

Abstract

This study explores the process of improving barrier-free, especially removing the spiritual barriers among people. This study suggest that Japanese government spend money more for human resource development and training of service dog rather than establish excessive equipment for removal of the physical barriers. One of the problems of Japanese barrier-free is that Japanese do not act spontaneously to help those who are in trouble; they are not men or women of action. In this way, there is a difference between Japan and foreign counties. In terms of the spiritual barriers, many people (not only Japanese) have prejudice against those who have barriers or they are ignorant of them. To solve these problems, we need the heart barrier-free. It is essential that we encourage human resource development and the heart barrier-free so as to improve barrier-free.

Introduction

Recently, the aging society has captured the attention of the world. In order to make the society more comfortable, more and more countries are tackling the barrier-free issues. For example, they often install some escalators or elevators by the stairs. However, some of those who have barriers may have trouble because there are the spiritual barriers among people. The barriers may be the most painful barriers for them. In order to make the world better, we must remove the barriers right now. This is why this study explores the process of improving barrier-free, especially removing the spiritual barriers among people.

Discussion and implication

First, Japanese government shows that more than 90 percent of the population of Japan know the word “barrier-free” and the meaning of the word. However, the government also shows that more than 60 percent of them think that the barrier-free is not improved sufficiently. In order to improve barrier-free, the government enforce the law on barrier-free, but the law is mainly about barrier-free in the buildings or public spaces. We can learn that one of the problems of Japan is that they tend to solve the problems by establishing barrier-free equipment, and they need the equipment too much.

Second, in some western countries developed in the point of barrier-free, they do not establish excessive equipment. Instead, they tend to give hands to others in trouble more freely. So, they spend less budget on the barrier-free.

The problem of Japanese need solving immediately. This study suggests some solutions to it.

To introduce more practical welfare experience in compulsory education is one of them. The education improves not only barrier-free, but also the students’ mental health. Now, human development is necessary. Moreover, the basic skills will be useful in any situation.

To spend budget on education for the service dogs is also important. Because the budget of it is on charity, there is shortage of them. The dogs may help us spiritually, or physically.

Conclusion

Japan should spend more money on the education of the people and the service dogs.

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Abstract

In Japan, one-third house (include apartment room) would be vacant house by 2030 if would not take any measures. It is easy to say to demolish vacant houses, but it needs a lot of money to.

So, it is difficult to deal with the problem. Then, the goal of this study is to know current situation and the future which would happen if we would not take any measures. And think how to use them well without demolishing. Then, I suggest that we use them as accommodation for large events. Large events attract a large number of people not only from near the venue but also from far away. It is difficult for most of those people to visit the venue on the day and go back their home in the day. So, a high percentage of those people may stay at accommodations near the venue.

Introduction

The reason why I decided on this theme is because I felt that there were many vacant houses while strolling around my house, and I was interested in the problem well. However, the problem is difficult to solve in that strolling them. So, I am going to think how to reuse them.

Discussion and implications

First, there are several main reasons why vacant houses are a problem. First, they reduce the safety of the community. The second reason is the decline in security due to burglars. Vacant houses are easy to break into, so they tend to be an easy target for burglars and other thieves. In fact, when a prisoner escaped from Hiroshima Prefecture a few years ago, he chose an empty house as a hiding place. The third reason is the financial strain on the community. In Japan, there is a special measures law that states that land with buildings on it is subject to one-sixth the property tax compared to vacant land, so land in which there are buildings is cheaper than the land in which there are no buildings. Therefore, the higher the vacancy rate, the less tax the municipality can get. In general, it is said that a municipality is said to go bankrupt when its vacancy rate reaches 30%, and in fact, the city of Detroit in Michigan, USA, and Yubari in Hokkaido, Japan, both went bankrupt when their vacancy rates reached nearly 30%. The current vacancy rate in Japan is about 13%, and if the vacancy rate continues to rise, it is said to reach 30% by 2035. In other words, based on this theory, if the increase in the vacant house rate is not stopped, Japan will go bankrupt around 2035. As mentioned in the overview, demolition of vacant houses will not cause any problems if they are demolished as they are, but the fact that demolition does not proceed as expected due to the high demolition costs and other circumstances is why it has become the social problem it is today.

What should we do? Let's start with a concrete solution. First of all, there are four main types of vacant houses, "for rent, for sale, secondary residences, and others," and the one with the highest rate of increase and the largest number of units by far is the vacant house that "just exists without any use. These vacant houses are neither vacation homes nor vacant houses for rent. It is this "no use" that caught my attention. Therefore, I propose to use this kind of house as an accommodation facility. Specifically, I propose to use them as lodging facilities for large events. Many people gather for large events, not only from near the venue but also from far away. Many of these people find it difficult to go there on the day of the event and return home on the day of the event,

and a high percentage of them use lodging facilities in the area. In other words, if available vacant houses are made available for use as lodging facilities, vacant houses can be given a meaning of existence, and the revenue will be generated in the form of lodging expenses, whereas until now the money has been going out, which can be used to eliminate vacant houses and revitalize the area.

