

Form B-5

Date (日付)

06/10/2011 (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): Emanuel Blei (ID No. P10776)

- Participating school (学校名): Utsunomiya Joshi Koukou

- Date (実施日時): 28/09/2011 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Plants and our atmosphere

(in Japanese) -

- Lecture summary (講演概要): Please summary your lecture 200-500 words.

The lecture was divided into 3 parts.

- In the first part I briefly introduced myself and the universities I had studied at and I talked about the general education that chemistry students receive at university. I also showed the wide variety of topics and work environments that chemists can be found to work in.
- In the second part I talked about my current research. To this purpose I first introduced the students to the background knowledge that is necessary to understand the science behind it. This included the interaction of plants with the atmosphere, focusing mainly on the gaseous compounds produced by plants. Following up were the concepts of radiation and wavelength of light (including ultra-violet radiation) using simple experiments on diffraction and luminescence to illustrate them. Next I talked about the stratospheric ozone layer, how it functions and how it is important to life on earth. Then I talked about my own work studying the production of ozone-destroying compounds by plants. The students were shown how I conduct my experiments and what my current results are. I finished by showing the students how gas samples are analysed via gas chromatography. This also included an experiment using paper chromatography.
- In the last part of my talk I gave the students my personal impressions of what it means to be a researcher. This included an account of what researchers do, where they work and what characteristics a person should have to be a good researcher.

- Language used (使用言語): English

- Lecture format (講演形式):

- Lecture time (講演時間) 55 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))

The lecture was given while using a projector. Some of the concepts introduced were demonstrated with simple experiments such as diffraction of light, luminescence of tonic water under UV-irradiation and paper chromatography.

- 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))

My colleague provided a translation

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

Dr. Takuya Saito

- 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。):

- あらかじめ、受講する生徒の学年がわかると良いと思いました。
- 我々の場合には 1 時間程度の講義に往復で約4時間の移動時間と 1 万円程度の交通費を費やしました。時間とコストの削減のために、近隣の高校でも同日に同様な講義ができればと思います。