

様式 A-1
(FY2025)

令和 7 年 7 月 16 日

サイエンス・ダイアログ 実施報告書

1. 学校名: 宮城県仙台第三高等学校・理数科部長 教諭 村田 淳
2. 講師氏名: Dr. Giselle L. MIOLE
3. 講義補助者氏名: なし
4. 実施日時: 令和 7 年 7 月 15 日 (火) 10:45 ~ 12:35
5. 参加生徒: 3 年生 約 93 人、 年生 人、 年生 人 (合計 93 人)
備考: 普通科の生徒 93 名
6. 講義題目: 『気候正義 (Climate Justice) と地球環境保全のためにできること』
7. 講義概要: 人為活動がもたらす世界規模の気候変動による影響が、国家間や地域間で異なるという問題に対して、どのような観点で対処していくのかに関する研究
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 90 分 質疑応答時間 10 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、生成 AI を活用した生徒個々の活動など
3) 事前学習
☐ 有 ・ ☒ 無 (どちらか選択ください。)
使用教材:
9. その他特筆すべき事項:

Form B-2
(FY2025)
Must be typed

Date (日付)
21/07/2025 (Date/Month/Year: 日/月/年)

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): MIOLE Giselle Lugo (ID No. P24765)
- Name and title of the lecture assistant (講義補助者の職・氏名)
Not applicable
- Participating school (学校名): Sendai Daisan High School
- Date (実施日時): 15/07/2025 (Date/Month/Year: 日/月/年)
- Lecture title (講義題目):
My Research, My Game: Play to Learn, Learn to Care
- 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) 100 min (分), Q&A time (質疑応答時間) 10 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))
Used projector, slide presentations and games
- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.

This lecture explores the concept of climate justice among high school students that emphasize how climate change impacts communities in unequal ways depending on geographic location, socio-economic conditions and livelihood. The central theme is that climate change is not only an environmental issue but also a social issue as its consequences are disproportionately experienced by marginalized populations.

To engage students in a more participatory and reflective learning experience, I introduced a game called *Climate Fate*. It is a text-based, AI-assisted simulation game that I developed using OpenAI's ChatGPT-4o platform. In this simulation game, players will assume a random role dictated by ChatGPT, such as a farmer, fisher, student or government worker, each situated in a specific region in Japan. As they make decisions within these roles, the players will encounter trade-offs and outcomes that shape their understanding of sustainability, resilience and equity. The game is designed to promote systems thinking, empathy and collaborative problem-solving

by allowing players to see the consequences of their actions within the broader climate context.

In addition to the gameplay, I shared my personal reflections on my journey as a researcher from the Philippines. Drawing from my story as researcher, I highlighted how environmental challenges in my home country, such as typhoons and flooding, have inspired my work on climate education and justice. I also reflected on the similarities and differences between Japan and the Philippines in terms of climate issues and how cross-cultural learning can enrich scientific learning and practice.

The overall goal of my lecture was to make science more accessible, relatable and empowering for students. I used storytelling and interactive tools like games learning about real-world issues, and the session encouraged the students to see themselves act on learning about climate justice and address climate change issues.

Photos:



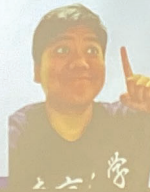
◆Other noteworthy information（その他特筆すべき事項）:

The students and teachers present in the session enjoyed my lecture due to how easily understandable the level of English is, and the fact that we were able to play games together. Many students were visibly engaged with the lecture and teachers noted that the presentation was informative and simple to understand. The gameplay of Climate Fate was the students' most remarkable point of my lecture as they got to learn about climate justice in a simple game.

- 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。）: Not applicable



BUT! The good news is...
We can still do something about it!



English Cafe
Social Science
Dr. Giselle L. MIOLE
The University of Tokyo, Komaba
Graduate School of Arts and Sciences