

NAKAMURA
SENIOR GIRLS' HIGH SCHOOL

Nakamura International Course

Class of 2024
Thesis Projects

SDGs

Sustainable Development Goals



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Introduction

The Nakamura International Course (NIC) students, class of 2024, have successfully completed a one-year study abroad program. During their time in Australia, Canada, New Zealand and the United States of America, the students researched and wrote a thesis on the topic of their choice, selected from three of the seventeen Sustainable Development Goals (SDG's), instigated by the United Nations. Choosing an additional subject relevant to their interests, each student conducted research by using the internet and the school library. From this information, they created a set of interview questions to ask both men and women during their study abroad and in Japan.

The students utilized critical thinking in order to plan and write a research thesis on their chosen topic, how this connects to their chosen SDG, and interpret the data collected from their interviews. In addition to this, the NIC students also presented their thesis to an audience to share what they have learned from their experiences.

In this collection are the theses written by each student.

Kyota Sato & Stasia Ise

Gender Equality in Schools



Ria Kawano

Nakamura Senior Girls' High School

Nakamura International Course Thesis Project

Introduction

Have you ever experienced or felt a difference in the treatment of boys and girls at school? There are a lot of issues related to gender and I think most of those come from the education system. This is because the education system, such as pre-school or elementary school, is going to be the very first step of learning about gender for young children who don't even understand it clearly. What if children are taught biased or incorrect ideas about gender at school? It will become their own opinion, based on what they learned when they were little. Also, there are huge differences between the Japanese education system and the American education system. That means kids might understand gender in thousands of different ways. In this thesis, I will illustrate the differences in the perception of gender issues at school in the USA and Japan, and how we can learn from each other.

Background

Hollywood actress and equal rights activist, Zendaya, once said, "Every girl thinks that they have to get permission to do something and we must change that" (Zendaya, 2016). Recently, the differences in perceptions of gender issues around the world are increasing. In particular, gender issues in schools are focused on by thousands of people because, naturally, there are lots of parents who care about their children, and it is obvious that what is taught at school is going to be a huge deal for most people. For example, special Japanese school bags, called *randozeru*, are used almost everywhere in Japan, by children. In the past, there was a clear color difference; black for boys and red for girls.

Even today, there are many stereotypical colors between boys and girls in Japan. However, in countries other than Japan, there is no *randozeru* culture, so the



Japanese school bag (*Randoseru*)

awareness of gender-specific colors is not as high as in Japan. It is not only the *randoseru* colors, but also the restroom sign colors, and the cup and toothbrush set that was given to us in kindergarten, too. From this, we can see that there are

different stereotypical colors assigned to boys and girls since early childhood. Also, it is impressed upon Japanese children since they are small, so stereotypical colors have a strong influence on them.

How about in other countries? For instance, in the United States of America, there are no stereotypical colors for boys and girls. Colors are not gender stereotyped; even the restroom sign simply uses an illustration in a neutral color. The whole world has been trying to achieve the Sustainable Development Goals (SDGs), set out by the United Nations (UN), for the last seven years, and to achieve it they have to have the same symbols for gender in each country. If they don't have the same symbols, people might get confused. Every country is starting at a different point of understanding and acceptance about gender equality. For example, the number of female school principals in Japan and the US is significantly different. In the United States, 75 percent of school principals are female, compared with just 25 percent in Japan (WIA Report, 2023). When governments decide what measures they will take in order to achieve the SDGs, the ultimate goal they aim to achieve is the same, but there will be huge differences in the time it takes to reach it, depending

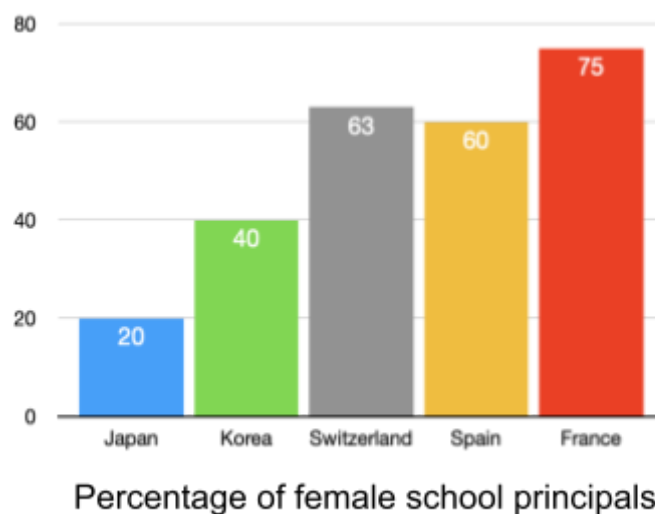
on the starting point of the country. Do you think that the 120th ranked country in gender equality and the 51st ranked country can achieve the same SDG in the same amount of time? Probably not, and even if they could, there are many more countries in the world still yet to achieve these goals, so it will take much longer than the estimated 2030 for the whole world to achieve it.

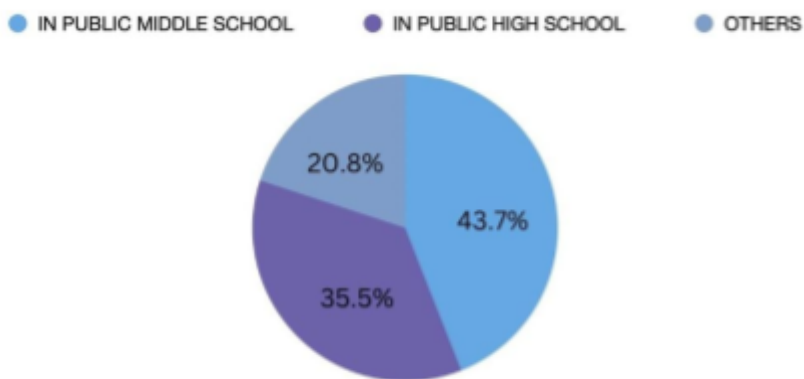
Supporting Arguments

Last year I went to San Diego, in the United States of America, and spent a year there on a study abroad program. Ten questions were asked to two males, one from Italy, one from the US, and two females who are from the US, during my study abroad program. The same questions were asked to a Japanese male and female before going away.

The first question asked was: *do you have an image that males are always principals of the school?* Interestingly, all of the answers for this question were no. In general, most males will gain a higher position or earn more money compared to females in Japan. This is because there is a traditional image that males are going to belong to the same company for a long time, earn more money than females, and support their family on one

income. As seen in the graph, there are not many Japanese schools where the principal is female (Nihon Keizai Newspaper, 2020). According to an article by WIA Report, 57.4% of all K-12 school



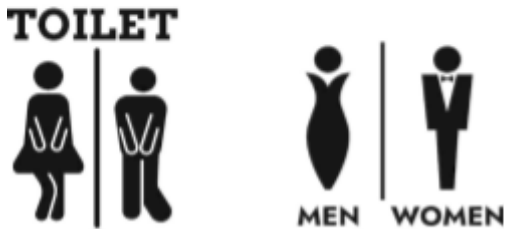


The number of female school principals

principal roles were held by women in the United States in 2020-21. Specifically, 43.7% of

principals in public middle schools were women, and 35.5% of principals in public high schools were women. This is a stark comparison to Japan, where 9.8% of acting principals for public middle schools were women, and 9.2% of principal roles at public high schools in Japan were held by women (Kawamura, 2023). One of the reasons for this disparity is because of the difference in school policies between Japan and the US. In the US, students are allowed to attend the school where their parents work. However, compared to the US, all of the students through pre-school to high school in Japan are not allowed to go to the same school where their parents work. Because of this, students in the US could know that their mother or father are able to be a school principal, but in Japan it is not allowed, so it is hard to understand or imagine that the school principal is going to be female.

The second question was; *do you have a stereotypical image of color for boys and girls?* Many interviewees replied to this question that they have seen stereotypical colors for both boys and girls, but they paid little attention to it. In the United States, they do not use different colors for each gender in order to show that they are separated. To emphasize the point, the public bathroom signs use an image to identify genders, but stereotypical gender colors are not used such as red for girls and blue for boys. Most of the bathroom's signs use black and white images but no



Images of restroom signs

other colors in order to show that having a different bathroom for each gender (Vecteezy). However, in Japan, most public bathroom signs are colored red for females and blue for males. Back in the very year of 1964 when the Tokyo Olympics was organized, “stereotypical gender colors” started

to be used. At that point, Japanese bathroom signs were also assigned shapes, but due to the Olympics and the influx of people from other cultures, there was confusion because in some cultures, both males and females wear skirts. Hence, Japan decided to add colors to the signs (GEX GROUP, 2021). Since the 1964 Tokyo Olympics, Japanese schools have promoted the use of these colors to indicate gender, starting from kindergarten to elementary school, and all the way through middle school and high school.

The final question was; *do you have any bias that boys will choose science or mathematics , and girls will choose liberal arts or language for their major in high school?* For this question, all four people said NO, because most countries, except Japan, are not required to select their main, specific subject at high school. According to an article in the Asahi Shimbun, in European countries, students are separated into two main subjects, which are Natural Science, or Humanities And Social Science, at university and college, to indicate what they are interested in (Nakamura, 2020). In the US, most students are not separated by Science or Humanities subjects as a course in freshman and sophomore year in college. Once

they are in junior and senior year in college, they start to separate into specific majors so as to study those subjects at a higher level. Conversely, all students in Japan have to select their major subject when they get into high school. Due to this system, a lot of students struggle with tests at school, or with their entrance exams for university or college. Students believe they are only good at the field they major in. It is limiting their opportunities to try something else that they are interested in. Additionally, it also affects the gender gap by solidifying the stereotype that the majority of boys will choose science or mathematics (Nakamura, 2020).

Conclusion

The findings of this thesis project about gender equality in schools shows how important it is to understand and accept that each person is different, even at a young age. If people learn about their differences when they are in school, they can know more about others and can share their opinions in class. From this, they can also learn how other people feel about gender equality or about the gender options that we have right now. Additionally, there are a lot of gender-related problems in school, such as bathroom colors, and backpacks colors. If people refuse to change their attitudes, there is no way to solve the problems of gender equality and it will only get worse. In order to avoid such issues, Japanese schools need to change their educational system to a more inclusive environment, recognizing the individuality and uniqueness of each person.

References

- IllustAC (2022), *Genderless school uniforms*, [ONLINE] Available at:
https://www.google.co.jp/url?sa=i&url=https%3A%2F%2Fwww.ac-illustr.com%2Fmain%2Fsearch_result.php%3Fword%3D%25E3%2582%25B8%25E3%2582%25A7%25E3%2583%25B3%25E3%2583%2580%25E3%2583%25BC%25E3%2583%25AC%25E3%2582%25B9%25E5%2588%25B6%25E6%259C%258D%26utm_source%3Dtag&psig=AOvVaw1XonY50ruHTH3uJMhpx8dc&ust=1670629628656000&source=images&cd=vfe&ved=0CBEQjhxqFwoTCJiMm76a6_sCFQAAAAAdAAAAABAD. [Accessed 9 December 2022].
- Roschke, R. (2016), *14 Quotes From Zendaya That Will Leave You Feeling Inspired as Hell*, [ONLINE] Available at:
<https://www.popsugar.com/celebrity/inspiring-quotes-from-zendaya-40929141>. [Accessed 27 February 2024].
- imagenavi (2010), *桜とランドセルの小学生男女後姿の画像素材*, [ONLINE] Available at: <https://imagenavi.jp/search/detail.asp?id=62004510>. [Accessed 18 January 2024].
- WIAREport (2023), *The Status of Women as School Principals in the United States*, [ONLINE] Available at:
<https://www.wiareport.com/2023/01/the-status-of-women-as-school-principals-in-the-united-states/>. [Accessed 18 January 2024].
- Kawamura, K. (2023), *少なすぎる女性校長、公立中高は1割未満識者「女の子の翼を折る*, [ONLINE] Available at:
<https://www.asahi.com/articles/ASR3L2BZ9R3KUCVL002.html>. [Accessed 18 January 2024].

- Fujishiro, H. (2020), なぜ男性は青、女性は赤？, [ONLINE] Available at: <https://www.risktaisaku.com/articles/-/32070>. [Accessed 26 February 2024].
- Nakamura, M. (2020), 「文理分けは日本だけ」は本当か？ 隠岐さや香・名古屋大教授に聞く, [ONLINE] Available at: <https://www.asahi.com/edua/article/13850303>. [Accessed 28 February 2023].
- 一般社団法人(2020), 主要国の女性校長比率, [ONLINE] Available at: <http://yoshimurayasunori.jp/blogs/%E4%B8%BB%E8%A6%81%E5%9B%BD%E3%81%AE%E5%A5%B3%E6%80%A7%E6%A0%A1%E9%95%B7%E6%AF%94%E7%8E%87/>. [Accessed 28 February 2024].
- Vecteezy, *Toilet icon vector illustration. Girls and boys restrooms sign and symbol. bathroom sign. wc Pro Vector*, [ONLINE] Available at: <https://www.vecteezy.com/vector-art/25548273-toilet-icon-vector-illustration-girls-and-boys-restrooms-sign-and-symbol-bathroom-sign-wc>. [Accessed 28 February 2024].
- GEX GROUP (2021), オリンピックで話題になった「ピクトグラム」は日本発祥!, [ONLINE] Available at: <https://gex.ne.jp/gg/archives/3285>. [Accessed 28 February 2024].

～学校でのジェンダー平等～ 川野莉愛

今までに男女差別というものを経験したことがあるだろうか。多くの人が学校で男女差別やジェンダー問題について正しく学んでいないもしくはそれについての正しい知識を持っていない。このことから私は日本の教育システムがジェンダー問題に深く関わっていると考えられる。この論文ではアメリカと日本の間でのジェンダー問題についての認識の違いとそれに対して私たちは何ができるかを示している。日本では色に対する認識が一例として挙げられ、色に関する固定概念の象徴となるような例えがランドセルである。20～30年前は小学校で使うランドセルの色を選ぶことができず男子は黒、女子は赤しか使うことができなかった。しかし、アメリカではうっすらとした色に対する固定概念はあるものの、日本ほど強いものではない。

以上のような例を踏まえて学生たちのジェンダー意識に注目してみる。高校の一年間留学時にアメリカのサンディエゴにてバックグラウンドがそれぞれ違う4人に合計3つの質問をしてきた。質問内容は男性が学校の校長になることに対するイメージが最低限あるかどうか、あなたは男女別でのイメージを持っているか、そして男子は理系、女子は文系という固定概念があるかどうかである。そして、それぞれ4人の回答がほぼ一致していることから、日本と他国の固定概念についての考え方の違いが明らかとなった。多くの人は学生時代の印象や教育内容によって考え方を左右されやすい傾向にあるため、日本においても他国から遅れを取らぬように幼い頃からジェンダー問題に対しての考え方、認識の違いについて触れ合い、人によって物の受け取り方が違うということを学ぶことのできる環境が必要であるということがわかる。

The Gender Salary Gap



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Introduction

“Women should focus on childcare and men should focus on work.”
(translated from Japanese) (Reskill Nikkei, 2022). Have you ever heard such a statement and wondered about it? In Japan, men earn as much as 1.4 times what women earn in a year (Ministry of Health, Labour and Welfare, 2022). One of the causes of the salary gap between men and women is believed to be parental leave and retirement, due to marriage. Japan uses this as an excuse, but Japan ranks 116th out of 146 countries in the gender equality ranking by global gender gap report 2023 (World Economic Forum, 2023). This shows that Japan's gender disparity problem is still deep-rooted in society. Therefore, I decided to find a solution by comparing Canada, which ranks 25th in gender equality (World Economic Forum, 2023). In this thesis, I will illustrate the reasons for the gender pay gap and present concrete measures that would make it easier for men to take childcare leave, and for women to enter the workforce.

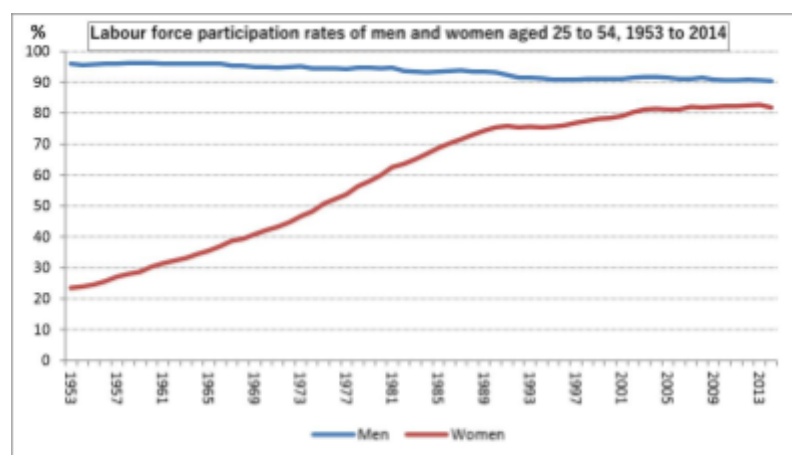
Background

I have doubts about society's preconceived notion that men should take the lead in work, and the tendency to expect women to respect men. In society, women are in a lower position, with fewer management positions and more contingent employment than men. Then, I realized how different the cultural effects of gender are, including gender salary gap initiatives, between Canada and Japan.

