

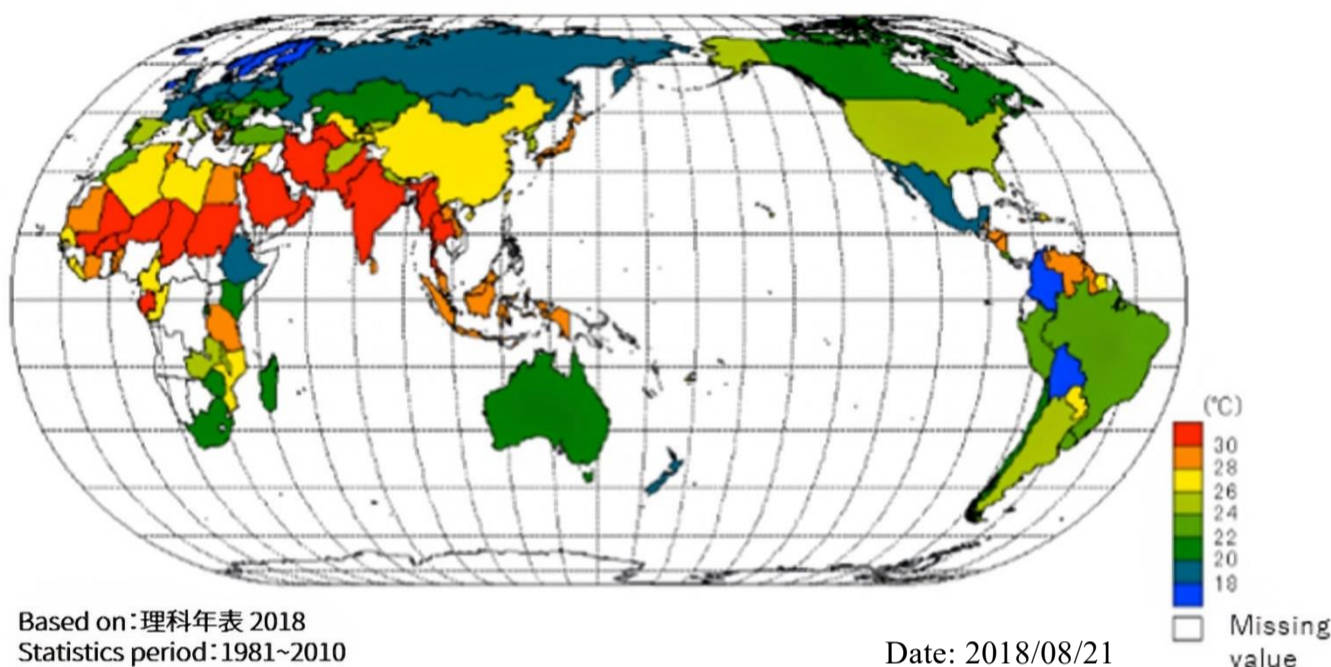


RAN RUN TIMES

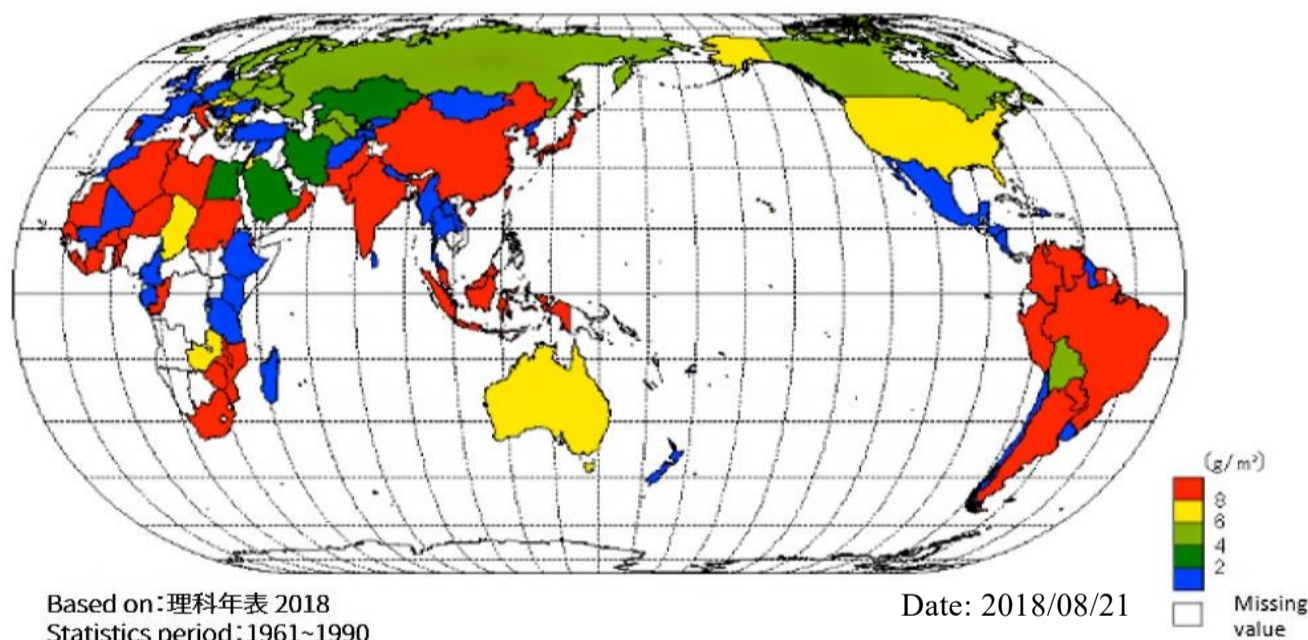
STUDENT EDITION, SEPTEMBER 2019

Effective Indicator of Heatstroke

The average temperature in the warmest month



The average humidity in the warmest month



An effective countermeasure to decrease the number of heatstroke patients in Japan is WBGT (Wet Bulb Globe Temperature), which shows the risk of heatstroke.

It incorporates humidity, solar radiation, and temperature. When WBGT exceeds 31degrees, it warns high risks of heatstroke and recommends

refraining from exercises.

In recent years, the number of heatstroke patients in Japan is on the rise. Heatstroke comes to a social issue since Japan has more casualties than the other countries. On May 1, 2019, the day of the change of era, many of those who visited the Imperial Palace to celebrate Crown Prince to accede to

throne were transported to the hospital by ambulance because of the symptoms of heatstroke.

The number of heatstroke patients begins in May. In this season, though temperature is not high, WBGT shows high risk of heatstroke. This fact shows that temperature is not valid indicator of the risk of heatstroke.