For the Tokyo Olympics scheduled to be held in 2021, "home-stay" is attracting a lot of attention as a lodging facility for spectators from abroad. Although the number of tourists has dropped drastically due to the coronavirus, the government had originally set a goal of 40 million tourists per year in 2020, the time of the Olympics, and about 10 million people were expected to visit Japan for the Tokyo Olympics. However, there was a shortage of an estimated 41,000 rooms in existing lodging facilities such as hotels alone. If there is a shortage of lodging facilities, even if you use private accommodation, and there is neither the land nor the cost to build new lodging facilities, then that is where the vacant houses come in.

Conclusion

From the above, I think we should use vacant houses as accommodation instead of strolling them. However, I have not already thought how to realize the plan. I am in the process of making concrete plan about ownership, renovation and maintenance costs, and so on. I would like to think about them in the future.

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Abstract

My research began when I discovered the GCF, a system for collecting donations. GCF is on the website where you can pay your home tax. A hometown tax is a legal system in Japan that allows you to pay inhabitant's tax to the area where I used to live. Municipalities can revitalize their cities with the donations they receive. Many municipalities were allocating money to animal protection, environmental conservation, child support and city planning. When you pay taxes in your hometown, you can receive gifts in the area. That return gift is so attractive that it's attracting donations. As we continue our research, I've found many hometown tax accomplishments. It's raising the amount of money donated to Japan as a whole. For many years, Japan has had a problem with low donations compared to the rest of the world. It shows by Global Donation Index Ranking, what is examining each country's kindness. It is searched by Gallup. In that ranking, Japan is ranked 111th, a very low number, I think. Why is Japan so low? I thought it was because of the characteristics of the Japanese people. They tend to be more concerned about how their money is spent than people in other countries. I thought that's one of the reasons why Japan's rankings are so low. And that's where the GCF is trying to change that situation. To date, more than 8 billion in donations have been transacted and more than 960 projects have been carried out at GCF. It is helping to raise awareness of the importance of giving among the Japanese people. The final goal of my research is to use the GCF to raise money abroad. Now we want to figure out how to make it happen.

1 Introduction

The purpose of this year's research is to continue to investigate the way in which donations are made through the GCF, and to include global issues in the GCF's objectives to solve problems. Not only do I want to include them, but I also want to come up with an explanation of the purpose of the GCF that is suitable for Japanese people.

The procedure is to gather information on the Internet and formulate a plan based on it.

2 Discussion and implications

We thought that in order to exist as a donation that fits the Japanese, trust is necessary. Because globally, the Japanese spend money based on trust and credibility. In order to continue to earn that trust, I think we need to let people know how the money was spent as a result of the donations received.

3 Conclusion

The conclusion of soliciting donations from the Japanese is that they have found that they need credit and a track record of success. In addition, it is not clear which organization will be responsible for global donations, while the local government, a trusted organization, will be responsible for the hometown tax, and this is an issue that still needs to be addressed.

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On the issue of waste plastic
To promote the improvement of the environment

5104

Abstract

The theme of this study has been "On the issue of waste plastic". I decided on this theme because I saw pictures of a beach in Kenya and felt a sense of crisis that I would not normally feel. The beach was covered with trash and there was no place to step on it. This picture had a great impact on me. When I think of the "ocean", I think of a very beautiful beach, but the actual beach is very far from my image. This was the motivation for me to start my research. Recently, plastic has been found not only in the ocean, but also in the air, tap water, fish, and there are concerns that plastic will accumulate in our bodies in the future. This was a major impetus for starting this research, as we now know that plastic is not only a problem that has a negative impact on the environment, but also has the potential to have a major impact on humans.

The goal of this study was not to recover the plastic that has already been discharged into the ocean, but to reduce the amount of plastic that will be used in the future.

Discussion and implication

The topic of the current study is the same as the topic of the research I did last year, so I used the previous year's research for information about this year's research. However, I used the Internet to research new information and additional information that became necessary.

