

Preface

This is the third year since the Inquiry-based Learning Course was established at our school. The aim of this course is to improve the students' attitude toward tackling global problems which human beings now face, as well as academic knowledge and skills required for high school students. For this purpose, the students set up a theme they are interested in, and have been engaged in their project to solve the problems for about one year. This book is a collection of research summaries of the projects. It contains 24 projects on a wide range of topics by 70 students in total.

It goes without saying that the ability to communicate in English is essential when you tackle global issues cooperating with people from different countries. In order to improve communicative competence, you need to have as many opportunities as possible to use English in real-life situations. Therefore, we planned a trip to Singapore in order to provide the students with a chance to present their projects in English to teachers and university students. However, the trip to Singapore was cancelled because of the pandemic of COVID-19. Moreover, the substitute plan of going to Okinawa was also cancelled. In compensation for this, we held an International Exchange Seminar inviting eight Assistant Language Teachers and Coordinators for International Relations to our school on January 20. We also had a Singapore Online Seminar on January 29. In the seminars, the students made presentations, answered questions from English speakers, and discussed various topics. Some students had difficulty communicating in English at first but all the students made remarkable progress through these experiences. I expect they will be of great help for their future careers.

Lastly I would like to express great thanks to those who supported the students in working on their projects and those who participated in the seminars.

Principal

Sugai Hidehiko

contents

No	title No	page	title	member (普通科・理数探究科)	審査
1	A11	3	The revitalization plan for Kaminoyama 上山活性化	小関晃平・星野小冬 (鈴木拓也・堀川真那)	
2	A19	7	Reuse of closed schools 「未来をつくる廃校」プロジェクト	遠藤澄音 (鈴木緋菜・鬼海元・神優真)	
3	A20	11	We will not throw away garbage anymore! 生ごみ堆肥の普及によるゴミ削減	寒河江茜里・石原愛来未 (高橋晴仁・緒方佑太郎)	
4	A21	15	Food waste reduction committee Food Loss 削減委員会～貧困と環境と私たち～	鈴木美空・石川萌夏・木内真緒・栗田渚	
5	B2	18	Increasing Understanding of Dementia 認知症の理解の輪を広げよう	仁藤舞・辻間千尋 (林朋奈・軽部花・齋藤暖)	
6	B5	20	Evacuation evolution 最強の避難訓練をつくる	高橋健太郎・滝田透青	
7	B9	21	Local Rock Festival with corona 地元のロックフェスからこれからのフェスについて考える～withコロナ～	奥山華凜 (須藤叶羽)	
8	D2	23	The Relation Between Students and Reading 高校生と読書	佐藤千陽 (伊藤菜々子・木村絢香)	
9	E2	25	Aim for The Resolution of Hunger at The Small Farmer Level in Zambia ザンビアにおける 農家世帯レベルでの 飢餓の解決に向けて ～小規模農家が利用できる堆肥づくり～	上野智子・横山葵 (國井美羽・山口芽衣)	2位
10	E4	27	Solve the poverty by nutrituion education 栄養教育で貧困を解決しよう	今野彩由実・結城初音 (千葉映雅・土田一花)	
11	E5	30	Yamagata PRIDE ～A project to help high school students be proud of their hometown ユネスコ創造都市ネットワークの視点から高校生の地元愛を育む	若林哲平・神尾真知子・森谷菜都美 (門脇カリナ・土田一花)	1位
12	E6	33	Education for Girls in Pakistan 少女のための教育 in パキスタン	渡辺 司・横山 莉緒	
13	E7	35	Spread Model United Nations in Yamagata 模擬国連を山形に広めよう	佐藤優希 (山口拓登)	
14	F14	37	Psychology of a group activity ～Let's find a solution to bullying!～ 集団行動の心理～教育から紐解くいじめの解決策	菅井董玲 (山口朋夏)	
15	F17	39	The Best Color and Method for Memorizing 1番記憶しやすい色と方法は？	垂石ひなた (吉田遥)	
16	F19	42	Comparison of Education in Different Countries 各国の歴史教育の比較	高野友花・情野未華・橋本ゆりえ	
17	F2	45	Think about the meaning of "WORK" and Decrease the number of NEETs 「働く」の意味を考えることでニートを減らすことを目指す	横沢佳南・橋本和花	
18	F21	47	Meaning of Life 私たちの生きる意味	三浦 理織 (西村 慎史)	
19	F22	49	Japanese people and religion 日本人と宗教	高松歩乃佳・本間小夏	
20	F3	52	Yamato Pamphlet in English パンフレットで山東を世界へ	増川旭陽・渡邊啓太・伊藤悠真・川部凌	3位
21	F4	54	About the rise of China predicted from the past case 過去の事例から予測する中国の台頭について	高橋広翔	
22	F9	56	Goodesign	平澤藤次・大場遼 (田中玲音・長坂翼)	
23	J2	58	Promotion of plant growth using rhizobia 根粒菌を用いた植物の成長の促進	黒澤優斗 (山岸匠・三瓶杏太)	
24	K12	60	Promoting use of ICT in school ～application example of online time table～ イベント速報システム	佐藤秀人	

11

The revitalization plan for Kaminoyama

Koseki Kohei Hoshino Kofuyu
Suzuki Takuya Horikawa Mana

1

What do you know about Kaminoyama?

2



3

Kakashi festival

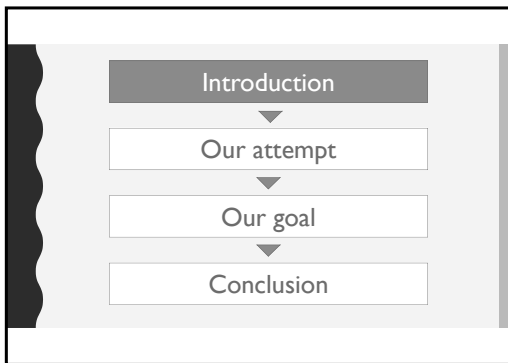
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Kishu-Kasedori

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About our project

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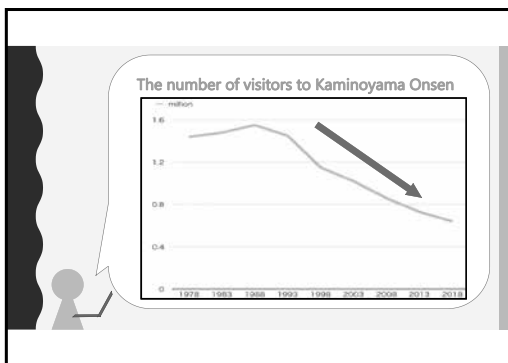


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Introduction

Kaminoyama city is quiet and empty.

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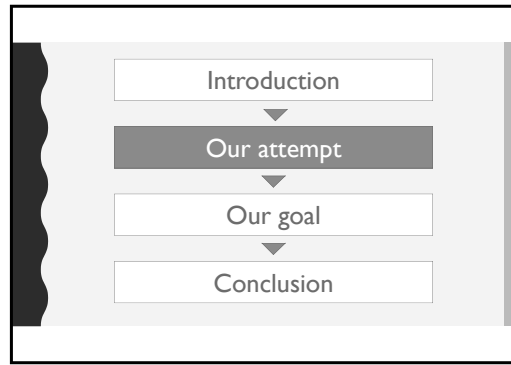
Kaminoyama city and nearby cities

	area	Population in 2020	Changing rate for 10 years
kaminoyama	240.93	29,247	-0.15%
Yamagata	381.30	247,741	-0.026%
Tendo	113.01	62,036	-0.0028%
Higashine	206.94	47,709	+0.027%

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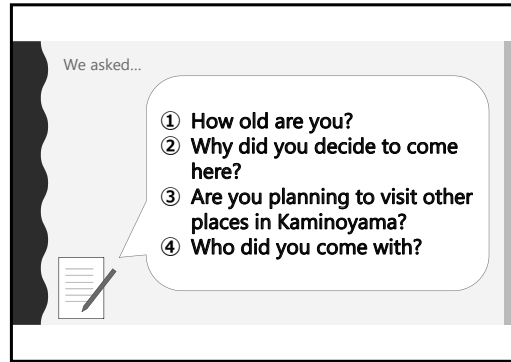
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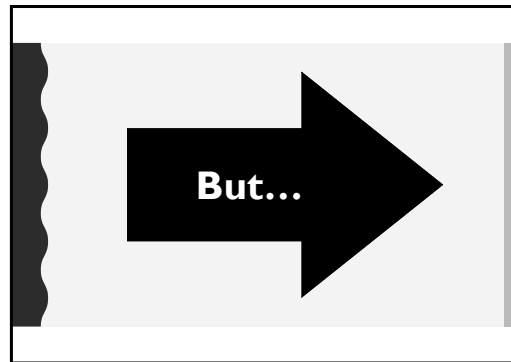
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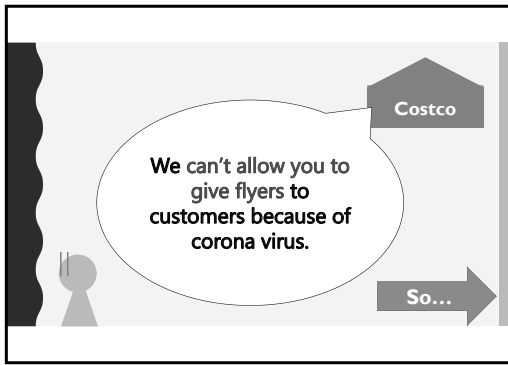
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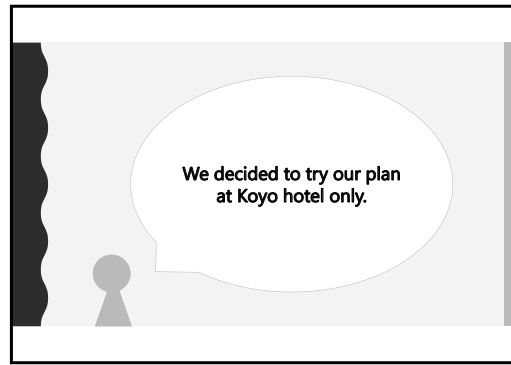
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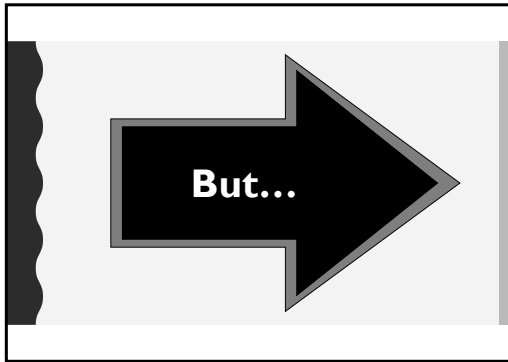
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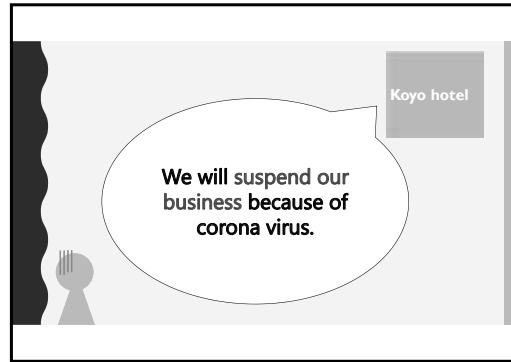
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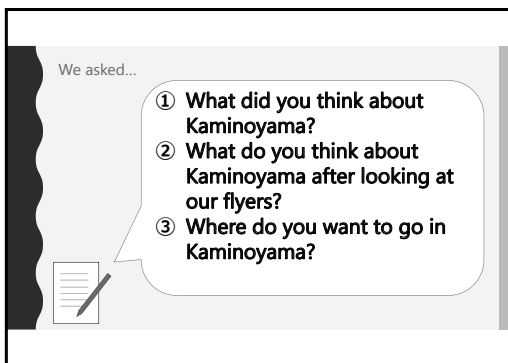
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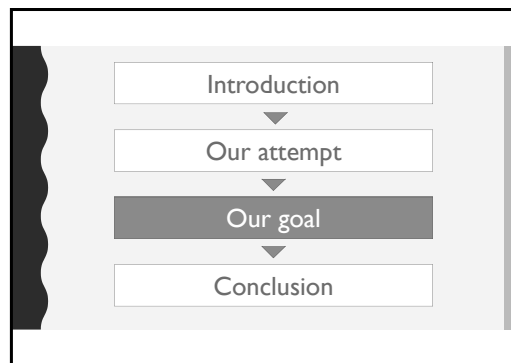
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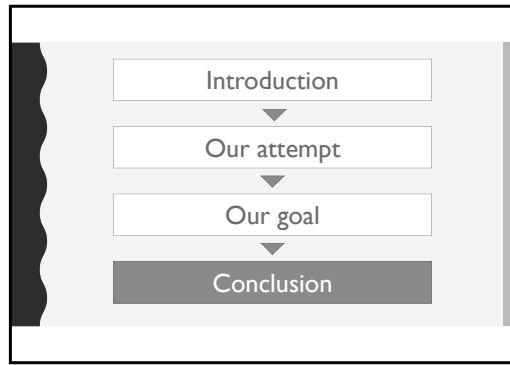


30

★ to form a model revitalization plan for other high school students

★ to increase the number of people who like Kaminoyama

31



32

We can't see how much the effect of flyers would be.

We hope that some first grade students will carry out our plan.

33

We want everyone to know about Kaminoyama, and visit repeatedly.

And, we hope that our project will be used in other places.

34

Special Thanks

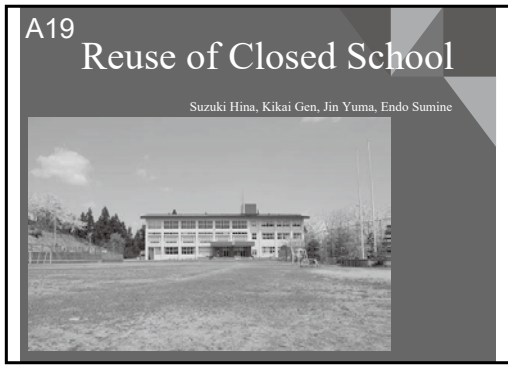
- Kaminoyama city hall
- Rikyu-do sweets shop
- Sobadokoro Ikkyu
- Dango-honpo Takahashi
- Koyo hotel
- Costco
- Mr. Kikuchi , our teacher

35

Thank you for listening.

