

(For JSPS Fellow)

Form B-2
(FY2018)Date (日付)
18/10/2018 (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): マチニク・アレクサンドラ
(ID No. P17790 _____)
- Participating school (学校名): Tochigi Prefectural Utsunomiya Girls' High School
- Date (実施日時): 15/10/2018 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): Sports injury risk reduction in female athletes
- Name and title of your accompanying person (講義補助者 職・氏名)
早川美奈 (修士 2 年)
- Lecture format (講演形式):
 ◆Lecture time (講演時間) 50 min (分), Q&A time (質疑応答時間) 10 min (分)
 ◆Lecture style (ex.: used projector, conducted experiments)
 (講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))
Used projector, conducted practical work in pairs and exercises
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

I have started the lecture with introducing myself and Poland, the country I come from. We have focused on similarities of the two countries. Then, we had a look at the knee joint anatomy, in particular bones and ligaments of this joint. Students had an opportunity to explore 3D mechanics of the knee joint by building their own knee model from clay. Myself and the accompanying person, were guiding and supporting the students in this practical activity. After that, we have discussed briefly injuries occurring in sport. One of the most devastating injuries in sport is an anterior cruciate ligament injury. Therefore, we have analyzed in depth the mechanism of this injury. Students were again practicing their understanding of the injury mechanism by manipulating their previously built knee models. Next, we have explored the consequences of an injury to the anterior cruciate ligament, both immediate and long-term. As this injury has detrimental effects to athlete's future, reduction of this injury is a main topic of my research. The reduction of the anterior cruciate ligament injuries is in general a complex process. However, there are things, like safe landing, that can be practiced. Students have learned about the rules of safe landing. They also had an opportunity to practice jumping and safe landing by themselves. After that, the volunteer student tried one of the exercises designed to help in development of safe landing technique.

Finally, we analyzed how the things we have had learned during this lecture were discovered in a biomechanical laboratory. This included presentation of 3D motion recording equipment and analysis software and biomechanical markers. To remember for longer, students have received stickers with the main message of the lecture. The lecture finished with students getting their questions answered.

- Overall advice or comments to future participants in the program (今後の講師へのアドバイス):

Use your accompanying person, let them know what the lecture is about, how they can help, and what you need from them.

Having a translator prepared to translate the questions have improved engagement of the students.

Using some practical tasks gave me an opportunity to walk around and interact with students on one-to-one basis.

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

I recommmed this experience to every JSPS fellow.

- 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。

私自身高校時代は SSH(スーパーサイエンスハイスクール)クラスに所属していたこともあり、研究者のお話を伺う授業はとても楽しみな授業の一つだったため、今回講義補助者として参加できることをとても嬉しく思っていました。アレックス先生の講義では座学だけでなく、手や体を動かす時間があったため、生徒さんも楽しみながら参加してもらえたのではないかと思います。

正直英語力に自信がなく補助者としての役割を果たせるのか不安でしたが、事前にアレックス先生と打ち合わせをし、日本語でも初めて聞くような専門用語を説明できるように予習するなど、あらかじめ準備ができたので良かったと思います。また私にとっても、研究内容を分かりやすく伝えるにはどうしたら良いのかを学べる良い機会ともなりました。ありがとうございました。