To verify the effectiveness of WBGT, Ochanomizu University high school students conducted a survey. They researched the correlation between the number of heatstroke patients and following three elements: temperature, humidity and WBGT. Compared these correlation coefficients, the values indicated by temperature and humidity vary depending on the region. WBGT shows consistent correlation regardless of the climatic condition. That is to say, WBGT is superior to temperature and humidity.

According to figure 1 and figure 2, Japan has high temperature and humidity for half a year. WBGT, which considers various factors is applicable. However, there are few countries which show such climate so, 70% of foreigners visiting Japan have experienced heatstroke. With WBGT, people could find the risk of heatstroke at a glance. In this way, WBGT is an effective indicator in Japan but its overall recognition is low. There are only 8% Japanese who know and are able to explain what WBGT is, and 65% Japanese are ignorant of WBGT. It means they don't have means to know the risk of heatstroke accurately.

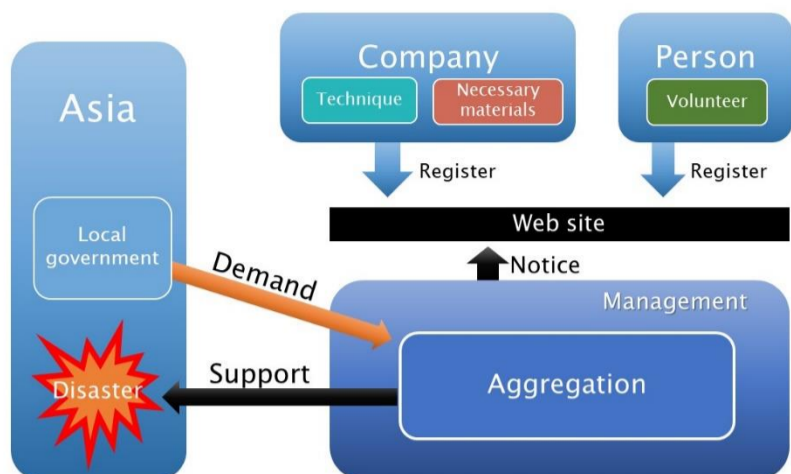
To decrease the number of heatstroke patients, it is necessary to raise awareness of WBGT. In other words, heightened visibility of WBGT will lead to decreased the number of heatstroke patients.

