

様式 A-1
(FY2024)

2024 年 11 月 1 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: 栃木県立宇都宮女子高等学校・寺内純
2. 講師氏名: Dr. Jianying HAO
3. 講義補助者氏名: 志村 努 教授
4. 実施日時: 2024 年 10 月 28 日 (月) 14:30 ~ 16:30
5. 参加生徒: 1 年生 39 人、 年 生 人、 年 生 人 (合計 人)
備考: (例: 理数科の生徒)
6. 講義題目: Light Art and Data: A Journey into Holography
7. 講義概要: ホログラフィーの素晴らしい世界を示した上で、どのように作成され機能するのかの背後にある基本原理を講義した。続けて次世代のホログラフィー記憶技術について論じた。
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 50 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
 - 3) 事前学習
☒ 有 ・ ☐ 無 (どちらかに○をしてください。)
使用教材 講義者に事前送付していただいた英文講義概要の事前配布及び内容把握
9. その他特筆すべき事項:
特になし

Form B-2
(FY2024)
Must be typed

Date (日付)
28/10/2024 (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): Jianying Hao (ID No. P23370)
- Name and title of the lecture assistant (講義補助者の職・氏名)
Professor of The University of Tokyo, my supervisor, Tsutomu Shimura
- Participating school (学校名): Tochigi Prefectural Utsunomiya Girls' High School
- Date (実施日時): (Date/Month/Year: 日/月/年) 28/10/2024
- Lecture title (講義題目):
Light Art and Data: A Journey into Holography
- 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) 45 min (分), Q&A time (質疑応答時間) 15 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, holograms were shown

- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.
I began with a self-introduction, including my hometown, its specialties, scenic spots, and interesting aspects. I talked about the schools I attended and explained why I am currently in Japan. I then shared a bit about my life and why I chose to pursue a Ph.D. I discussed the principles of holography, the process of creating holograms, and the applications of holographic storage. To wrap up, I introduced some amusing aspects of research work. We also showed the students real holograms. Most students seemed quite interested, and whenever I noticed someone looked confused, I tried to slow down a bit. Teaching high school students is very different from giving an academic presentation. If I have another opportunity, I may come up with some more engaging ideas to inspire their enthusiasm. As I stood on the podium, the students all welcomed me in the Japanese way, and my own mentor stood beside me as my assistant. In that moment, I felt incredibly moved, sensing a strong sense of continuity and tradition. This teaching experience may have given me more than it did the students. I felt a new sense of responsibility on my shoulders. The outline of my presentation is as following:

About myself

自己紹介

What is holography

ホログラフィーの正体とは

What is a hologram made of

ホログラムは何でできているのか

What can we do with holography technology

ホログラフィーの技術で使って何ができますか

Summary

まとめ

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

I feel that I should prepare more interactive questions. The projector in the high school is relatively small, and listening to English continuously can make students feel sleepy. The students were very interested in real holograms, and when Shimura-sensei brought out a real hologram, everyone was visibly excited.

- 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。):

Shimura-sensei 's feed back:

You had a very good lecture yesterday. I believe the students enjoyed your lecture.