Conclusion

The 14th Conference of the Parties (COP14) to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) held in May 2019 revised the annex to state that "after the entry into force of the annex in 2021, dirty plastic waste shall not be exported without the consent of the partner country". Banned. It prohibits the export of its own waste plastic to developing countries, mainly developed countries such as Japan, under the guise of recycled resources, which may contain dirty material. The signing of such a treaty is a great step forward, but it is difficult to solve the plastic problem with limited frameworks, regional decentralized efforts, and mere "declarations" that are not legally binding and adopted at the summit. Therefore, I believe that we need to take action on the plastic problem through legally binding "laws" and "international agreements" around the world. As an example, let's take France, an environmentally advanced country. In France, an energy conversion law enacted in 2015 allows for the use of disposable straws, steak picks, cup lids, plates with plastic film, cutlery such as knives and forks, muddlers, polystyrene foam containers (used in fast food), foam The use of polystyrene bottles and stickers for balloons (except for professional use) was restricted. Cups, glasses, and plates will be banned from January 1, 2020 as planned, but in line with the EU directive adopted by the European Parliament (plenary) on March 27 that bans the distribution of disposable plastic products, the ban will be extended to "products containing compostable biomass in household composting" to include "foam It added, "except for those made of polystyrene". In addition, the plastic products banned had been expanded by the "Act for the Balance of Commerce in Agriculture and Food Industry for Healthy, Sustainable and Accessible Food for All (commonly known as the Food Act, effective November 2, 2018)". Such a law has not yet been implemented, but is expected to have a significant impact on the use of plastics in the future. Thus, there is a trend in France to try to tackle environmental issues as a whole country. However, since many countries have yet to establish legally

binding legislation to solve environmental problems, the first step in solving the plastic problem is for the world as a whole to tackle the problem and establish legally binding rules.

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○Abstract

Why do we decided to this theme to like the sports, And The Gunma Pro football soccer team Thespa kusatsu Gunma Promotion J2 between to be J3. The about the two years ago, Player and supporter have a lot of painful things. So, to promotion J2 years Milestone to several of change the transformation in this season, and more active to should to positive action with my thinking. So, decided to this theme. Go to the stadium more and more from three years ago, so, actually go to the stadium and feel the things and thinking the what the thespa not enough to clear, After Me thinking the foreign countries soccer club to compare thespa. And, Corona virus trend in the world situation, what thing for the team Think carefully and put out the many draft is important, too.

1 introduction

The purpose, Thespa lose a lot of the match, so, few the people the number of visitors. So, the first the team is only one pro soccer team in Gunma.

Know to the team for everyone, I think let's make Loved by the local team. For example have a good idea Urawa Reds Diamond. People live in Urawa, many people go to the Saitama stadium2002 (Urawa Reds Diamond home stadium) once in a life time. From the above Urawa at the city.

Put effort the many sports because you can create such a big club in one area, As a whole challenge in prefecture, I think we cannot impossible things. I use the Internet Club official page, SNS, Field survey Information record when watching a game.

2 Discussion and implications

First, the most important things to compare other team is stadium. Stadium is important to Access, landscape, stadium gourmet, whether there is a roof to prevent rain, big TV monitor installed Various factors such as whether or not it is done are required. At the fact thespa home stadium is so bad access.

So, prime of the stadium shuttle bus only buses departing from Maebashi Station are available, and away supporters may need to increase the number of shuttle buses departing from and arriving at Takasaki Station in order to reach the stadium by using the Shinkansen or trains. Until the season of the year before last, there was a shuttle bus from Takasaki, but it wasn't operated due to lack of manpower. Immediate action is required so that people from other prefectures can watch the game with peace of mind.

Second, other stadium gourmet is more enrichment than other club Albirex Niigata supporters, who were opponents of the opening game (audience game) of this season, also liked it, and there were many reviews that they wanted to come again, so stadium gourmet should continue as it is. That's right. There is also a big TV monitor, and every game, stadium DJ Sayama introduces the enthusiastic starting members before the game starts. I want to continue this as well.

Third, regarding the installation of roofs to prevent rain, installing a roof in a stadium requires a large amount of money, and in order to obtain it, it will be necessary to have more large sponsors. .. The team Gunma has the least wealth of J2. Fortunately, however, I think it will be necessary in the future to approach Gunma as if it could be sponsored by the headquarters of large companies such as Yamada Denki and Bic Camera.

3 Conclusion

For example, Barcelona, which sponsors the overseas big team Rakuten, owns a stadium called Camp Nou and is said to be the world's best soccer stadium. The stadium has everything important, and is about two Tokyo Domes. It's a stadium that I want to visit at least once in my lifetime. After all, it is established because Rakuten, which is expanding on a global scale, is a sponsor, and in order to make it a place that everyone wants to go, the first priority is to improve the stadium. I am keenly aware that this is the case.

- Next is about the practice area. The Spa does not have its own practice area, and it does hard training in places that it usually rents. On the other hand, I think it is necessary to set up a dedicated practice area. Of course, changing places does not always improve the team's ability. However, it may be easier for players to practice in a dedicated practice area, recognizing that they also carry their own team.