Please come to Kaminoyama!!!!

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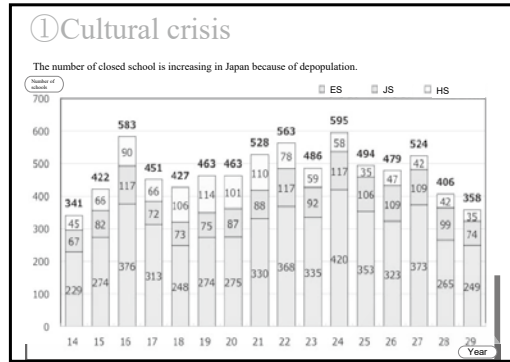
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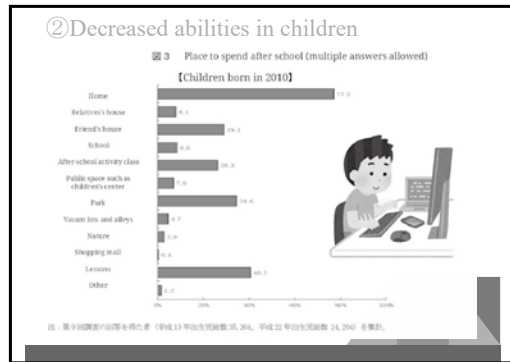
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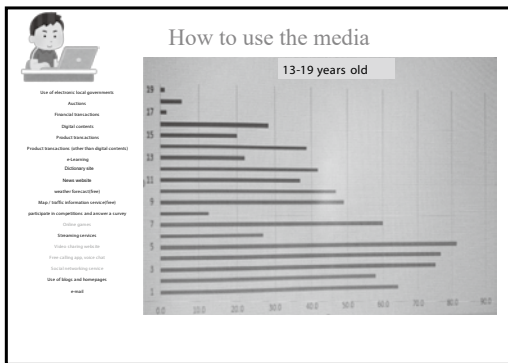
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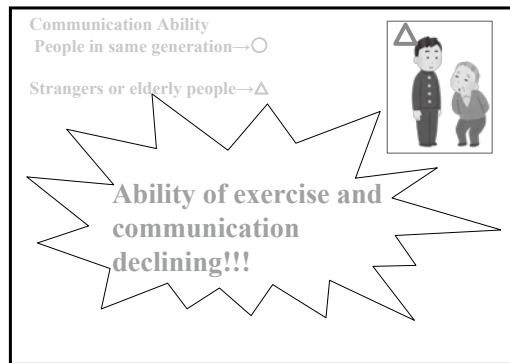
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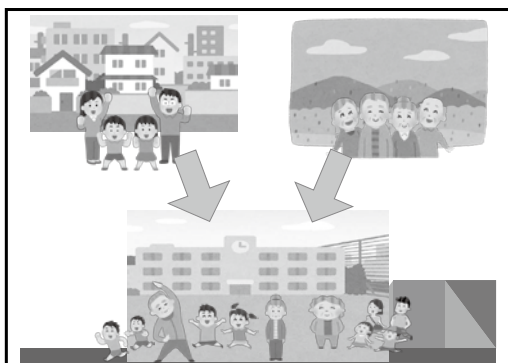
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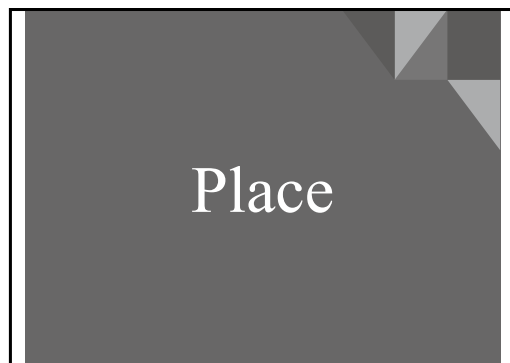
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Place

Futaba Elementary school

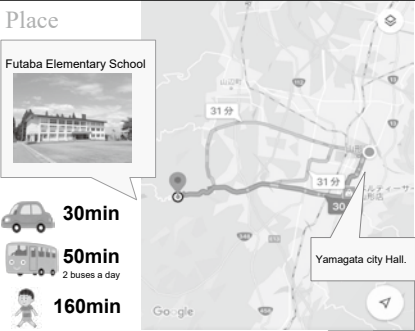
- Closed in 2012.
- It has several rooms that are small and large.
- It is kept clean.



11

Place

Futaba Elementary School




- 30min (car)
- 50min (bus, 2 buses a day)
- 160min (walking)

12

Interview

13

Sizenno ie





- Only available in winter (skiing)
- Annual number of users 50,000 (mostly school events)

14


Futaba region

- ©They have been working on regional reconstruction.
- ©Population of children→1
- ©half of ground → parking

15

Harmony Park



16

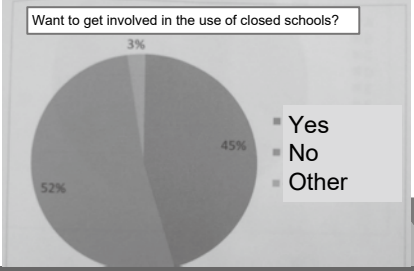
Observatory



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Practical example of Futaba region

Want to get involved in the use of closed schools?



Response	Percentage
Yes	45%
No	52%
Other	3%

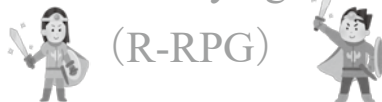
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Activity Idea

19

Concrete activity idea

Real-Role Playing Games (R-RPG)



RPG is where players walk towards the goal then they get into one's role into screen.

20

R-RPG is a kind of RPG done in the real world.

21

Advantage Points of R-RPG

- ① Only "stories", "roles" and simple tools.
- ② Children who often play games can enjoy.

22

It is easy for people to participate.

23

An indispensable condition.

- ① Children can enjoy.
- ② Minimize the burden on local people.
- ③ Involvement of children and local people.

24

Treasure Hunter

Find the treasure in Futaba elementary school !

25

~Story~

The headteacher of the school hid the treasure there.

Look for that with mission sheet!

26

MISSION1

Search the school and find the clues to the treasure and coins

27

Player can get a card

What is the most famous food in Futaba?

28

Mission2

Ask the residents to solve the questions

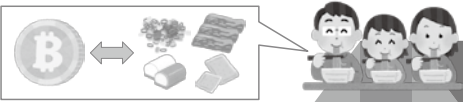
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Mission3

Go to where treasure is hidden

30


Player gets the treasure.
 ↓
 That is heart of the bonding of everyone in the direction!
 Then everyone experiences soba-uchi, and eats.



31

④Future Plans

- Have a third party correct this plan
- Put this plan into action
- Have a junior take over this plan




32

Cooperators • References

元双葉小学校活用委員会事務局長
 黒沼正良様
 山形市少年自然の家指導主事
 元木徹様、山口雅和様
 双葉を良くする会二十五年のあゆみ

総務省令和元年版情報通信白書
 文化省21世紀出生児縦断調査
 (平成22年出生児)



33

Thank you for listening !




34

7 **Climate Action** 11 **Industry, Innovation and Infrastructure** 12 **Responsible Consumption and Production** 15 **Life on Land**

We will not throw away food waste anymore!

-let's have a lifestyle with composting-

Ishihara Megumi Sagae Akari

1



Current situation of waste

2

12 **Sustainable Consumption and Production**

Current situation

If we do not take any measures...
The amount of waste will be **1.7 times more** than now!

World Bank "What a waste 2.0" (2018)

3

12 **Sustainable Consumption and Production**

Current situation

For example,
Stores in Japan started to charge for plastic bags

Actually, the largest amount of waste is...

4

12 **Sustainable Consumption and Production**

Current situation

Figure 3.8 Global Waste Composition percent

- food and plant 44%
- paper and cardboard 17%
- plastic 12%

World bank "What a waste 2.0" (2018)

5



Current situation of food waste

6

12 **Sustainable Consumption and Production**

Current situation of food waste

What percentage of food waste is recycled?

7

12 **Sustainable Consumption and Production**

Current situation of food waste

Treatment and disposal of home food waste (7.89million tons)

Incineration reclamation 92.9%
Recycled 7.1%

The ministry of the environment(2016)

8

12 **Sustainable Consumption and Production**

Current situation of food waste

Treatment and disposal of home food waste (7.89million tons)

Incineration reclamation 92.9%
The ministry of the environment(2016)

Environmental problem

• burying food waste in landfill
• burning

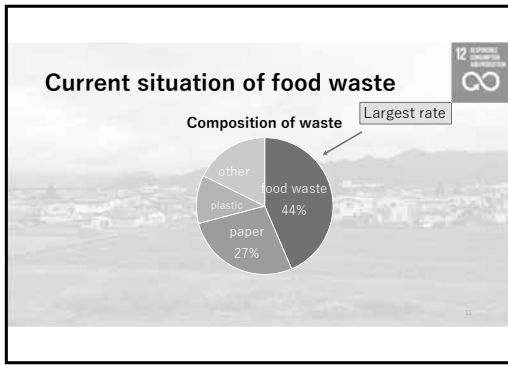
consumers town cost for disposal

9



Current situation of food waste
How about our city?

10



11

In Yamagata....

Combustible waste is not decreasing
(especially food waste)

↓

We want to utilize food waste

↓

How about composting?

12

Idea

13

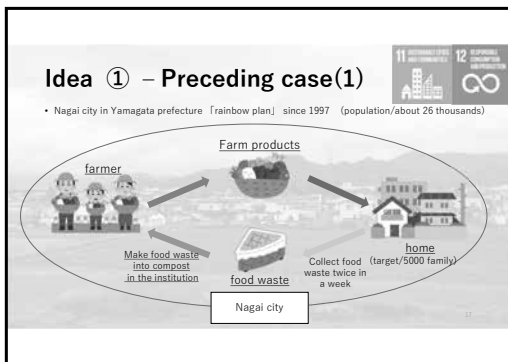
Idea ①

If we introduce composting to farmers

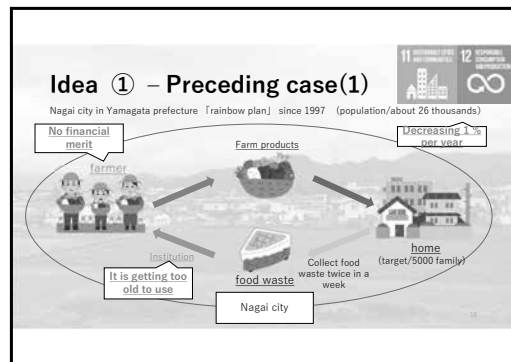
↓

Can we reduce the amount of food waste?

14



15



16

Idea ① – Preceding case(1)

• Merits of composting are very few for farmers

• Components of food waste compost are not steady

↓

It is difficult for farmers to use food waste compost

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Modification

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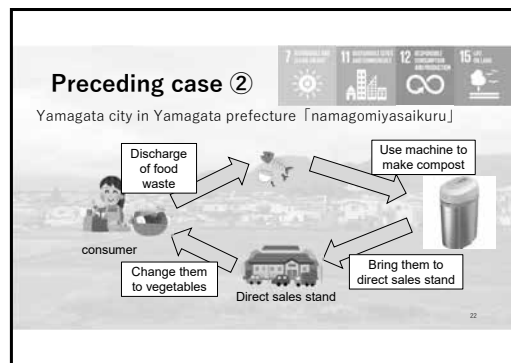
Modification of idea①

If all families try composting

↓

Can we reduce the amount of food waste?

19



20

Preceding case ②

Yamagata city in Yamagata prefecture 「namagomiyasaikuru」

How many people know the activity?
→We sent a questionnaire to students

Consumer

21

Preceding case(2)

Yamagata city in Yamagata prefecture 「namagomiyasaikuru」

Junior high school students(378) High school students(105)

do not know 80.4%

do not know 96.2%

consumer

22

Problem of Preceding case ②

Yamagata city in Yamagata prefecture 「namagomiyasaikuru」

Discharge of food waste

Use machine to make compost

It takes time

Bring them to direct sales stand

Change them to vegetables

Direct sales stand

Do not know about the activity

consumer

We need to play 30 thousands yen ourselves

23

Proposal

24

Cycle we planned

discharging food waste

Composting at home

Using compost for home gardening

Home garden

Growing vegetables

customers

25

Cycle we planned

We don't have to transport food waste

Careful separation → Good quality compost

26

About a home garden

「We can do at home」
→ more populer

「do with children」 …69.6%

「want to continue」 …96.2%

A survey by Takii CO.LTD on the Internet n=159 (2020)

27

Advantages of spreading for children

Children have a sense of crisis for the environment

Compost spread to families with children

→many people will use compost in the future

28

How to compost

Advantages of compost

- Emission, production and consumption in same place
- ↓
- Children have environmental awareness
- We can use this in a small space

29

Problems with compost

Dirty

Bad smell


Insects

Hard work

Bad image

30

Experiment ①

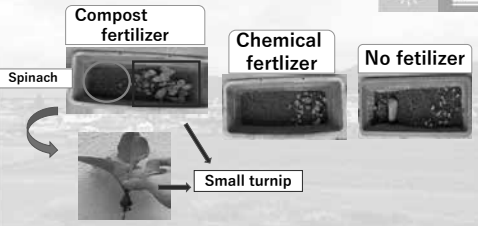


A plastic bottle ·
A sealable bag

A sealable bag
is better

31

Experiment ②




Compost fertilizer Chemical fertilizer No fertilizer

Spinach

Small turnip

32



Compost designs

33



Future plan

34

Expected effect

The maximum amount of kitchen food waste we can recycle (based on Yamagata city data)

$$45187 \times 0.4356 \times 0.82 \div 245554$$

Burnable food waste (t/yr) Rate of food waste (43.56%/100%) Rate of food waste unless animal's (82%/100%) Population of Yamagata city

= 65.7kg/(per person · yr)

Whole of Japan → **6mil t/yr**

35

Expected effect

The maximum amount of kitchen food waste we can recycle (based on Yamagata city data)

※But the amount we can actually reduce should also be considered

= 65.7kg/(per person · yr)

Whole of Japan → **6mil t/yr**

36

Future plan

- Design instructions
- Whether the container can be used as the planter

37



38



39



We will not throw away food waste anymore!

