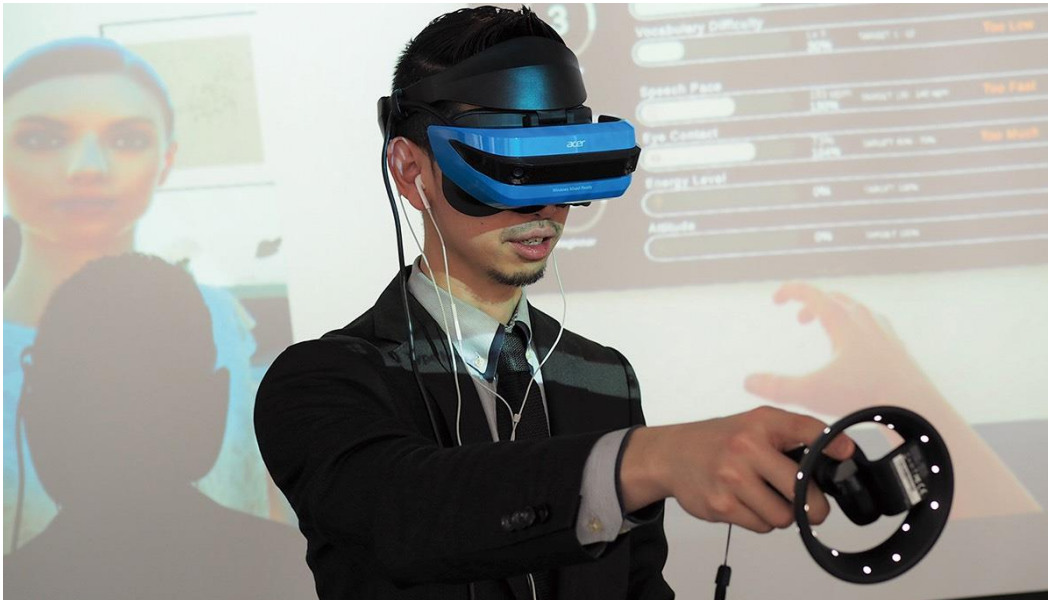Mixed Reality

Amazon Alexa +VR Future

AI×VR English Study

Six Smart　CCC　Tutors

Enjoy talking with Avatar

AI + Humans
VR/AR/MR
Hybrid
COIL
Collaboration
Interaction

# John Dewey (Experiential Learning)

John Dewey once said, "If we teach today as we taught yesterday , we rob our children of tomorrow." The technology we have at our fingertips can help us to become those memorable teachers of tomorrow.

Conclusions:
Education for the 21st century

SENSE

THOUGHT

➤ Hybrid and Flipped Learning

➤ Higher Order Thinking Skills

➤ Integration /Humans+ AI/VR ·
COIL

➤ Collaboration

➤ Autonomous Learners

Wise Saying: Einstein
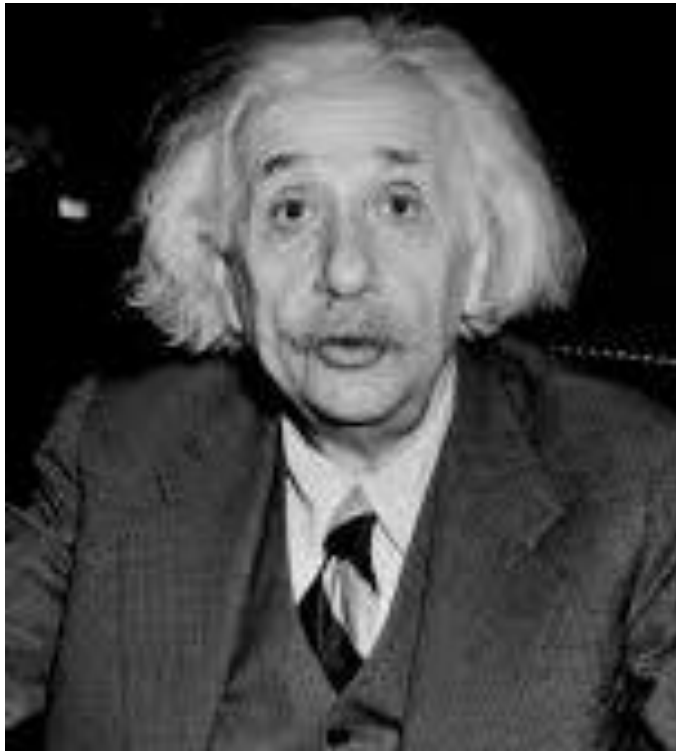
Education is what remains after one has forgotten everything he learned in school.

How to find out the meaning of life

How to develop your given talents

Mission for Education

Meaning of existence, purpose of existence, reason for existence

Clarify the mission of each person through education. Help them to develop their gifts.

To make others happy and successful is the highest happiness and success.

Professor Lennox's Three Big Questions

(1) Where do we come from? How did all things begin?

(2) What are we here for?

(3) What is the meaning of our existence?

Final comments

➢ Dominus illuminatio mea.
  The Lord is my light.
  (Psalms 27:1) University of Oxford
➢ The fear of the Lord is the beginning of knowledge. (Proverbs 1:7)

References:

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- Obari, H., & Lambacher, S. (2020). The impact of using AI and VR with blended learning on English as a foreign language teaching, CALL for widening participation: short papers from EUROCALL 2020, Edited by: Karen-Margrete Frederik, Research-publishing.net. (pp.253-258).

- Ray Kurzweil. (2005). *The Singularity is near: When Humans Transcend Biology.* Abridged Japanese edition arranged with Ray Kurzweil c/o Loretta Barrett Books Inc., New York

- Turing, A. M. (1950). Computing machinery and intelligence. *Mind* 49, 433-460.

- Wooldridge, Michael. (2018). *Artificial Intelligence.* A Ladybird Expert Book., Penguin Random House, UK.

Acknowledgements:

Thank you for listening!

Please contact me for more information:

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Blessings to you all!

Philosophy of Science
Ontology & Epistemology
by Professor Rom Harre

➤ **Realm 1: Things we can observe or perceive with our ordinary senses**

   Observation

➤ **Realm 2: Things we can observe or perceive with instruments**

   Analogy

➤ **Realm 3: Things we can't observe or perceive whatever instruments we use, even including mental, religious, spiritual matters.**

   (Natural Science, Humanities, Social Science, and so on.)

   Hypothesis   **"We built Kamiokande in order to see the invisible." said Professor Koshiba.**