- In addition, many teams that dig into the upper ranks always have a dedicated practice area, and some players may refuse to join it if there is no dedicated practice area. However, creating a new practice area also requires funds, so offering more sponsors and offerings to large companies will become even more important for the team.

- Others include posting posters. This will continue as there are people who are active on a regular basis.

In addition, Ichita Yamamoto, the governor of Gunma Prefecture, is also a person who is committed to the sports of Gunma, so I would like to cooperate with such people and the club to make Gunma more exciting.

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Regional revitalization from the perspective of the relationship between sports teams and the region-Take the J League as an example-

Medical Problems of the World To Reduce the Amount of Bad Drugs

5106

Abstract

Last year, when I heard the theme, “Research on the World”, I came up with the idea about medical problem in developing countries. Then, I researched on it and I found out the information that there are many bad drugs in developing countries, and they kill more than 500 thousand people per year. In order to reduce this number, I began to research with this theme. I researched with mainly books and Internet, as a result, I found out that bad drugs have two bad effects, “Economic Effect” and “Human Effect”, and the amount of bad drugs couldn’t be reduced by globalization and not doing of drugs examination. From this information, I suggest that we should require companies which produce drugs and make the penalty of producing bad drugs more serious. However, I couldn’t consider how to realize this solution, so I have to think about it more.

1 Introduction

Last year, when I heard the theme, “Research on the World”, I came up with the idea about medical problem in developing countries. As doing research, I found out that there are a lot of bad drugs in developing countries. Now, about 10% of medical goods which circulate all over the world are bad drugs, and they are about 30% of drugs which circulate in developing countries. Also, I found that bad drugs kill about from 500 thousand to 1 million people all over the world in a year. By the way, bad drug is the medicine which doesn’t meet the criteria. Having the goal that I wanted to reduce as many people who are affected by bad drugs as possible, I set the theme, “Medical problems of the world ~ To reduce the amount of bad drugs ~” In this year, I research on this theme with perspective of innovation.

2 Literature review

Mr. Kimura said, “There are 4 points why IMPACT(International Medical Products Anti-Counterfeit Taskforce) was frustrated and bad drugs were spread. First, emerging countries were developed as supply source of generic drugs in the world, and there happened tension that developed countries examine the quality of their drugs. Second, WHO’s medical policy was conflicting thing between developing countries and developed countries. Third, the range of poverty in developing and emerging countries couldn’t make incentive to solve the tasks about public health and market. Finally, the strategy of WHO/IMPACT didn’t have a point of view to solve the problems about the change of drugs to economic products by globalization and public health in developing and emerging countries.”

3 Methodology

I basically research on the Internet.

I use books and papers which are written about present situation of bad drugs, and website which tell about the attempt to disturb from circulating them. When I use the Internet, in order not to misidentify the information, I use as many websites as so that I can compare with them each other.

4 Discussion

First, as I told at the Introduction, about 10% of medical goods which circulate all over the world are bad drugs, and about from 500 thousand to 1 million people are killed all over the world in a year by them. Specifically, researchers found 1500 bad drugs at the research which was done in 2013 to 2017. Also, 42% were Africa, 21% were South and North America, and 21% were Europe in 1500 bad drugs. Although we found such a lot of bad drugs, the number of bad drugs circulated in the world

hasn't changed. So, I think that the drugs found that time were only a small part of bad drugs all over the world.

Next, I think there are 2 negative effects that bad drugs affect people.

The first one is "Economic Effect". This main example is they put pressure on people lives. In a case of developing countries, which there are a lot of bad drugs, the people can't buy expensive drugs which assure its quality. It is because they don't have enough money. And, when the child catch a cold, the child's mother put up with buying her foods or clothes and they buy cheap drugs. However, if it's bad drugs, his medical condition doesn't become better or, in a bad case, become worse. The case like this are happened at many places.

Another one is "Human Effect". This main example is they have a possibility to cause side effects. When bad drugs are taken, in most cases they cause kidney failure or allergy but in the worst case they kill people. In September, 2013, Paraguay, 44 children took cough medicine, and they became dyspnea and the six children went to intensive care unit.

Next, I think there are 2 reasons that the amount of bad drugs aren't declined.

First one is globalization. These days, bad drugs which circulated in only their own countries become to circulate all over the world by rapid progressed globalization. For example, the case that Hepatitis C drug Harbony were seized happened in Israel in 2016. Swissmedic told that this medicine was produced in India and imported through Switzerland's trading company. Also, a German newspaper company told that standard way to cure with harbony for 12 weeks cost more than 50 thousand flin in Switzerland, on the other hand, the way to cure with sobaldy cost only 500 flin in India. So, there is a high likelihood that bad drugs companies set their eyes on the big cost difference between German and Switzerland and it became a target of them. For these reasons, the goal to reduce the amount of bad drugs became more difficult.

