

Polar Bears and Global Warming

1. Motivation behind Research Paper

Polar Bears are in extreme danger of extinction. We learned about polar bears in global research class. I wish for many people to improve their awareness of global warming and how polar bears are affected. Polar Bears are an endangered species. This is because arctic ice is melting and the availability of food is decreasing. This is forcing them to live in a smaller space which leads to them fighting and killing each other. In this research paper, I will spread awareness about the issues faced by polar bears to students at Nara Kokusai High School.

2. Introduction

The aim is to raise awareness about global warming by putting a piece of paper on the toilet light advising. A study conducted by the author states that there is low awareness of global warming among Japanese. The data collected for this study will include books. We decided to examine the relevance of this issue by referring to books and other information on global warming and polar bears. The Earth's atmosphere contains greenhouse gases. If there were no greenhouse effect at all, the average global temperature would be minus 19°C, but the greenhouse effect has resulted in an average temperature of 14°C, which is suitable for living organisms. However, as the concentration of greenhouse gases increases, the infrared radiation

emitted from the earth's surface is trapped inside, making it hotter and hotter. Carbon dioxide accounts for most of the greenhouse gases emitted by humans. Currently, the concentration of carbon dioxide in the atmosphere is increasing rapidly, and the average global temperature is rising.

3. Results and Analysis

1 Making Slides about Polar Bears and Global Warming.

We found Polar Bears International on homepages. It is slides which are for learning about the current status of polar bears. It described the issue of global warming in relation to the ecology of polar bears. However, it isn't described in Japanese. I think I will translate it into Japanese. It's difficult to translate in Japanese. I sent an email to polar bears international. However, I still don't have a reply.

2 Zoo Visits

We visited the Tennouji Zoo. I heard of polar bears from the Vice Principal. I saw a poster for global warming prevention written in the polar bear section of the Tennoji Zoo. I think I will make a poster and stick on Kokusai High School. However, we ourselves thought that raising awareness by putting up posters would not be very effective, since the posters were all over the school and left a lasting impression on us, and we had little experience of being inspired to do something by them.

3 Global Warming Prevention in Schools.

We became aware of the current situation in which many lights are left on at our school. We surveyed all the restrooms in the school to see if the lights were turned off. The lights were left on almost every day in the restrooms used mainly by second-year students, next to the infirmary, and in one restroom used mainly by third-year students. We put an illustration of a polar bear on the toilet switch. We found that those with illustrations were more likely to have their lights turned off than those without illustrations.

Before

○...turn on ×...turn off	6.14	6.15	6.16	6.17
The Nurse's Room Men	×	×	×	○
The Nurse's Room Women	○	○	○	○
The second grade Men	×	○	○	×
The second grade Women	×	○	○	○
The third grade Men	○	×	○	○
The third grade Women	○	○	○	×
The first grade Men	×	×	×	×
The first grade Women	×	×	×	○
The presentation room in front of the men's bathroom	×	×	○	×
The presentation room in front of the women's bathroom	○	○	×	×

After

○...turn on ×...turn off	10.31	11.01	11.02	11.04
The Nurse's Room Men	×	×	×	○
The Nurse's Room Women	×	×	○	×
The second grade Men	○	○	○	○
The second grade Women	×	○	○	○
The third grade Men	×	×	×	×
The third grade Women	×	×	×	×
The first grade Men	○	×	○	×
The first grade Women	○	×	×	×
The presentation room in front of the men's bathroom	×	×	×	×
The presentation room in front of the women's bathroom	×	○	×	×

After putting up posters in the bathrooms, the number of people who turned off the lights increased. Therefore, we believe that we were able to raise the awareness of global warming in Kokusai High School. Putting up posters changes people's behaviour. The project was a success.

4. Conclusion and Future Problems
In this experiment, our main goal was to increase the awareness of global warming and the extinction of polar bears. We did this by putting posters on top of light switches to see if it would change people's minds. In the end, we noticed that some people could change their minds in Nara Kokusai.

Future problems:

Through this two-year study, we observed that there was a tendency for people to turn off the lights. In other words, we believe that we were able to fulfil our goal of raising awareness of global warming. Although we were not able to make good use of the posters and the slides translated into Japanese by polar bears, we thought that if we had done these two actions, we would have been able to raise more awareness of global warming.

5. Reflection

I was able to learn more about global warming through this research project.

In the future, I want to extend my project outside of Nara Prefecture. For example, I could not send my slides about polar bears to other prefectures or other countries. I would like to spread the word about my posters internationally. To do so, I should think about things in order. By doing this project however, I was able to learn how to plan things systematically and to execute them in a timely manner with my classmate. In the future, I would like to study more about different solutions to global warming. I would like to express my deepest gratitude to Mr. Imanishi of the Tennoji Zoo and everyone at the Tennoji Zoo for their great guidance throughout the conduct of this research, which was intended to convey the current status of polar bears.

6. Work Cited

Derocher Andrew E."Polar Bears: A Complete Guide to Ecology and Behavior."
25 October.2014.Print.

Valentina Jannenra."Stand up with Greta."15 February .2020.Print.

Keiya Mizuno."Recently, the earth is hot and bears." 10 September.2021.Print.

Christina Scharmacher Schreiber."What happens when the temperature rises by 1 degree? Mechanism of climate change: Thinking about the future of the earth."
29 January. 2021. Print.

Seiichi Sawai."I want to see it before I die! A polar bear with a superb view."
11 July.2015. Print.

Al Gore."Inconvenient Truth 2."7 Nov. 2017. Print.

Masako Konishi."witness to global warming." 22 October. Print.

Masahiro Watanabe."Global warming in pictures." 1 July.2018. Print.