

Do you know the way of Doshisha international exchange in science? ~To future students of Science and Engineering~

Learn science and engineering in a foreign language and in a foreign country to connect with the world

-Step up to study abroad! -

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Masaki Nishida
Leona Hirai
Masaki Mizue

Tomoki Kitagawa
Shoji Oikawa
Krueger Mischa Aleksej
Sora Sakamoto
Alansari Shouq

Purpose

Increase the number of students

- who wish to enter our Faculty
- who participate in various programs after enrolling

By convey and want participants realize the fun of

- science and engineering
- studying abroad in different cultures



Hold information sessions

- to convey the characteristics and appeal our international exchange program
 - ↳AES, Language Lesson, DD/ND study abroad Laboratory, Co-Learning program
- to the students in Doshisha related high schools

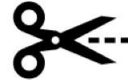
Interactive information session

"What should I do to become a globally-minded person?"

Group discussion



Small experiments



Quiz



Laboratories



Groups



Negotiation with
High School



AES & Labs



DD & Language
Lesson

Negotiation with High School

Leona Hirai
Alansari Shouq
Yuma Kuroda

Group Mission



Doshisha Junior and Senior High School
Doshisha Kori Junior · Senior High School
Doshisha Girls' Junior and Senior High school
Doshisha International Junior / Senior High School

- Contact with four Doshisha related high schools
- Tell schools our vision
- Gather participants

Plan

- Contact Doshisha International Junior / Senior High School through graduate in our project
- Contact other three schools through Prof.Matsukawa

Doshisha International High School

1. October 23rd

⇒ Members: Hirai, Kuroda, Alansari

⇒ Teachers: Mr. Nishida (Vice-Principal)

Ms. Nozaki (Director of School Affairs Department)

2. December 4th

⇒ Members: Hirai, Kuroda

⇒ Teacher: Ms. Nozaki

Targeted Students

The second year of senior high school students

➔ Need explain about the “Faculty of Science and Engineering”

Venue

Kyotanabe
Campus
@Doshisha
University

⇒ Easy to imagine campus life
for students

Online

⇒ Case of regulation by COVID-19

Schedule

Kyotanabe
Campus
@Doshisha
University

⇒ February 20th, 2021
13:00-16:00



Online ⇒ Planned to hold the sessions between
March 13th and March 30th of 2021.

Influence by COVID-19

January COVID-19 situation -> Bad



Doshisha International Junior / Senior High School Online -> ×

We contacted the following three schools by email through Prof. Matsukawa.

Doshisha Junior and Senior High School

Doshisha Kori Junior · Senior High School

Doshisha Girls' Junior and Senior High school

⇒ Impossible to conduct
in AY2020

Academic English for Science & Laboratory

Masaki Nishida
Tomoki Kitagawa
Shoji Oikawa
Leona Hirai
Krueger Mischa Aleksej

Group Mission

- Provide information about AES.
- Convey importance of learning scientific English to participants
- Encourage students to join after enrolling Doshisha.

Plan

- Present exciting and interesting contents from the [AES course \(Academic English for Science\)](#)
 - Specifically, by conducting little experiments like in those classes.
- Organize laboratory visits, so students get a real and fascinating insight into a student's research environment.

Plan

- AES
 - Conduct a quiz for the high school students.
 - As a reference, we have data from the scientific girl's project.
 - Focused on English and experiment & scientific related expressions.
 - Students do experiments from the AES class in a workshop.
 - We will use extracts out of the official AES book.
- Laboratory visits
 - Decide what professor to interview and what laboratory to choose.

Workshop to learn about AES experiments

Thursday, January 14

Attendants: Hirai, Nishida

Teacher: Prof. Romero

- Compare the erasing performance of multiple erasers
- Test the strength of spaghetti



Results

Made two manuals for high school students

- Compare the erasing performance of multiple erasers
- Test the strength of spaghetti



Can convey importance of learning scientific English

Spaghetti Bridge Experiment

スパゲッティで橋を作り、その強度について調べる

The aim of this experiment is to investigate the relationship between **the variable**: the unsupported length of the spaghetti bridge and the **strength** of the spaghetti bridge. How does changing the unsupported length of a spaghetti bridge affect the strength of the spaghetti bridge?

You will use weights to measure the strength of the bridge, placing them in a cup that is hanging on the spaghetti bridge until the bridge breaks.