40

A21

2 12 13

Food Waste Reduction Committee

Ishikawa Moeka Kinai Mao
Kurita Nagisa Suzuki Miku

1

What is "Food Loss and Waste"?

Foods that are thrown away by producers, sellers and consumers

- • • 1.3 billion tons
- • • 25.5 million tons

2

What is the "Food Waste"?

The phenomenon where consumers mainly throw away edible food

In Japan • • • 6.12 million tons

Food Waste causes various problems!

3

Problem 1 Environment

Throwing away a lot of food

↓

Disposal of food waste

↓

Emit a great deal of CO₂

↓

Cause global warming

4

Problem 2 Poverty

Hunger

We are throwing away a lot of food

↕

In the world 1 in 9 are hungry
In Japan 1 in 7 are in poverty

1 in 9 (82million)

5

By reducing the amount of food waste, we can solve these problems

6

What is the "Food Bank"?

Give

Farmers Companies Individuals

↓

Food Bank

↓

Take

people in poverty Welfare facilities

7

What is the "Food Drive"?

Activities to donate surplus food at home to food banks

Anyone can participate

→ Food Bank

8

"Yamagata Fukuwatashi"

- The "Food Bank" in Yamagata
 - delivers 19 t of things (362 households, 768 people)
 - delivers food, living things, or electronics
 - supports people in poverty for up to 3 months

9

Questionnaire 1

DO YOU HAVE THE IMAGE OF POVERTY IN JAPAN?

Probably yes 12%

Yes 14%

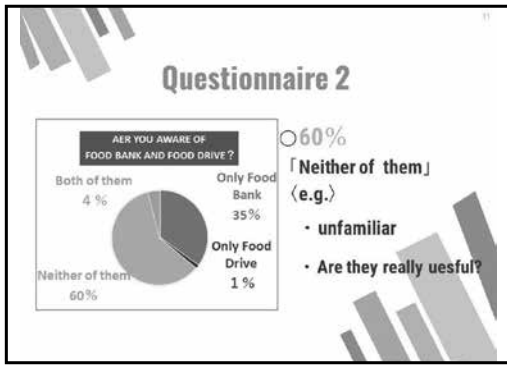
No 15%

Probably no 59%

○More than 70% 「No・Probably no」 (e.g.)

- problems in developing countries
- negative images

10



11

Aims

- To spread "Food Waste" and "Food Bank"
- Make these activities more familiar

12

Food drive in Yamato

Purposes
 make students know about "Food waste", "Food Bank", and poverty around us

Do Promotion → collect
 → give them "Yamagata Fukuwatashi"

13

Result

18kg

- retort-packed foods
- dried noodles
- canned foods
- shampoos etc.

14

Points to Improve On

- increase the number of promoting activities
- display the sample
- create the system to check whether they meet the rules

15

Points to Reflect On

- The recognition of "Food Drive"
 ⇒ Clear! (By the activity in our school)
- Make "Food Bank" familiar
 ⇒ Clear! (By carrying out it with students)

16

Future aims

Spread "Food Waste measures" to the region

↓

- Conduct food drive at Yamagata city hall
- Get featured in media
- Original posters
- Spread the measures that can be taken at home

17

Food drive in Yamagata city hall

Purposes
 Disseminate food drives and food waste measures to city hall staff

Do promotion
 → Collect and hand out flyers
 → Yamagata Fukuwatashi

18

Hand out flyer

- Distribute to those who cooperated with the food drive
- Main topics
 - about food waste
 - Days to check in the refrigerator

19

Original Poster

- Spread food drive to the public
- Posting at MaxValu

20

20

Cooperator - References

- ・やまがた福渡し
- ・農林水産省 事業系及び家庭系の食品廃棄物発生量、再生利用の主要国比較
- ・GLOBALNOTE 世界のCO2排出量 国別ランキング
- ・国連食糧農業機関(FAO) 統計
- ・山形市役所

21

Thank you for listening

22

B2



Increasing Understanding of Dementia

Member

Hayashi Tomona/Saito Haru/Karube Hanna/
Nito Mai/Tsujima Chihiro

1

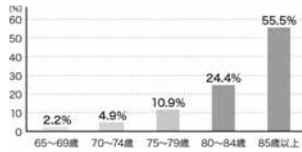
Future estimation of dementia patients in Japan



出典：「日本における認知症の高齢者人口の将来推計に関する研究」(平成26年度厚生労働科学研究費補助金特別研究事業)より算出(www.t.mufg.jpより)

2

Percentage of dementia patients



出典：「日本における認知症の高齢者人口の将来推計に関する研究」(平成26年度厚生労働科学研究費補助金特別研究事業)より算出(www.t.mufg.jpより)

3

Aim of study

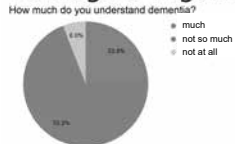


To offer a lecture to increase understanding of dementia

4

Activity

- Conducted a questionnaire about dementia to students in Yamagata Higashi



5

Activity

- Visited the nursing home and 'sakuranbo cafe'
- Participated in family gathering



6

Activity

- Planning a lecture to deepen understanding of dementia



7

What was learned about dementia



8

Points to keep in mind

- Taking dementia patients out
- Consider about family's worries
- Creating an environment where patients can spend their time comfortably

9

How to treat people with dementia

- Respecting their will
- To encourage independence by not helping too quickly
- Treating with a gentle feeling



10

What we need to know

- Dementia patients are the same as other people
- Current status of family members who are taking care of their parents

11

Lecture

Online lecture by zoom
on December 12th



12

Aim

- To learn fundamental knowledge of dementia and how to care
- To deepen understanding of dementia

13

Content

- 1 Explain about fundamental knowledge of dementia
- 2 Certified dementia special care workers talk about their experience
- 3 Question and answer session

14



15

Result

- All answered that their view of dementia had changed
- Some said that they could attend the lecture and ask a question easily

16

Result

- All the answered that their view of dementia had changed
- They became interested in dementia
- Some said that they could attend the lecture and ask a question easily

17

Conclusion

- Some still have prejudice against dementia
- Online lecture is effective in increasing the young's understanding of dementia

18

Acknowledgements

山形市役所長寿支援課 佐藤美由紀様
ときめき七日町 細谷知子様
さくらんぼカフェ 佐藤知生様 草苺さえ子様
認知症のひと家族の会山形県支部御中
おれんじサポートチーム えがお 竹田征子様

19



Thank you for listening !

20

EVACUATION EVOLUTION

～最強の避難訓練を作る～

Takahashi Kentaro Takita Tosei
TAKASI MURATA

1

Introduction

These days, evacuation drill is boring, isn't it?
I would like you to consider.
What problems are there with the current evacuation drill?
How should evacuation drill be conducted?

2

STEPS

Analyse current evacuation
↓
Research various evacuation drills
↓
Make an ultimate drill

3

MAIN BODY

Analyse

Routine situation, manner and announced time
Principal's long speech
↓
No reality. No motivation. No tension.

4

Research

Gap

For example, in America, drill for shooting is emphasized.

↓

It is impossible to apply foreign drills to Japan because of climate, geography and lifestyle.

5

『Shake-out』

What?

It is so simple, easy and an interesting drill.

- × Certain place
- × participants limit

6


How?

- ① Register at HP or through schools or local government
- ② Learn at HP or by taking part in lecture before drill
- ③ Do the drill
- ④ Send feedback through SNS

7

3STEPS

- ① Drop
- ② Protect head
- ③ Wait



8

Merit

- It is practical
- It is fun ⇒ high motivation
- It is easy

9

Ultimate drill

- ① Yamato high school creates information about shake-out with other high school (e.g Yamakita Yamanann)
- ② Students take a lesson on the internet the previous day
- ③ On the day, students do 3step drill
- ④ Then students send feedback through SNS
= They can communicate with other school students

10

B9

Local Rock Festival with Corona

Sudo Kanoha, Okuyama Karin

1

Background and Assignment

In 2020, many events were cancelled or postponed because of a new type of coronavirus, COVID-19.

2

Examples of methods

- Online
- Drive-in festivals

↓

Disadvantages

- They are not completely safe.
- Some people are not quite satisfied.

3

people want to gather and enjoy!!

↓

So, we'd like to propose a new and better way of holding events by looking into a rock festival in Yamagata.

4

Contents

- 1, The negative influence of corona
- ↓
- 2, Two pieces of research
- ↓
- 3, Creating ideas of a better way to hold safe events.
- ↓
- 4, Looking back

5

The Influence of Corona on Events

In 2020, Four grand rock festivals of summer in Japan were all cancelled.

Also, various artists' concerts and the coming-of-age ceremony were called off.

6

If an event is cancelled or postponed,

↓

It has a negative effect on both parties.

- Organizers and artists lose their income.
- Participants lose joy and a way of releasing stress.

7

Research①

About The Tera Festival

It is held at Wakamiya temple, in Asahi town, Yamagata. It was cancelled in 2020.

↓ The poster

The organizer, Noborisaka Naotaka →

8

Wakamiya temple ↓

The Tera Fes ↑

9

According to Noborisaka Naotaka

The followings are important. ↓

◎ The strong motivation

- To follow the guidelines for holding a safe event.
- Not to rush into planning an event.
- Online concerts

10

Infection in Yamagata

Level 4 Total 506
"on February 1st"

5-stage alert level

Guidelines for Yamagata

Kinds of events	Events that people enjoy quietly	Events that people make a loud voice
Maximum number of participants	within 100% of detention capacity	within 50% of detention capacity

It is important to keep social distance.

11

Research② **Questionnaire**

Graphs of the results↓ 56 out of 240 students responded it.

(1)

Do you know rock festivals held in Yamagata?

Yes 4%
No 96%

12

(2)

What happened to the events you are going to or were going to?

Cancellation 79%
Extension 0%
Others 21%

Others means online concerts and the video distribution of Instagram.

13

Ideas of a better way

1, Using SNS such as OpenChat on LINE when we go to an event or a live music club.

↓

We can share our emotions.
(Not to eat or drink there.)
(To follow the guidelines for holding events.)

14

2, Using headphones or earphones and enjoying events quietly.

↓

Use the way of 1 and share emotions.

↓

We can really enjoy and prevent infection.

15

Looking back and future prospect

We were going to have a live music club in Yamagata try this method, but we couldn't. Although a new and better way is necessary to hold safe events with corona.

So, we want to continue this study.

16

Thank you for listening!!

Enjoy music!
Let's gather together someday!

17

D2

The Relationship Between Students and Reading

D2 Sato Chiharu, Ito Nanako, Kimura Ayaka

1

Introduction: Do you like reading?

We are researching the relationship between **students** and **reading**.

Reading is a good activity for students!

- Develop our imagination
- Get an objective point of view
- Develop vocabulary
- Enjoy a fantasy world
- Spread communication

↓

- We can widen our points of view!
- We can have a happy time!

2

But.....students do not read often

We searched for surveys about reading. Then, we found four things:

1. High school students read the latest books
2. High school students used to read often when they were elementary or junior high school students
3. Students understand the joy of reading
4. Students are busy but they spend a lot of time using their smartphones

Distanced

3

The 65th School Reading Survey in Japan 2019

Books per month

1989 Year 2019

elementary school
junior high school
High school students

Evidence - 1

4

The 65th School Reading Survey in Japan 2019

High school students

The rate of answers "I could spread communication through reading"

Evidence - 2

5

What is the student's immediate condition?

We gave a questionnaire to Yamato students. How often do you read? 216 answers

Once a half a year
Once a year
Hardly
Everyday
Once a month
Once a week

Evidence - 3

6

Have you ever read books about reading methods?

216 answers

NO
YES

Students do not know how to read in busy days

Evidence - 4

7

We want to promote reading among high school students!

First Idea

We were going to make items to promote reading

IMPOSSIBLE!

Second Idea

We came up with an idea to use **TWITTER**

- Free service
- Many users
- People can read our post through their smartphones

8

The action to promote reading

We started twitter to promote reading

PR CONTENTS

- Teach reading methods
- Recommend books for high school students
- Offer a format to record books

9

Examples of posts

10

Reading methods

This says.....

- You can choose sections that you want to read
- You do not have to read all of a book
- You should share your feelings even you read a part of the book

Short time reading is possible!

11

Original format to record books

Labels: Title, Author, Category, Picture of books, Review of books, About books, interesting points

You can fill in this format by using smartphone application

12

Present condition

- 14 people follow us now
- Some people repost our PR
- The best number of readers of our post is about **68,800**

- Many students do not know our account
- Some students do not use twitter
- Few people answered the questionnaire to check the impression of our activity

13

Why students do not know our account?

We did.....

- Put up a poster
- Made bookmarks to advertise our account

BUT

Students were not aware of our poster

(graphs of a questionnaire to Yamato students)

14

Consideration

About poster

- Small
- Posters were put on inconspicuous places
- Few posters

About management of Twitter

- Low frequency

In general

- The impact for students who do not read often was small

15

Future plans

- Improve PR
- Continue to post PR
- Search for students to continue our activity
- Review

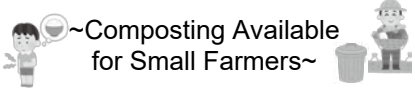
Thank you for listening!