The history of women's workforce participation and the gender pay gap in Japan and Canada shows notable differences shaped by each country's social and historical contexts. In Japan, women were traditionally limited to household duties, with minimal involvement in the workforce before the 20th century. However, the

pre-war years and World War II saw more women entering the labor market due to the growing demands of agriculture and manufacturing, as well as the absence of men drafted for the war. After the war, women in Japan gained important rights, such as the right to vote, and their access to higher education expanded, allowing them to pursue more professional roles. Despite these changes, modern-day Japan still faces gender inequality in the workforce. Women are underrepresented in leadership positions and face significant wage disparities compared to men, reflecting a society that remains largely male-dominated (Digital Humanities and Japanese History, 2020).

In contrast, Canada saw a significant increase in women's workforce participation during the second half of the 20th century. In the early 1950s, only about one-quarter of women aged 25 to 54 were part of the labor market, while nearly all men of the same age group were



Canada's labour force participation rates of men and women aged 25 to 54, 1953 to 2014

employed. Social changes, such as shifting gender roles, technological advancements that reduced household work, and fewer children per family, enabled more women to seek employment. By 1990, the female labor force participation rate had risen to 76%, and by 2014, women made up almost half (47%) of Canada's workforce. Along with this increased participation, women's wages more than doubled between the mid-1960s and 2010, driven by more women working full-time and entering well-paid professions such as accounting and financial auditing. While

both Japan and Canada have made progress, Canada has advanced further in terms of gender equality in the workforce. Japan continues to struggle with cultural norms and structural barriers that limit women's professional growth. Canada, on the other hand, has implemented policies that support women's participation in the labor market and promote equality, although a gender pay gap still exists (Statistics Canada, 2024). Japan and Canada's paths toward gender equality in the workforce are quite different. Canada's consistent progress and focus on gender-inclusive policies have helped close the gap, while Japan, despite important advances, still faces significant challenges. Both nations have more work to do to achieve true equality, but Canada is closer to realizing that goal.

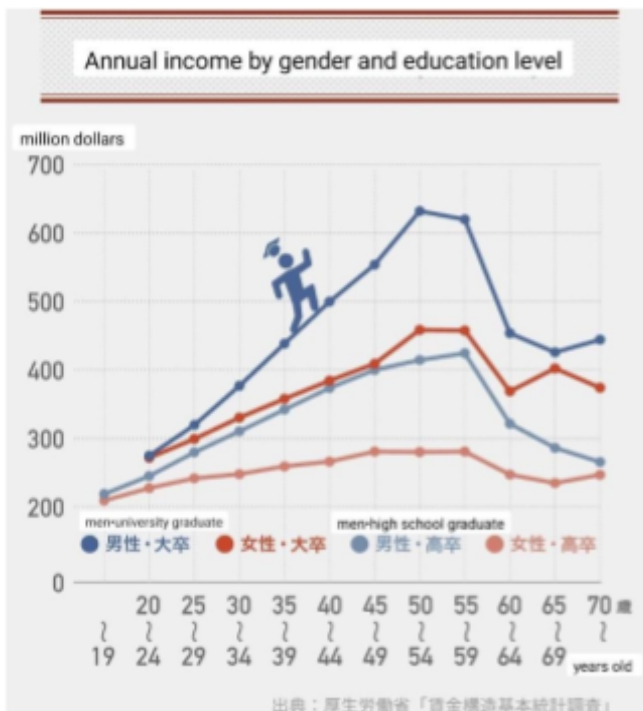
Supporting Arguments

I stayed in the province of British Columbia in Canada for about eleven months. During my time abroad, I interviewed four adults; a Canadian office worker, a Canadian engineer, an Australian and an American office worker about the gender salary gap. Additionally, two Japanese adults were interviewed.

The first question was, *What do you think are the root causes of the gender salary gap?* Four interviewees answered that the root causes are stereotypes, culture and history that continues, even now. Others answered they are valuing men, but not women. Maternity or child care that interrupts women's careers, making it difficult for women to be promoted was also cited as a reason. The evidence shows that except for Asia, industrialized regions such as America and Europe have high rates of gender equality. Furthermore, gender equality rates are low in developing countries in Africa and South Asia, where male dominance was high until modern

times. For these reasons, many European nations continue to lead global efforts to close the gender gap (World Economic Forum, 2023).

The second question was, *What's your opinion on the fact that male high school graduates earn nearly as much, on average, as women with college degrees?* Four interviewees answered that it is unfair. They suggested that salaries for both genders should be based on years of experience, education and positions. Japanese interviewees answered that the expectation that women should take parental leave is deeply rooted in Japanese society. If women take longer maternity leave, they have less contact with society and are unable to develop successful careers, and therefore their salaries do not increase. Another interviewee answered that in the medical profession, salary does not change based on education, but that communication skills are more important and highly valued.



Annual income by gender and education level in Japan

This graph illustrates the difference in income between female college graduates and male high school graduates, which highlights the systemic nature of gender-based income disparities. In Japan, gender inequality is most pronounced in the economic and political realms. (World Economic Forum, 2023).

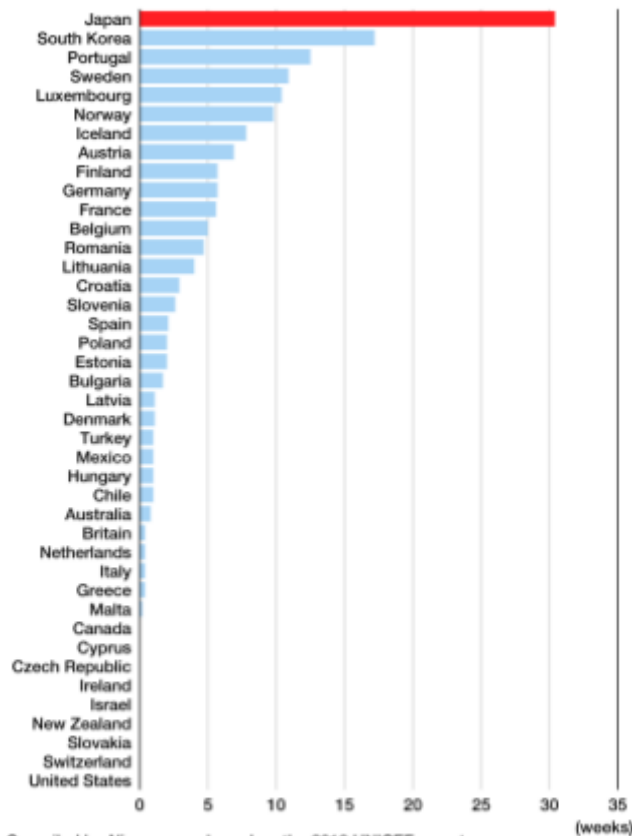
There are few female managers in Japan. Although job opportunities have been allowed for women, they have not led to legitimate career advancement in Japan. For instance, most of the major

companies have begun to increase female employment quotas and female managerial employment quotas, and a lot of companies have allowed for an increase in the rate of child care leave taken (Recruit Japan, 2023). The Japanese employment system makes it complicated for women to work. It is characterized by seniority and low personnel mobility. While they may take a leave of absence for childbirth or child care, this has led to the stereotyping of gender roles, with men at work and women at home. Although the number of companies using this form of employment has decreased in recent years, it still needs to be further improved (Jibu, 2022). This highlights the systemic nature of gender-based income disparities. Dispatch work is a kind of work in which an employee does not make a contract with the company where they work, but with a dispatch agency (Hays Japan, 2024). Half of working women in Japan work for dispatch agencies. In fact, wages for most informal jobs do not exceed those of formal jobs, the gap leading to a wage gap between men and women. There is about a 100,000 yen wage gap between men and women in Japan. Countries which have a low salary gap between women and men, include Canada and the United States (Ministry of Foreign Affairs of Japan, 2021).

Next, the interviewees were asked, *How does the system of maternity leave in your country affect the gender salary gap?* Canadian interviewees answered that there is no reduction in salary during maternity leave in Canada. Japanese interviewees answered that women who take long parental leave receive a reduction in pay for that period. They also answered that there is a negative atmosphere surrounding the value for women to take maternity leave in Japanese society. If they take longer maternity leave, they have less contact with society and cannot develop their careers at the same rate as men. Women still take parental leave at a higher

rate than men. Most major companies provide good support for employees who take parental leave, but many small and medium-sized enterprises do not. Of the 4.21 million companies in Japan, 12,000 are classified as large companies, or about 0.3% of the total. Furthermore, the number of companies defined as small or

Paid Childcare Leave Available to Fathers



Compiled by Nippon.com based on the 2019 UNICEF report on family-friendly policies. nippon.com

A comparison of childcare leave available to fathers around the world

medium-sized enterprises is about 4.2 million, or 99.7% of the total (World Economic Forum, 2023). This lack of support from society greatly affects women’s earnings and career paths. As seen in the graph on the left, although men in Japan are entitled to take over six months paternity leave, only five percent of men in 2017 took advantage of it (nippon.com, 2019). Canadian interviewees' responses did not consider the recent gender pay gap to be all that unequal in terms of work positions. They answered that

the salary gap has been like this for years. While the gender pay gap in Canada is small, it has not yet disappeared. Some interviewees acknowledged improvements, but noted that progress has been slow. These insights underscore the enduring challenges in achieving gender parity globally.

Conclusion

In conclusion, I talked about the gender salary gap between men and women, the different work styles in Japan and Canada, and differential pay for employees and temporary workers who took parental leave. Through my interviews while studying in Canada, I was able to learn about gender from a broader perspective. From my research, I have learned that the gender pay gap is a result of women's working position and the type of work they do. These days, more companies are encouraging women to enter the workforce, and allowing parental leave without any disadvantages. I hope the salary will be equal between women and men, and every company will find a positive effect through equality. There are still gender disparities that have not been resolved in terms of employment and law, but I am glad I learned about them.

References

- Sangster, E. (2021), *The Pay Gap Is Real. Don't Let Anyone Convince You Otherwise*. [ONLINE] Available at: <https://www.forbes.com/sites/elissasangster/2021/03/24/the-pay-gap-is-real-dont-let-anyone-convince-you-otherwise/?sh=41faaf1c7ceb>. [Accessed 9 December 2022].
- Reskill Nikkei (2022), 性別分業と男性上位の考え方. [ONLINE] Available at: <https://reskill.nikkei.com/article/DGXZQOFK01ADY0R00C22A2000000/>. [Accessed 6 February 2025].
- Ministry of Foreign Affairs of Japan (2021), 対日経済審査報告書. [ONLINE] Available at: <https://www.mofa.go.jp/mofaj/gaiko/oecd/look.html>. [Accessed 15 February 2024].
- World Economic Forum (2023), *Global Gender Gap Report*. pdf. page 4 to 8. [ONLINE] Available at: https://www3.weforum.org/docs/WEF_GGGR_2023.pdf. [Accessed 27 February 2024].

Digital Humanities and Japanese History (2020), *Women in the Workforce: Pre-war, Wartime, and Postwar Japan*. [ONLINE] Available at: <https://dh.japanese-history.org/2020-spring-women-in-japanese-history/women-in-the-workforce-pre-war-wartime-and-postwar-japan/>. [Accessed 16 October 2024].

Statistics Canada (2024), *The surge of women in the workforce*. [ONLINE] Available at: <https://www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015009-eng.htm>. [Accessed 17 October 2024].

World Economic Forum (2023), *Global Gender Gap Report*. pdf. page 9 to11. [ONLINE] Available at: https://www3.weforum.org/docs/WEF_GGGR_2023.pdf. [Accessed 27 February 2024].

Jibu, R. (2022), 女性の賃金、なぜ低い？日本の現実. [ONLINE] Available at: <https://sdgs.yahoo.co.jp/special/gender2.html>. [Accessed 11 January 2023].

Hays Japan (2024), 大企業とは？基準や定義、中小企業との違いを解説. [ONLINE] Available at: <https://www.hays.co.jp/advice/bigcompany#:~:text=%E4%B8%AD%E5%B0%8F%E4%BC%81%E6%A5%AD%E5%BA%81%E3%81%AEWeb,99.7%25%E3%82%92%E5%8D%A0%E3%82%81%E3%81%A6%E3%81%84%E3%81%BE%E3%81%99%E3%80%82>. [Accessed 29 February 2024].

Recruit Japan (2023), 「男女間賃金格差」は、なぜなくなるらない？！日本におけるジェンダーギャップをひもとく～世界と比べる『働く×ジェンダー平等』座談会. [ONLINE] Available at: <https://www.recruit.co.jp/sustainability/iction/ser/gender-wagegap/001.html>. [Accessed 10 February 2024].

Ministry of Health, Labour and Welfare (2021), 女性活躍推進法に基づく男女の賃金の差異の情報公表について. [ONLINE] Available at: <https://www.mhlw.go.jp/content/11900000/000970983.pdf>. [Accessed 20 February 2024].

Nippon.com (2019), *Japan has the best paternity leave system, but who's using it?* [ONLINE] Available at: <https://www.nippon.com/en/japan-data/h00500/japan-has-the-best-paternity-leave-system-but-who%E2%80%99s-using-it.html>. [Accessed 25 February 2025].

～ジェンダー給与格差について～ 小早川美奈

この論文でジェンダーによる給与格差を調査した理由は、将来自分給与を得る際に男女間で差があることが不平等であり、自分や他の多くの女性が不利益を被る可能性があると感じたためである。特に厚生労働省の「賃金構造基本統計調査」にて大卒女性の年収が高卒男性と同程度であるという結果を知った際、大きな衝撃を受けた。この現状が続けば、女性が大卒資格を取得するために努力を重ねても給与面で高卒男性に劣る可能性があると感じた。

私がカナダを留学先に選んだ理由は、カナダが多様な移民を受け入れ、長年にわたり多様性を尊重し続けてきた国であるからだ。実際に留学し現地の方々にインタビューをすることを通じて、多くの人々が日本の男女格差について懸念を抱いており、政府や法制度の力でこの格差を是正すべきだとの意見が多いことがわかった。

日本においては2022年に男女雇用に関する法律が改正され、社会全体が徐々に男女平等の達成に向き合い始めている。しかし男女間の給与格差を根本的に解消するためには、雇用制度の改善だけでなく、長年にわたり培われてきた文化や伝統を変革する必要がある。これを実現するには、政府の主導的な取り組みのみならず、企業や国民全体が一体となって協力することが不可欠である。私は一国民であり女性の一人として、男女間の給与格差が完全に解消された平等な社会の実現を目指し、微力ながらも努力し続けたい。

The Connection Between Exercise and Mental Illness in Teenagers



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Introduction

“Take care of your body. It’s the only place you have to live.” said the American entrepreneur and inspiration to the self-development industry, Jim Rohn (Goodreads, 2024). The mind is also part of the body, and mental illnesses take a long time to heal, often longer than physical illnesses or injuries. By taking care of our mental health, we can stay happy and healthy for longer. We can attain a positive outlook and increase self-pride through good nutrition and exercise. According to the World Health Organization (WHO), the number of people who do not get enough exercise is 27% for adults and 80% for teenagers. (WHO, 2022). Lack of exercise will lead to weak muscles and make you feel worse. In this thesis, I will explain how exercise affects the minds of teenagers, and propose measures to encourage exercise, based on the current situation.

Background Research

I made up my mind to write about exercise and mental health in teens because of my strong belief that many teenagers’ lives appear to change with the inclusion of exercise. The relationship between exercise and mental illness is particularly interesting to me. Every evening, I exercise to stay healthy, as well as to refresh myself and to sleep well at night. If I’m feeling lazy, I keep in mind to at least stretch my body. While studying abroad in Australia, there were no classes or time for exercise, so I had to be more conscientious about exercise than when I was in Japan. Without exercise and stretching, my quality of sleep decreases, therefore I can infer that exercise has a positive impact on my body. Another finding is that I feel tired and depressed the day after lying in bed all day, even though staying home is enjoyable for me. Research suggests that staying inside too much affects your

mental and physical health. Sunlight has an impact on moods, and improves quality of sleep. Our bodies become stronger through sunlight. In other words, people should go out from time to time to get enough sunlight (Coastal Transformation).