Write your hypothesis for this experiment below:

If

(もしも～ならば：仮定を書く)

Then

(～になるだろう：will を使う、目的ことが起こった時の予想される結果を書く)

Procedure

1. Set up materials like the picture below.



2. Use weights to measure the strength of the bridge. Place it in a cup that is hanging on the spaghetti bridge slowly and count five seconds. After counting five seconds, put a weight into the cup. Observe the condition of the bridge before putting weights into the cup in order to check whether the bridge works or not.

3. Repeat process 2 until the bridge breaks and record the number of weights in the cup before breaking the bridge.

Eraser Experiment

どの消しゴムがよく消える？

The purpose of this experiment is the following:

To use "eraser" which is very familiar thing as an experiment tool, for the students to discover and learn the factors which may affect the result.

To know which type of eraser performs best.

You will use the following materials:

• a pencil

• a pencil sharpener

• different six erasers: Tombow Mono, Tombow Mono Light Touch, Arch Kokuyo Plastic Eraser Black, Pentel Hi-Polymer Ain, Pits Double Air-In

• a grading sheet (this sheet)

Eraser type	Pencil type 4B	Are there remaining marks in the circle?	Is there smudging outside the circle?
1. Kokuyo Plastic Eraser Black		/4	/4
2. Pentel Hi-Polymer Ain		/4	/4
3. Pits Double Air-In		/4	/4

Double Degree & Language Lesson

Miyu Teramoto
Yuma Kuroda
Masaki Mizue
Sora Sakamoto
Alansari Shouq

Group Mission

- To provide information about DD and Language Lesson.
- Encourage the students to join after enrolling at Doshisha Univ.
- Not just give students information, but also let students to think about their future.

Plan

- Conduct interview about DD and Language Lesson
- Organize information
- Provide in the form of quizzes

Results

Conduct interview from December to January

->Three DD experienced students

Mr.Murao Masashi	Electrical and Electronic Engineering	went to EC Lille
Ms.Sujishi Mikako	Applied Chemistry	went to ENSCL
Mr.Hashimoto Shunsuke	Electrical and Electronic Engineering	went to EC Nantes

->A pair of Language Lesson student and teacher

Ms.Kanenaka Akane	plan to go to ENSCL
Ms. Piet Maurine Solene Cecilia	from ENSCL

Results

Example of questions

- Why did you decide to go study abroad?
- How and when did you start preparing for studying abroad?
- What did you learn in your study abroad program?
- What was life in study abroad like ?

The entire interview was transcribed.

- Lots of experience including preparation
- Can have image about DD

テストも英語？

テストも英語。英語。もちろんもちろん。

日本に帰ってきてから生活に変化はありましたか？

それは結構変わって、何だろう、俺留学中に学生団体を立ち上げたのね。で、今その学生団体が日本の田園風景を守ろうって活動を学業とは別にしてるんだけど、そのきっかけになったのはフランスの生活で、フランスの生活のなかで一次産業って今日本に住んでると廃れていってるのは知ってるけど、どうなってもいいや、ってあったのよ。個人的には。なんか別に外から買えばいいやんって。食糧自給率が下がったって、俺ら困らんやん。そう思ったのよ。でもそうじゃなくて、

Reflections

- Made plans based on the idea situation would be somewhat better.
but the situation with COVID-19 has worsened.
⇒ should have made at least two plans (for good and bad)
- Many discussions in project were held online
but it was unclear whether members could communicate sufficiently
⇒ aware the difficulty of online communication
- Planned a program interactive
⇒ could think with imagination and flexibility 😊

Summary of Outcomes

- We could not hold a workshop for high school students, however...
- We made
 - 2 experimental manuals
 - 5 transcription by interview
- We hope to use our outcomes for
 - Increase students enrolling at Doshisha Univ.
 - Encourage the students to join programs
 - Hold information sessions
 - Create a pamphlet

テストも英語？
 テストも英語、英語。もちろんもち
 日本に帰ってきから生活に変化はありまし
 それは結構変わって、何だろ、俺
 の学生団体で日本の田園風景を守ろ
 そのきっかけになったのはフラン
 業って今日本に住んでると磨れてい
 や、ってあったのよ。個人的には、
 給率が下がったって、俺ら困らんやん。
 一次産業って国の根幹を担う産業で
 って、フランスって誰に農業本國ハ

} for high school students and freshmen

Spaghetti Bridge Experiment

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