16

E2

Aim for The Resolution of Hunger at The Small Farmer Level in Zambia


~Composting Available for Small Farmers~



Ueno Tomoko Kuni Mihane
Yamaguchi Mei Yokoyama Aoi

1

Steps



- Goal ①: To develop compost made from materials which farmers in Zambia can get easily
- Goal ②: To improve yield and productivity of crops in Zambia
- Goal ③: To achieve Food security at the farmer level
- Final Goal: Solve hunger in Zambia

2

In Our Senior Research

Target : Democratic Republic of the Congo

Problem

- conflicts in Congo are very serious
- it is difficult to interact directly with local people




➔ We think we need to change the target country

3

We chose Zambia as a target country


In Zambia

More than **one in three people** are suffering from hunger



4

Cooperators in Zambia



Ms. Jakobina Ms. Nawa

The staff of the agricultural office in Zambia

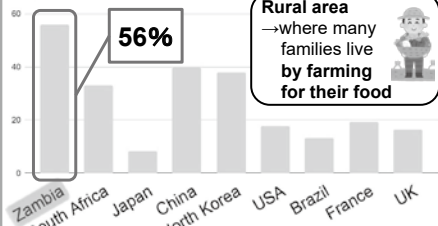
They teach how to make compost and give nutrition guidance to Zambian farmers

- ☐ they are very reliable cooperators for us

5


Background

Rural Population by Country (% of total population)
World Bank 2019



Country	Rural Population (%)
Zambia	56%
South Africa	~35%
Japan	~10%
China	~35%
North Korea	~35%
USA	~15%
Brazil	~15%
France	~15%
UK	~15%

Rural area
→ where many families live by farming for their food



6

To Solve Hunger in Zambia

There are **many farmers** in Zambia


It is necessary to **solve hunger at the farmer level**

We think **“Food Security” will lead to the solution of hunger**

7

What Is Food Security

Every person can always **physically and economically get sufficient, safe and nutritious food**



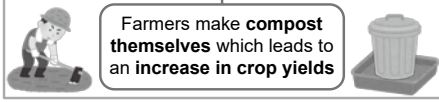
8

To Achieve Food Security

~~Without depending on imports, food and agricultural support~~

Farmers can live a **self-sufficient life**

Farmers make **compost themselves** which leads to an **increase in crop yields**



9


Exchange with Cooperators

We had an online meeting.

We asked her about

- the compost materials
- present situation

in Zambia



10

About Our Explanation

- ① Making compost with non-edible parts of plant
- ② Observing growth of plants cultivated with our compost
- ③ Feedback

11

How to make our compost

Rice straw
+
Rice bran
+
Peanut shells
+
Soil
+
Water

Fermentation

12

The Process of Composting

2020/12/3 2020/12/3 2020/1/18

the mixed ingredients mixing the ingredients fermenting

- We added water regularly and observed the state of the compost.
- After a month, the compost began to smell like it was fermenting.

13

Present Situation

We are cultivating soy and spinach.

14

About manual

In order to have farmers make compost, we need to tell them how to do so through a manual.
→We made a manual and sent it to cooperators.

Manual of our Compost

<Ingredients>

- rice straw
- rice bran
- peanut shells
- soil

<Instructions>

- Add water regularly so that the soil will be moist.
- The compost may smell.
- Cut the compost as thin as possible.
- Put the compost with compost in the ground.

15

This is our manual.

We wrote it in English, which is the official language of Zambia

16

Expressions Used in Our Manual

In Japan In Zambia

measuring device but Not using measuring device

We considered that some tools may not be available in Zambia.
→The quantity is transmitted for the local language level, **not using the figure of weight and ratio.** (For example, "one handful")

17

Future Prospects

- Check the effectiveness of the compost we made
- Have our cooperators make compost in Zambia.

18

Acknowledgments

We wish to thank Mr. Ono Ryo, works for JICA Yamagata desk,
Ms. Nawa, works for Country Agricultural Office in Zambia as a Nutrition staff,
Ms. Jakobina, works for Country Agricultural Office as a Agricultural extension worker, and everyone who helped us for advice on our study.

19

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20

E4

1 2 3 4

Solve poverty by nutrition education

Konno Ayumi Chiba Terumasa Tsuchida Hitoka Yuki Hatsune

1

Key word is

nutrition

2

What is poverty?

3

Poverty is


“ A situation in which people do not have access to the most basic goods and services, such as education, work, food, health care, drinking water, housing, and energy ”

4


1.Relative poverty
This is defined as the level of poverty compared to the surrounding area.

2.Absolute poverty
This is defined as people who are living on less than \$1.9 per day.

5


Thailand 

- Thailand's gap between rich and poor is the biggest in the world



6

Southeast Asia



- There are many people who are living in relative poverty
- Japan is part of Asia

7

What do you think a slum is?

8

A slum is

"an area in an urban area where poor people live together."

9




มูลนิธิศึกษาเอเชีย
EASIA ASIA FOUNDATION

10

There are various types of slum.

For example,



Slum which doesn't have shortage of food

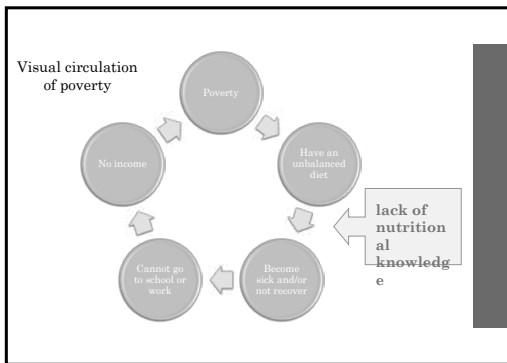
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←They have a lot of food

Why are they still poor?

12



13

They have a lot of food.

But they don't have a stable job
&
they can't make enough money to live

↓

The result is poverty.

14

key word

Focused on lack of nutritional knowledge

↓

nutrition education

15

nutrition education project

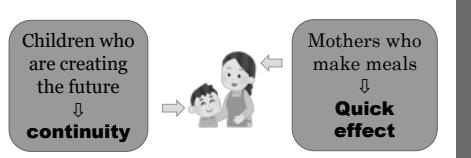
○Thailand's gap between rich and poor is the biggest in the world

○base of collaborator[SEKAITANKYUUBU, SIKKHA ASIA FOUNDATION]



16

Who: mothers and school children



17

Our goal is solving the problem of poverty by sustainable nutrition education

There's no point in continuing if we don't

↓

18

How: provide our nutrition education program with NPO of Thailand

Contents: **Digitize everything**

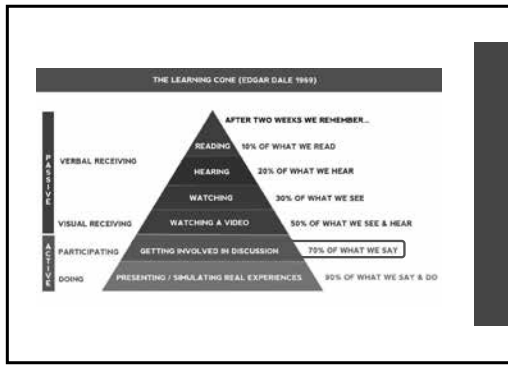
- ① nutrition education guidelines for educators
- ② a picture book about nutrition
- ③ **experiment video**

19

Why do we use ③ experiment video ?

Based on “ *The Learning Pyramid* ”

20



21

③ experiment video

About experiment

three major deficient nutrients
iodine · vitamin · iron
→ seaweed is rich in iodine
· There is not a culture of people eating seaweed in South-east Asia.

Experience the way of sampling
↓
· Find fun of learning
· Get certain knowledge

22

③ experiment video

Experiment : Control (material)
· seaweed · 4% hydrogen peroxide
· solution of 1% starch · sulfuric 2 mol/L (procedure)

① 5g of dried wakame (a brown seaweed native to the coasts of Japan and used in various Japanese dishes) and kelp burn to ashes.
② mash ①

23

③ add 25 ml of water to ② and filter those

④ add 2 ml of sulfuric 2 mol/L and 4% hydrogen peroxide to filtered starch and confirm the change in the color of the solution.

⑤ add solution of 1% starch to ④ and confirm the change in the color of the solution.

24

Activity plan

Step1 Step2 Step3

· Decide the content of the experiment and nutrition education.

· Create educational program. Ex.) guidelines for educators, a picture book about nutrition, DVD of the experiment

· Provide to SIKKHA ASIA FOUNDATION
· Get feedback

25

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2020年10月11日
- 2020年12月17日シーカーアジア財団 インタビュー
- せかい探究部 廣里恭史教授、新江梨佳先生 インタビュー

Special thanks to everyone who supported our study.

26

Thank you for listening.

27

E5

4 months 11 activities 17 members

Yamagata PRIDE

-A project to help high school students be proud of their hometown-

Yamagata higashi high school YYWY

1

Do you know YAMAGATA?

Yamagata's image

- cherry
- shogi
- Hanagasa

Do you know "Yamagata city"?

2

Yamagata city has had a great movie culture for a long time

Yamagata citizens have enjoyed movies

3

Yamagata city's wonderful movie culture

Cinema street

There were a lot of movie theaters along this street

4

Yamagata city's wonderful movie culture

Yamagata International Documentary Film Festival

Since 1989
First International documentary film festival in Asia

5

Yamagata city became a member of UNESCO Creative Cities Network for movies!

What's "UNESCO Creative Cities Network"?

—An organization to protect cultural diversity

Yamagata city is a "creative city of film"!

United Nations Educational, Scientific and Cultural Organization

City of Yamagata Designated UNESCO Creative City in 2017

6

Our seniors established a group "YYWY"

Telling the charms of Yamagata by international interaction through film

「山形の山形を、世界の山形へ！」

Yamagata Yamagata World Yamagata

YYWY

7

「High school samurai 高校生侍〜エイキ〜」

8

Interaction with a high school in Busan, Korea

9

International interaction with UNESCO Creative Cities Network

Students in Yamagata

UNESCO Creative Cities Network

World

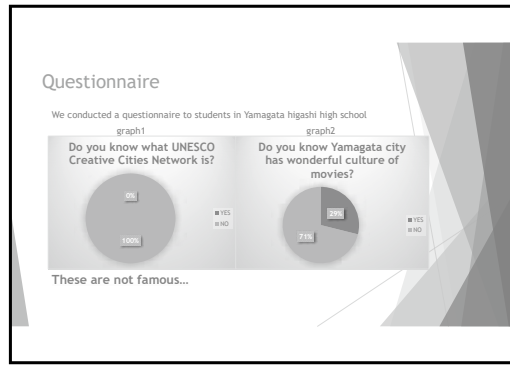
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We wanted to continue, but...

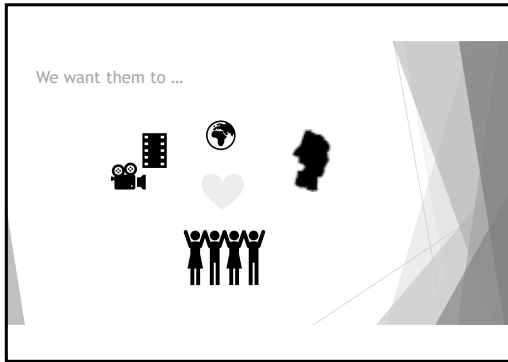
Coronavirus
To interact with people outside of Japan is difficult...

→Focusing on Yamagata, act locally

11



12



13

To solve this problem...

We made a slogan

Yamagata PRIDE

-A project to help high school students be proud their hometown-

14

The Definition of "being proud of their hometown"

Know about their hometown ← We help!

Talking about the charms of their hometown to others with confidence

Activities that students can actively take part in

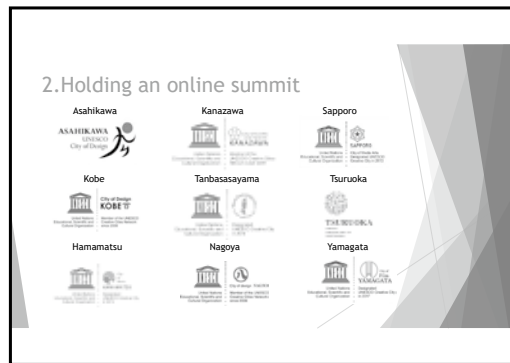
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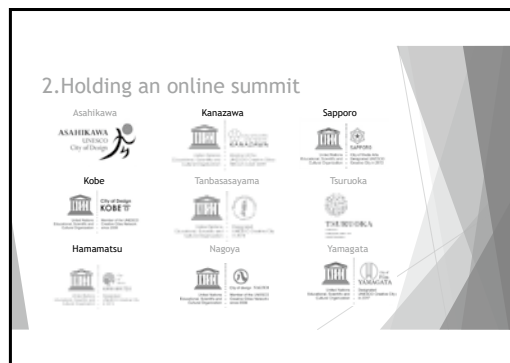
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20

2. Holding an online summit

1st session on 19th December



Discussed how to get students involved with UNESCO Creative Cities Network and local culture

2nd session in February

Release on YouTube (supported by Yamagata city, a production company, Dejikon cube Inc.)

21



Our project's final goal

Help students realize another side of Yamagata city

↓ continue our activities

Create Yamagata city and culture
by young people's creative activities

22

Thank you for watching!
Please watch our movies on YouTube!

YVWY SEARCH

23

E6

Education for girls in Pakistan

Tsukasa Watanabe
Rio Yokoyama

1

Our daily life

2

in the world.....

330 million children can not go to school.

A Future Starts
Young and Out of School

3

What is education for you?

4

1.Motivation

We learned about **Malala Yousafzai** from **Pakistan** in our English class. We knew that she is working hard for children to get the right of education. We were very interested in **the right of education**, so we decided to study about this.

One child, one teacher, one book, one pen can change the world

5

The Taliban

Swat

6

Do you know about Pakistan?

7

2.About Pakistan

Area: 79.6km²
Population: about 207 million
Capitals: Islamabad
Language: Urdu, English
Religion: Islam (96.4%)
 Hinduism (1.4%)
People: Punjabis, Sindhis, Pashtuns, Baloches etc.

8

3.Current situation of education

The literacy rate (people of age 15-24)

Year	Period 1 (%)	Period 2 (%)
2000	28	58
2005	55	78
2010	60	82
2015	65	85

9

A total school rate of elementary education

Year	Period 1 (%)	Period 2 (%)
2000	68	98
2005	75	98
2010	77	95
2015	85	98

The literacy rate and a total rate of education are increasing. But the difference between boys and girls still remains.

10

4. Consideration

Main two reasons why girls cannot go to school.

1. Poverty

Monthly income	Education costs
18,000yen	700~42,000yen

11

2. Female disdain

- There are some people who discriminate against women lightly.
- Some women were injured or killed because of 'Honor Killing'.
- Also, there is a case in which the law, which allow husbands to beat their wives lightly, was suggested.

We think there are other reasons, so we will continue to research.

12

Article about 'lightly beating' (BBC)

Who are the Pakistani group proposing to 'lightly beat' women?

A Pakistani group has come under fire for drafting a so-called women's protection bill that suggests a husband can "lightly beat" his wife to keep her in line. What is this body and does it have any real power? The BBC's M Ilyas Khan explains.