Moderate exercise can lead to many health benefits, such as reduced stress, which is good for teenagers who feel stressed because of negative experiences at school, or the stress associated with exams. Physical activity can also enhance relaxation, so teenagers can sleep deeply and prevent sleep deprivation. Likewise, it takes less time to fall asleep after exercise. Through exercise, improvements can be seen not only in sleep quality, but also in creativity and focus. It is recommended that teenagers exercise to perform better academically. Physical activity can help oxygen flow throughout their bodies, which improves concentration (UTFIT, 2024). The point of teenager's exercise is to improve signs of depression and anxiety through the release of endorphins and serotonin in the body. According to the Australian Institute of Health and Welfare website, looking after your body can improve your mental health. Physical activity helps teenagers improve their self confidence. It doesn't matter your size or weight, exercising helps you realize your worth (Australian Institute of Health and Welfare). Exercising outdoors and being in touch with nature inspires creative thinking. However, more than 80% of teenagers don't fulfill these levels of physical activity that the World Health Organization has recommended. The WHO recommends teenagers do about 60 minutes of moderate to intensive exercise a day, at least 3 days a week. Vigorous aerobic exercise and exercises that strengthen muscles and bones are recommended (World Health Organization).

About 100 years ago, people used to get enough exercise in their daily lives, but now most human activities are mechanized, such as cars, vacuum cleaners and washing machines, which provides fewer opportunities for exercise.

Supporting Arguments

Six interviewees, in total, were asked ten questions related to exercise and mental illness. Four people, including one Korean, two Australians, and one Macedonian, were interviewed while completing a year-study abroad program in Australia. Two Japanese were also interviewed in Japan.

The first question was whether they think there are many mentally ill adolescents in their own country, and the reason for that. All of them felt their own countries had many teenagers with mental problems. School work, social activity and excessive studying were mentioned as the reasons for stress. This graph shows the

number of teenagers with mental problems in England from 2017-2022.

Overall, there is a slight increase in the number of seven to sixteen year olds with mental issues,

however the number of

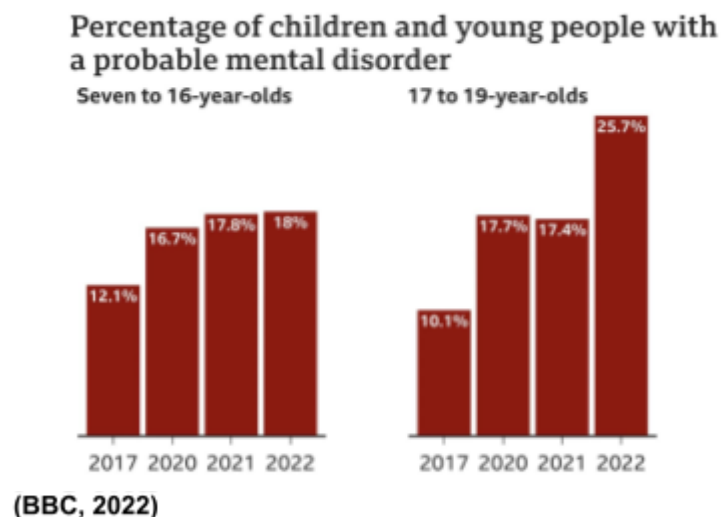
young people aged 17 to 19 with mental problems dramatically increased in the

same time period. As a result, the charity, Mind, recommended that the UK government prioritize investment in mental health services for young people (BBC,

2022). Some possible reasons for this increase in mental issues are family dynamics, social media, isolation, and LGBT issues. In addition, the number of

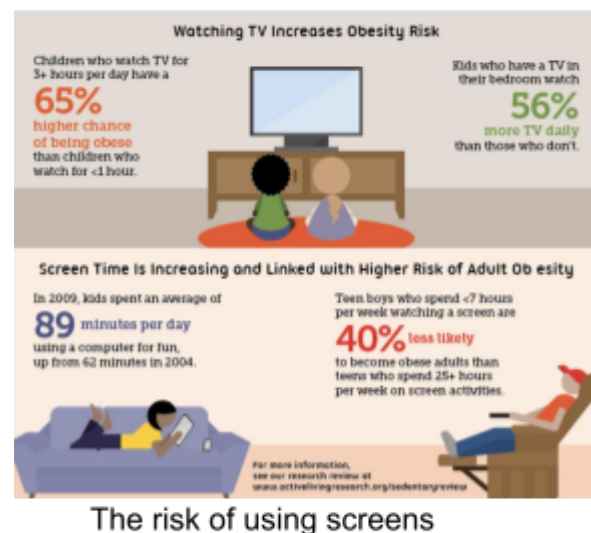
adolescents reporting depression increased 52% between 2005 and 2017 (Medium, 2019). Teenagers are impacted by social media much more than older adults,

because they have had access to digital media since they were young children.



The second question was; *moderate exercise calms the mind. Why do you think so?* Koreans answered that exercising gives us a break from the thought of what causes stress. When you exercise, you can focus on your body movements and forget about the frustrations of the day. Moreover, physical activity can provide calm for the body by copying effects of stress such as fight-or-flight response, which protects your health from the negative effects of stress. In addition, pleasure substances are secreted from the brain after exercise; for example after running, you are wrapped in strong happiness for a short time. This chemical, called endorphins, brings about a positive feeling, and vitality for life. There is no concern about dependency on endorphins, unlike synthetic drugs, because they play the role of analgesics which can reduce depression and help to promote sleep. Exercise has been proven to reduce stress, depression, increase self-respect, and improve sleep (Mayo Clinic, 2022).

However, the number of young people who do not participate in regular exercise has increased. According to the Australian Health Survey of 2011-2012, only 10 percent of young people do the recommended amount of physical activity of 60 minutes per day. As they grow, the amount of exercise they do decreases, but the amount of time they spend in front of a screen increases, which suggests activity based on screens takes place instead of exercise, despite advancing age. Along with this fact, teenagers spend 7 hours and 22 minutes on a screen per day, on average (EXPLORING TOPICS). Moreover, 97% of teenagers don't walk 12,000



steps, which is less than the recommended daily step count. Due to changes in lifestyle and technology, teenager's physical activity has decreased and the amount of time sitting has increased.

Next, interviewees were asked; *how can we encourage children to exercise?* A Korean offered this answer: by playing a game involving physical activity. For example, some companies like Nintendo, have produced multiple games that players can interact with by connecting themselves to the character. Furthermore, *Just Dance*, a video game that requires players to follow dance instructions on the

screen, can increase the amount of exercise done by those who like to use tablets, smartphones and other screens. A new study shows that active video games have a positive mental effect; as much as conventional



Just Dance

exercise, such as jogging and walking (The Daily Gamecock, 2024). However, even though active video games have the same effect as physical activity, there are considerable negative points of only playing active video games. Besides, active video games seem to be a good solution to their lack of exercise, but they should try to go out and do physical activities. Research suggests that most people feel depressed after staying home a few days. This is because they can not explore nature like feeling the sun and wind, and hearing birds' songs, or the sound of leaves. Being in touch with nature can raise vitality 40%, while staying indoors has the opposite effect (VINMEC). Getting some sun and being exposed to vitamin D, which makes bones stronger and can also increase serotonin, the brain's hormone, which helps to calm and focus. Less sunlight suggests a high risk of depression so

moving outside is important to maintain good mental health (Healthline).

When teenagers start physical activities, any exercise is fine, however they should consider whether they can enjoy and continue it. They can choose a team sport or an individual one, one that suits their lifestyle, body conditions, and their goals. The ideal schedule is a minimum of 20-30 minutes, three times a week. For beginners, it is better to begin exercising for just 20 minutes. Once they get used to it, increasing the length of time and content of activity is possible. One thing that is beneficial to know is that it is not necessary to exercise for 30 minutes all at once; ten minute intervals in the morning, noon and evening have the same gains as 30 minutes at one time. A simple example would be doing easy exercises, like skipping rope, muscle training, and stretching while watching television (WebMD).

Conclusion

In conclusion, teenagers do not exercise enough, even though it provides many advantages for them. Mental illness in teenagers is increasing, primarily due to increased screen time and social media. One effective way to encourage them to exercise is by using online games in which they need to move their bodies. For teenagers in stressful periods, it is important to reduce their stress as much as possible. There are many other ways besides exercise to reduce their stress, but I strongly feel that exercise is the easiest thing to do and requires little to no money. Science and technology are developing quickly, and everything around us is mechanized. I believe that more parents realize how important exercise is, and encourage their children to do physical activity in the future.

References

CBC, *Most of the world's teens aren't getting enough exercise, WHO study warns*,

[ONLINE] Available at:

<https://www.cbc.ca/news/health/teens-exercise-obesity-who-1.5369427>. [Accessed 9 December 2022].

goodreads, *Quotable Quote*, [ONLINE] Available at:

<https://www.goodreads.com/quotes/9042090-take-care-of-your-body-it-s-the-only-place-you>. [Accessed 16 January 2024].

goodreads, *Jim Rohn*, [ONLINE] Available at:

https://www.goodreads.com/author/show/657773.Jim_Rohn#:~:text=Emanuel%20James%20%22Jim%22%20Rohn%20was.in%20the%20personal%20development%20industry. [Accessed 16 January 2024].

Coastal Transformation, *7 SIGNS YOU'RE SPENDING TOO MUCH TIME INSIDE & IT'S AFFECTING YOUR HEALTH*, [ONLINE] Available at:

<https://www.coastaltransformations.com/7-signs-youre-spending-too-much-time-inside-its-affecting-your-health>. [Accessed 28 May 2024].

UTFIT, *The Benefits of Outdoor Exercise for Teens and Young Adults: Why Getting Active Outdoors is Crucial for Health and Wellbeing*, [ONLINE] Available at:

<https://www.outfit.ie/benefits-of-outdoor-exercise-for-teens-and-young-adults#:~:text=Improved%20mood%20and%20mental%20wellbeing,teens%20to%20perform%20better%20academically>. [Accessed 28 May 2024].

World Health Organization, *Global Status Report on Physical Activity 2022*,

[ONLINE] Available at:

<https://www.who.int/teams/health-promotion/physical-activity/global-status-report-on-physical-activity-2022#:~:text=Let's%20get%20moving!&text=Regular%20physical%20activity%20promotes%20both,recommended%20levels%20of%20physical%20activity>. [Accessed 18 January 2024].

Feyoh (2023), *55 Motivational Exercise Quotes to Inspire Your Next Workout*, [ONLINE] Available at: <https://www.developgoodhabits.com/exercise-quotes/> [Accessed 29 January 2023].

厚生労働省, 身体活動・運動, [ONLINE] Available at: https://www.mhlw.go.jp/www1/topics/kenko21_11/b2.html. [Accessed 29 January 2023].

Kawashima,S., Hagiwara, K. et.al (2006), 運動前後の精神的変化とストレス応答物質の関連 [ONLINE] Available at: https://opac.ll.chiba-u.jp/da/curator/900040816/13482084_54_263.pdf. [Accessed 1 April 2023].

Queensland Government (2023), *Get healthy*, [ONLINE] Available at: https://www.mentalwellbeing.initiatives.qld.gov.au/the-building-blocks/get-healthy?gclid=Cj0KCQjw0tKiBhC6ARIsAAOXutlwEaKqyRM4X--sWWdKGUYKqQwUBXZscU-QIcLgIak1zKhVAge9wEaAke-EALw_wcB. [Accessed 5 May 2023].

World Health Organization, *Global Status Report on Physical Activity 2022*, [ONLINE] Available at: <https://www.who.int/teams/health-promotion/physical-activity/global-status-report-on-physical-activity-2022>. [Accessed 5 May 2023].

BBC, *Quarter of 17-19-year-olds have probable mental disorder-study*, [ONLINE] Available at: <https://www.bbc.com/news/health-63784751> [Accessed 20 February 2024].

Oliver (2019), *Teen Therapy: Mental Health & Adolescents*, [ONLINE] Available at: <https://medium.com/@MyPeoplePatterns/teen-therapy-mental-health-adolescents-d9a3825d51db>. [Accessed 20 February 2024].

Clark, M. (2020), *40+ Frightening Social Media and Mental Health Statistics*, [ONLINE] Available at: <https://etactics.com/blog/social-media-and-mental-health-statistics>. [Accessed 22

February 2024].

MAYO CLINIC (2022), *Exercise and stress: Get moving to manage stress*, [ONLINE] Available at:

<https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/exercise-and-stress/art-20044469>. [Accessed 22 February 2024].

Duarte, F., *Average Screen Time for Teens (2024)*, [ONLINE] Available at:

<https://explodingtopics.com/blog/screen-time-for-teens> [Accessed 22 February 2024].

Rojas, K. (2024), *Fitness video games are a good alternative to going to the gym*, [ONLINE] Available at:

<https://www.dailygamecock.com/article/2024/01/column-fitness-video-games-are-a-good-alternative-for-going-to-the-gym-opinion-rojas#:~:text=Research%20from%20the%20University%20of,couch%20and%20rotting%20your%20brain>. [Accessed 29 February 2024].

Nall, MSM, CRNA (2019), *What Are the Benefits of Sunlight*, [ONLINE] Available at: <https://www.healthline.com/health/depression/benefits-sunlight>. [Accessed 24 May 2024].

VINMEC, *Health effects of staying home too much*, [ONLINE] Available at:

<https://www.vinmec.com/en/news/health-news/healthy-lifestyle/health-effects-of-staying-at-home-too-much/>. [Accessed 24 May 2024].

Fulgham Bruce, D. (2024), *Exercise and Depression*, [ONLINE] Available at:

<https://www.webmd.com/depression/exercise-depression>. [Accessed 26 February 2024].

BBC (2022), *Quarter of 17-19-year olds have probable mental disorder-study*,

Available at: <https://www.bbc.com/news/health-63784751>. [Accessed 18 February 2024].

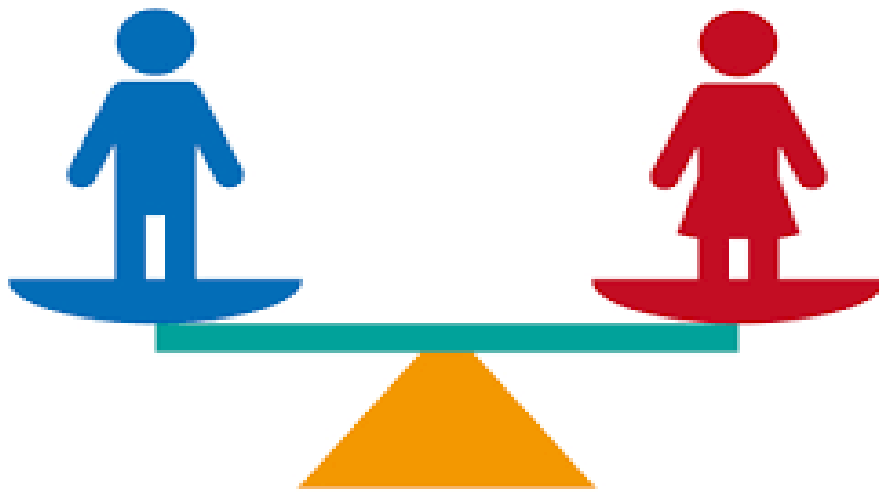
Physical Activity in Teens, [ONLINE] Available at:
<https://physicalactivityteens.weebly.com/the-stats.html>. [Accessed 27 February 2024].

The Nutrition Source (2013), *Make exercise a daily habit-10 tips*, [ONLINE] Available at:
<https://www.hsph.harvard.edu/nutritionsource/2013/11/04/making-exercise-a-daily-habit-10-tips/>. [Accessed 27 February 2024].

