

令和6年 6月 3日

## サイエンス・ダイアログ 実施報告書

1. 学校名・実施責任者氏名: 静岡県立韮山高等学校 教諭 栗田 秀人
2. 講師氏名: Dr. Victor FERGUSON
3. 講義補助者氏名: 井形 彬
4. 実施日時: 令和6年 5月 31日 (金) 13 : 30 ~ 15 : 00
5. 参加生徒: 1 年生 2 人、 2 年生 35 人、 3 年生 0 人 (合計 37 人)  
備考: (例: 理数科の生徒) 2年生は文系探究コースの生徒
6. 講義題目: Economic interdependence and Power in World Politics
7. 講義概要: 世界政治における経済的相互依存と影響力
8. 講義形式:  
☒ 対面 ・ ☐ オンライン (どちらか選択ください。)
  - 1) 講義時間 70 分 質疑応答時間 20 分
  - 2) 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)  
プロジェクター使用による講義、補助者による補足説明
  - 3) 事前学習  
☒ 有 ・ ☐ 無 (どちらかに○をしてください。)  
使用教材 事前に講師が送ってくださった概要とキーワードを共有した。
9. その他特筆すべき事項:  
全体的に和やかな雰囲気、生徒は楽しみながら学ぶことができた。生徒の理解度に注意しながら講義を進めてくださったので、生徒の理解度や満足度が高かった。研究分野への関心が高まり、生徒にとっては有意義な時間であったと感じる。

Form B-2  
(FY2024)  
Must be typed

Date (日付)  
3/06/2024

**Activity Report -Science Dialogue Program-**  
(サイエンス・ダイアログ 実施報告書)

- Fellow's name (講師氏名): **Victor Alexander FERGUSON (ID No. P23012)**
- Name and title of the lecture assistant (講義補助者の職・氏名)  
**Akira IGATA (Project Lecturer, RCAST, UTokyo)**
- Participating school (学校名): **Shizuoka Prefectural Nirayama High School**
- Date (実施日時): **31/05/2024**
- Lecture title (講義題目): **Economic Interdependence & Power in World Politics**
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- Lecture format (講義形式):

- ◆ ☒ Onsite ・ ☐ Online (Please choose one.)(対面 ・ オンライン)((どちらか選択ください。))
- ◆ Lecture time (講義時間) **60(分)** Q&A time (質疑応答時間) **30(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))

**Used projector, handout, and multiple choice quiz**

- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.

**Lecture Abstract:** In history, disputes between countries often involved military conflict. However, since the end of the Cold War, many famous scholars have argued that because of globalization and economic interdependence, future disputes between countries will primarily involve economic conflict. But social scientists know much less about economic conflict than military conflict. When and how can countries use their economic relationship with another country to influence them? One popular hypothesis is that countries will be powerful when other countries "depend" on them economically. This presentation examines the relationship between 'dependence' and power and consider two case studies where a big country has tried to use a smaller country's 'dependence' but failed to achieve their objective. The presentation explains why 'economic power' is difficult to use, and why it is an interesting topic to research.

**Presentation:** I spent the first half of my presentation on (1) Australia and (2) My motives for becoming a scientist. In this section, I first told the students a bit about myself, my hometown, and life in Australia. I asked the students some questions about Australia. Then, I spoke about why I decided to become a researcher. In this part, I briefly spoke about the difference between natural science (like chemistry) and social science (like economics). It is much harder to understand cause-and-effect relationships in social science, and this made me very interested in social scientific research. I explained this in very simple English, using the example that natural scientists in a laboratory can put two chemicals (Chemical X and Chemical Y) in a test tube and examine the effect of  $X > Y$ , without worrying about other chemicals (Chemical A, Chemical B, etc). In social science, we do not have test tubes, so it is challenging to study cause-and-effect ( $X > Y$ ) relationships because of the risk of confounding variables (A, B, etc).

The second half of the presentation focused on what I find interesting about my research. In this section, I spoke about one broad theme of my research: **the relationship between economic interdependence and power in world politics**. In history, disputes between countries often involved war (military conflict). However, during my lifetime (since the end of the Cold War) many famous scholars have argued that because of globalization and economic interdependence, future disputes between countries will primarily involve economic tools (economic conflict). But social scientists know much less about economic conflict than military conflict. The big question that motivates my research is: when and how can countries use their economic relationship with another country to influence them? One popular hypothesis is that countries will be powerful when other countries “depend” on them economically. My research examines this idea about ‘dependence’ and power. I spoke about two case studies where a big country has tried to use a smaller country’s ‘dependence’, but it has failed. I spoke about why ‘economic power’ is difficult to use, and why it is an interesting topic to research.

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

**Key vocabulary:**

- social science vs. natural science (社会科学 vs. 自然科学)
- causal inference (統計的因果推論)
- treatment / cause (or independent variable) 原因
- outcome (or dependent variable) 結果
- confounder (or confounding variable) 交絡因子
- globalization (グローバル化)
- economic interdependence (経済相互依存)
- asymmetric interdependence (非対称的相互依存)
- economic sanction (経済制裁)
- economic security (経済安全保障)
- export (輸出) / import (輸入)
- boycott (ボイコット) / buycott (バイコット)

- Impressions and comments from the lecture assistant (講義補助者の方から、本プログラムに対する意見・感想等がありましたら、お願いいたします。):

Participating in the program was an interesting and ultimately rewarding collaborative 'research activity'. It forced Victor and I to think about how to communicate our research to a new audience, and in much simpler language than usual. Delivering the presentation was also a nice way to engage in teamwork in a new setting.