By Natsumi Hara, Nonoka Ishii, Yumi Orikiawa, Nana Kiyota, Rena Suganuma, Mayu Takano

HOW ABOUT US

We are from class Ran in the third year at Ochanomizu University high school. Our school lies in Bunkyo ward where many schools are concentrated. Our school is designated as SGH (The Super Global High School Project) by the Ministry of education, Culture, Science, and Technology. SGH aims to foster leaders who will be able to play active roles on the international stage. As the part of SGH, we take a class called "exploring". In the class, each of us focuses on social issues and explores the solution. Results of our activities are introduced in this paper. Please read our paper and pay attention to social issues.

A New Support System For Disaster Victims



Date: 2018/08/03 Picture by: Miki Tanaka

There is a lot of disaster in Asia, and according to “the ranking of cities having high risk of disasters”, 75% of the top 100 concentrate on Asia. Thus, we need more support. However, many problems occur in supporting to the disaster-stricken area.

One of them is confusion caused by using SNS. For example, in Great East Japan Earthquake, there were some areas that had to throw away excessive provisions because of

information which isn't up to date.

For these facts, a group belonging to Ochanomizu university senior high school proposes a new community of support in disaster on the Internet. They said this new community may make supplies fit to demand for support.

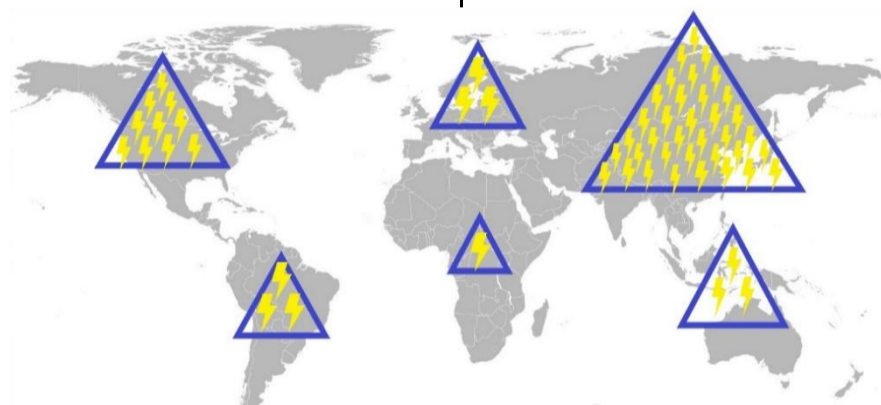
System of this community is simple. Companies, local governments and volunteers register it and if disaster occurs, local governments which suffer

from damage send data about necessities and conditions of damage in this community. And then companies and volunteers which can support the government and organizers of this community coordinate these demands and supplies.

The benefit for companies to join this system is that companies can promote their products through the support. In fact, when children were confined in cave in Thailand, a submarine that Mr. Elon Reeve Musk tried to use drew public attention. In his case, he is famous for an entrepreneur. However, the technology that

his company had wasn't popular, so he drew public attention through this incident. Having a high-level technology, unknown companies can become famous. And this community also makes it possible to send necessities efficiently by meeting needs of victims. Therefore, a group of Ochanomizu University senior high school infers this system will help rebuild after a big disaster.

By Miki Tanaka, Tomomi Osawa, Chiharu Kawano, Ayaka Kimura, Jody Aya Nagasawa, Moeka Yoshida



Date: 2019/09/13 Picture by: Natural Hazard Risk Atlas 2015

A New Form Of Accommodation For Olympics

Recently, *minpaku* means staying in houses whose owners want to rent theirs to visitors. In this article, we use *minpaku* as a staying with its owner to learn the local way of living. *Minpaku* has received public attention as one of means to cope with a shortage of accommodations amid a growing number of foreign tourists in preparation for the 2020 Tokyo Olympics. In June 2018, a new law regulating private lodging businesses took effect and it allowed anyone to lease their rooms for up to 180 days a year

if they register with their local government in advance. On the other hand, it gives rise to various problems. We send a questionnaire to high school seniors, who experienced *minpaku* to invest the real state of it.

