

(For JSPS Fellow)

Form B-5

Date (日付)

02/02/2016 (Date/Month/Year: 日/月/年)**Activity Report -Science Dialogue Program-**
(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Kogovsek Tjasa (ID No. P15753)
- Participating school (学校名): Miyazaki Kita High School
- Date (実施日時): 29/01/2016 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English)What do I do when I do research?
- (in Japanese)
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

In the first part of the presentation the students learnt few facts about my country, the Republic of Slovenia: an east European country that is 10 times smaller than Japan with a population slightly larger than the population of Fukuoka city. Despite being so small it has variable landscapes and beautiful old cities. In the second part of the presentation, I have briefly explained when and why I have decided to work in science and finally, I have explained my approach of doing research by following the five steps: 1.) identify a problem/question, 2.) research the existing literature, 3) plan an experiment in order to answer a specific question, 4) evaluate the results and conclude if we have a solution to the problem or additional experiments are needed (5.).

First, we have observed that high numbers of jellyfish may have negative impacts on human wellbeing (Step 1). In the process of understanding why jellyfish may be so numerous we did the literature research (Step 2.) and learnt what kind of organisms are comprised in the group of jellyfish, why some of the jellyfish have the potential to sting, why they are considered as planktonic animals, and finally, we have studied about the life cycle of the "true jellyfish" and the role they play as predators in the marine food web. We now know that there are several factors that may potentially lead to large aggregations of jellyfish. However, we cannot test all hypotheses at once therefore we should carefully plan an experiment to address one question at a time (Step 3.). From the results of my experiment we have concluded that the starvation in young jellyfish does not affect their mortality (Step 4.) so other factors than food availability may be more important in regulating jellyfish abundance (i.e. the number of individuals). At this point we still do not know what the causes for large jellyfish aggregations are; yet, we are a step closer to understanding this phenomenon (Step 5.).

On a practical example from marine biology the students of Miyazaki Kita High School have learnt the nature of a researcher's work: solving a problem by answering one question at a time

similarly as putting together a jigsaw puzzle game. At the end I challenged the students to think about possible solutions to the problem we have identified at the beginning and try their best in the role of a researcher.

- Language used (使用言語): English

- Lecture format (講演形式): PowerPoint presentation

◆Lecture time (講演時間) 70 min (分), Q&A time (質疑応答時間) 20 min (分)

◆Lecture style(ex.: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))

A projector for the presentation. Also, the School provided a microscope connected to a camera in order to show the animals to the students during the presentation and alive animals in a jar were circulating among the students during the presentation (jellyfish-polyps and medusas).

◆Interpretation(ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

I had assistance by accompanied person that provided explanations in Japanese and native English teacher from the School that promoted the interaction with the students.

◆Name and title of accompanied person (同行者 職・氏名)

Prof. dr. Uye

◆Other note worthy information (その他特筆すべき事項):

- Impressions and opinions from accompanied person (同行者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):