13

Article about 'lightly beating' (BBC)

No stranger to controversy, the CII has faced unprecedented criticism as a result of the draft women's protection bill.

Portions of the draft leaked to the media recommend a husband should be allowed to "lightly" beat his wife if, among other things, she refuses to dress properly or turns down overtures for sexual intercourse. It also prohibits female nurses from taking care of male patients, and bans the presence of women in receptions held for visiting foreign dignitaries. Punjab Law Minister Rana Sanaullah rejected the proposals, saying: "Islam does not allow any violence, whether against women or children."

Lawyer and human rights activist Asma Jahangir told Geo TV that the proposals amounted to "the humiliation of women".

The independent Human Rights Commission of Pakistan termed the proposals "ridiculous", and recommended the abolition of the CII.

14

Article about 'honor killing' (CNN)

Hong Kong (CNN) Two women in Pakistan have been murdered in a so-called "honor killing" after a video showing them kissing a man circulated online.

The cousins, aged 22 and 24, were shot and buried on May 14 in a remote village in Pakistan's North Waziristan province, according to police officer Muhammad Nawaz Khan.

15

Article about 'honor killing' (CNN)

Honor killings in Pakistan

There are an estimated 1,000 honor killings each year in Pakistan, according to a 2019 report by Human Rights Watch. But there are no official statistics around them, as they often go unreported or are logged as a suicide or natural death by family members, the report adds.

In October 2016, Pakistan passed a bill that fixed a loophole that allowed killers to escape prosecution if pardoned by the victim's family. Previously, family members who were complicit in the crime could also forgive those who had committed it.

That new legislation came three months after Qandeel Baloch, a social media star and feminist, was killed by her brother in Punjab province for dishonoring the family.

While honor killings in Pakistan now carry a life sentence, they remain common in Pakistan's remote tribal areas -- and the majority are against women perceived to have brought shame on their families.

16

5. Conclusion

The reasons why the girls in Pakistan do not go to school are very complicated.

We could not find one specific reason.....

17

6. Perspective

We sent an email to the Pakistan Embassy and we are waiting for an answer. We will get more information about education in Pakistan and we will think about the reasons why girls cannot go to school.

18

7. Reference

- A white paper of children in the world of Japan UNICEF <https://www.unicef.or.jp/sowc/data.html>
- The Ministry of Foreign Affairs www.ceidata.com/ja/indicator/pakistan/annual-household-income-per-capita
- Pakistan Embassy Tokyo Japan Japan/www.pakistanembassytokyo.com/ja/12/11/2020

19

- CNN News <https://amp-cnn-com.cdn.ampproject.org/vs/amp.cnn.com/cnn/2020/05/18/asia/pakistan-honor-killing-hnk-intl/index.html>
- BBC News bbc.com/news/world-asia-36413037

20

E7

17 PARTNERSHIPS FOR THE GOALS




Spread Model United Nations in Yamagata

Yamaguchi Takuto Sato Yuki

1

What's Model United Nations?

Model United Nations is a conference which high school students join and discuss world problems.




2

MUN flow

Advance Research

- agenda
- country



3

MUN flow

- 1 Declare the opening of the session**
- 2 Debate**
 - ① Formal speech
 - ② Informal Debate
 - A: Moderated Caucus(MC)
 - B: Unmoderated Caucus(UC)
- 3 Voting action**
- 4 Adjournment of the session**

4

Example

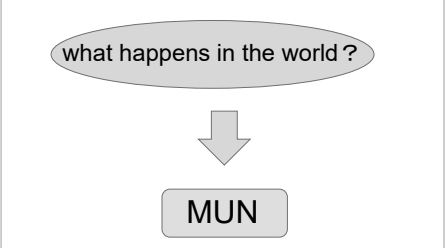
(All Japan Education Model United Nations 2019)
Agenda: International Migration and Development

Point: 1 Brain Drain
2 Irregular Migrant
3 Discrimination against migrants

Result: One draft resolution

5

Why MUN?



6

Why MUN?

We can learn...

- how to research
- how to speak in front of many people
- how to take a wider view
- talking with a lot of students from different schools

More advantages!

7

Why MUN?

- In Kanto or Kansai
→ a lot of Model United Nations
- In Tohoku or Yamagata
→ No conference!

8

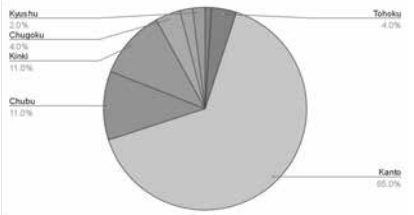
MUN conference in Japan

- All Japan High School Model UN conference (全日本高校模擬国連大会)
winner → New York
- All Japan Education Model United Nations [AJEMUN] (全国高校教育模擬国連大会)

9

How many students joined 2019 AJEMUN conference?

(AJEMUN: All Japan Educational Model United Nations)



Region	Percentage
Kanto	65.0%
Kansai	11.0%
Chubu	11.0%
Kinki	4.0%
Chugoku	2.0%
Tohoku	4.0%

10

MUN



11

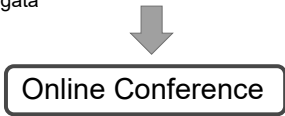
Why MUN?

I would like to make a chance to join MUN in Yamagata

12

Our Plan

1 Preside at a Model United Nations in March, in Yamagata



2 Produce manual on how to hold conferences

13

Differences between Online and Offline

8/23 JOMUN Online conference
1/10,11 AJEMUN Online conference

Offline
Speak freely
↓
Easy to talk

Online (use zoom)
Speak one by one
↓
×Talk to more than two or three people

14

Grouping

Offline
Move and make groups freely
↓
Choose and leave the room

Online (use zoom)
Breakout rooms
↓
• Committee makes groups
• Participants choose room

15

Secret talking

Offline
Hand written memo
Talk silently
↓
Fast
Move actively

Online (use zoom)
Use zoom chat
Other application tool
↓
Copying some text takes time

16

Online Problems

Devices affect conference
novices cannot speak

↓
Make some changes
Everyone can enjoy

17

Next...

Try some other ways
Novices can join conference easily

We would like both novices and experienced people to enjoy MUN

18

New Plan

We try VR conference



19

Thank You for Listening.

20

F14

10 RESEARCH MODULES


Psychology of group activity

~Let's find a solution to bullying!~

Sugai Sumire Yamaguchi Tomoka

1


We are searching for a solution to bullying based on the psychology of people who act as a group or who act alone.



2

Reason

There are "groups" and I often saw they were the cause of bullying when I was an elementary school student.





We think we should search for a solution to bullying.

3



- Education in Japan is promoting the group.
- There are many people who act alone.

Do you often act in groups or alone?

4

Educational methods that are not suitable for introverts create disparities in their ability to interact with people





5

"Extroverts with low arousal levels act to engage with more others in order to raise their arousal levels to appropriate levels. Introverts are more likely to fall into excessive awakening quickly and tend to avoid exposure to stimulating experiences and to avoid interacting with others to reduce their arousal levels."

(Koji Hasegawa 1996)

* arousal level: Appropriate tension that maximizes performance



6

Hypothesis

- **Introverts, who are not good at engaging with people, tend to be the victim of bullying.**
- **Extroverts, who are good at engaging with people, tend to be the bully.**

7

Questionnaire results

【First questionnaire】

- ◆ Yamagatahigashi highschool students
- ◆ Second grade students
- ◆ 100 respondents


8

Questionnaire results

【First questionnaire】

- ◆ Yamagatahigashi highschool students
- ◆ Second grade students
- ◆ 100 respondents

Gender doesn't determine whether you act alone or in a group.




9

Questionnaire results

【First questionnaire】

- ◆ Yamagatahigashi highschool students
- ◆ Second grade students
- ◆ 100 respondents

People who act in groups have a brighter personality.



10

Questionnaire results
【First questionnaire】

- ◆ Yamagatahigashi highschool students
- ◆ Second grade students
- ◆ 100 respondents

Being good at interacting with people has no relation to whether you do things in a group or alone.

11

Questionnaire results

【Second questionnaire】

- ◆ Yamagatahigashi highschool students
- ◆ First and Second grade students
- ◆ 113 respondents

12

Questionnaire results
【Second questionnaire】

- ◆ Yamagatahigashi highschool students
- ◆ First and Second grade students
- ◆ 113 respondents

There are more introverts than extroverts.

13

Questionnaire results
【Second questionnaire】

- ◆ Yamagatahigashi highschool students
- ◆ First and Second grade students
- ◆ 113 respondents

Some introverts act in groups instead of acting alone.

14

Questionnaire results
【Second questionnaire】

- ◆ Yamagatahigashi highschool students
- ◆ First and Second grade students
- ◆ 113 respondents

Many introverts are not good at interacting with people, and many extroverts are good at interacting with people.

15

Suggestion

- The school allows you to decide whether to study alone or in a group.
- ↑ Some extroverts act alone, and some introverts act in groups.
- Change the content of the bullying questionnaire conducted at school

16

Next Step

- Take a questionnaire to elementary and junior high school students
- Find successor for research

Find a way to prevent bullying

17

Acknowledgments

We want to thank them very much!!!

- Yamagata higashi high school students who answered our questionnaire
- Teachers who advised us

18

References

外向-内向性がソーシャル・サポート過程と精神的健康に及ぼす効果(長谷川孝治 1996)https://soar-ir.repo.nii.ac.jp/?action=repository_action_common_download&item_id=553&item_no=1&attribute_id=65&file_no=1

内向型診断テスト
ト<https://mublog01.com/%E3%81%82%E3%81%AA%E3%81%9F%E3%81%AE%E6%82%A9%E3%81%BF%E3%81%AF%E5%BC%B7%E3%81%BF%E3%81%AB%E5%A4%89%E3%81%88%E3%82%89%E3%82%8C%E3%82%8B%E3%80%8220%E5%95%8F%E3%81%AE%E5%95%8F%E3%81%84%E3%81%A7%E3%82%8F>

19

Thank you for listening !

20

F17 The Best Color and Method for Memorizing

Yamagata Higashi High School
Hinata TARUISHI Haruka YOSHIDA



1

Aim & Goal

1.Present situation
2.Aim
3.Goal

2

Aim & Goal

1.Present situation

We memorize so many things in our busy daily life



3

Aim & Goal

2.Aim


Find the best color and method

4

Aim & Goal

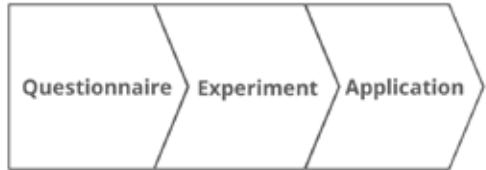
3.Goal

Enable students to memorize more efficiently



5

Method



6

Method

1.Questionnaire

- **About**
Colors for studying
- **Target**
High school students

7

Method

2.Experiment

- **Aim**
Find the best color and method
- **Subjects**
10 high school students

8

Method

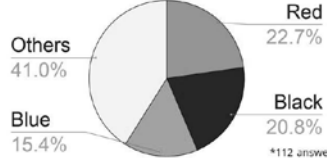
3.Application

Let students know the results

9

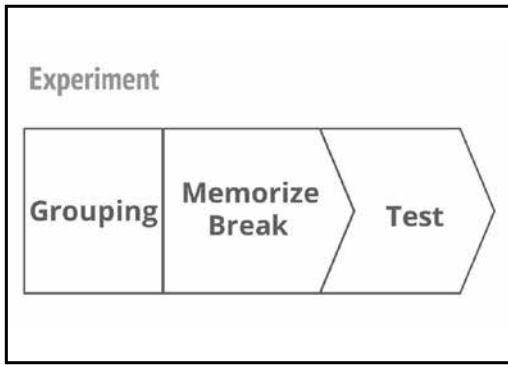
Questionnaire

Colors students use for studying



*112 answers
Multiple answers allowed

10



11

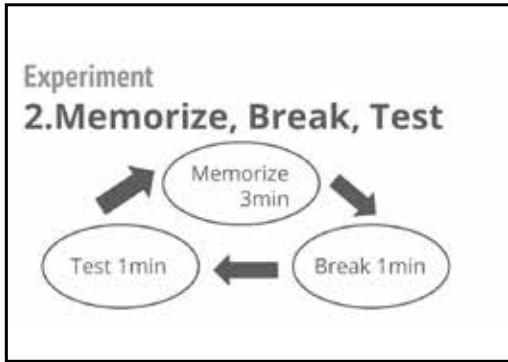
Experiment

1. Grouping

Divide subjects into 3 groups

***Methods**
 1. Silent reading 2. Reading aloud 3. Writing

12



13

Experiment

2. Memorize, Break, Test

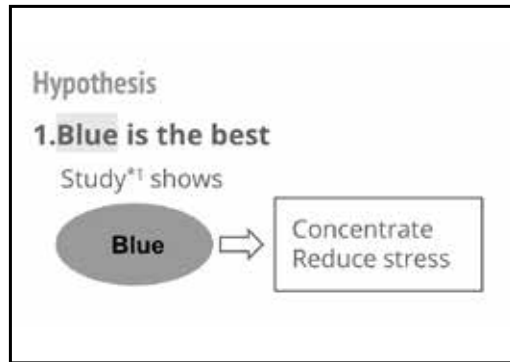
29472	29473	26874
19735	67483	56874
83492	16485	68765
73293	47847	34854
32973	58395	96158

14

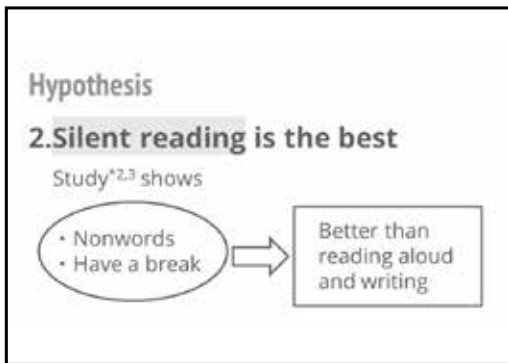
Hypothesis

- Blue is the best
- Silent reading is best

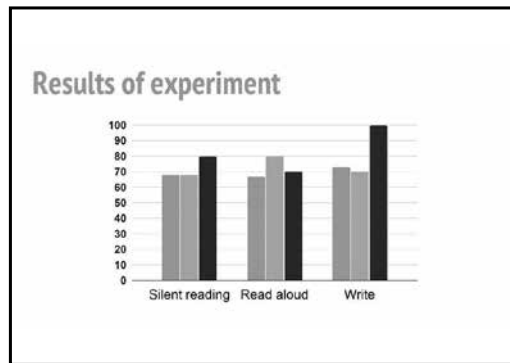
15



16



17

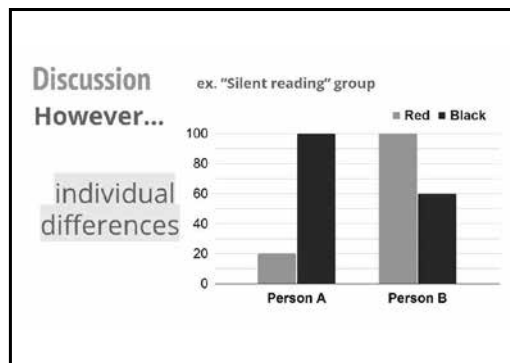


18

Discussion

- Writing in black seems the best

19



20

Discussion

Can NOT declare
writing in black is the best
for every student

21

Prospects for the future

1. Conduct experiments on English or Japanese words
2. Conduct experiment with other colors

22

References

*1 Suppression of Physiological Stress Reactivity by Blue Color: A Salivary Cortisol Study (Shusaku Nomura, 2014)

*2 Effects of Silent Reading and Vocal Reading upon Memory for Prose (Toshiaki Mori, 1980)

*3 記憶促進における反復書きの有効性に関する検討(見崎研氏, 仲真紀子)

23

Special thanks

All teachers and students
who cooperated with our
study

24

Thank you for listening.