To the survey, approximately 95% of students said their image of Okinawa has changed by *minpaku*. One student says that she thought US forces in Japan do only the local people harm. After having contact with local people, she found that it also brings them

Date: 2019/04/14 Picture by: Yurika Kozawa



gain in that they satisfy medical facilities like computed tomography scan comes from the financial aid result of having U.S. military base. In other opinion, by listening to experienced person of the war, they were able to learn the lesson like the horror of ignorance and the present situation which they are in shortage of people who can make success of their story. Also, 74% of the students want to use *minpaku* again. At present,

Japanese government has introduced a legislation of private *minpaku* so *minpaku* became safer. *Minpaku* has an advantage to comprehend regional characteristics so *minpaku* should spread furthermore among both the Japanese and foreigners.

By Manami Furukawa, Yurika Kozawa, Haruka Nakayama, Natsumi Mori, Yui Yamamoto

Date: 2019/04/14 Picture by: Yurika Kozawa



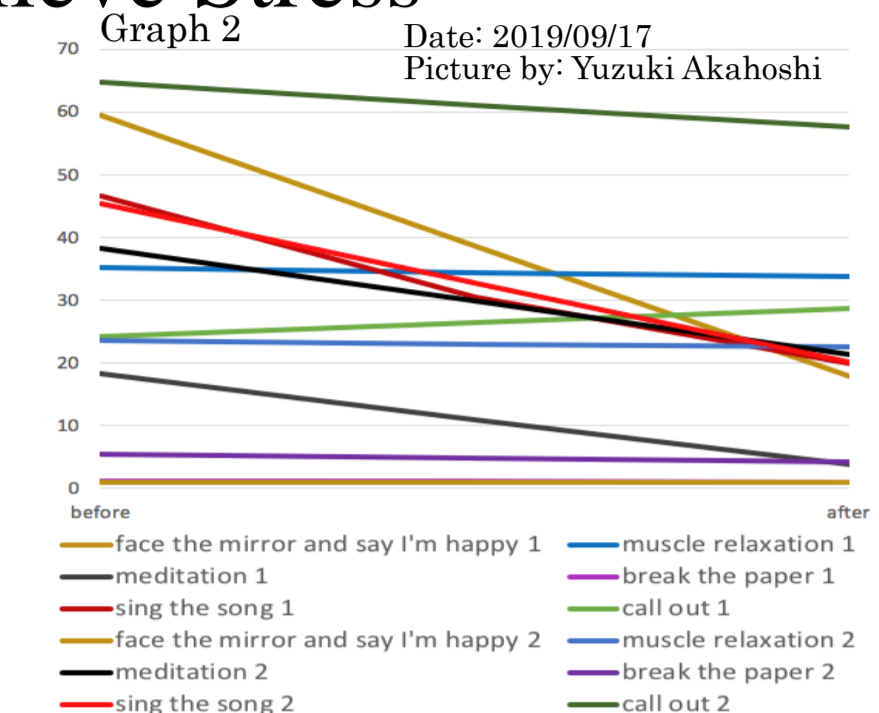
How To Relieve Stress

These days, about a half Japanese feel stressed, by Special Survey on Industrial Safety and Health conducted by Ministry of Health Labor and Welfare in 2017.

Stress is the state of tension felt from stimulation, demand or threat from outside. There are four types of stress factors, environmental, physical, psychological, and social factors. Stimulus can be felt from environmental changes, so it can be assumed that what makes people feel happy can also be

causes of stress. If people continue to live with stress uncared for, eventually, they may suffer from more serious diseases such as depression (which is a common and serious medical illness that negatively affects how you feel, the way you think and how you act) and PTSD (which is Post Trauma Stress Disorder, and is a mental health condition that is triggered by a terrifying event, either experiencing it or witnessing it).