～若者における運動と精神の関係～ 寺岡美良

私は運動することで身体的に良い影響があると同時に精神面にも同じような影響があると考えてこの題材について書くことにした。定期的な運動は体にメリットが多くあることがわかっているが、WHOがすすめている運動量をみたしていない学生が現状多いことが問題となっている。さらに年々精神面で問題をかかえている若者が増えている。この原因として家庭内・SNS上・LGBT関連の問題や若者が感じる孤独感があげられる。これらのストレスを緩和するために運動は必須であるが、スマートフォンやタブレットmp普及に余地、SNS利用などのために座り続ける時間が増え、運動に時間を割けてない人が増えている。これらの解決方法としては、体感型ゲームをプレイすることが例として挙げられる。通常のランニングや水泳などに比べ、ゲーム感覚で楽しむことができ、簡単に続けることができる。ただこの方法に関して懸念すべき点は、家にこもり続け外に出ない可能性が高まるということだ。日光には、精神を整えるためのホルモンの分泌を助けてくれる効果があり、日光に数日間当たらないと、不安や悲しみの感情がこみあげてきやすい。そのため、定期的に外に出て運動することも必要だ。学生や若者はセンシティブな期間に精神面に問題をかかえる可能性が高い。だからこそ、学生にとって費用がかからず簡単にできる「定期的な運動」が彼らのストレスを減らすのに有効な方法である。

Recognition of Gender Equality



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Introduction

How do you feel about the gender gap when there are so many different gender identities? Gender is a polysemic concept. Unlike biological gender, it refers to social norms and social and cultural roles relative to biological gender. Gender includes gender-related opportunities and relationships between men and women. For example, gender is defined by the social norm that "women are supposed to cook and take care of the children", "men should not cry", and finally, "men make the best leaders." Gender inequality refers to issues related to economic inequality, social and cultural employment bias, and the gender pay gap. How we perceive these ideas oftentimes depends on where we grew up and the types of gender roles or inequalities we see in our daily lives. In this thesis, I will show how perceptions of gender inequality differ between Canada and Japan.

Background

I have an interest in gender issues. Over five billion people in the world are using SNS now, and I've come across many people on the internet who are dissatisfied with their gender, so I became interested in gender, and decided to study it (statista, 2024). Gender is a term that collectively refers to a wide range of sexualities, called LGBTQ+. This acronym stands for Lesbian, Gay, Bisexual, Transgender, and Queer or Questioning. Questioning refers to sexuality where one's gender identity or sexual orientation



LGBTQ+

is undefined (THE CENTER, 2024). I have friends who are genderless, and one friend, who although born with a female body, had a gender identity disorder in which his mind identified as male. He said that it always seemed like he was fighting something. Thanks to the connections I made with his friends, I stopped speaking with prejudice and started using expressions that can be used by both men and women, such as "partner" or "person I have feelings for." Of course, everyone has their own opinion on this issue, so it cannot be forced on anyone. Therefore, it's natural that some people find it difficult to understand gender.

Someone close to me identifies as genderless, however there are some parts that fit Q (Questioning) that they still don't understand. They haven't come out publicly as Questioning yet, because they, themselves are not even sure. For example, in their case, they don't like being called cute, they've had trouble choosing clothes since they were little, they've had romantic feelings mixed with friendship feelings, and they don't like having breasts, so they unconsciously lean forward to hide them. As it is their own problem, they feel as though it is difficult to talk to anyone about it. While they don't care what kind of prejudice their friends may have, they want to remain their parents' only, cute daughter, so as to not upset them. Since each gender is different, and not everyone has the same problems, it is important to listen to each person's concerns with an open mind.

On July 12th 2023, Ryuchell, a social media personality and model, passed away. Ryuchell married and had a child, but soon felt the weight of society's expectations to be a perfect husband and father. Ryuchell announced that they no longer identified with male gender roles, and preferred to be called a "life-partner" instead of husband, and a "parent" instead of a father. Ryuchell was extremely popular among young people, and fought for LGBTQ rights, but many people

harassed them on social media because they could not accept their genderlessness. Ryuchell felt their own future was severely limited and then, unfortunately, took their own life (Wikipedia, 2024). It is true that in this day and age, there is a certain level of awareness about gender. However, the people who struggle with their identity, still end up feeling lonely or different from those around them, and live with anxiety about the future.



Ryuchell

Supporting Arguments

During a study abroad program in Canada for one year, four people of various backgrounds were interviewed. Additionally, two more people were interviewed in Japan. Each interviewee was asked the same ten questions.

The first question was: *What do you think about women-only cars?* In Japan, women-only cars are currently used during rush hours to ensure the safety of women and small children, and to protect them from the more than 2,000 molesters reported in 2020 (Japan Today, 2024). Interviewees in Japan said that women-only cars are



Women-only carriage signage on trains

necessary because of the presence of molesters, and women who cannot speak back to them.

However, when interviewed in Canada, there was no such thing as women-only cars. This is because they believed that women-only cars

combat gender inequality in language, large corporations, such as Japan Airlines have stopped using the greeting of “ladies and gentlemen”, and have instead chosen to use more inclusive and gender neutral language by changing the in-flight greeting to “all passengers” or “everyone.” Other airlines, such as Air Canada and EasyJet, have also followed suit (Kyodo News, 2020).

On the other hand, when asked, Canadians said that Canada is a multicultural country with many immigrants, and that other cultures, traditions, and personal preferences are more widely accepted. For example, the Canadian Charter of Rights and Freedoms, a legal document, prohibits discrimination based on gender, class, age, race, or ethnicity, and since 2005, same-gender marriage has been recognized, creating a society where people can live freely as themselves (Government of Canada, 2024).

The third question was: *What do you think about the differences in physical fitness between boys and girls at school?* For example, sports in which there are large differences between men and women include swimming and softball throwing, which can be compared by records. A Japanese interviewee answered that when they were in elementary school, for the compulsory long distance run, boys ran 1,200 meters and girls ran 1,000 meters. They felt that it was not fair because there are girls who liked long distance running, and wanted to run more. Conversely, there are girls who were not good at long distance running and wanted to run shorter distances, so it was good for them. This is a common occurrence in Japanese physical education classes. It is true that there is a difference in physical strength between men and women, but it is unwise to assume that there is a difference in physical fitness between boys and girls until elementary school age, especially in the early grades, because between the ages of six and twelve, the gender differences in

growth and development are less pronounced, so there is no problem with the same training menus and teaching methods (Sakurai, 2020).

All Canadians gave similar opinions on the matter. They suggested that because there are physical differences between boys and girls, different running distances are understandable. Other Canadians suggested that differences in physical fitness between men and women are fundamentally different, but even among them there are individual differences, and it is difficult to rely solely on gender, because physical fitness varies depending on the environment in which they were raised. In addition, for something like marathon running, which is not related to future examinations or employment, one can choose it as an elective subject. One interviewee suggested that those who are thinking of entering a school specializing in sports in the future, or those who feel they are relatively physically fit should choose the 1200 meter distance, while those who are not thinking of playing sport in the future, or are not particularly good at running should choose the 1000 meter distance.

Conclusion

Gender equality is a very serious issue, and there are people who do not fit the socially accepted mold. There are problems that arise when men and women are separated, and even if it is disadvantageous to women and advantageous to men, or vice versa, the majority of people who are dissatisfied with gender inequality and male chauvinism are women. As long as there are people who want to separate the gender of the mind and the gender of the body, I think gender equality will remain a very difficult issue. Even if this problem is solved, it may lead to a situation where women are superior to men, or there are too many things that are advantageous to

women, so we will have to consider the balance with equality. However, if we can treat each other as human beings without separating men and women, gender equality may be possible someday.

References

- Yotto, (2024), *illust AC* [ONLINE] Available at:
https://www.ac-illust.com/main/search_result.php?word=男女平等. [Accessed 15 June 2023].
- Statista (2024), [ONLINE] Available at:
<https://www.google.com/url?q=https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/&sa=D&source=docs&ust=1714014684557850&usg=AOvVaw25G3VjYCL7LU3ewcX5st3q>. [Accessed 16 June 2023].
- Jcomp, *FREEPIK*, [ONLINE] Available at:
https://jp.freepik.com/free-vector/lgbt-pride-month-concept-vector-illustration-with-people-big-heart_13535229.htm. [Accessed 27 July 2023].
- The Center (2024), *What is LGBTQIA+?*, [ONLINE] Available at:
<https://gaycenter.org/community/lgbtq/>. [Accessed 23 September 2023].
- Wikipedia (2024), *Ryuchell*, [ONLINE] Available at:
<https://ja.wikipedia.org/wiki/Ryuchell>. [Accessed 26 October 2024].
- Kittaka, L.G. (2015), *Gaijinpot Blog*, [ONLINE] Available at:
<https://blog.gaijinpot.com/whats-with-women-only-carriages/>. [Accessed 10 February 2024].
- Flynn, P. (2021), *Trans and nonbinary folks weigh in on whether WTN rail cars would be helpful or harmful*, [ONLINE] Available at:
<https://chi.streetsblog.org/2021/03/25/trans-and-nonbinary-folks-weigh-in-on-whether-wtn-rail-cars-would-be-helpful-or-harmful>. [Accessed 23 July 2024].
- Ota, Y. (2016), 女性に対する「ジェンダー・バイアス」は根強い。ではどうするか？(後編) [ONLINE] Available at:
<https://www.cicombrains.com/opinions/w-mgr-160830.html>. [Accessed 2 October 2024].
- Suzuki, M., ジェンダー平等, [ONLINE] Available at:
<https://ryukei-susterrace.jp/vote/378/>. [Accessed 17 December 2024].

Kyodo News (2020), *Japan Airlines abandons "ladies and gentlemen" flight announcements*, [ONLINE] Available at: https://english.kyodonews.net/news/2020/10/6465b355d1e2-japan-airlines-abandons-ladies-and-gentlemen-flight-announcements.html#google_vignette. [Accessed 29 January 2025].

Government of Canada (2024), *Guide to the Canadian Charter of Rights and Freedoms*, [ONLINE] Available at: <https://www.canada.ca/en/canadian-heritage/services/how-rights-protected/guide-canadian-charter-rights-freedoms.html>. [Accessed 29 January 2025].

Sakurai, T. (2020), 身体的要素より心理的要素の差が男女差に影響する [ONLINE] Available at: <https://oceans.tokyo.jp/article/detail/25816?page=2>. [Accessed 29 May 2024].

～ジェンダーへの認識と女性の立場～ 新妻未蘭

男女平等と聞いて皆さんは何を考えるだろうか。そしてそれは実現可能であるか、それとも不可能であるのか。おそらく様々な意見が挙げられるだろう。私は幼い頃からかわいいという言葉に違和感を覚えていた。かわいいという言葉には一般的に小さく愛らしい魅力を持っているものを指すが、一方で弱いものや気の毒、不憫な意味も含まれている。そして女性自身が自ら弱く立ち回ろうとしたり、言葉の意味に対し何も疑問に思わず褒め言葉として認識し、また別の場合ではその言葉が自らを苦しめることになっていたところを何度も見てきた。このことから女性の立場は非常に曖昧で不安定なものであると言える。日本とカナダで行ったインタビューの結果を見ると、ジェンダー格差による認識は両国の間で大いに異なり、日本では長時間労働を是とする文化や育児・家事の負担が女性に偏るケースが多く見受けられ、未だにジェンダーに対して固定観念が存在している。またLGBTQ+に関する理解も欧米諸国と比べて遅れており、それによる差別や偏見が根強く残っている。平等でかつ差別のない世界を実現させるためには、性別で分ける前にまず「同じ人間である」ということを再認識し、お互いを尊重することが実現に向けた一歩になるのではないだろうか。

Exercise and the Link to Good Health



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Introduction

“The first health is wealth,” (Emerson, 1860). There is nothing more important than health. What are you doing for your health? It is said that a nutritious meal, enough sleep, and exercise are good for our physical health, but now, fewer people are exercising. By exercising, we can become healthier. It is important to do exercises that suit you. Is it beneficial to devise the same exercise program for both children and adults? Of course not. Adults and children have different levels of physical strength and muscle mass. Most adults exercise less than when they were children. Why are fewer people exercising, and why is exercise essential for good health? In addition, just living a long life is not healthy. What do you need to live a truly healthy life? In this thesis, I will explain how exercise is important to health, and how much exercise is needed to be healthy.

Background

I have been involved in sports since I was young and have noticed that I am less susceptible to illnesses than other people. From this, I have realized that exercise may play an important role in maintaining health. However, some people do not exercise even when their doctor recommends it. People who neglect their health often have negative results in their annual health checkups, such as organ deterioration, in addition to obesity. I think this is because they do not fully understand how exercise benefits the body or how it contributes to overall health. To stay healthy, people should maintain a balanced diet, exercise regularly, and undergo regular health checkups. In the future, I would like to analyze the relationship between exercise and health to improve the health of unhealthy people. I hope that my efforts can inspire others to act and improve the condition of those

around me who may be struggling with physical health. I hope that spreading a correct understanding of exercise and health will encourage people to take responsibility for their own health and be proactive in their efforts. Exercise methods vary greatly depending on an individual's physical ability. For

example, many elderly people start exercising after retirement because they have more free time.

Unfortunately, some people suddenly engage in intense exercise after not exercising for years and

end up getting injured. It is better to start with low-impact activities such as walking and jogging. Exercise needs and preferences vary according to each person's fitness goals, physical condition and interests. There is no one-size-fits-all approach. Some people enjoy vigorous activity, while others prefer a more leisurely style of exercise. The key is to find a sustainable routine that meets your personal needs. Maintaining an active lifestyle protects your physical and mental health, reduces the risk of chronic diseases and improves your quality and longevity of life. To choose the right exercise, it is important to understand your health status and limitations. Even in busy schedules, incorporating small amounts of exercise can make a difference. Simple actions such as taking the stairs instead of the elevator or walking instead of public transport can gradually increase your activity level. With a little effort, you can dramatically improve the quality of your daily life. Regular exercise strengthens muscles, increases flexibility, makes daily tasks easier and reduces the chance of injury. It also prevents muscle and bone loss associated with age and fosters social



Examples of exercises for the elderly

connections through group activities. These interactions, combined with a healthy lifestyle, can significantly improve overall health. In addition, exercise contributes to stress relief and improves mental health, making it an important means of balancing the mind and body.

Supporting Arguments

I stayed in British Columbia, Canada, for about 11 months. While I was there, I interviewed four people, each from different countries. The interviewees were born in South Korea, Canada, the Ukraine, and China. Additionally, I interviewed two Japanese people in Japan. I asked them the same ten questions.

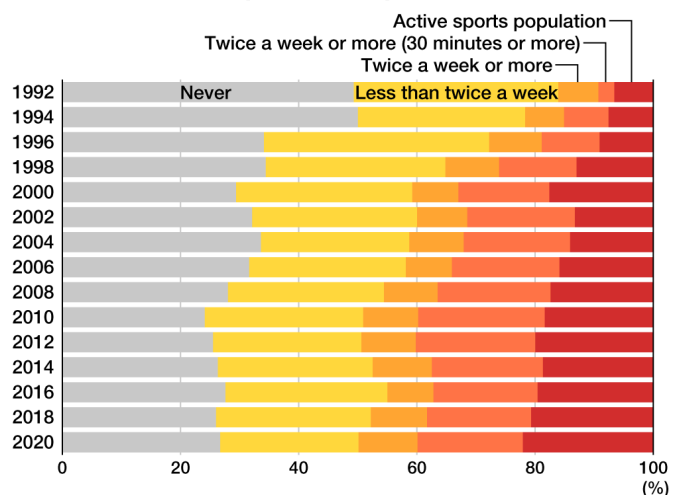
First, *Do you usually do exercise?* Four people said they exercise. The majority of them said they exercised one to three days a week. When asked what kind of exercise they do, walking was most common, strength training at home came second, and training at the gym came third. Two people interviewed said they don't exercise at all. Of the six people interviewed, only 40% of people exercised.

Some of the reasons people gave

for not exercising included, it is a hassle for them, they do not have time, they do not have the space, and they do not like exercise. All of the people who said they exercised were students, and the people who said they did not, were adults.

Students tend to exercise more often because they have Physical Education classes at school. Even adults who said they do not currently exercise, said they did it when

Annual Trends in Sport Participation Level



Created by Nippon.com based on data from Sasakawa Sports Foundation

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they were younger. The results showed that many people who used to exercise as children stopped doing so as they became adults.

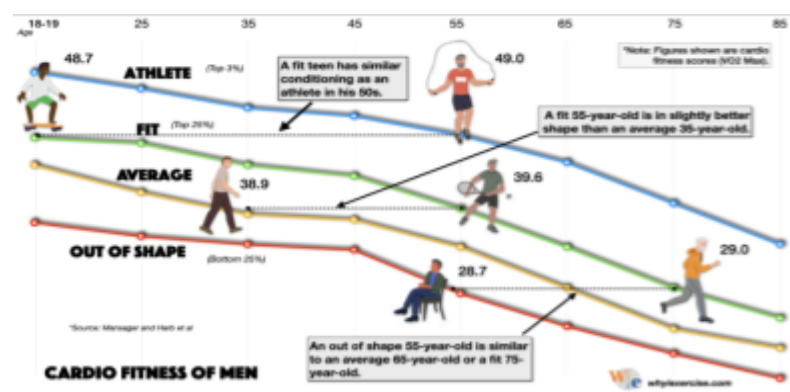
To maintain good health, it is important to maintain a balance between the energy you take in through food and the energy you expend through exercise. If you eat a certain amount of food and do not exercise, your energy intake will exceed the energy you expend, and the excess energy will be stored as fat. When this cycle is repeated, it leads to obesity. Obesity increases the risk of lifestyle-related diseases. Over the past decade, the number of steps taken per person per day in Japan has decreased by about 1,000 steps, raising concerns about the public's health. For this reason, the Ministry of Health, Labor and Welfare's "Healthy Japan 21" has set goals such as increasing the number of steps taken by individuals and creating communities that are easy to exercise in by 2023. The Ministry of Health, Labour and Welfare created the "2013 for Health Promotion", which sets standards for promoting physical activity to improve health (Ministry of Health, Labour and Welfare, 2015).

