

Form B-2  
(FY2020)  
Must be typed

Date (日付)  
14/12/2020 (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): Javier Troyano (ID No. PE19052)
- Name and title of the accompanying person (講義補助者の職・氏名)  
学部4回生 平松 佑規
- Participating school (学校名): Aichi Prefectural Okazaki High School (Okazaki-city, Aichi)
- Date (実施日時): 11/12/2020 (Date/Month/Year: 日/月/年)
- Lecture title (講義題目): Chemistry: building at the scale of atoms and molecules
- Lecture format (講義形式): Presentation
- ◆Lecture time (講義時間) 120 min (分), Q&A time (質疑応答時間) 30 min (分)
- ◆Lecture style (ex.: used projector, conducted experiments)  
(講義方法 (例: プロジェクター使用による講義、実験・実習の有無など))  
Powerpoint presentation and experiments
- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.

My lecture was divided into three parts. First, I introduced myself and my country. I gave the students a wide picture of Spain nowadays, and I asked them to give me their impressions about Spain (food, sports, culture...) and I showed them the most relevant cultural aspects of Spain in an interactive way. Then, and I comment the most relevant geographic and historical aspects, highlighting the relevance of science and technology in the development of any country. After that, I talked them about my high-school times and I shared my personal experience and motivations for doing research, and I answered their questions. After a short break (5 min), I gave them an introduction to solid state chemistry, talking about crystalline and amorphous solids and coordination complexes. During the explanation of the construction of ordered chemical structures I ask them to predict some structures, (they were able to predict almost all). Next, I moved to the topics that I am working on, and I explained how supramolecular gels can be formed. I finished this part showing them the most relevant results obtained in our group. Finally, they were divided into groups of ~6 students and I gave to each group a pack of plastic discs. I explained to them how to easily build models of different types of molecules and metallic clusters with them, and then I ask each group to form different polyhedra. This demonstration past helped them to understand the concept of design and structural diversity in coordination chemistry, which was

introduced in the previous scientific presentation.

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

- 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。）:

非常に生徒全員が主体的に参加できる有益なイベントであると思いました。

高校生相手に実際の英語の講義を受けることで、より英語等の外国、または外国語に関する興味をそそる効果が期待でき、実際に研究者を目指す生徒にとっては最先端の研究を行う研究者の講義を聴くことで将来に関する大きな目標が設定しやすくなるのではないかと感じました。

意見としては、この講義の頻度に関してあまり見識がないので間違っていたら申し訳ないですが、各学校あたり一年に一回あるかないかの頻度であるなら、複数回行うことでより身近に研究や海外に向けた視野を持ちやすいのではないかと感じました。