

# UNIT Q INDONESIA

## 1. Outline of our TWINCLE

Date : 2/22 ~ 3/5 . 2016

Visited Place : Yogyakarta , Indonesia  
 • Faculty of Geography

Gadjah Mada University (UGM)  
 • SMA Negeri 6 Jakarta (SMA N6)  
 • SMA Negeri 3 Jakarta (SMA N3)

Member

Education english

Kawamura Aki Oonuki Takuto

Education primary

Watanabe Shihori

Engineering urban city environmental system

Kurosaki Taisei

## 2. Lesson

### Purpose

We wanted students to know the following things;

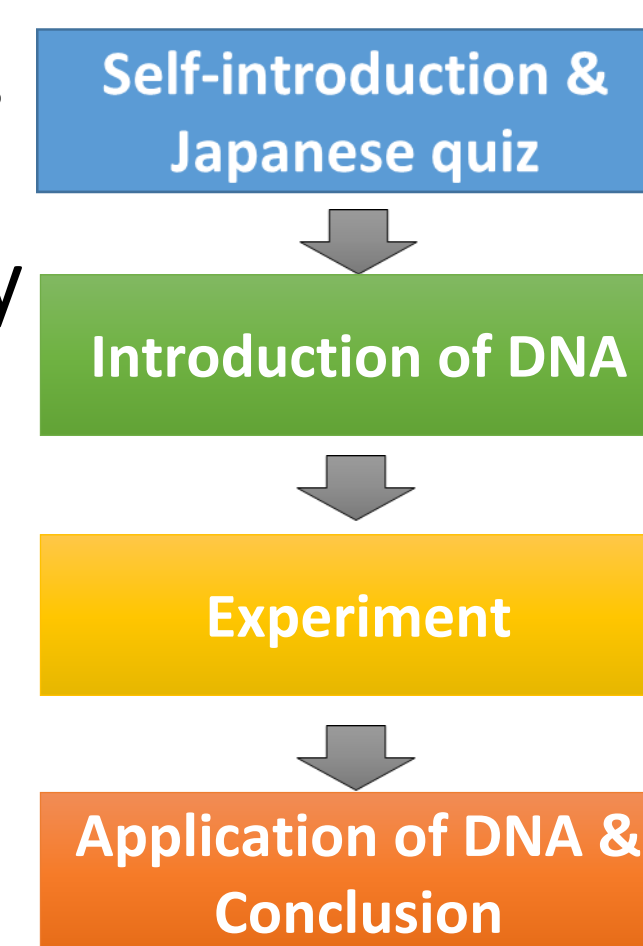
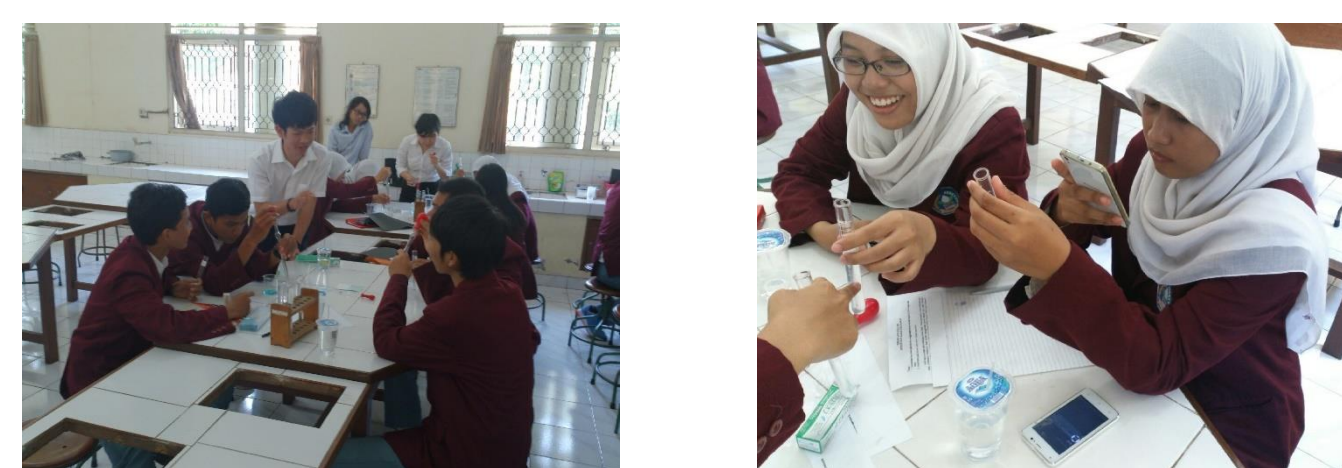
1. How to extract DNA from one's body
2. The application of DNA
3. Technology makes our lives better