Second one is that most countries don't examine medicine. There are countries that examine drugs, but even if they do that, some of them can't block medicine because of deficiency of economic and technical power.

Next, I found two examples we can use for this problem.

First one is "Falsified Medicines Directive". This was established in European Union. And, the content is that all companies which sell medical goods in EU must put safety system like their own distinction code by February ninth in 2019.

Another one is "Medicrime Convention". This is first system using the international criminal law that requires the countries to make all the actions related to illegal drugs, such as producing, transporting, and supplying, criminal penalty. By this system, people can strictly producing illegal medical goods, reducing the companies which produce bad drugs, and reduce the amount of the drugs.

For these points, I think we have to have medical companies put their own code on their products and make bad drugs crime. Because, medical companies save their supply chain and their customers by putting their own distinction code. Also, even if people who produce bad drugs are arrested, all they have to do is only paying a few fine or be in prison for too short time. These penalties never equals the threats and the damages victims suffered. Also, they can produce bad drugs at a very low cost and sell them at a high cost. So, such a light penalty can't corner them for giving in their own business. Moreover, they can't be used as even a goods of threats. For these reasons, if producing bad drugs become a serious crime, we can drive them into retire their own business. In addition, I think the amount of bad drugs decline absolutely if we realize this solution.

However, it isn't easy to realize this solution. So, I'm going to continue to think about how I can carry out this solution.

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Solving Japan's problem
~ Make new usually policy ~

5107

○ Research outline

I searched world poverty last year. Specifically, I searched Africa's poverty, and I learned some support methods which we didn't know. Japan is relative poverty, Therefore, I think these method can be used for Japan's problem, but almost people don't know Japan is relative poverty. Japan's poverty rate the top among developed countries. However, we don't feel the fact in dairy life. So, I searched how relative poverty have adverse effects for children.

○ Purpose of research

I decided this theme, because when I searched problems in Japan, I found Japan is relative poverty, but I didn't believe it. Our dairy life can't feel this thing, so I decided this theme.

Other reason is I think how can more near and more easy to donate. Schools do UNICF and Red feather donation about 2 or 3 times for a year. However, I think it is a little, so it need creating an environment where you can make donations around you.

○ Research method

I almost use internet, and little use book about poverty.

○ Research results and task

I can understand Japan's poverty is spread more and more. Especially, Child poverty is advancing and Chain of poverty is increasing. Chain of poverty, which is parents can't give enough to good education, when they are poverty, their children become poverty that is continue. This is serious problem. I searched what kind of influence of children by Child poverty. Relative poverty's children spirit to attack the damage is big, so Children who can't take the life that the children around them take for granted repeat a certain word. "why am I the only one" children repeat the phrase, but to become gradually, they don't say the phrase. Instead, "After all ... I'm just..." the phrase repeat. Children who came to say this word, lose various chances. For that children don't enough to simple social security. In particular, it was found that single-parent households are prone to relative poverty. Among them, women are more than men, because women's labor has lower wages than men and difficult to become a full-time employee.

How far has Japan's poverty progressed? "OECD economic review report(2017)" wrote about relative poverty rates by country are listed. Of the seven major countries (G7), Japan has the second highest. First country is America, but America is gradually decreasing.

I have some suggestions. First, the policy called basic income. Basic income mean don't give food or daily necessities but give some money every month. The policy have some good points.

First, young people don't have to work for a living, when that happens, we can use

money and time to improve your skills. As an example , Even if university students work part-time for convenience store and supermarkets, we don't get the skills to make money. Basic income is insurance, so we can try any things.

Second, people living in local areas will have an advantage, because price are cheaper in local area than city. Therefore, the policy can stop depopulation.

Third, it is said that crime will be reduce, because we get money every month, so our feeling surplus, reduce suicide and black enterprise.

Forth, make it easier to have children. The number of companies that have branches in Japan is decreasing, because population is declining every year in Japan. When that happens, the economy will get worse. If it's Basic income, it is easier for young people make child .

I think there are two disagree opinions. First, all people will not work. Second, what to do with money. The first answer is the policy do other countries, so no worries. And, Basic income get money for minimum required money, so if we will don't work, we can't go trip, shopping and pray with friends. Second answer is, various insurance don't need, so use them. For example, pension, unemployment insurance and social security.