The next question was, *how do you think you can live a healthy life at all ages?* All answers included the word *exercise*. There were also many other opinions regarding eating habits and mental health. People should exercise regularly, and in an appropriate manner for each age. Physical workload is important for maintaining physical fitness, whether it's through sports, walking, or any other form of activity. Taking care with nutrition, by eating a balanced diet with plenty of fruits, vegetables and whole grains, is crucial for providing essential nutrients. Likewise, it's very important to stay hydrated and get enough sleep to support overall well-being. Getting enough sleep will improve your mental state (Ministry of Health, Labor and Welfare, 2023). Additionally, managing stress and taking care of your mental health is essential. Regular check-ups with healthcare professionals is also advised.

The final question asked was, *Do you think healthy exercise varies from age to age?* Everyone responded positively to this question. Your physical needs change throughout your life, as your physical requirements and capabilities change with age. For example, children value activities that support their growth and development, such as running, jumping, and sports. As you get older, it becomes more important to focus on exercises that help you maintain your strength, flexibility, and balance. Activities such as walking, swimming, and yoga are best suited for this purpose. In addition, older adults should choose low-impact exercises to minimize the risk of injury. The intensity and type of exercise you do is related to your physical condition, as well as your age. As your strength, muscle power, and stamina decreases, it becomes harder to move

as easily as you used to.

This graph shows how quickly your physical function can decline if you do not actively use it



Age and aerobic exercise

Walking may seem like a simple movement, but it actually uses many different muscles, including your legs, buttocks, hips, back, and arms. It requires full-body coordination, and moving your center of gravity forward demands balance and sustained cardiopulmonary function. If you stop exercising regularly, your muscles will decrease, further reducing your sense of balance and cardiovascular health. This can result in a slower walking speed, affecting everyday activities such as safely crossing the road, balancing when carrying objects, and avoiding tripping and falling. To avoid these problems, it is essential to incorporate daily walking into your routine.

Walking helps maintain important muscles and body functions. Muscle mass increases during growth and naturally decreases with age, but unlike bones, muscles can be strengthened through training at any age (U.S. Department of Health and Human Services, 2020). In countries like Japan, daily physical activity is often integrated into everyday life, such as walking or cycling to work, helping to maintain a certain level of fitness. In contrast, in countries where a car is the primary mode of transportation, people must consciously carve out time for exercise, which may lead to different exercise habits. Additionally, social factors such as access to safe outdoor spaces, national commitment to exercise, and community support may significantly influence an individual's likelihood of continuing regular exercise throughout their lifespan (American College of Sports Medicine, 2019).

Conclusion

By analyzing the relationship between exercise and health, I hope to help others understand the benefits of regular physical activity and make it easier for everyone to maintain a healthier lifestyle. I believe this will improve the quality of life and help us live a healthy and fulfilling life. People who exercise remain connected to their health despite engaging in a variety of physical activities. Promoting exercise tailored to age, physical condition and individual needs, and controlling the method, timing and consistency, can help keep the body healthy. It has been found that identifying and practicing exercise tailored to individual needs and maintaining it over a long period of time is the key to achieving long-term health. Using what I learned in this research, I want to continue exercising according to my needs even as an adult.

References

7つの健康習慣とは？健康と生活習慣についても解説(2022)、7つの基本習慣とは [ONLINE] Available at: <https://www.suntory-kenko.com/column2/article/2274/>. [Accessed on 13 December 2022].

mainabinews (2022), [ONLINE] Available at: <https://news.mynavi.jp/article/20231006-27857>. [Accessed on 6 October 2023].

アクティブガイド(2020), *Active Guide* [ONLINE] Available at : <https://www.e-healthnet.mhlw.go.jp/information/exercise/s-01-002.html>. [Accessed on 20 December 2023].

totalwellness (2023), [ONLINE] Available at: <https://info.totalwellnesshealth.com/blog/health-benefits-of-exercise>. [Accessed on 13 November 2023].

nippon.com (2021), *Survey Finds Japan's Active Sports Population at Record High* [ONLINE] Available at: <https://www.nippon.com/en/japan-data/h00989/>. [Accessed on 13 November 2023].

Harvard Health Publishing (2020), *How Much Exercise Do You Need?* [ONLINE] Available at: <https://www.health.harvard.edu>. [Accessed 10 July 2024].

whyexercise.com (2024), *Fit and athletic middle-aged and senior men can have similar athletic abilities as people 20 or more years younger.* [ONLINE] Available at: [ONLINE] Available at: <https://www.whyexercise.com/aging-and-exercise.html>. [Accessed on 10 July 2024].

Ministry of Health, Labour and Welfare (2015), *Guidelines on Industrial Safety and Health*[ONLINE] Available at: <https://www.mhlw.go.jp/bunya/roudoukijun/anzeneisei12/pdf/150507-1.pdf>. [Accessed 15 July 2024].

National Institute on Aging (2020), *Exercise and physical activity: Your everyday guide from the National Institute on Aging.* U.S. Department of Health and Human Services. [ONLINE] Available at: <https://www.nia.nih.gov/>. [Accessed 15 July 2024].

American College of Sports Medicine (2019), *Exercise guidelines for older adults.* Available at: <https://www.acsm.org>. [Accessed 15 July 2024].

「健康は富なり」と言われるように、健康の維持には栄養バランスの取れた食事、十分な睡眠、そして定期的な運動が不可欠である。しかし、現代社会においては運動不足が深刻な問題となっており、日本では過去10年間で平均歩数が約1,000歩減少している。この背景には、多くの人々が運動を面倒に感じたり、時間や場所の制約から運動を避けている実情がある。そのため、厚生労働省は「健康日本21」などのプログラムを通じて、歩数の増加を推進している。運動不足を解消するためには、年齢や身体能力に応じた運動が重要になる。例えば、子供には成長を助ける運動が必要であり、高齢者には筋力維持や転倒予防のための運動が求められる。また、健康維持と質の高い生活を実現するためには、バランスの取れた食事と十分な睡眠が必要不可欠である。運動は年齢を問わず重要であり、ほんの少しの身体活動でも体調改善や病気予防に寄与することが明らかになっている。加えて、日常生活において年齢やライフスタイルに合った運動を取り入れることが、健康的で豊かな生活を実現する鍵である。具体的には、散歩や軽いジョギング、ストレッチ、趣味としてのダンスや水泳など、様々なアクティビティを通じて身体を動かすことができる。これにより、心身の健康を保ち、生活の質を向上させることが可能となる。また、地域、家庭内での運動の重要性も忘れてはならない。友人や家族と共に運動することで、楽しさが増し、継続する意欲も高まる。地域のスポーツイベントやフィットネスクラスに参加することも、社会的なつながりを深める良い機会となる。最終的には、これらの努力が集まり、健康で充実した人生を送るための基盤を築くことにつながるのである。健康はすぐに得られるものではなく、日々の小さな努力が積み重なって、初めて実現されるものである。したがって、積極的に運動を取り入れ、健康的なライフスタイルを築いていくことが求められる。

Global Warming



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Introduction

When considering the topic of global warming, various aspects come to mind. Most people would agree it has a negative impact on wildlife. Other issues include, escalating temperature, renewable energy, energy efficiency, and pollution prevention. The major concern revolves around the increasing levels of carbon dioxide (CO₂) levels that are continuously increasing emissions, which often go unnoticed. Global warming is a pressing issue affecting countries worldwide, even if it might not be immediately apparent in some regions. Addressing global warming requires people to be open to the use of renewable energy and promoting energy-efficient technologies. It's essential for everyone to collaborate and come up with a solution to this. In this thesis, I aim to explore the causes of global warming, and propose effective strategies to combat its devastating effects.

Background

During my time in Tauranga, New Zealand, for a study abroad program, I noticed a significant difference in how global warming impacted the environment there, compared to my home country of Japan. This prompted me to look into the topic of climate change, seeking to understand the factors contributing to the varying environmental conditions between the two regions. Tauranga's environment exhibited a striking resilience to the severe effects of global warming, contrasting with Japan's frequent reports of environmental changes and extreme weather events. The lush landscapes and diverse ecosystems in Tauranga stood out, in contrast to Japan's challenges. Curious about this contrast, I decided to explore the reasons for New Zealand's slower pace of global warming. My research uncovered aspects of New Zealand's environmental policies, sustainable practices, and cultural

attitudes that contribute to its lower impact. With a relatively low population density and vast expanses of green spaces, including forests, national parks, and coastal areas, New Zealand's natural

landscape acts as a buffer against some of the worst impacts of climate change. These green spaces not only absorb carbon dioxide but also help regulate temperature and provide



Mount Maunganui, Tauranga

habitats for diverse flora and fauna (New Zealand Climate Change Office, 2024).

Furthermore, New Zealand's commitment to sustainable practices plays a crucial role in mitigating the effects of global warming. The country has implemented various policies and initiatives aimed at reducing greenhouse gas emissions, promoting renewable energy sources, and protecting its natural resources. For example, New Zealand has set ambitious targets for carbon neutrality and has invested heavily in renewable energy projects such as wind farms and hydroelectric dams. Additionally, New Zealand places a strong emphasis on biosecurity measures to protect its

unique biodiversity. Strict regulations are in place to prevent the introduction of invasive species and diseases that could disrupt local ecosystems. This proactive approach to conservation helps safeguard New Zealand's native flora and fauna from the pressures of



Wind farms in New Zealand

climate change and other environmental threats (Ministry of Agriculture and Forestry, New Zealand).

Despite New Zealand's commendable efforts, it's essential to acknowledge that no part of the globe is immune to the effects of climate change. Rising sea levels, shifting weather patterns, and global environmental changes continue to pose challenges, even in seemingly less affected regions like New Zealand. The impacts of climate change are complex and interconnected, requiring coordinated global action to address effectively (New Zealand Climate Change Office, 2004).

In the process of comparing the impacts of global warming in New Zealand and Japan, differences in regions, cultural backgrounds, and policies became clear. For example, New Zealand's Maori culture emphasizes harmony with nature, which contributes to increased awareness of environmental protection. On the other hand, Japan places emphasis on innovative approaches such as environmental technology and urban planning due to its advanced technology and limited land area. Japan's *mottainai* spirit means that the Japanese cultural mindset of reducing waste in Japan helps raise awareness of recycling and eco-friendly actions to reduce environmental impact. Households and businesses are getting better at sorting and recycling waste, and there are advanced systems for waste disposal. Each town encourages people to sort their garbage carefully to increase recycling rates, which has helped Japan in fighting global warming (Vision for a Virtuous Circle for Environment and Economy in Japan, 2004). These different approaches contribute to the differences in the two countries' efforts to combat global warming.

Supporting Arguments

In order to find out more about what teenagers think of the global warming crisis, how they recognize the signs of global warming, and also if they were aware of any promising solutions to address it, interviews were conducted in New Zealand

and Japan. During ten months in New Zealand, one person from Thailand, one from Vietnam, and two people from New Zealand were interviewed. Additionally, two interviews in Japan were also conducted.

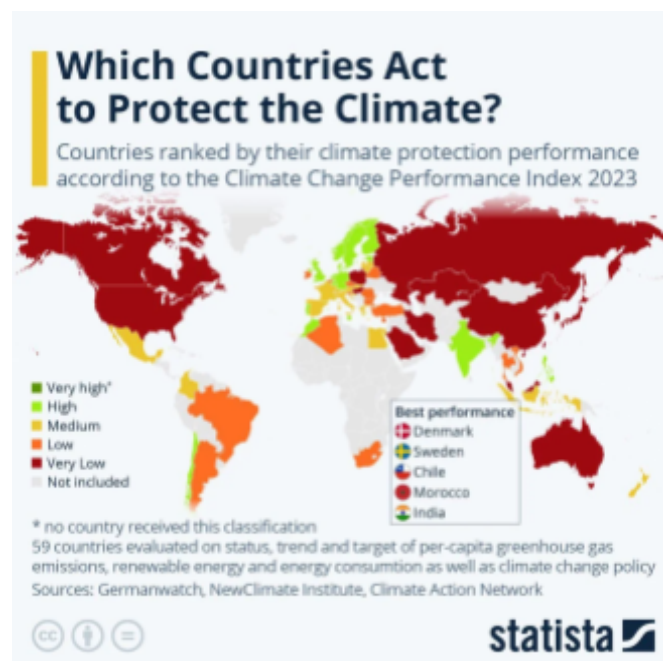
The first interview question asked for their feelings about global warming: *Are you scared of global warming?* A New Zealander female answered that she is worried about it because the temperature around her is slowly rising. The interviewees from Thailand said they don't really know what the impact will be if global warming progresses, and they don't do anything to try to prevent it. It said that New Zealanders are optimistic that individuals can make changes (62%), and are responsible for doing so (76%). However, many are reluctant to change their behavior and only say they will (Ministry for the Environment, 2018). Although most of the interviewees from Asia

recognize global warming as a serious problem, they don't put methods into practice to combat that problem as the image on the right shows. However, Southeast Asia, such as India and the Philippines take effective measures to protect the climate.

New Zealand has also

implemented methods to protect

the environment. As illustrated in the graph, New Zealand reaches the medium ranks on the index, while Japan's value reaches the very low (statista, 2022).



Climate protection in the world

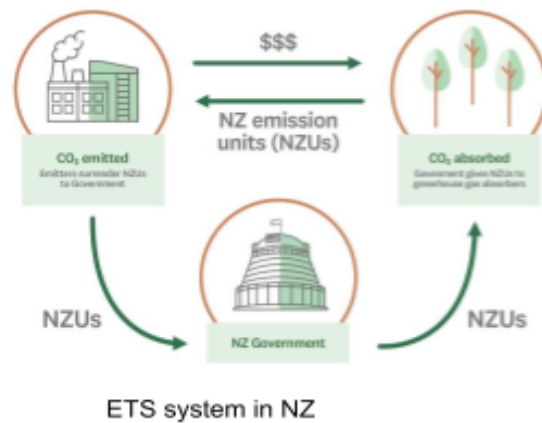
When asked: *Do you usually take measures against global warming?* The interviewees from New Zealand answered that they feel scared of global warming being dangerous, but they can't do much about it individually. According to research, it is true that a lot of New Zealand students are concerned about global warming due to their school education emphasizing environmental issues. In fact, students participated in a global campaign known as a school strike in 2018 to show their support for climate action and change (Museum of New Zealand Te Papa Tongarewa, 2019).

On the other hand, two Japanese people said they are always trying to do something to help stop global warming, such as recycling plastic bottles and limiting the temperature of the air conditioner. They also feel the summer temperatures have increased by the year. Compared to the past, it is obvious that temperatures in Japan are steadily increasing. In relation to this, both countries have taken the time to educate students on global warming because society has to deal with this problem.

The English government created an index that evaluates how sustainable a company or portfolio company is, in terms of the environment, society, and governance, called an ESG score, as an example of their efforts in combating global warming. Also, more and more Japanese companies have incorporated the names of companies that currently have high ESG scores, including Toyota Motor Corporation, Suntory, Sony, and Starbucks Coffee Japan. Suntory, which currently ranks second in ESG scores, uses 100% renewable energy for electricity used at all of its own production and research sites in Japan, the United States, and Europe (Nikkei, 2021). In addition, Suntory's vending machines are designed to reduce power consumption by using LED lighting, and indoor vending machines are set to

turn off their lights 24 hours a day. Also, hybrid cars are used for sales vehicles, and other measures to combat global warming are being proactively implemented (Suntory, 2023).