Students in SMAN 3 and 6 already knew the basic information about DNA, but students in SMAN 6 did not know how to use apparatus. Therefore we taught it in both schools. Also, we taught the application of DNA by using some questions because we wanted students to have interest in it. The biggest purpose was that students would think science was interesting.

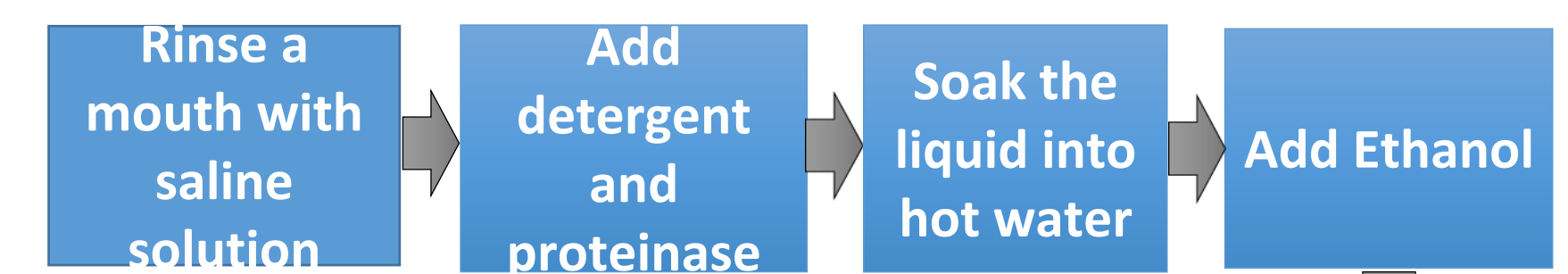
### Lesson

Our lesson has four contents (see the figure on the right).

Students enjoyed Japanese quiz a lot. In the experiment, students extracted their own DNA from their cheeks. They were excited because it was the first time for them to see their own DNA.



### Experiment



In the experiment, students added four chemicals into a test tube and they could see DNA. Saline solution helps DNA to connect with each other. Detergent and proteinase help DNA to be taken out easily. Ethanol does not mix with the liquid, so it helps DNA to gather and sink into it.

