

様式 A-1

2026 年 6 月 8 日

サイエンス・ダイアログ 実施報告書

1. 学校名:大妻中野中学高等学校
2. 講師氏名:Ekaterina Sangati 様
3. 講義補助者氏名:小楠なつき 様
4. 実施日時: 2026 年 6 月 6 日 (土) 13:30 ~15:30
5. 参加生徒: 高校 3 年生 2 人、高校 2 年生 3 人、高校 1 年生 6 人、中学 3 年生 9 人(合計 20 名)
備考:(例:理系の生徒:5 人)
6. 講義題目:What makes something alive or inteligent? How can we investigate this?
7. 講義概要:知的とは認知機能があることを指すが、個の知能は生物群となったときどのように機能するか
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 100 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)
プロジェクターの使用による講義、インターネットを通した実験(ゲーム形式)
 - 3) 事前学習
☒有 ・ ☐無 (どちらか選択ください。)
使用教材: 講師が作成
9. その他特筆すべき事項:
参加生徒が皆、新しい気づきを得ることができた貴重な機会となりました。

Form B-2

Date (日付) 02/07/2026

(Date/Month/Year: 日/月/年)

Must be typed

Activity Report -Science Dialogue Program-

(サイエンス・ダイアログ 実施報告書)

1. Fellow's name (講師氏名): Sangati Ekaterina (ID No.P24012)

2. Name and title of the lecture assistant (講義補助者の職・氏名)

Dr. Ogusu Natsuki

3. Participating school (学校名): Otsuma Nakano Junior and Senior High School

4. Date (実施日時): 06/06/2026

(Date/Month/Year: 日/月/年)

5. 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) 20 min (分)

◆ Lecture style (e.g. 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))

I used a projector to display slides, conducted discussion by writing key concepts on the blackboard, and guided the students through a live behavioral experiment in a form of an online game.

6. Lecture title (講義題目):

Life, Mind, Sociality. What makes something alive or intelligent? How can we investigate this?

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

In the first part of this lecture, I shared my journey between philosophy and cognitive science, starting from the questions I used to ask in high school (Who am I? What is the meaning of life?) and moving to how I perceived these questions addressed in different fields, how they became more specific, and how I keep searching for answers. Since the school was an all-girls school, I also added a slide on what it's like to be a woman in science (tough).

Together with the students, we then reflected on whether specific examples of different systems (a rock, a candle, a bacterium, a plant, a robot, a dog) can be considered alive and cognitive (intelligent, conscious, goal-directed). We discussed how some examples are tricky but the way we position these systems has consequences. For example, our answer as to whether a robot or a ChatGPT can truly love us depends on whether we think it's a cognitive agent. I briefly introduced a specific theory that argues that life and cognition are inseparable.

In the second part of the lecture we scaled up to group phenomena and collective intelligence. We discussed whether specific group behavior examples (crowd in a Shibuya crossing, a flock of

birds, an ant colony, and a Mikoshi team) are a single entity or a group of many entities and what it would mean to say that a group as a whole can be a cognitive system. We concluded that every system can be viewed as one or many, depending on the scientific question we want to answer. At the end, I conducted a live demo in which the students jointly controlled an object in the game, striving to keep it in the safe zone. This activity is similar to a group of people moving a mikoshi shrine together without letting it topple over. The students reflected on what was difficult and how their performance in the game could be improved.

The overall theme of the lecture was adaptive behavior from single-celled organisms to social systems.

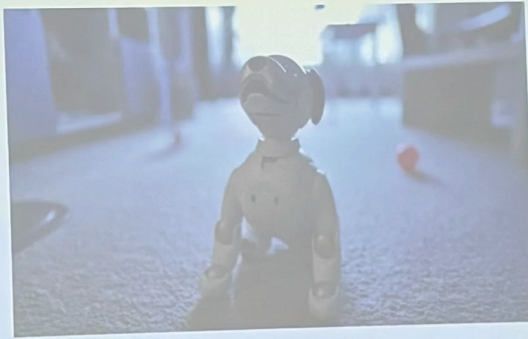
8. Other noteworthy information (その他特筆すべき事項):

I repeated some of the material from my previous Science Dialogue lecture (especially the first half and the live demo), but adapted the content based on the feedback and my impressions from that lecture. Specifically, I simplified some concepts, restructured the second half to make it more clear how it's related to the themes discussed in the first half, and grounded it in more real-life examples. This was a valuable experience in learning how to improve the way I present complex theoretical and scientific ideas to high school students.

In both lectures, I was consistently impressed by the high quality of student thinking and reflection. They were making deeply philosophical points by themselves, asking clever questions, and connecting abstract themes to their daily life. It was a very rewarding experience.

9. 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。):

Aibo dog



EM資料室
① 資料室内
② 生徒
立入禁止