On the other hand, New Zealand is grappling with the problem of global warming by using the Emissions Trading Scheme (ETS), a system designed for the trading and management of emission allowances. This system helps to control the trading and management of emission allowances, covering all

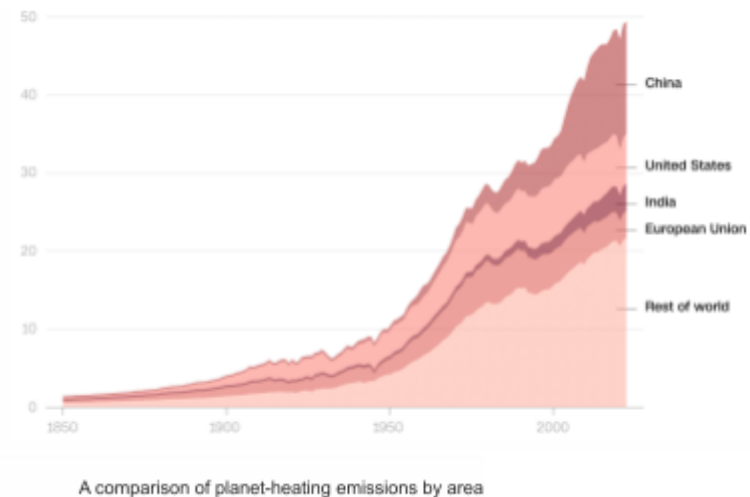


green houses gasses (GHGs). Companies that emit these gasses have to count and report how much they emit and get special units called NZUs from the government. They have to give the government 1 NZU for each ton of CO₂ they emit. The government gives out NZUs in different ways, such as giving some for free, based on how much a company produces, or in return for planting trees. They also sell some at a fixed price. Companies can trade these NZUs among themselves within the country (Ministry of the Environment, 2022). In contrast, Japanese individuals deal with global warming by simple acts like turning off lights in rooms they're not using, and choosing energy-efficient appliances, especially for things like refrigerators, which use a lot of electricity.

The next question was: *Which country do you think has the most global warming? Why do you think so?* Three of the interviewees answered China, because of the ozone layer, while international students living in New Zealand said that New Zealand is perceived as the country progressing most with global warming.

China's climate reaches around 30 degrees Celsius in the summer, the same as in Japan. In fact, China is the largest climate polluter, making up nearly 30% of all global emissions (Paddison, Choi, 2024). Deforestation and high electricity consumption contribute to greenhouse gas emissions, exacerbating global warming.

While countries like China and New Zealand face the issue of ozone layer holes, Thailand's environmental practices, including forest preservation and energy consumption, make it a critical area for climate action (Yamamoto, Masuda, et al., 2008).



Conclusion

In this thesis, I have done a thorough study of the current state of global warming. I have researched how the world is coping with it, and how the world perceives it. I believe that global warming is not just an environmental problem, but a serious issue that threatens the future of all of humanity. We must act now to protect ourselves from global warming. In order to stop global warming, it is important for companies to take steps to reduce carbon dioxide emissions when manufacturing products, but it is also important for us to use earth-friendly products and make environmentally-friendly choices. Equally important, is choosing earth-friendly products that play an important role in reducing the impact of individual actions on

the planet as a whole, and building a sustainable future. Small changes that you can make in your daily life will add up, and improve the global environment.

References

ISRAEL21c Staff (2019), *We need to rethink everything we know about global warming*, [ONLINE] Available at: <https://www.israel21c.org/we-need-to-rethink-everything-we-know-about-global-warming/>. [Accessed 9 December 2022].

Apiste (2022), 地球温暖化とは～メカニズムと取り組むべき課題～, [ONLINE] Available at: <https://images.app.goo.gl/VsYf1iWVXQHEpgca6>. [Accessed 9 December 2022].

gooddoマガジン編集部 (2020), 地球温暖化による地球への影響は？このまま進むと世界はどうなるのか, [ONLINE] Available at: https://gooddo.jp/magazine/climate-change/global_warming/6587/. [Accessed 17 March 2024].

MacMillan, A., Turrentine, J. (2021), *Global Warming 101*, [ONLINE] Available at: <https://www.nrdc.org/stories/global-warming-101>. [Accessed 15 March 2024].

Satou, N. (2006), NZにおける近年の氷河の消長とその気候的 背景, [ONLINE] Available at: https://hosei.ecats-library.jp/da/repository/00025962/chiri_38_p25.pdf. [Accessed 3 March 2024].

Yamamoto, Y., Masuda, K. et al. (2008), ニュージーランド農業における温室効果ガスの排出動向と削減対応, [ONLINE] Available at: <https://eprints.lib.hokudai.ac.jp/dspace/bitstream/2115/33830/1/63-p19-24.pdf>. [Accessed 8 June 2023].

Sumi, Y. (2021), 2030年までの温室効果ガス50%削減を発表, [ONLINE] Available at: <https://www.jetro.go.jp/biznews/2021/11/d3bccbf15bf89965.html>. [Accessed 3 March 2023].

Aya (2021), 環境保全先進国ニュージーランドに学ぶ、環境問題への取り組み, [ONLINE] Available at: <https://toritoke.jp/circu/c001/tc-444/>. [Accessed 3 March 2023].

Ministry for the Environment (2022), *Understanding New Zealanders' attitudes to the environment*, [ONLINE] Available at: [https://environment.govt.nz/facts-and-science/science-and-data/understanding-new-zealanders-attitudes-to-the-environment/#:~:text=Around%20one%20in%20three%20New.so%20\(76%20per%20cent\)](https://environment.govt.nz/facts-and-science/science-and-data/understanding-new-zealanders-attitudes-to-the-environment/#:~:text=Around%20one%20in%20three%20New.so%20(76%20per%20cent)). [Accessed 15 April 2023].

Daalder, M. (2023), *Kiwis don't understand how to fight climate change – poll*, [ONLINE] Available at: <https://newsroom.co.nz/2023/07/05/kiwis-still-dont-understand-how-to-fight-climate-change-poll/>. [Accessed 6 June 2024].

Chu, J. (2022), *A healthy wind*, [ONLINE] Available at: <https://news.mit.edu/2022/wind-health-impact-1202>. [Accessed 22 October 2024].

The New Zealand School Jakarta (2020), *5 interesting facts about New Zealand's indigenous Māori people*, [ONLINE] Available at: <https://www.nzsj.sch.id/post/5-interesting-facts-about-new-zealand-s-indigenous-m%C4%81ori-people-1>. [Accessed 22 October 2024].

Buchholz, K. (2022), *Which Countries Act to Protect the Climate?*, [ONLINE] Available at: <https://www.statista.com/chart/28816/climate-change-performance-index/>. [Accessed 22 October 2024].

Miyadera, H. (2023), *ESGスコアとは？評価項目や算出方法、評価機関、日本企業のランキングを分かりやすく解説！*, [ONLINE] Available at: <https://ccreb-gateway.jp/reports/what-is-esg-score/>. [Accessed 2 February 2024].

Uehara, S. (2023), *ESGスコアとは？選ばれる企業になるためのESG基本理解*, [ONLINE] Available at: <https://www.tanabeconsulting.co.jp/vision/column/detail111.html>. [Accessed 8 August 2023].

Yuyamaf, T., Morihira, S. et al. (2018), *ESG 開示スコアとパフォーマンス*, [ONLINE] Available at: [http://realopn.jp/data/jaros2018-yuyama\(ver4.7\).pdf](http://realopn.jp/data/jaros2018-yuyama(ver4.7).pdf). [Accessed 3 March 2023].

Kishimoto, Y. (2021), *最新「ESGに優れた企業ランキング」トップ200社 ESGの取り組みは株価にどう反映されているのか*, [ONLINE] Available at: <https://toyokeizai.net/articles/-/462366?page=8>. [Accessed 15 March 2024].

Uehara, D. (2023), *ESG経営に取り組む企業事例6選-メリットや注意点も網羅的に紹介*, [ONLINE] Available at: <https://sdgs-connect.com/archives/56447>. [Accessed 15 March 2024].

Tokyo Metropolitan Government Bureau of Industrial and Labor Affairs (2022), *ESGとは？SDGsやCSRとなにが違う？*, [ONLINE] Available at: <https://www.httnavi.metro.tokyo.lg.jp/column5/>. [Accessed 15 March 2024].

Shimizu, T. (2023), *ニュージーランド排出量取引制度 (NZ ETS)*, [ONLINE] Available at: <https://eneken.ieej.or.jp/data/11309.pdf>. [Accessed 15 March 2024].

Sonoda, T. (2023), *NZ-ETSの衝撃*, [ONLINE] Available at:
<https://note.com/connectite/n/n48af67f02e88>. [Accessed 15 March 2024].

Ministry for the Environment (2018), *ENVIRONMENTAL ATTITUDES BASELINE*, [ONLINE] Available at:
<https://environment.govt.nz/assets/facts-and-science/science-and-data/new-zealanders-environmental-attitudes.pdf>. [Accessed 15 March 2024].

Paddison, L. Choi, A. (2024), *As climate chaos accelerates, which countries are polluting the most?*, [ONLINE] Available at:
<https://edition.cnn.com/interactive/2023/12/us/countries-climate-change-emissions-cop28/>. [Accessed 15 March 2024].

Museum of New Zealand TE PAPA TONGAREWA (2019), *School Strike for Climate Action placard*, [ONLINE] Available at:
<https://collections.tepapa.govt.nz/object/1788067>. [Accessed 15 March 2024].

Turrentine, J. (2022), *What Are the Solutions to Climate Change?*, [ONLINE] Available at:
<https://www.nrdc.org/stories/what-are-solutions-climate-change#fossil-fuels>. [Accessed 3 March 2024].

～地球温暖化～ 松尾愛子

私は小さい頃から暑がりであトピー性皮膚炎も持っていたため、夏は苦手だった。このことからニュースでよく聞くような単語でもある「気温上昇」や「最高気温記録」などの言葉には敏感だった。これらのような言葉を聞くのと同時に、地球温暖化という言葉も近年よく耳にするようになった。そのため、地球温暖化への危機感を覚え、止める方法は本当にあるのかどうかはこのプロジェクトを始める前から興味を持つようになった。このような環境での一年間のニュージーランドへの留学は衝撃的なものだったと感じる。理由として日本では年々気温が上昇していき35℃などの気温を記録する中、ニュージーランドでは、一年を通して最高記録は25℃までしか達しないからだ。その背景には、ニュージーランドには自然が多く、人口も少ないといった傾向があるなどの理由があると思う。しかし、暑い夏のような日でも、長袖を着ることが出来るような気候は、私にとってはとても印象的であり、過ごしやすく快適な国であった。このプロジェクトを通して、私は個人が地球温暖化に対する解決策を提案すると共に、各企業がどれだけ自社の地球温暖化への影響を意識するかということの重要さに気づいた。例としてスターバックスが挙げられる。ニュージーランドのスターバックスでは、紙ストローを提供しプラスチックストローの提供はしていなかった。紙ストローを使うことに対し、否定的な人もあまりいなかったように感じる。対照的に、日本でも紙ストローでの提供を初めているが、完全に変わってはいない。というのも顧客の要望次第ではプラスチックストローの提供を可能にできる状況であるからだ。このような違いを通し気づいたことは、持続可能な地球にしていくためには、企業側は作り出す製品や、提供する製品に対して責任を持つということが重要だということだ。このプロジェクトで述べたように日本の企業ではESGスコアを掲げ、ニュージーランドではETSというシステムを使い地球温暖化の進行防止に貢献している。

このプロジェクトを通し、日本とニュージーランドだけではなく、世界中の人々が、地球温暖化を自分事であると認識し、地球温暖化対策の重要性を知ってほしいと感じた。

Mental Health and the Causes of Suicide



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Introduction

When do you feel stressed? What is your method of stress relief? There are many types of stress, each one different from the other, such as school-related problems, illness, and interpersonal relationships.

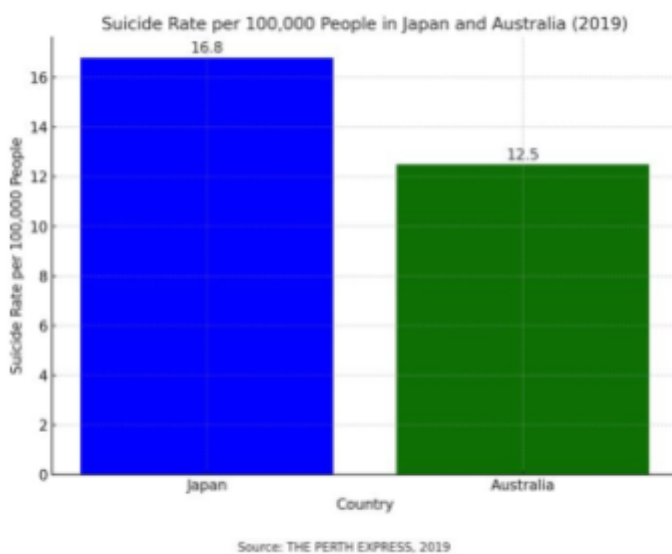
The number of suicides among young people has been increasing for the past three years in Japan. Globally, the suicide levels are still high and remain a major issue in the world (Ministry of Health, Labour and Welfare, 2024). Suicide can be prevented if we can reduce the amount of pressure young people face. Moreover, the support received from the people around you can change the mindset of a stressed person. In this way, we can say that stress is caused by environmental factors, and suicide is a social problem, rather than an individual problem. In this thesis, I will explain the differences in the causes of suicide between Japanese and Australasians, and suggest ways to protect our mental health and prevent suicide.

Background

Suicide is a tragic event that has been a cause of concern for many societies worldwide especially among young people. Studies show that stress is the fourth leading cause of death among individuals aged 15 to 24. Stress is believed to be a major cause of suicide, particularly stress from important life events (Feskanich et al, 2002). People feel stress in a variety of situations: studying for tests, at work, conflict with friends or family, or while doing housework. It can be whenever, wherever and whomever. Unfortunately, some of them choose suicide because they can't endure their difficult circumstances. When I was in the volleyball club, I felt a lot of stress because I felt I was expected to do well in both sport and studies, and I always put pressure on myself. At that time, I thought that I would benefit from knowing ways to

reduce stress, and what I could do to make myself feel better. On top of that, people close to me, such as teachers and my best friends, encouraged me and tried to help me find ways to help reduce my stress levels. I realized that everyone should know how best to help themselves.

Furthermore, the World Health Organization (WHO) said that suicide is preventable (WHO, 2024). When I heard that, I became interested in this issue, and believed that I could do something to ease the negativity in people's minds, and the aversion to discussing mental health. Before I researched it, I imagined that Japanese people were negatively influenced by their strict environment, and Australasian expectations were more flexible than those in Japan. In addition, I assumed the number of suicides in Australia to be much less than Japan. However, upon researching it, I found there is no big difference in suicide rates. While the



number of suicides is six times higher in Japan, there is almost no difference in the suicide rate per capita. In Australia, 12.5 people per 100,000 people and in Japan, 16.8 people per 100,000 people were reported to commit suicide (THE PERTH EXPRESS, 2019). Even if the reasons for

suicide are different, both Japan and Australia have serious problems with young people committing suicide. In both countries, the number of institutions for mental health care is increasing, and there are various types of services, such as those using the Internet and those adapted only for workers at companies. In Japan, by

introducing a mental health care system, some companies have prevented loss of labor costs and improved the rate of return to work (Japan Medi-Mental Institute, 2015). Meanwhile in Australia, there is “R U OK? Day” which is the second Thursday in September. On this day, people ask one another, “Are you



R U OK? promotion

OK?”, to show concern, and help with their problems. This encouragement can help prevent suicide. However, these efforts are not enough, because in both countries there are still numerous suicides. In addition, the WHO have committed to working toward the global goal of reducing national suicide rates by one-third by 2030 (WHO, 2024). We should not only rely on those agencies, but we also need to make an effort ourselves and for those around us.

Supporting Arguments

I stayed in Australia for about three months, and New Zealand for seven months. Two students and two adults were interviewed about mental health and their stresses. Ms. M, who is a 16 year old exchange student from Germany, Ms, D, who is a 15 year old from New Zealand, Mr. M, who was my host father, and Ms. S, who is a female teacher at a language school in Australia.

The first question was: *when do you feel stressed?* One student from New Zealand said that it is overwhelming to be in a group setting, when everyone is together. Conversely, a student from Germany and the host father said they are

stressed when people who usually care about them a lot are facing challenges or have problems, especially friends or family. According to research, it is true that people known to them who are under stress, can have an impact on them, which is called, “secondhand stress.” When people see others having problems, it is common for people to unintentionally imitate this as a method of self-defence against a potentially dangerous situation. Another way of inducing second-hand stress is by seeing negative facial expressions and catching on to their feelings. Furthermore, we are more likely to be influenced by the reactions and expressions of people we know, rather than strangers. As for responsibilities or tasks that they need to get done, three out of four people perceive these as a factor of their exhaustion, leading to stress (Gifford, 2023). According to a report, 56 percent of students consider homework stressful, and concern over exams and getting good scores are a primary stressor as well. In a similar vein, 62 percent of workers have reported high levels of stress, and the majority of them consider that achieving responsibilities is their first priority (Parker, 2014). The female teacher interviewed answered that high expectations and negative comments about her work performance was also causing her stress. Moreover, a New Zealander student commented that consistently achieving good grades on assignments is a burden for her.