Second, when I watched TV, the broadcast the new way. That is travelers make a reservation, Donate \$ 10 per night to a local charity or other global organization you like near your destination. That way, travelers can get receive hotel discount coupons and special offers in return. The money goes to the charity organization. Travelers can know what I can do. Therefore, I would like to propose a travel plan that can contribute to society to a famous travel agency in Japan. Kind Traveler has the same plan, but most Japanese can't read it because the site is in English. I think I'm worried.

So, I suggestion about Japan's famous company should make this plan. However, I have to think about the profits of the company. It is different problem but, If this can be achieved, Collect more donations.

○Literature

<http://gendai.ismedia.jp/articles/-/54265> 格差・貧困に背を向けた結果、日本は「階級社会」に突入していた

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Kind Traveler

<https://ideasforgood.jp/2017/09/07/kind-traveler/>

ベーシックインカムについて

<https://kotobank.jp/word/%E3%83%99%E3%83%BC%E3%82%B7%E3%83%83%E3%82%AF%E3%82%A4%E3%83%B3%E3%82%AB%E3%83%A0-624421>

池上彰（2013年11月25日）「池上彰のアフリカビジネス入門」日経 BP マーケティング

チャイルドスポンサーシップ <https://www.worldvision.jp/childsponsor/>

外務省 https://www.mofa.go.jp/mofaj/gaiko/oda/about/oda/page22_000783.html

日経ビジネス <https://business.nikkei.com/atcl/seminar/19/00067/111200016/>

○Overview

The estimated damage amount of money by poaching is higher than 400 billion yen every year. This shows the problem of poaching becomes more and more serious. There are 2 big causes to solve this problem. One of them is “Too little penalty”. However on the way of my research, this cause was solved because the fine was raised 15 times by Fisheries Agency of Japan. Other is “Difficulty of arresting”. Poaching is not prosecuted for theft. It is necessary to show evidence that poacher would use them as products.

To secure an accurate evidence, a surveillance camera with artificial intelligence is efficient.

It can monitor near the harbor every time. However it also has some disadvantages.

As a previous research in the field of poaching, a survey by OKI electronic industrial cooperation came up with other solution. If it is used with the surveillance camera, they can compensate their own defect each other. Though users can find criminal, they cannot prevent from poaching by using this solution, so people have to consider other solution.

1 Purpose and motive

The recent estimated damage amount of money by poaching is higher than 400 billion yen every year by Internet. On the other hand, significant decrease of catch of marine products makes themselves more expensive. If poachers stopped poaching, this situation would be kept under control.

2 Method

Internet, book and electronic newspaper are main. As a previous research, use the research contents of IoT technology by OKI electronic cooperation.

3 Research contents

There are 2 big cause to solve this problem: “Too little penalty” and “Difficulty of arresting”.

If you porch marine products, you will have to prison max 3 years or pay 2 million yen in Japan. According to Fisheries Agency, poachers can earn more than hundreds of thousands money. There were many criticism that penalty cannot stop them. Therefore Fisheries Agency rose the penalty from max 2million to max 30 million. This problem was already solved.

Another problem which is related on increasing of poachers is “Difficulty of arresting”. Poachers cannot be arrested by violation of Criminal law because marine products are classified as “None owner products”. So police need to arrest them by violation of Fishery Law.

But to arrest by Fishery Law, there must be evidence whether they were going to sale marine products or not.

To solve this problem, a camera including artificial intelligence is efficient. As soon as the camera find poaching ship, it sounds a siren and inform that to staff of Fisheries association.

By using this method, police can get secure evidence immediately. In addition, poachers probably will be vigilant the camera. So they think that they are arrested as soon as they poach and the number of poaching will decrease. But this camera has some disadvantage. For example, it cannot observe at night although poachers tend to be active at night.

As a previous research in the field of poaching, a survey by OKI electronic industrial cooperation is good as a previous research in the field of poaching to compensate the defect of this camera. In this survey, they proposed a censer to discover poaching ship by underwater acoustic technology. The censer is installed at fishing port or offshore and discover diver or poaching ship.

The camera cannot monitor well when the weather is not fine or at night. The underwater acoustic censer can observe any time. On the other hand, though the censer can detect poachers any time, it is difficult for it to get secure evidence. The camera can take some picture as secure evidences. In conclusion, the camera including artificial intelligence does better if it is used with underwater acoustic censer.

In the method in this research, people basically take action after poaching. So there may be better solution to prevent.

Abstract

In recent years, the predation of native organisms by non-native organisms has been one of the issues that have received special attention on TV. Among them, the black bass is the one that has the greatest impact on the native species. We thought that if we could reduce the number of black bass, it would help protect the native fish. However, black bass is a very popular fish among anglers. Therefore, we would like to find a way to reduce the impact on native fish while leaving an environment where anglers can enjoy fishing for black bass, rather than just exterminating them.