Students can see their own DNA



### Results

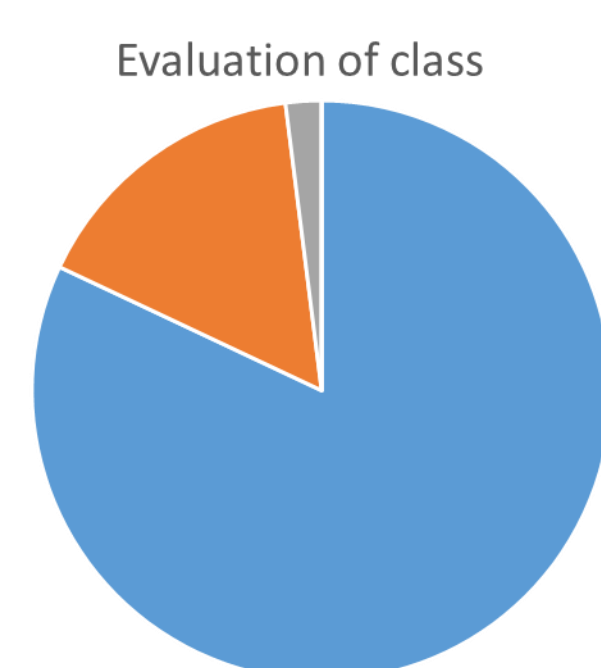
#### 1st and 2nd lessons at SMAN 6

In SMAN 6, the students did not often have experiments, so they seemed to be interested in the lesson.

(+) or (-)	Comments
(+)	The experiment was interesting and amazing.
(+)	I could see my DNA by the experiment.
(-)	Teacher did not speak English fluently.
(-)	I could not hear the teacher's voice.

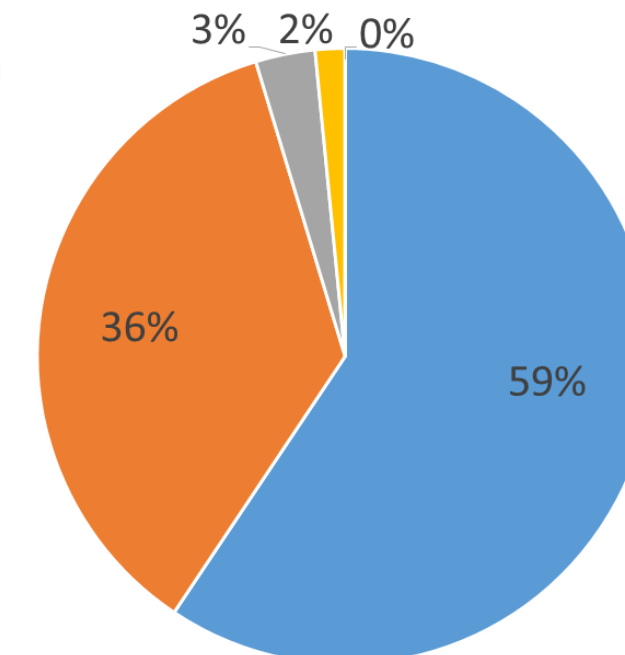
#### 3rd and 4th lessons at SMAN 3

Evaluation of class



■ All of them were good  
 ■ Many of them were good  
 ■ Fair  
 ■ Many of them were poor  
 ■ All of them were poor

Evaluation of class



(+)Teachers prepared the materials perfectly.  
 (+)We could see our DNA by the experiment.  
 (+)They explained the lecture clearly and really interesting.  
 (-)The Japanese pipet was hard to use.

### Japanese culture class

[Date] 1/3/2016

[Place] SMAN 3 Yogyakarta

[Contents] Introduction of the Japanese culture

1) ranking of

- comic books
- Ghibli movies
- music
- tourist places

2) Yamanote Line and the famous stations

[opinion]

"I come to want to go to Japan."

"I want to study the Japanese culture more."

[question]

"Why do the Japanese comics become world-famous?"



## 3. Activity



Siung beach

Very beautiful landscape!

We played "SUIKA WARI" . We were very excited!



Taman sari

Hamengkubuwono(king) made Taman sari.  
 A lot of bathing area!



Palace Square

We came happy Once if you blindfolded impassable wood and trees.



Gamelan

We played Traditional musical instruments.  
 Gamelan is use in ceremony.

## 4. At last

### Results

- . We could improve our English ability .
- . We could know the cultural difference between Japan and Indonesia.
- . We could teach scientific matter and Japanese culture.

### Problems

- . There were some misunderstanding because our English was not clear and fluent.
- . We need some local student's help because of lack of our preparation.

### After this...

- . We would like to improve our English ability more.
- . We would like to be interested in other field and other culture more.
- . We would like to try various things using our experience in Twinkle program.