25

F19

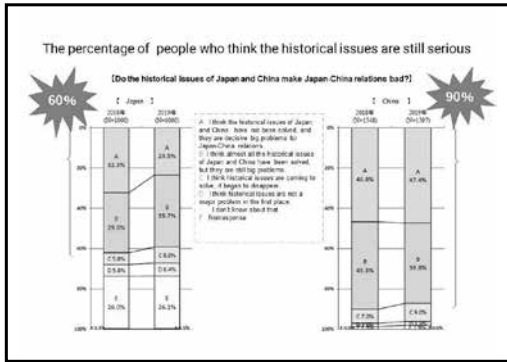
Comparison of Historical Education in Different Countries

Takano Tomoka Seino Mika Hashimoto Yurie

1

Background & Purpose

2



3

4

Key words

Mutual Understanding Diversity

5

Study Aims

- To help improve relations and reduce antagonism that is caused by differences in education between Japan and other countries.
- To help Japanese young people see things from various points of view.

6

Result of textbook analysis

Objective of historical education

7

Japan	China
In the globalizing international nations.	<input type="radio"/> Patriotism
↓	<input type="radio"/> To follow the basic principles of Chinese Communist Party
<input type="radio"/> Broad perspective	<input type="radio"/> Building socialism
<input type="radio"/> Peaceful democratic nations and societies	<input type="radio"/> Strict observance of the basic principles of Chinese Communist Party

8

Results of textbook analysis

Characteristic descriptions in the textbooks

9

1931 The Liutiaohu Incident happened.
 →It was the beginning of the Manchurian Incident.

※The Manchurian Incident
 →Conflict between the Japanese army and the Chinese army at Manchuria.

→The Kwantung army (main unit of invading China) captured Manchuria and established Manchukuo.

Lytton Commission→

10


About the Liutiaohu Incident (柳条湖事件) and after it

Japan 	China 
<ul style="list-style-type: none"> ○The date and the circumstances are written 「This incident was caused by a part of the Japanese army, however, the Cabinet was not able to prevent it and the whole Cabinet resigned.」 ⇒ ◎description about own country 	<ul style="list-style-type: none"> ○The date and the circumstances are written ○Details of this incident ○Bacterial warfare and Poisonous gas warfare by Japanese invaders ⇒ ◎Very detailed description ◎Over several pages ◎With photos and newspapers of the time

11

1937 The Nanjing Massacre
 →Looting violence that the Japanese army caused when they captured Nanjing.

(ex) Murder competition
 →Noda Tsuyoshi and Mukai Toshiaki (Japanese soldiers) competed to see who would kill 100 people first.



↑ The newspaper of the Murder competition

12

About Nanjing Massacre [南京大屠殺]

War descriptions were very distinctive in Chinese textbooks. We researched from Liutiaohu Incident to Nanjing Massacre


Japan 	China 
<ul style="list-style-type: none"> 「Many civilians were killed, not just soldiers. The investigation and research of the overall picture, including the dead are continued.」 ⇒ ◎Only this description 	<ul style="list-style-type: none"> ○Murder competition by Japanese army 「At least 300,000 unarmed civilians and soldiers were killed.」 ⇒ ◎Very detailed description ◎Over several pages

13

Results of textbook analysis

How to express

14

Japan 	China 
<ul style="list-style-type: none"> ○They say that Japan has progressed in a straight line from ancient times to the Showa period. ○It is hard to introduce public discussions into the content of them. 	<ul style="list-style-type: none"> ○They dig into the contexts of conflicts. ○Very detailed and assertive about "Nanjing Massacre" ○It is impossible to freely discuss textbooks in principle

15

Common points

- China · · Under the control of the strong state.
- Japan · · Under the control of the state.

It is hard to introduce public discussions into the contents of textbooks.

In China, it is also hard to freely discuss textbooks in principle


●Both of the countries try to describe historical incidents neutrally.

16

Conclusion

17

The world is becoming globalized




It is important to know historical and political backgrounds and respect various histories and cultures of each country.

It is necessary to have a firm opinion on the history of our country from a multifaceted perspective, rather than sticking to the state controlled ideas expressed in the textbook.

18

It is important to talk freely.

We should have our own opinions about the historical incidents of our country.



19

Future Prospect

20

Compare the textbook descriptions
with those of America and Germany.



21

Reference

www.geonon-npo.net/pdf/15th.pdf
世界の教科書シリーズ—中国（明石書店）
社会科中学生の歴史—日本の歩みと世界の動き（帝国書院）
世界の歴史教科書（明石書店）
東アジアの歴史政策（明石書店）
https://www.mext.go.jp/a_menu/shokoku/nsw-cs/1387016.htm
整理して理解する 日本史B基礎用語 第2版（清水書院）
原剛「百人斬りと二人の少尉」『世界戦争犯罪事典』（文藝春秋）
1931年12月13日東京日日新聞

Acknowledgement

We wish to thank Mr. Ema Fumiaki, a professor of Yamagata University, for advice our study.

22

Thank you for listening.



23

F2

**Think about the meaning of "WORK"
and
Decrease the number of NEETs**

Hashimoto Waka, Yokosawa Kana

1

Background

We knew that Japan has many NEETs and decided to think about them.

2

About NEETs

3

About NEETs

NEET=Not in Education, Employment, or Training

NEETs mean
"people who range in age from 15 to 35 years old who do not work, do not do housework, and do not go to school" (the Ministry of Health, Labor and Welfare in Japan)

4

Why is it necessary to decrease the number of NEETs?

5

The meaning of our study

The cost of NEET's welfare places a financial burden on the Japanese government.

If a person becomes NEET, the Japanese government pays 150 million yen.

If a person becomes working, the Japanese government pays 1 million yen.

6

Talking with people who work at a non-profit

A non-profit organization that supports NEETs.

7

Talking with people who work at a non-profit

The current situation of Japan

1. Some Japanese people have the image that "working = being employed".
2. Some Japanese people have a bad impression of mid-career employees.

⇒ If we quit working, it is difficult for us to return to work.

Non-profit organization that supports NEETs.

8

What we learned ①

When we start working, there are a few choices in addition to "being employed".
ex. entrepreneur, freelance

9

What we learned ②

If we become NEETs, it is difficult for us to return to work.

10

What we learned

Change society into one which has many choices in addition to "being employed" when we start working.

Change society into one which enables workers to keep working and restart even if they quit.

①

A great work environment

11

What we learned

Change the society into one which has many choices in addition to "being employed" when we start working.

Change the society into one which enables workers to keep working and restart even if they quit.

A great work environment

the number of NEETs will decrease

12

Research and Analysis

Purpose 1: Research on what you need to continue working without becoming a NEET.

Purpose 2: Research on what you need to return to society from being a NEET.

Method ①: Use the data from a white paper about NEETs.

②: Use the result of a questionnaire for Yamagata Higashi High School students.

13

Result ①

There are "reasons for visiting the NPO that supports NEETs" in the white paper.

The reasons show the reason why people who are not working could not get work or continue to work.

14

What is necessary to work well?	NEETs	Students
Enthusiasm for work	70.2%	79.4%
Compatibility with work	52.2%	69.9%
Confidence to work	51.7%	39.0%


⇒ NEETs should deliberately have confidence to work well.

15

Result ②

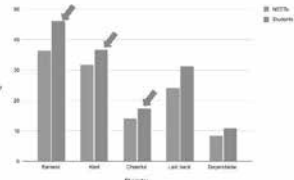
According to the white paper,

Not detail-oriented + Positive evaluation from a third party
⇒ Rate of career decision is higher.



16

Analyze character



Character	NEETs	Students
Enthusiasm	70.2%	79.4%
Compatibility	52.2%	69.9%
Confidence	51.7%	39.0%
Loyalty	~25%	~35%
Responsibility	~15%	~20%

17

Conclusion

It is important to receive a good evaluation from a third party.

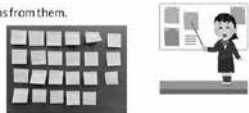
NEETs should deliberately have confidence to work well.

18

Public reaction

We have presented our study to Yamagata Higashi High School students four times.

We received some good reactions from them.



19

Works cited

<https://www.nihiv.go.jp/content/11801000/000548637.pdf>

A white paper about NEETs

Words of thanks

This work was supported by NPO "Sodateage Net" and Mr. Oe Yasushi.

20

F21

3

Meaning of Life

Nishimura Sinji
Miura Rio

1

Meaning of Life

Program

- 1.Motivation
- 2.Aim or Method
- 3.Research and Idea
- 4.Next Plans

2

1.Motivation

To improve

my feeling of depression.

3

2.Method

- Regard the meaning of life as “to find the value of life”.
- Find it by taking hints from the words of philosophers and books about the meaning of life.

4

3.Research & Idea

Sartre, who is philosopher in French, said
“The value of life is, to walk through life while making own choices that are different from others.”

My cherished opinion
The value of life is
difference from others.

5

3.Research & Idea

However, I gradually became unconvinced with this idea.

Why?

Because I could not fully realize its value just by thinking about my value.

6

3.Research & Idea

To find our own differences, we should interact with other people and know the value of ourselves and others’.

My conclusion
We need connection in our life.

7

1.Motivation

The influence of the
coronavirus pandemic

8


2.Aim

- To search for the meaning of life and find **a way** to be **inspired**.
- To find what **motivates** or **inspires** people’s lives.

9

3.Research & Idea

Mr.Obayashi, who is a movie director, said,
“It is important to keep communicating love. It is the meaning of life to think so and make movies like that.”



10

3.Reseach & Idea

Meaning of life is likely to have a mission.

"It is important to keep communicating love. It is the meaning of life to think so and make movies likely that."

Is that **not** likely to have a mission?

11

3.Reseach & Idea

Two ways of thinking about the meaning of life.

12

3.Reseach & Idea

Two ways of thinking about the meaning of life

① Meaning of life is likely to have a mission.

13

3.Reseach & Idea

Two ways of thinking about the meaning of life

② Meaning of life is **not** likely to involve a mission.

14

3.Reseach & Idea

Two ways of thinking about the meaning of life

① Meaning of life is likely to have a mission.

② Meaning of life is **not** likely to involve a mission.

15

4.Next Plans

1.Reason why we have to live.

2.How to find meaning of life.

16

Thank you for listening.

Reference material
 • Yatsuzuka, K., Hagiwara, R.
 (2014) Philosophy that makes oneself
 • Obayashi, N., Murata, T., Yoshitake, T.
 (1997) Teen philosophy (10) Why do people live? Popura.

17

F22

AN INVESTIGATION INTO THE WAY OF THINKING ABOUT RELIGION IN JAPAN

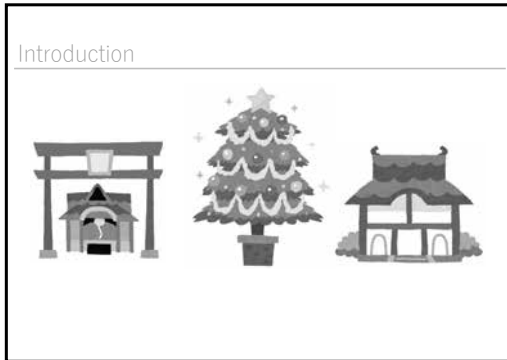
Takamatsu Honoka
Homma Konatsu

1

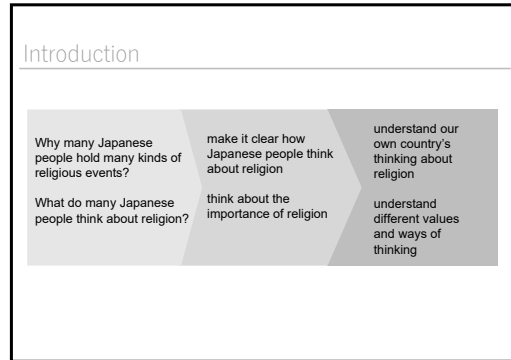
Contents

- 1.Introduction
- 2.Outline
- 3.Motive and purpose
- 4.Research①
- 5.Research②
- 6.Summary
- 7.In the future

2



3



4

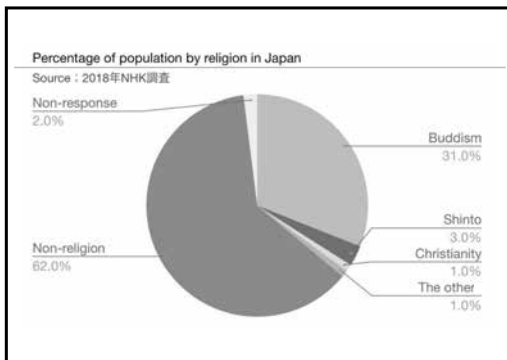
- ## Outline
- To make it clear how Japanese people think about religion....
- 1.Questionnaire about religion
 - 2.Analyze things that form values of many Japanese people

5

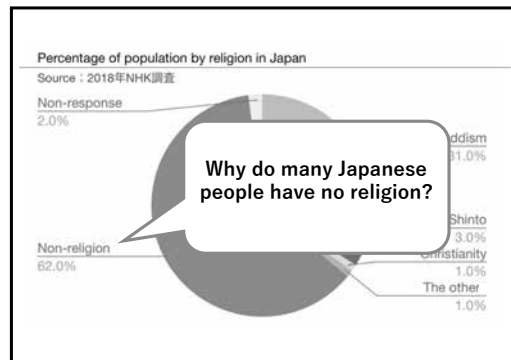
Research1

What do Japanese people think about religion ?