The second question was: *What do you do to protect your mental health?*

Three interviewees answered similarly. A female student said that she tries to surround herself with good people and talk a lot about both problems and good moments worth sharing. A male said that having someone to rely on or call on when there are issues is important. The female teacher responded that having someone close to listen during desperate times is essential. Research in psychology and neuroscience have demonstrated that it is useful to share negative emotions to

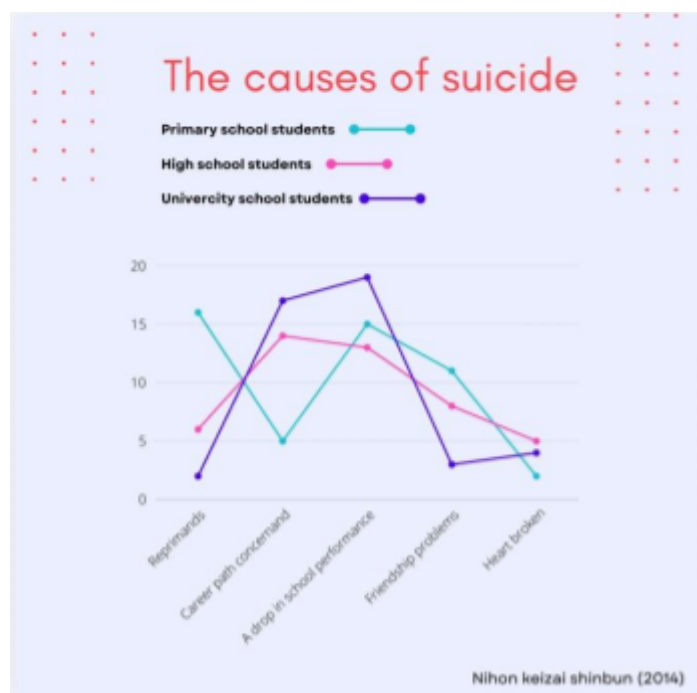
relieve physical and emotional suffering, and it has the effect of comforting people. In addition to that, Pennebaker, a psychologist, published the results of an experiment where 46 students were asked to choose between writing about their feelings on either traumatic events or about trivial matters for four consecutive days, to see if writing about these events had the effect of reducing stress or personal trauma. It was shown that for six months following the experiment, students who wrote down feelings and thoughts that come from a real tough, stressful life were less inclined to visit campus health centers or use pain relievers than those who wrote about trivial things. Instead of being effective solely due to expressive writing, its impact stems from the ability to lead people to organize and systematize their feelings of stress or trauma through thinking and writing (Harvard Health Publishing, 2011).

Thirdly, three people were asked about the causes of young people's suicide and the differences between Japan and New Zealand, and one person was asked about the causes of young people's suicide and the differences in Japan and

Australia. A Japanese male said that, "In Japan, pressure to achieve an unattainable level of education can be overwhelming."

Two people suggested that the education system and academic pressure are the greatest factors. In this graph, the three main causes of suicide among students are represented as reprimands by

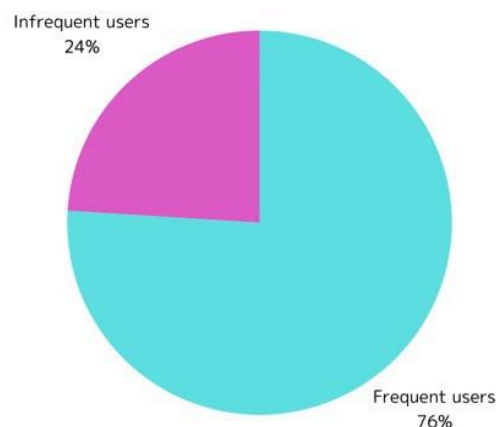
family, career path concern, and a drop in school performance. Students, even



young children, are under pressure. What's more, not only is there pressure from school, but also from parents, who force their children to study (Nihon keizai shimbun, 2014). Contrary to this, all three responses regarding the causes of suicide in New Zealand were associated with interpersonal struggles. In the realm of interpersonal struggles, there are a lot of aspects such as family violence, gender identity, and the breakdown of relationships. Further to that, the suicide rate among Maori people, the native people of New Zealand, is 1.4 times higher than non-Maori people (Illmer, 2017). Historically, suicide has been influenced by Western ideas, and not understanding or caring about what Maori people believe or need, may have caused a cultural mismatch. Moreover, this domination of cultural traditions by a dominant culture diminishes their influence in addressing mental health issues. Consequently, the Western approach to suicide prevention lacks sensitivity towards indigenous and other cultural perspectives. (Shahtahmasebi, 2014). As for Australia, the female teacher said that, "The difference in the causes of suicide between these two countries is, Australia is more social media influenced. Young people these days are more conscious of their

self-image on social media." As research presents, people who use social media several times a day, or 76 percent of people surveyed, are more likely to experience emotional distress, while those who use it less frequently, or 24 percent of people surveyed, are less prone to such distress. One of the reasons for this is,

Emotional Distress Based on Social Media Usage



The Impacts of Social Media in Australia, 2021

people often want the approval of others and for their actions to be recognized (The Impacts of Social Media in Australia, 2021). Additionally, similar to Maori's, Australian indigenous people have a higher rate of suicide than non-indigenous people because concepts of well-being among them are molded by community values and cultural belief.

Conclusion

In conclusion, it is clear that we need to do much more to help young people in Japan and Australasia deal with stress and protect their mental health. Whether it is pressure from school, problems with friends and family, or expectations from society, stress affects everyone. While a lot of people are trying to take some comprehensive measures, like mental health services and awareness campaigns, they, on their own, are not adequate enough. We also need to promote open conversations, teach effective ways to cope with stress, and understand each other better. Additionally, it's important to understand that different cultures and backgrounds play a crucial role, especially for indigenous communities. By working together, supporting each other and fostering a caring and inclusive environment, we can reduce suicide rates and create a world where everyone feels valued and supported in their mental health journey.

References

Tseng, A. (2021), *Worried your new year will be filled with anxiety? Here are 5 mental health tips to help you tackle 2022*, [ONLINE] Available at: <https://www.latimes.com/lifestyle/story/2021-12-30/5-pieces-of-mental-health-advice-to-give-you-strength-in-2022>. [Accessed 13 December 2022].

Mitsukari (2019), ストレス耐性を決める6つの要素とは？個人差が生まれる理由と原因, [ONLINE] Available at: https://mitsucari.com/blog/stress_tolerance_element/. [Accessed 30 January 2023].

nippon.com (2020), 若い世代の「死因トップが自殺」はG7で日本だけ：未成年自殺率、最悪を更新, [ONLINE] Available at: <https://www.nippon.com/ja/japan-data/h00857/>. [Accessed 30 January 2023].

Shimizu, Y. (2021), 増える女性、子ども・若者の自殺。ライフリンク清水さんが説く「自殺は個人ではなく社会の問題」, [ONLINE] Available at: <https://www.nippon-foundation.or.jp/journal/2021/55066>. [Accessed 30 January 2023].

Ministry of Health, Labour and Welfare (2022), ストレスとは, [ONLINE] Available at: <https://kokoro.mhlw.go.jp/nowhow/nh001/>. [Accessed 30 January 2023].

Ministry of Health, Labour and Welfare (2022), 自殺統計でみた自殺者数の年次推移, [ONLINE] Available at: <https://www.mhlw.go.jp/content/r5hs-1-1-01.pdf>. [Accessed 29 April 2024].

Kyoto Prefecture Web Site, 心の健康のためのサービスガイド, [ONLINE] Available at: <https://www.pref.kyoto.jp/health/jisatsutaisaku/jisatsutaisaku01.html>
https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/hukushi_kaigo/seikatsuhogo/jisatsu_jisatsu_year.html. [Accessed 29 April 2024].

THE PERTH EXPRESS (2019), 意外に知らない？！数字でみるオーストラリアと日本 *Comparison between Australia and Japan*, [ONLINE] Available at: <https://theperthexpress.com.au/living/feature-lifestyle/comparisonbetweenaustraliaandjapan-jun2019/>. [Accessed 29 April 2024].

Nobayashi, K. (2022), オーストラリアの光と影。毎日約9人、オーストラリアの自殺事情, [ONLINE] Available at: <https://sekaiwoman.com/column/20220309/>. [Accessed 29 April 2024].

GraphToChart, オーストラリアの自殺死亡率(推移と比較グラフ), [ONLINE] Available at: <https://graphtochart.com/health/australia-suicide-mortality-rate-per-100-000-population.php#pulationcharttable>. [Accessed 29 April 2024].

Okura, Y. (2022), 死にたくなったら誰に助けを求める？ 友達の多さより信頼できる大人の存在, [ONLINE] Available at: <https://nazology.net/archives/117835>. [Accessed 29 April 2024].

REACHOUT, *Stress in teenagers*, [ONLINE] Available at: <https://parents.au.reachout.com/common-concerns/everyday-issues/stress-and-teenagers>. [Accessed 30 April 2024].

Japan Medi-Mental Institute, 導入後の効果, [ONLINE] Available at: <https://www.medi-mental.com/service/afterwards.html>. [Accessed 30 April 2024].

World Health Organization (2023), *Suicide*, [ONLINE] Available at: https://www-who-int.translate.goog/news-room/fact-sheets/detail/suicide?_x_tr_sl=en&_x_tr_tl=ja&_x_tr_hl=ja&_x_tr_pto=s. [Accessed 30 April 2024].

Feskanich, D. et al. (2002), *Stress and suicide in the Nurses' Health Study*, [ONLINE] Available at: <https://jech.bmj.com/content/56/2/95>. [Accessed 30 April 2024].

OnlyMelbourne, *R U OK? Day 2024*, [ONLINE] Available at: <https://www.onlymelbourne.com.au/r-u-ok-day>. [Accessed 30 April 2024].

Gifford, B.E. (2023), *What is secondhand stress and how do I get rid of it?*, [ONLINE] Available at: <https://happiful.com/what-is-secondhand-stress-and-how-do-i-get-rid-of-it>. [Accessed 30 April 2024].

Levy, S. (2019), *Is Too Much Homework Bad for Kids' Health?*, [ONLINE] Available at: <https://www.healthline.com/health-news/children-more-homework-means-more-stress-031114#:~:text=When%20it%20came%20to%20>. [Accessed 30 April 2024].

Parker, C.B. (2014), *Stanford research shows pitfalls of homework*, [ONLINE] Available at: <https://news.stanford.edu/2014/03/10/too-much-homework-031014/>. [Accessed 30 April 2024].

The American Institute of Stress, *Workplace Stress Are you experiencing workplace stress?*, [ONLINE] Available at: <https://www.stress.org/workplace-stress>. [Accessed 30 April 2024].

Speziali, S. (2020), *Writing your worries away*, [ONLINE] Available at: https://lettheinsideout-com.translate.goog/blog/writing-your-worries-away/?_x_tr_sl=e. [Accessed 30 April 2024].

Harvard Health Publishing (2011), *Writing about emotions may ease stress and trauma*, [ONLINE] Available at: <https://www.health.harvard.edu/healthbeat/writing-about-emotions-may-ease-stress-and-trauma>. [Accessed 30 April 2024].

Nihon keizai shinbun (2014), 小・中学生の自殺、原因の1位は「学業不振」, [ONLINE] Available at: <https://www.nikkei.com/article/DGXMZO79950870Q4A121C1000000/>. [Accessed 30 April 2024].

Mental Health Foundation of NEW ZEALAND, *Suicide Statistics*, [ONLINE] Available at: <https://mentalhealth.org.nz/suicide-prevention/suicide-statistics>. [Accessed 30 April 2024].

Illmer, A. (2017), *What's behind New Zealand's shocking youth suicide rate?*, [ONLINE] Available at: <https://www.bbc.com/news/world-asia-40284130>. [Accessed 30 April 2024].

Shahtahmasebi, S. et al. (2014), *Suicide, Mental Illness and Maori People*, [ONLINE] Available at: <https://www.scirp.org/journal/paperinformation?paperid=49219#:~:text=Current%20suicide%20statistics%20for%20Maori,over%20the%20last%20six%20years>. [Accessed 30 April 2024].

The Impacts of Social Media in Australia (2021), [ONLINE] Available at: <https://digitalwellbeing.org.au/wp-content/uploads/2021/12/Research-Brief-Impacts-of-Social-Media-in-Australia.pdf>. [Accessed 30 April 2024].

Australian Government Australian Institute of Health and Welfare (2023), *Suicide & self-harm monitoring*, [ONLINE] Available at: <https://www.aihw.gov.au/suicide-self-harm-monitoring/data/suicide-self-harm-monitoring-data>. [Accessed 30 April 2024].

～メンタルヘルスと自殺の要因について～ 三浦摩耶

過去3年間、日本では自殺者数が増加しており、世界的に見ても若者の自殺率は依然として高いという深刻な問題が続いている。この論文では、日本人とオセアニア地域の人々の自殺原因の違いを説明し、心の健康を守り、自殺を防ぐための方法について紹介している。オーストラリアで1人、ニュージーランドで3人、日本で4人にインタビューを行い、それぞれの国のストレス要因と自殺の背景、ストレス解消法について調査した。オーストラリア・ニュージーランドでは文化的背景やSNSの利用などが自殺要因として大きな影響を与えている一方で、日本では学校の成績や進路の悩みが主な原因であることがわかった。また、社会全体で行われている活動から個人の取り組みまで、各国によって対応が異なることがわかり、興味深い結果となった。調査を通じて、どの国でも若者のメンタルヘルスを守るためにはさらに多くの対策が必要であり、お互いを支え合い、思いやりのある包括的な環境を育むことで自殺を減らすことができる分かった。

Garbage and Recycling: Japan and Around the World



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Introduction

What do you think of when you hear the word "recycling"? Recycling is the process of collecting used, no longer needed, or broken items, rather than discarding them as they are, and then reclaiming the resources and energy from them for reuse (Spaceship Earth, 2023). For this purpose, proper separation of garbage is important. Did you know that the majority of garbage is either dumped in landfills or washed up in the ocean? The reason is that recycling is too costly and energy intensive (Mymizu, 2021). What kind of policies does the government have in place to solve these problems? I have always been interested in the garbage problem. When I learned about global warming in science class, I seriously considered that the balance of the earth is becoming more dangerous, and that the earth will become uninhabitable if the environment continues to be destroyed. In this thesis, I will research the differences in garbage collection and recycling in Japan and around the world.

Background

I think there is still room for improvement in the way Japan disposes of garbage. The Japanese garbage disposal system is divided into five parts; burnable garbage, non-burnable garbage, oversized garbage, plastic recycling, and cans and bottles. In Japan, many people put their clothes and shoes in burnable garbage instead of recycling them. The biggest problem I know of in Japan, is that unburnable garbage is buried in landfills. Among them, recyclable items such as paper and plastic are sometimes sent to landfills without being recycled. Based on the data, the Ministry of the Environment has proposed that in 2040, all landfills and final disposal sites in Japan will be full and will no longer be able to landfill waste, and we must

take recycling seriously (Mymizu, 2021). The recycling rate for plastic waste in Japan as a whole is 85%. While this is a fairly high figure, most of the plastic waste that is recycled ends up being incinerated in the end. The percentage of recycling that leads to new products is extremely low: in Japan, only 27.2% of plastic waste is transformed into new products. Globally, to date, 79% of the plastic produced is landfilled, about 12% is incinerated, and only 9% is recycled (Mymizu, 2021).

In addition, since there is a fee to dispose of bulky waste in Japan, many people just throw it out into the woods. Near my grandmother's house in Chiba, I often find oversized garbage, such as TV's, chests, chairs, and refrigerators, on the roadside, or in the woods. In Canada, however, some cities collect four to eight



Canadian Garbage Truck

pieces of large trash per year for free.

In the Burnaby area, where I studied, the government collects three pieces of bulky waste per year for houses, and six pieces of bulky waste per year for apartments for free. In the

Richmond area, the city collects six

bulky items per year. In the Coquitlam

area, four pieces of bulky waste are collected annually. The province of British Columbia is very large and the rules are completely different from district to district (MIKKO, 2022). From this, we can see the differences in the way Japan and Canada deal with garbage, and it shows a good Canadian initiative.

