

(For JSPS Fellow)

Form B-2
(FY2018)

Date (日付)

30/07/2018 (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): Perez Joan (ID No. P16782)
- Participating school (学校名): Tama Metropolitan High School of Science and Technology
- Date (実施日時): 18/07/2018 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): Rapid urbanization and vulnerability of human societies. Anticipating challenges and embracing new methods.
- Name and title of your accompanying person (講義補助者 職・氏名)
Toshiki Yamano, Master 1 Student
- Lecture format (講演形式):
 - ◆Lecture time (講演時間) 80 min (分), Q&A time (質疑応答時間) 10 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))
Powerpoint
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

Lecture 1

Lecture 1 explained how was the daily life of a scientist, what were the requirements to become scientists, was were the advantages (and drawbacks) of this work and why learning english was important today.

Lecture 2 (also related to lecture 3)

Human societies in history have sustained several urbanization waves as evidenced by the rise and fall of countless kingdoms. However, humanity has never experienced such an intense urban growth as the one we are experiencing now (55% of the world population is living in cities, as compared to 30% in 1930 and an expected 66% by 2030). As a result, unplanned urban sprawl is growing and environmental risks are increasing. This is reflected by an increase of the number of people living in extremely poor conditions (slums, dormitory buildings, etc.), a decrease in air quality, pollution of waterways, etc. In parrallel, the number of farmer is decreasing while food production is increasing thus showing that humanity is dependant upon an ever decreasing share

of the population to sustain itself. Rapid urbanization is bringing several other enormous challenges, which are (1) Appearing faster than the pace at which humanity finds solutions (2) Hard to solve once appeared. Then, a solution can be to anticipate the appearance of these problems. To reach this aim, a better understanding of how cities are functioning and of the link between population and urban environment can help planning more sustainable cities. The use of new methods of data analysis can be of a great help in this task.

- Overall advice or comments to future participants in the program (今後の講師へのアドバイス):

I would advice the lecturers to prepare a specific lecture (or several small lectures) designed especially for the students. Directly talking about our work may be too complicated and not that much interesting for high school students.

- Other noteworthy information (その他特筆すべき事項):

Lecture 3 was a quiz related to urbanization of the world. In every slide, part of the pictures and/or information were hidden and a questions were asked to students. Then animations revealed the answers. This lecture worked really well with more than 30 students participating and trying to give answers.

- Impressions and comments from the accompanying person (講義補助者の方から、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。)

高校生のうちから研究者がどのような職業であるかを理解し、今後のキャリアについて考える機会があるのは素晴らしいことだと感じました。