6



7



8

Research

A multitude of gods (Yaoyorozu no Kami) in Shinto

↓

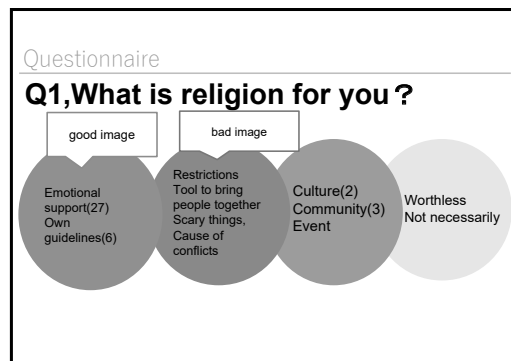
Japanese people tend to not be attached to only one religion

The sarin attack by Aum

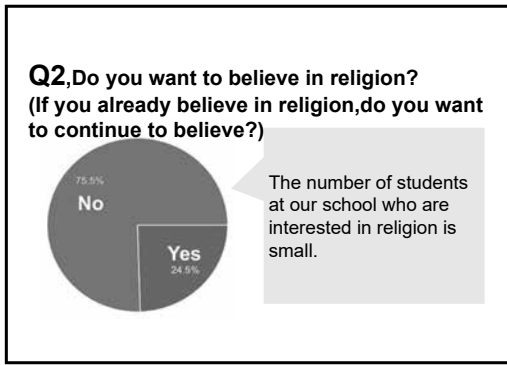
↓

The number of Japanese people who think religion causes problems increased after this case

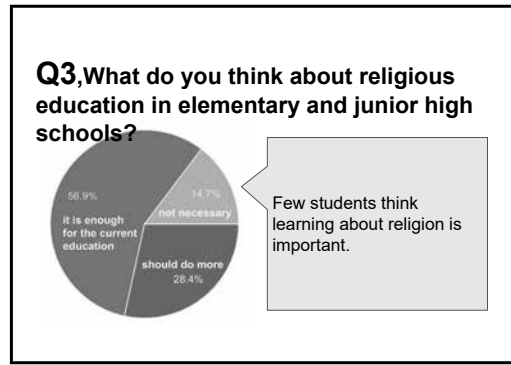
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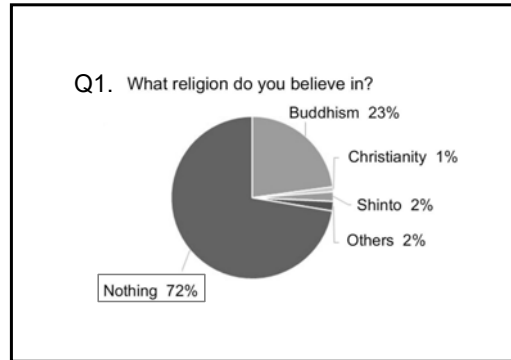
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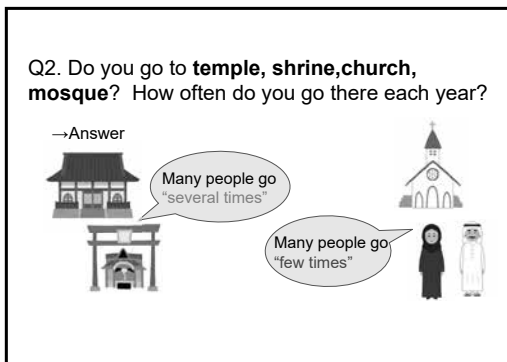
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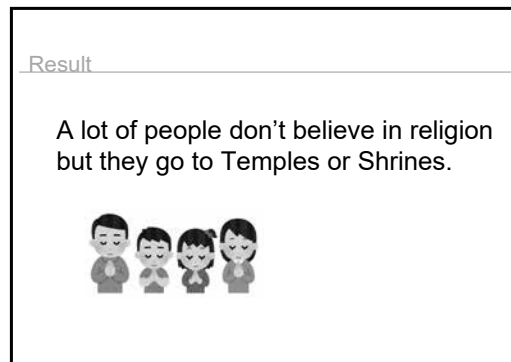
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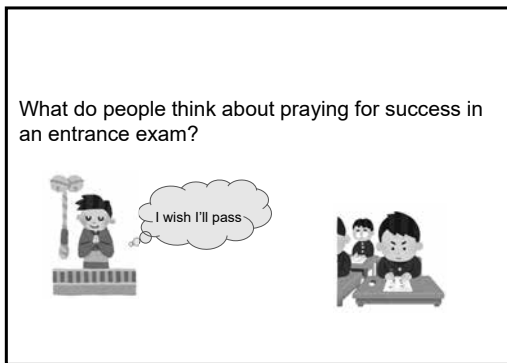
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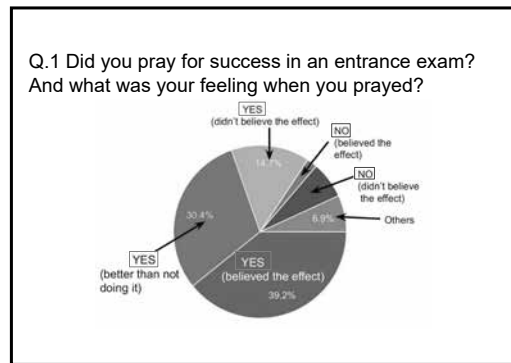
15



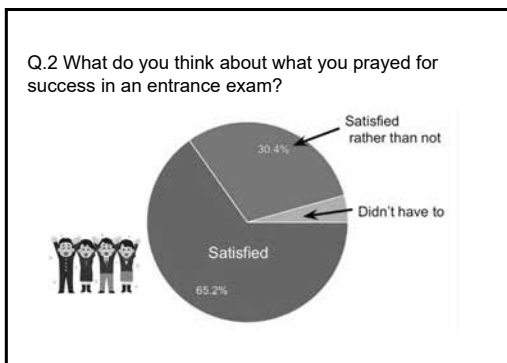
16



17



18



19

Conclusion(Research2)

- People thought of them as events not religious ceremonies
- Many people accept them regardless of their religion because their meanings and purposes are more important.

20

Research 3

Why are there few people who believe in religion passionately?

21

Research3

Why are there few people who believe in religion passionately?

22

Research3

Average annual income
Average life span

The level of happiness
Per capita GDP

23

Research3-result

Average annual income
Average life span

The level of happiness
Per capita GDP etc...

No relation

The number of people who believe in religion

24

Conclusion(Research3)

In the world:
there are many people who cannot choose the religion they believe in.

In Japan:
We have a freedom of religion.
↓ To stay happy for everyone...
It's important to truly understand religion and other people's way of thinking

25

Reference material

- 2018年NHK調査
- CIA the world fact book in 2015
- PRRI AmericanValueAtlas 2019
- PRI
- Chinese Spiritual Life Survey in2010

26

End

Thank you for listening

27

F3

Yamato pamphlet in English

～山梨をパンフレットで世界へ～

Masukawa Asahi · Ito Yuma · Kawabe Ryo · Watanabe Keita

1

1 Motivation

Q Why did we make it in English?

A Society is globalizing

2

Singapore Thailand Korea

3

English is a global language

4

Q Why did we make a pamphlet?

A It has many characteristics

Color Letter photo

5

2 About the contents

① Cover ⑧ Back cover

6

② Yamagata Prefecture ⑦ Club Activity

7

③ Daily Life

What they really want to know

- How we spend school life
- How long is our class
- What is the mood of our class

8

④ Active Learning & ⑤ Investigative Activity

9

⑥ School Festival & Class Match

School Festival

At the Yamagata High School each class has 2 performances. First one is a presentation for songs and dances. Second one is a skit. They have a money tree game. Third year students sell food and drink and have a market stand.

Class Match

We also have a sports festival "Class Match". It takes place over three days. Each class competes in various sports: soccer, volleyball, basketball, softball, and table tennis. We like it very much and it is a very exciting event.

- Many foreign high schools do not have school festivals or class match
- In Yamato high school, these events are very important

10

F4 16

About the rise of China predicted from the past cases.

—

2-6-19 Takahashi Hiroto

1

1. Introduction

—

2

China's rapid development is breaking the international affairs that the United States has been strongest since the Cold War.

↓

Predict what kind of impact China will have on the international community based on the actions of past great powers, and think about how Japan should act.

3

2. Body

—

4

Q. Why do nations expand their power?

A. Principle of Offensive Realism.

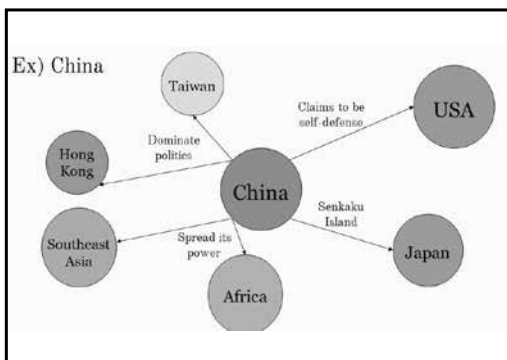
5

- Offensive Realism is the theory that nations expand their territory in order to survive.

↓

all nations aim to have the strongest power in the world.

6



7

Q. What will China do in the future?

A. Drive American forces out of Asia.

8

No nation can take over the world.
 → it is difficult to continue to send forces to remote locations.

EX)

- Mongolia about 800 years ago

→ To send forces to the area across the sea was difficult.

9

China will try to control Asia.

- This idea is said to be regional domination.
- It has already been done by the United States in the Americas.

Monroe Doctrine (Isolationism)
 ↓
 Big Stick Diplomacy

Like Greater East Asia Coprosperity Sphere.

10

Q.How will the United States compare with China?

A.Conclude military alliances and economic agreements.

11

1. Military alliances
ex)NATO during The Cold War.
→Very effective in avoiding war.

Take advantage of American power.

↓

Succeeded in protecting the country from military threats.

Blue is Eastern Block
Red is Western Block




12

1. Economic agreements.
ex)The Indo-Pacific Strategy(underway)
→Prevent the rise of China in the Indo-Pacific.

This connects Africa and Asia by trade.

↓

It needs to prevent spreading the power of China.



13

3. Conclusion

14

1.Impact of the rise of China
The unstable international situation due to the conflict between the two great powers will continue for a long time.

2.The action Japan should take
It should strengthen the alliance with the United States.

国名	GDP (2019年)	14歳以上人口 (2019年)	15歳以上人口 (2019年)
1 米国	20,260,000	62,890,000	32,700,000
2 中国	13,900,000	6,500,000	138,000,000
3 日本	4,971,000	12,200,000	12,200,000
4 韓国	1,360,000	45,800,000	47,000,000
5 インド	2,490,000	12,200,000	12,200,000
6 英国	2,700,000	66,000,000	64,000,000
7 中国	2,700,000	1,000,000	1,000,000
8 日本	2,490,000	12,200,000	12,200,000
9 中国	1,800,000	6,500,000	12,200,000
10 中国	1,700,000	12,200,000	12,200,000

- ・ The power of the United States and China are very different from each other.
- ・ Japan does not have the power to restrain China.

15

4.Outlook

16

I would like to take a deeper look at China's future actions from the actual actions of countries that have achieved or aimed for regional hegemony in the past.

Sources

自由で開かれたインド太平洋 ジョン・J・ミアシャイマー 五月書房新社
第一次世界大戦 木村靖二 ちくま新書
自由で開かれたインド太平洋戦略 平成29年度開発協力重点方針 外務省国際協力局
モンロードクトリンの系譜 「民主主義と安全」をめぐる一考察 西崎文子
世界の国内総生産 (GDP) ランキングトップ10
<https://www.ig.com/jp/trading-strategies/top-10-largest-economies-in-the-world-201020>

17

Goodesign



Hirasawa Toji Ooba Ryo
Nagasaka Tubasa Tanaka Renon

1

Introduction

Seniors studied colors and their effect
we became ↓ **interested in it**

Our goal is to make an attractive poster of shaved ice.

2

Content 1

shaved ice(**red**)

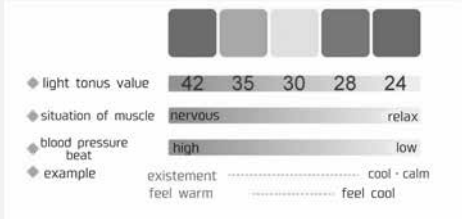
↓

background
(pink, light blue, yellow, yellow green, **orange**)

↓

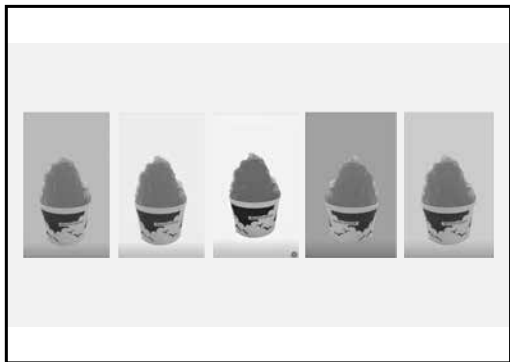
We made 5 different posters.

3



light tonus value	42	35	30	28	24
situation of muscle	nervous → relax				
blood pressure beat	high → low				
example	existence → cool · calm feel warm → feel cool				


4



5

Content 1-2

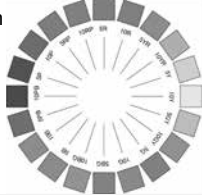
Which shaved ice looks good?



