

(For JSPS Fellow)

Form B-5

Date (日付) 16/02/2016

(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): Manoj Kumar Singh (ID No. P 15371)
- Participating school (学校名): Wakasa High School, 1-6-13 Chigusa, Obama-city, Fukui 917-8507
- Date (実施日時): 29/01/2016 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Principle of thermal Comfort and its importance
(in Japanese)
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

Lecture Was divided into two parts.

Part 1(about 15-20 mins). General Introduction.

- I started the presentation talking about me, My family and from where I come to Japan.
- The education institutes I attended. Starting from schooling, college and university education.
- After PhD Experience. In Belgium and in India.
- Present day problem of Global warming and climate change(Pictures and cartoons were used for easy understanding).
- Effect of Global warming and how to mitigate it (Pictures and cartoons were used for easy understanding).
- How my research topic and today's presentation is related to present day problem of global warming and climate Change(Pictures and cartoons were used for easy understanding).
- Break of about 10 mins for discussion

Part 2 (about 60 mins including instrument demonstration): Principle of thermal Comfort and its importance. I sent this part to Noriko Hanaki, English Teacher at the school to circulate the presentation to students.

- I started the presentation about comfort and defining it with examples. Also told students about International standard organization and its function.

- Then I told about importance of comfort and what happens when comfort is maintained? (Pictures and cartoons were used for easy understanding)
- Then I moved to explain about various Comfort Factors (Environmental + Personal)
- I explained about the physical meaning of thermal comfort its characteristics with examples involving students.
- Then I talked about what we as Designers/Engineers do and what is our job. Why we should be very careful in understanding thermal comfort?
- Now I moved to demonstration of instruments (CO₂, temperature, relative humidity and air velocity) used for measuring Environmental factors. I handed over the instruments to students and asked them to explore it. It was nice to see the curiosity of students.
- Then I moved to explain them why thermal comfort measurements are important and how measurements are done (Pictures and cartoons were used for easy understanding). I also gave various examples using pictures.
- Then I talked about local thermal discomfort how and why it happens.
- After above explanation, now I moved to explain the science behind comfort, heat flow (Pictures and cartoons were used for easy understanding).
- Then I explained about my research so far with pictures.
- In last I talked about my research as JSPS postdoctoral fellow.

In my presentation I tried my best to explain the complex terms in simple words with examples. Some students asked questions also and I was happy to see this.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 75min (分), Q&A time (質疑応答時間) 45 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))

Use LCD projector and demonstrated indoor thermal environment measurement instruments. Also involved students and showed them how to use them and how measurements were taken.

◆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))

Noriko Hanaki English Teacher at the school

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

Not Applicable

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

It was a good learning for me as I could see the Japanese Schooling system.

- 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。): Not Applicable