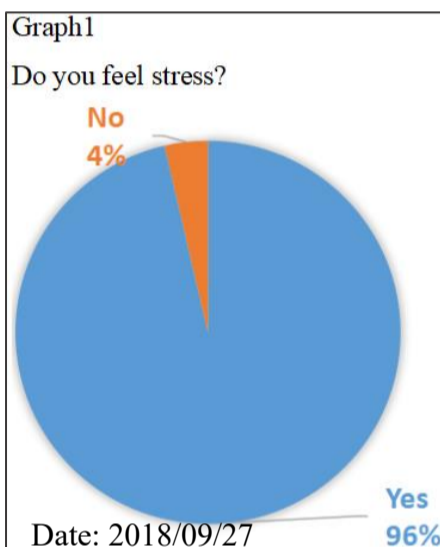
A group in Ochanomizu University Senior High School, which conducted a research focused on the stress of high school students, took questionnaires to 221 students in the school and found that 96% feel stressed (graph1). We also found that 85% of them have their own way to reduce stress. Then, the group chose some of the way to reduce the stress from the questionnaires, and did the experiment to reveal whether they are effective. The ways which they chose are facing the mirror and saying



“I’m happy”, muscle relaxation (for your reference, we put QR code of the movie which shows you how to do muscle relaxation), meditation, tearing papers, singing songs, and calling out. They use an application (PUMSCO) to measure the amount of stress before and after the experiment and

compare them(graph2). This graph shows that the effect depends on individual, so it is important to find your own way to reduce stress.

By Moena Arai, Yuzuki Akahoshi, Sayako Takei, Akemi Fukuzumi, Chisa Mori, Mao Yamada



Unconscious Bias Underlined In The Media

These days, diversity is required to. Ochanomizu university high school students think closing gender gap is the key to realize the diversity. Compared with other countries, however, gap between men and women in the field of politics, education and employment is still big in Japan. According to “The Global Gender Gap report 2018”, Japan came 110th out of the 144 countries. Therefore, the students thought that unconscious bias is one of the reasons of making gender gap. They also thought that it comes from the media such as TV, SNS, advertisements and so on. They created a guideline to change TV audience’s awareness. They would like audiences to watch TV commercials or TV programs critically. There is a big gender gap in the field of the media and in Japan. According to the research

conducted by the students, 81% of actors who did the laundry in TV commercials of laundry detergents broadcasted in 2018 were women (picture 1). Moreover, 48% of actors played a role of a mother in the commercials. However, there was no man who did laundry playing a role of a father. Such TV commercials can instill the idea that it is natural for women to do housework into a large audience. The students believe that advertisements which can be associated with gender roles attribute to unconscious bias.

On the other hand, some companies tackle the gender programs. The students chose ten companies which broadcast TV commercials from Japanese listed companies. Then the students sent the companies questionnaires. According to the questionnaires, nine of them tried not to make a gender discriminatory

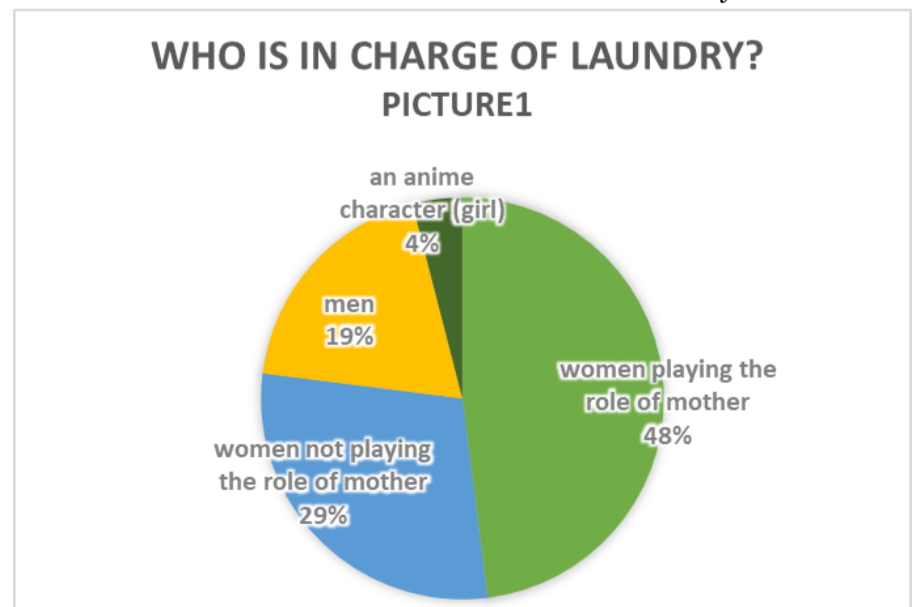
commercial. In the future, the current state of advertisements may change favorable way.

