

(For JSPS Fellow)

Form B-5

Date (日付)

30/09/2015 (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): Joohwi LEE (ID No. P 14376)- Participating school (学校名): Wakasa high school, Obama, Fukui- Date (実施日時): 29/09/2015 (Date/Month/Year: 日/月/年)- Lecture title (講演題目): (in English) An introduction of nano-scale world based on the materials science and engineering(in Japanese) 材料工学とナノの世界

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

The keyword of "nano" has been important for recent scientific technology because the size is close to the world of atom and electrons. Materials science and engineering is for making better materials by controlling the phenomena which occur in the nano-size world. The aim is to make the students interested in the basic concept of nano and materials science and engineering.

The presentation is composed of four parts. At the first, the background of the speaker such as home country and culture is introduced. At the second, the definition and importance of materials science and engineering are described. Additionally, the close relation of nano and materials is shown. All objects are made by material in the world. Materials properties are dominated by atomic structure and constituent elements. Their sizes are controlled at the nano size. At the third, the categorization method of materials into metal, ceramics, and polymers is described. Another categorization method of materials by conductivity is also shown. Identical character of each different material is introduced. Additionally, the speaker shows how the semiconductor revolution changed the world more comfortable. It help students to understand all different kind of materials are useful around us. Finally, the reasons of fun and daily usual works of the research in the university are introduced. Simple summary of the speaker's research is also included.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 80 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))

Used projector

◆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))

Assistance by accompanied person

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

Kazuki KIMURA, master course student in Kyoto University

◆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。):

適宜、生徒からの質問の時間が設けられて、生徒が英語を聞くだけでなく、話す機会があったことが非常に良かったと思います。