6

Expectation

Light blue and yellow green match for red.

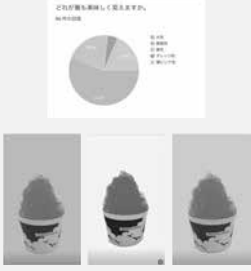


Complementary color makes each other's color stand out.

7

Result 1

1st light blue
2nd yellow
3rd pink



8

Conclusion 1

- Colors which are **similar to the color** of shaved ice are better as a background than complementary colors.
- Seasonal images** had a great influence on them.

9

Content 2

shaved ice(light blue, yellow)

↓

background
(pink, light blue, yellow, yellow green, **orange**)

↓

We made 5 different posters.

10

Result 2-1

1st light blue
2ed pink
3rd yellow

A pie chart showing three segments. Below it are three cupcake images, each with a color swatch: light blue, pink, and yellow.

11

Result 2-2

1st orange
2nd light blue
3rd yellow

A pie chart showing three segments. Below it are three cupcake images, each with a color swatch: orange, light blue, and yellow.

12

Conclusion 2

- Cool colors match for **complementary colors**, warm colors match for **similar colors**.
- Yellow and pink **promote** people to purchase
- **Seasonal image** is important.

13

Content 3-1

We make our poster better by using information that we discovered.

14

Content 3-2

Three versions of a poster design are shown, illustrating a process of simplification from a complex, multi-colored version to a cleaner, more focused one.

15

Content 3-3

- too many diagrams
- poster was too colorful

A poster titled 'かき氷の味' (Ice cream flavor) with many diagrams and a color palette. The text '興味を持ち' (Interested) and 'かき氷の味を作る' (Making ice cream flavor) is visible.

16

Content 3-4

It's hard for colorblind people to distinguish what is red from what is black.

- Letters are close to the frame.
- universal design

red and black
for colorblind people
red and black

A diagram showing text '予想 赤色には黄緑と水' (Prediction: Yellow-green and water for red) and '考察 かき氷において、' (Observation: In ice cream,). Below it are color swatches for red and black, with an arrow pointing to 'red and black'.

17

F9 Good design

A poster titled 'F9 Good design' with various diagrams and text, including 'Introduction', 'Content', 'Expectation', 'Method 1', 'Conclusion 1', 'Method 2', 'Conclusion 2', 'Proposal', 'References', and 'Appendix'.

18

Prospect

We are going to develop ideas about the effect of background colors.

19

References

<https://postd.cc/color-psychology>
色彩心理のすべてがわかる本 山脇恵子 ナツメ社
<https://tsutawarudesign/universal1.html>

20

J2

Promotion of plant growth using rhizobia.

Member: Yamagishi Takumi, Sampei Kyouta, Kurosawa Yuto
Teacher: Saino masayosi

1


1. Introduction

2

■ Rhizobia: It gives nitrogen to leguminous plants, and gets nutrition from that plant.

■ Koch's postulates:

1. The bacteria must be present in every case of the disease.
2. The bacteria must be isolated from the host with the disease and grown in pure culture.
3. The specific disease must be reproduced when a pure culture of the bacteria is inoculated into a healthy susceptible host.
4. The bacteria must be recoverable from the experimentally infected host.



3

2. Reason for setting the theme.

4

Now, fertilizers using rhizobia are being developed, and bacteria which are compatible with rhizobia are used in the fertilizers.

I want to investigate which bacteria are compatible with rhizobia to activate it and help the growth of plants.


5

3. Research content.

6

Basic experiment...

1. Culture of Rhizobia.
2. Use natto and lactic acid bacteria as bacteria that activates rhizobia.



↓

Collect data such as plant growth rate and crop size after growth.

3. Identification of rhizobia.

7



4. Research result.

8

① Preliminary experiment

Rhizobia was cultured using YMA culture medium (agar medium) and YMB culture medium (liquid medium), which are considered to be suitable for culturing rhizobia. (Rhizobia: Collected from field peas and white clover)


■ Result: We were able to confirm what appeared to be a colony of the bacteria, but we could not confirm that it was rhizobia.

9

② Identification of rhizobia based on Koch's postulates

1. Vermiculite was laid on the lower half of the cut out PET bottle, and we planted and grew white clover seeds there.
2. We regularly poured the YMB culture medium which rhizobia were cultured and distilled water.
3. If we confirm the rhizobia in the roots of the grown white clover, it is proved that the cultured bacteria was rhizobia.



10

■Result: Only distilled water or rhizobia which is collected from field peas and another white clover
→All died

■Consideration: We thought of the following reasons for our failure.

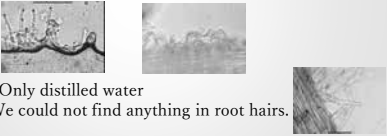
- We did not control the temperature.
- We did not give it enough water.

11

③Additional experiment of ②

- 1.We made the same experimental device as ②.
- 2.We grew it in an incubator.(25.5°C , with light.)

■Reason: Rhizobia collected from field peas
→We found some of the root hairs were curling.




Only distilled water
→We could not find anything in root hairs.

12

※The curling root hairs

The curling root hairs appear early in rhizobia infection.



There was a high probability that raised white clover was infected with rhizobia.

13

5. Future outlook.

14

- We will continue to identify the cultured bacteria based on Koch's postulates to confirm whether they are rhizobia.
- We will sprinkle a culture solution of rhizobia, natto, lactic acid bacteria and a mixture of them into the soil of vermiculite, and will examine the growth of plants.

15

6. Acknowledgments and references.

16

The details are as follows.

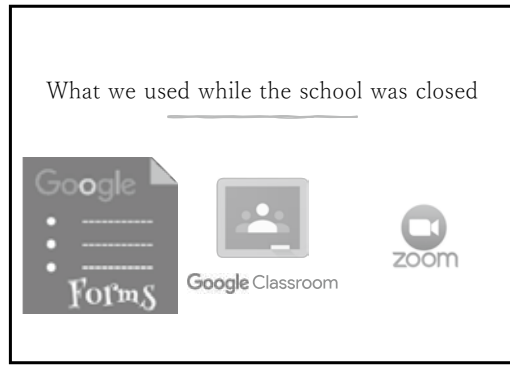
- 新編 土壤微生物実験法p234.258-282 (発行者:株式会社養賢堂 1992)
- ダイオキソの実験栽培品種からの根粒菌の探索収集 (青森県農林総合研究センター 桑田博隆・近藤伸子・岩谷香緒里 2006)
- 微生物遺伝資源利用マニュアル(農業生物資源研究所 横山正 1997)
- 根粒菌によるダイオキソ根毛カーリングの顕微鏡観察 (農業生物資源研究所 赤尾勝一・河内宏 1989)
- Medical Definition of Koch's postulates (William C. Shiel Jr., MD, FACP, FACR MedicineNet)

Thank you for listening.

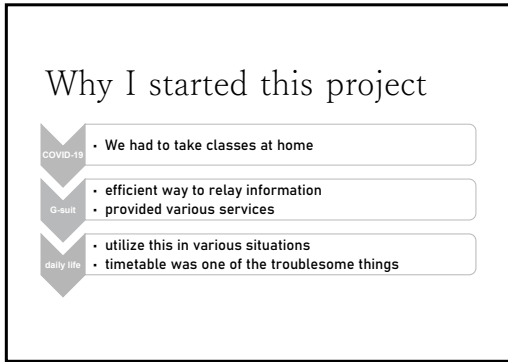
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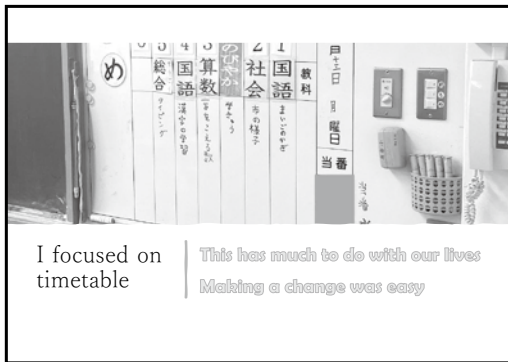
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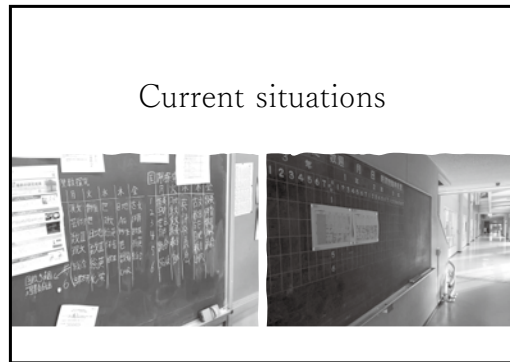
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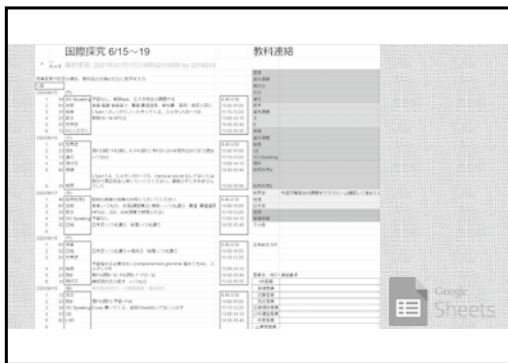
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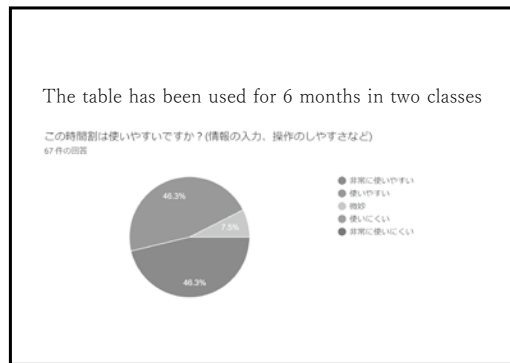
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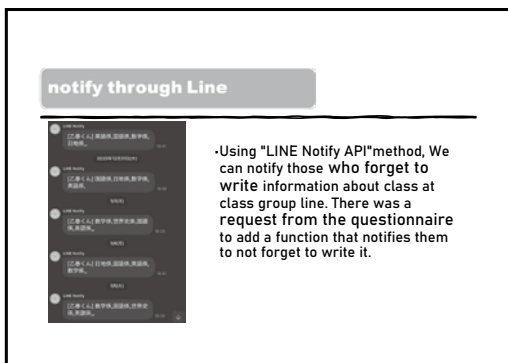
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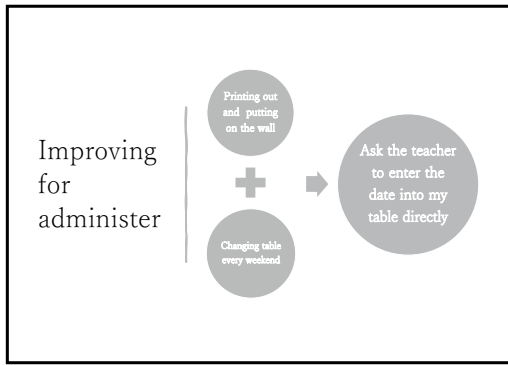
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9



10



11

12

What I want to do next

show what homework you have to do

using other Google services, I'm thinking how to make it in reality

Spread over second grade and over this school

In my questionnaire, 75% students have interest in installing this system. I will change details in accordance to the users request.

the application

Like most universities, I want to make inclusive information system which we can check the grade of tests and topics about school lives and Submission status of assignment.

13

- Special thanks to Katsuharu Sato who gives insightful comments and suggestions.
- Reference source: Qiita
- <https://qiita.com/kibitan/items/5b0ef5ac0665c5ac290c>

14

Thank you for listening and using the system!

If you are interested in our table, please check this site

15

令和2年度 課題研究英語発表について

昨年度より、国際探究科を中心としたシンガポール研修において、自分たちの課題研究を英語発表する機会を設けたが、今年度は新型コロナウイルス感染症の世界的拡大により実施できなかった。しかし、英語コミュニケーションと英語発表の機会を得ようと、代替となる企画について、文科省に変更届を出して、下記のとおり実施することができた。

Yamato International Exchange Seminar (ALT 等による英語発表指導と異文化交流会)

目的 新型コロナウイルス感染症の拡大に伴って中止となった2年次国際探究科のシンガポール研修（沖縄研修）の代替として、村山地区のALTや県や市の国際交流員の方々を講師として招き、英語発表及び異文化理解の指導をしていただくことで、本校生徒の英語コミュニケーション力、英語発表力を高める。

日時・場所 令和3年1月20日（水）9：30～15：30 本校第二多目的室、他

内容 午前：生徒の英語発表に対する英語指導
午後：生徒とALT等による英語での異文化交流会

講師 カヤシス ブリジット 氏（山形北高校）
リ ジョナン 氏（東桜学館中学校・高校）
ホー オフィーリア 氏（北村山高校）
ブレー ディーン 氏（山形市国際交流員）
ヨシノ ミチコ 氏（山形県国際交流員）
フレンチ アリス 氏（山形県国際交流員）
エバンズ ビクトリア 氏（山形東高校）
ウエア エスタ 氏（山形東高校）

Yamato Singapore Online Seminar(シンガポールとのオンラインによる課題研究英語発表会及び交流プログラム)

目的 グローバル人材育成を図る本校における教育プログラムの一環として、生徒が、課題研究発表や国際交流の機会を通して、英語プレゼンテーション等の言語活動によるコミュニケーション力を高める。今年度中止となったシンガポールへの海外研修の代替として実施する。

日時・場所 令和3年1月29日（金）9：00～15：40 遊学館（第1～6研修室）

内容 午前：オーラル発表審査会（1会場）・オーラル発表会（4会場）
審査員より審査結果発表・総評
午後：学生とディスカッション（5分科会）及び有識者による講演会

交流先 シンガポールの有識者及びシンガポール国立大学・シンガポール経営大学の学生

共催 (株)ISA ・ (株)デジコンキューブ

審査結果（オーラル発表審査会）

1位 Yamagata PRIDE ～A project to help high school students be proud of their hometown～

2位 Aim for The Resolution of Hunger at The Small Farmer Level in Zambia

3位 Yamato Pamphlet in English