Following these results, students appeal to audiences using the media for reforming their consciousness. It is important to acquire media literacy in order to eliminate unconscious bias. For building the diverse society, it is

necessary for both the sender of information and the receiver of information to think about ideal expression.

By Narumi Onoda, Nozomi Aoki, Yuka Kashima, Kana Shigyo, Kisaki Nakamura

Date: 2018/08/23 Picture by: Narumi Onoda



Proposal For 3D Printer In Japan



Date:2019/09/05
Picture by: WIRED

Technology of building houses by using 3D printer is developing. It has not been introduced in Japan yet, but various buildings are constructed around the world. For example, in 2015, a five-story apartment was built in China. In 2016, an office was built in the United Arab Emirates.

3D printers are different from ordinary printers. Following 3D CG data, they build solids with

resin and concrete. 3D printers have a lot of applications. For example, for the most part, the manufacturing industry, the medical field, the aerospace industry and advanced researches. Building house by 3D printer requires a large-size 3D printer to construction sites and make it move to build. Printer build the wall by draining layered concrete.

3D printer buildings have some remarkable benefits. It cuts down cost and period to construct. According to the website of NGO *New Story*, it costs approximately \$6,000 and it takes 24 hours for one home. If we think of building normal housings, it costs at least 100 thousand dollars and it takes several months for one home.

Because we can save resources, it is good for environmental protection too.

Because of Japan's geographical conditions, serious disaster like major earthquakes and typhoons occur frequently. Japan is said as a disaster-prone country. In the case of a serious disaster, there is a shortage of temporary housings. Actually, in Great East Japan Earthquake in March 11, 2010, there were many people who had to stay in their car because of insufficient temporary housings. This behavior leads economy class syndrome, which makes blood clots. The problem will be solved if we build 3D printer temporary housings as many as possible.

However, according to the Building Standards Law of Japan, building by 3D printer has not been permitted yet. Sufficient shelters and temporary housings resolve the matter of death from spending the night in a car.

We should introduce the structures of 3D printer now.

By *Mika Kodera, Moe Saito, Hikaru Taniguchi*



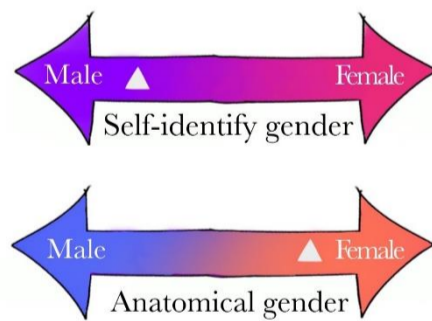
Date: 2019/09/05
Picture by: Tabi Cafe

Are You Man, Woman, Or...?

In order to build the comfortable society for the transgender, "spectrum" should expand all over the world. "spectrum" is the notion that people have anatomical gender and self-identify gender. Moreover some people whose anatomical gender correspond with self-identify gender are called "cisgender", while others don't correspond with are called "transgender". Fig 1 is an example of a person whose self-identify gender is male and anatomical gender is female. "Coming out" means informing others that they are transgender, but a number of people are reluctant to come out because the cisgender account for about 90 % (research of LGBT 2018

by Dentsu) and there are discrimination against the transgender. Mainly because of some distinctions between the cisgender and the transgender, the transgender are compelled to decide which gender is their preference gender. There are two examples about this circumstance.

Fig1) Transgender's Spectrum



Date: 2019/09/20
Picture by: Narumi Okazaki

First, the transgender feel uneasy and so they refrain from using restrooms because of the use of multipurpose restrooms for people with physical disabilities and LGBT people is open to leading to an unexpected coming out.

Second, school uniform are used at almost all school. However, the transgender feel incongruous when they wear the uniform correspond with their anatomical gender. And they are also worried that they are coldly looked down on by others.

Recently, knowledges of the transgender are expanding (in research of LGBT 2018 by Dentsu, the people who know the word LGBT account for about 70%), but it is hard to

mold the society which is comfortable for all gender. Therefore it is required to spread "spectrum". In other words, it is essential to understand there are not only two gender, male and female, but also a lot of genders included the transgender. There are differences between anatomical gender and self-identified gender, which apply to all people, of course cisgender. Understanding that all people have various gender reduces the word, LGBT, and discrimination against them.

By *Hinako Karino, Narumi Okazaki, Kazusa Kameoka, Natsumi Takagi*

RAN RUN TIMES

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