Through my experience in Canada, I learned that Canada is more proactive about recycling than Japan. In recent years, we often hear the term "global warming". There is a strong relationship between recycling and global warming, and

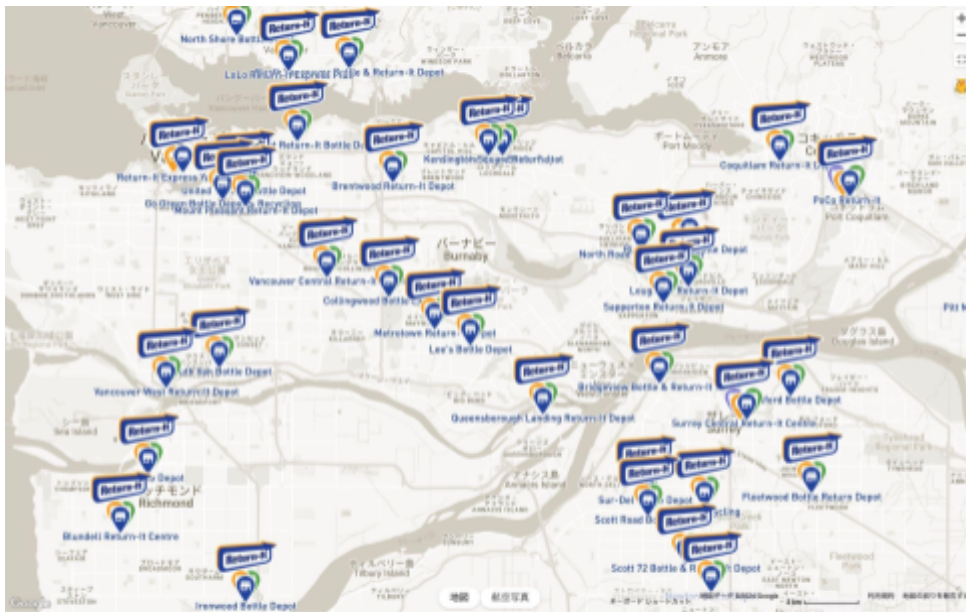
if we can learn from Canada's recycling practices and recycle well, we may be able to slow the progress of global warming and reduce our environmental impact. By adopting these practices, we can contribute to a more sustainable future and protect our planet for future generations.

Supporting Arguments

While studying in Canada, four people were interviewed about garbage. Due to Canada's diverse ethnicity, a variety of nationalities were interviewed about the current situation of garbage in their respective countries. The following people were interviewed: a Canadian man, an Afghan teenager, a school teacher from the United Kingdom, and a person from Nigeria. Two Japanese women were also interviewed in Japan.

The first question was about *how to dispose of basic garbage*. In Canada, garbage, compost, containers, glass bottles and jars are divided into four categories. Plastics should be placed in the garbage bins provided. Food scraps are disposed of in the green bin, which instead of being landfilled, are composted or used as biofuel. Mixed containers contain most recyclable materials in blue plastic bins marked with a recycling symbol. Recyclable paper should be placed in bins marked "Mixed Paper" or yellow bags with a recycling symbol, which differs from Japan, where cardboard is recycled, but paper is included in burnable trash (City of Burnaby, 2024). In Canada, cans and plastic bottles can be put out in mixed containers, but you can get a small amount of money by bringing them to the recycling center yourself. One interviewee said when you buy juice, you pay a fee, called the Digipot fee, which is refunded when you take it to Return-It Express, an

unattended recycling store with 78 locations in BC. When you bring aluminum cans,

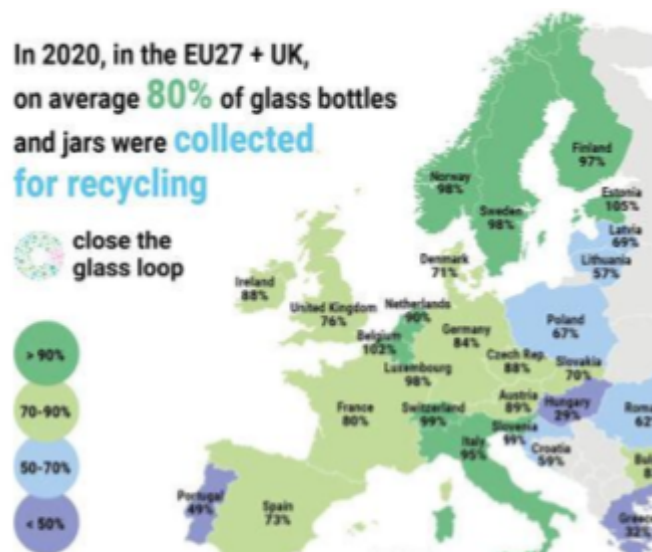


Return-It Express locations in BC

plastic bottles, and larger bottles there, you'll receive 10 cents back (Return-it). On the other hand, in the UK, a wide variety of

items can be recycled. In London, garbage is divided into four categories: general waste bin, recycling waste bin, food waste caddy, and garden waste bin. The method of disposing of garbage is relatively similar to that in Japan, except that recycling waste bins are disposed of together without separating them. Unlike Japan, there is no need to prepare garbage bags, and garbage is thrown directly into the bin.

Another feature of the British recycling method the interviewee said, is that glass is also recyclable. Glass is recyclable, with nearly 69% of glass bottles and jars on the market being recycled in 2020. Almost 80% of glass is recycled in the EU27 and UK,



Glass recycling in Europe

instead of being exported like other materials (Mills, 2022).

When asked *what would happen if global warming were to accelerate without*



British land is feared to sink by 2025

proper recycling, the most common answer given by interviewees was that the melting of Arctic ice would raise the level of the oceans and change the topography of the country. The teacher from the United Kingdom, was concerned that ground in coastal areas throughout Europe will become weaker in the future. According to her, the risk of coastal areas

being eroded is increasing, especially as sea levels rise due to the effects of global warming. As seen in the map above, these changes would have a more serious impact because the UK is an island nation.

The third question, about *policies that governments are implementing to halt environmental change* received various

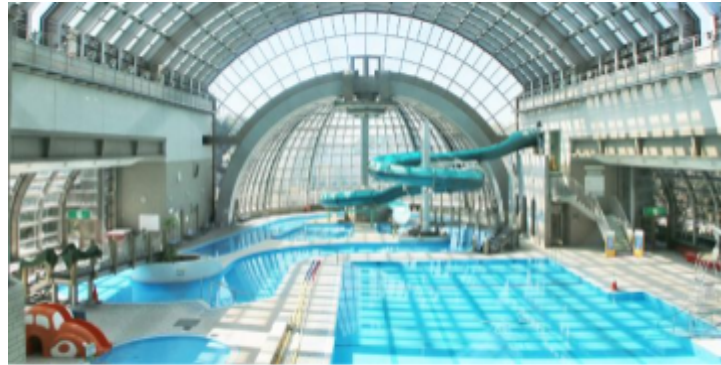
responses from each country. In Nigeria, the government provides free plantain seedlings to each household for the purpose of increasing vegetation. In Afghanistan, plastic bags are no longer produced and have been banned (Wikipedia). All shopping bags are



Plantain

made of felt. It is still difficult for developing countries, such as the ones listed above, to take measures on recycling due to lack of resources, high costs, and lack of government support (Climate Action Accelerator).

In order to combat environmental change, Japan has introduced a sustainable, warm-water swimming pool that uses energy from garbage incineration. An example of this, the Kotehashi warm swimming pool was built next to the Chiba City North Garbage Disposal Plant. There, the heat from the incineration of garbage is used to heat water and generate steam. The steam is then used to generate electricity, and a portion of the electricity generated is used to heat the pool. It does not just landfill its combustible waste, but also has facilities that utilize the heat from the waste (大和ハウス工業株式会社, 2017). To



Kotehashi warm swimming pool

further help combat climate change, Japanese stores started charging for plastic bags in 2020, with the goal of banning single-use plastic bags and other plastic utensils, straws and containers by 2030 (Agee, 2024).

Thailand, the world's fifth largest polluter of marine plastics, is looking to adopt waste-to-energy technology as soon as possible. According to the country's Pollution Control Department (PCD), the country generated 24.98 million tons of solid waste in 2021, of which only 16% was recycled. In Indonesia, too, increased production of single-use plastics due to rapid economic growth is overwhelming the country's waste management system, clogging rivers and impacting local marine wildlife. The most appropriate way to stop global warming is to turn waste into energy. Waste-to-energy technology is well-developed in Northern Europe and Korea, and PCD is working on a project to expand it to Southeast Asia (Wachpanich, Coca 2022).

Conclusion

In Japan, it is difficult to recycle waste at recycling centers because of the high cost and the small amount of recyclable resources. In Canada, however, there are large-scale recycling facilities where recyclable materials are efficiently sorted and processed using highly automated technology.

Governments around the world have taken various measures to address environmental problems. Although developing countries still lack recycling technology, they have taken other various measures to contribute to action on climate change. Through my experience in Canada, I learned that Canada is more proactive about recycling than Japan. In recent years, we often hear the term "global warming". There is a strong relationship between recycling and global warming, and if we can learn from Canada's recycling practices and recycle well, we may be able to slow the progress of global warming and reduce our environmental impact. By adopting these practices, we can contribute to a more sustainable future and protect our planet for future generations.

References

タウンニュース (2020),「指定ごみ袋製」検討へ, [ONLINE] Available at: <https://www.townnews.co.jp/0115/2020/01/09/512885.html>. [Accessed 12 January 2023].

Mymizu (2021), リサイクルはゴミ問題の解決策にならない？明日からできる、リサイクル以外の3つの解決策, [ONLINE] Available at: <https://www.mymizu.co/blog-ja/eco-with-kanae-3-solutions-to-our-garbage-problems>. [Accessed 12 January 2023].

Spaceship Earth (2023), 日本のリサイクルの現状と先進国ドイツの取組事例を紹介 | 生まれ変わって何になる？, [ONLINE] Available at: <https://spaceshipearth.jp/recycle/>. [Accessed 16 January 2023].

Ohashi, K. (2021), ゴミの最終処理の寿命はあと20年, [ONLINE] Available at: <https://sdgsmagazine.jp/2021/06/10/1825/>. [Accessed 7 May 2024].

MIKKO (2022), 粗大ゴミの処理の仕方, [ONLINE] Available at: <https://honobonocanadalife.com/how-to-get-rid-of-big-items/>. [Accessed 20 December 2023].

チャリツモ (2023), 日本のプラスチックのリサイクル率は87%! でも、その中身は..., [ONLINE] Available at: <https://charitsumo.com/number/19986>. [Accessed 15 February 2024].

Fujieda, S. (2023), 海外事情 カナダ・バンクーバーのゴミ分別・収集事情, [ONLINE] Available at: <https://www.dowa-ecoj.jp/kaigai/canada/20230401.html>. [Accessed 21 February 2024].

City of Burnaby (2024), *Guidelines for houses and duplexes*, [ONLINE] Available at: <https://burnaby.widen.net/s/qvjdb22wph/residential-recycling-collection-guide>. [Accessed 26 February 2024].

Encorp Pacific (Canada) (2024), *Beverage Products Deposits, Fees, & Container Types*, [ONLINE] Available at: <https://www.return-it.ca/beverage/products/>. [Accessed 27 February 2024].

Encorp Pacific (Canada) (2024), *Express location*, [ONLINE] Available at: <https://www.return-it.ca/locations/express/>. [Accessed 27 February 2024].

大和ハウス工業株式会社 (2017), こてはし温水プールのサステナブルなエネルギー利用方法に密着 [ONLINE] Available at: https://www.daiwahouse.co.jp/sustainable/sustainable_journey/column/kotehashi-pool/. [Accessed 28 February 2024].

Harrynghana (2017), プランテイン(グリーンバナナ・料理用バナナ・調理用バナナ)知識編, [ONLINE] Available at: <https://ameblo.jp/harryghana/image-12318720082-14046731399.html>. [Accessed 29 February 2024].

こてはし温水プール (2024) [ONLINE] Available at: <https://www.kotehashi-onsuipool.com/>. [Accessed 9 May 2024].

Wachpanich, N., Coca, N. (2022), *As waste-to-energy incinerators spread in Southeast Asia, so do concerns*, [ONLINE] Available at: <https://news.mongabay.com/2022/12/as-waste-to-energy-incinerators-spread-in-southeast-asia-so-do-concerns/#:~:text=There%20are%20more%20than%201%2C000,and%2010.5%20GW%20in%20Europe>. [Accessed 7 June 2024].

Mills, J. (2022), *European & UK glass containers recycling rate hits record high in 2020*, [ONLINE] Available at: <https://www.glass-international.com/news/european-uk-glass-containers-recycling-rate-hits-record-high-in-2020>. [Accessed 18 October 2024].

Joyner, L. (2024), *11 areas of the UK that could be underwater by 2050 if sea levels keep rising*, [ONLINE] Available at: <https://www.countryliving.com/uk/news/a38142403/uk-areas-underwater-rising-sea-levels/>. [Accessed 27 January 2025].

かずくんPhD (2023), *イギリスロンドンのゴミの捨て方から分別まで徹底解説*, [ONLINE] Available at: <https://kazukunphd.com/2022/11/29/bin-waste-in-uk/>. [Accessed 22 October 2024].

Wikipedia (2018), *Plastic bag ban*, [ONLINE] Available at: https://en.wikipedia.org/wiki/Plastic_bag_ban. [Accessed 27 January 2025].

Climate Action Accelerator, *Recycling waste in developing countries*, [ONLINE] Available at: <https://climateactionaccelerator.org/solutions/recycle-waste-developing-countries/>. [Accessed 27 January 2025].

Agee, K. (2024), *DeCA hits pause on removing single-use plastic bags from commissary in Japan*, [ONLINE] Available at: https://www.stripes.com/theaters/asia_pacific/2024-10-04/deca-commissary-plastic-bags-15398813.html#:~:text=Since%20July%202020%2C%20Japanese%20retailers, straws%20and%20containers%20by%202030. [Accessed 27 January 2025].

～日本と世界各国のリサイクルとゴミ出しの仕方の違い～ 吉田ティナエヒギアト

私は以前からゴミ問題に関心があったので、この論文では日本と世界のゴミの収集とリサイクルの違いについて研究した。

日本の最大の問題は、大量のゴミが埋立地に埋められており、2040年にはごみを埋められなくなると言われている中で、私たちはどのような対策を行えるのかということだ。

日本全体のプラスチックごみのリサイクル率はとても高いが、そのほとんどは焼却され僅かにしか新製品に生まれ変わっていない。また世界全体でもリサイクル率は極めて低い。そこでまずカナダの政府が行っている政策を調べてみると、粗大ゴミを無料で回収している市もあった。またカナダのゴミの廃棄方法について特に良いと思ったのは、生ゴミは堆肥化されるか、バイオ燃料として再利用されることで、日本のように可燃ごみとは分類されない。加えて紙類は全てリサイクル可能であったり、デポジット料金が飲み物についていたり、リサイクルの制度が充実していることがわかった。

環境変化が懸念されている中で、それを止めるために政府が行なっているも様々ある。例えばナイジェリアでは、植物プランテーションの苗を政府が無料で提供している。またアフガニスタンではショッピングバッグはフェルトとなっている。発展途上国ではリサイクルについて対策することはまだ難しいが、彼らなりの政策をしているということだ。

地球温暖化を食い止める最も適切な方法は、廃棄物をエネルギーに変えることだと考える。廃棄物を利用した発電技術は先進国では発達しており、そういった国々の公害管理局はこれを東南アジアに拡大するプロジェクトに取り組んでいる。このような取り組みからリサイクル方法を学ぶことができれば、地球温暖化の進行を遅らせ、環境への影響を減らすことができる。そうやって私たちは未来の世代のために地球を守ることができるのである。

NAKAMURA SENIOR GIRLS' HIGH SCHOOL

Nakamura International Course

Thesis Projects

～概要～

中村高等学校国際科では、高校2年次に1年間の海外留学(英語圏)を経験します。そして留学中に研究計画に沿って調査を進め、課題論文を作成します。

2024年度中村高等学校国際科3年生は、「ジェンダー(社会的・文化的に創り出された男女の違い)」「すべての人に健康と福祉を」「住み続けられるまちづくりを」をテーマにしたプロジェクト学習に果敢に挑戦しました。少子高齢社会の日本で、様々な分野で女性の活躍が期待されます。女子教育の場でこそできる「社会貢献・社会創造を担う女性とは」を課題として、グローバルキャリアという視点を軸に、各自が設定したテーマを一人一人が追求しました。国際コースの目標「Think Globally, Act Locally」の実現です。

留学前にテーマ決定をし、調査方法を学びました。留学中も本校の教員(英語を母国語とするネイティブスタッフ)の指導を受けながら、現地の多様な人々にインタビューを実施、さらに図書館や資料館など必要な機関を訪ね、フィールドワークを行いました。帰国後に、調査結果を整理し、論文としてまとめました。昨年度に引き続き、その成果を刊行いたします。

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