I came up with the idea of using managed fishing ground to remove black bass in a fisherman-friendly way. There are currently 23 managed fishing grounds in Japan that have been certified to keep black bass in their ponds. Using managed fishing grounds allows black bass to be isolated from native fish and prevents them from moving to larger areas. Also, even if all the black bass in the river or other areas are removed, fishermen can continue to fish. For these reasons, we suggest that at least one managed fishing area be placed in each prefecture.

1 Introduction

In Japan today, there are many problems that need to be solved. In recent years, the predation of native organisms by non-native organisms has been one of the issues that have received special attention on TV. Among them, the black bass is the one that has the greatest impact on the native species. We thought that if we could reduce the number of black bass, it would help protect the native fish. However, black bass is a very popular fish among anglers. Therefore, we would like to find a way to reduce the impact on native fish while leaving an environment where anglers can enjoy fishing for black bass, rather than just exterminating them.

In order to understand the damage caused by black bass, I used the websites of the Ministry of Agriculture, Forestry and Fisheries, the Ministry of the Environment, and the National Institute for Environmental Studies to collect information. In addition, I also referred to the websites of actual managed fishing grounds to understand the current status of the fishing grounds.

2 Discussion and implications

First, I looked at a report on black bass by the Ministry of the Environment to understand the extent to which black bass are harming native fish. According to the report, the invasion of black bass into lakes has caused significant changes in fish community structure and, when they become established along with bluegills, the numbers of native species in many water bodies have declined dramatically. In addition, when picking up endangered species, the populations of the Miyako dragonfly, Sinai dragonfly, Zeni dragonfly and killifish were either in sharp decline or had been confirmed in their waters.

It is no longer possible to catch black bass. In addition, according to the annual catches of black bass in Izu-numa swamp and Uchi-numa swamp by the Tohoku Regional Environment Office, the catches in the marshes were reduced by about half from 1995,

when there were no propagation of black bass, to 1996, when black bass became established. These reports remind us of the tremendous impact of black bass on native fish and the importance of removing black bass to paddle and protect native fish.

I came up with the idea of using controlled fishing areas when I thought of a way to continue fishing for black bass. Currently, there are 23 managed fishing grounds in Japan that are certified to keep black bass for fishing ponds. According to the standards for facilities for the breeding of specified foreign organisms by the Ministry of the Environment, the rules for managed fishing grounds to handle black bass are

(a) It shall be one of the subdivisions of the criteria for a specific animal feeding facility, a water tank-type facility, etc., or an artificial pond-type facility, etc.

(b) The period of validity of the permission for animal husbandry, etc. shall be three years.

(c) Reasons for changes in the quantity for which notification is required and the period during which notification must be made In the event that the quantity of individuals of specified alien organisms raised, etc. has increased due to importation, transfer, acceptance, capture, or other reasons, or the quantity of individuals of specified alien organisms raised, etc. has decreased due to transfer, delivery, or other reasons, notification shall be made to the Minister of the Environment and the Minister of Agriculture, Forestry and Fisheries together with information pertaining to the identification measures within 30 days from the date of occurrence of such reasons.

(d) A sign indicating that permission for feeding, etc. has been received for the individual or the specified animal feeding, etc. facility where the individual is housed shall be attached or posted, and a photograph of the status of such measures shall be submitted to the Minister of the Environment and the Minister of Agriculture, Forestry and Fisheries within 30 days from the time when the feeding, etc. of such individual commences, attaching the sign to the written notification.

(e) A methods for handling specified alien species specific animal husbandry facility shall not be kept outside of the facility. However, in the case where the feeding, etc. of a specified alien organism is to be conducted temporarily outside the facility for the purpose of moving to another specified animal facility located on the same site for cleaning and repair, etc. of the specified animal facility, or for the purpose of keeping the organism in a specified animal facility to be used for moving to another location, and in the meantime, the feeding, etc. of multiple handlers' This does not apply if appropriate ejection prevention measures are taken, such as placing it in a net of sufficient strength in the presence of a witness.

3 Conclusion

If a managed fishing area meets these strict control protocols, black bass can be isolated from native fish and not have to worry about them migrating to a larger area. In addition, anglers can fish in controlled fishing areas. We believe that the problem can be solved by placing at least one of these managed fishing areas in each prefecture. In the future, I would like to consider how to get rid of black bass in rivers and ponds other than managed fishing areas.

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Abstract

To solve educational college admission program, we have to solve educational gap because many people who are poor cannot get opportunity to study a lot. The border of college admissions are spreading. Not only students or their family but also many job's people are involved in it.

1 Background

Although Kakyō, the science and technology system in China is considered to be an excellent one, Japan never tried to introduce it. The significance of education in Japan is that the samurai, who were the policy leaders of the time. They believed that the Confucian values of the past, which were based on the liberal arts and aimed at building up a virtuous character. They were being transformed into a practical education. In pre-modern times, Japan used education as a system for educating people to become full-fledged members of society. However, with the Meiji Restoration, Japan formed a capitalist society with the aim of becoming a modern nation. One of the reforms that were carried out in the midst of this reformation was the educational reform. In addition, the school system was established with the Tokyo University at the top and the seven imperial universities at the center. At this time, highly educated people were paid very high wages regardless of their ability. This was the beginning of Japan's academic society. In the post-war period, because of the widening of the gap between people's educational backgrounds, the fact that everyone has the opportunity to go to university. As a result, the significant increase in national income due to rapid economic growth. many people began to pursue university education.

2 Discussion and Implication

I think it is not an exaggeration to say that the difference in how much educational opportunities are obtained is the digital divide (information gap). I will introduce the reasons for this as 2 reasons. One reason is that for students, how well they use the Internet is equivalent to how efficiently they learn. Let's take the smartphone app "Read Aloud Meter" as an example. When we read English aloud, it is very important to know how accurately we have read aloud. However, it is extremely difficult to judge this when you are practicing on your own. The "Reading Aloud Meter" has a speech recognition engine that records the number of times you read aloud and the number of words you read. Then it judges whether or not you are pronouncing the words correctly to help you visualize your reading. This will make it easier for us to make objective judgments and help us improve our own English. In other words, thanks to the familiarity of smartphones, students are able to study whenever and wherever we want. In the past, it would have been difficult to do on our own. From this, it can be said that students who do not own a smartphone are missing out on learning opportunities. Second, students have to read the ever-changing information on college admissions.

We have to keep track of a lot of this fluid information. For these reasons, it is clear that the digital divide will create an achievement gap if we take into account the inability to adopt effective learning methods and to process this information. Next, I will turn my attention to English, where the digital divide is probably most pronounced.

The English language gap does not just widen as a result of individual effort; it also

depends on the education provided by local governments. From this, it is impossible to provide an equitable education.

3 Conclusion.

There is no clear line of demarcation as to when students should start studying for the university entrance exam. It perhaps it could be said that it starts in childhood. If we are to pass this academic legacy on to the next generation, there is one major problem that both the digital divide and English education have in common: the economic divide.

That is the economic divide. According to the Cabinet Office, "In recent years, as the demographic composition of the population has been aging. Single-person households have been increasing. The Gini coefficient, a measure of how skewed the distribution of income is compared to a situation where income is distributed perfectly equally, expressed as a number from 0 to 1; if there were perfect equality, the Gini coefficient would be 0, and the closer to 1, the higher the coefficient would be (The degree of inequality grows.) If we look at the results of the analysis, the disparity has been gradually increasing." The main reasons for this are that the overall Gini coefficient increases as the ratio of older people increases. The gap tends to widen among young people due to the recent differentiation between formal and informal work. It also states. This suggests that the gap between the elderly and the young. The next generation of parents, is widening.

The diversification of learning methods and opportunities for learning are likely to increase in the future. It is certain that digital media such as smartphones will increase in number from traditional paper media. In this context, it is clear that it is easier to develop academic skills by adopting a variety of learning methods than by adopting those that are not. In addition, Japan has a large academic achievement society. In extreme cases, this can lead to a downward spiral, with children not adopting study methods, becoming non-regularly employed, making it economically difficult for them, and preventing them from adopting study methods again.

We must always prevent this from happening. In other words, university entrance exams are not only a battle for high school students, but also for adults who have completed the entrance examinations.

There is no doubt that university entrance exams will continue to determine the lives of many people in Japan for years to come. We have to recognize that some people are disadvantaged by the environment in which they take university entrance examinations. Even though they seem to be fair at present, and we have to make efforts so that such people do not appear in the future.

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Abstract

I think everyone has the experience of being healed by music. Music therapy is a treatment that uses music to improve quality of life, maintain good health, and improve physical and mental disabilities and behavior problems. However, it is not recognized as a medical treatment in Japan because the scientific basis has not been shown. Therefore, insurance does not work and there is no subsidy for medical cost.

However, there are reports that music therapy partially restored the memory of people with dementia and made their bodies more active. Therefore, I wondered if music therapy could be used to reduce the national medical cost that are increasing due to the aging society. Music therapists are not famous in Japan. Therefore, by raising the name recognition, it will be possible to use it as a place where you can easily go before going to the hospital. By doing so, I think we can reduce the medical expenses used by people who do not need to go to the hospital. It is still unclear what kind of patients to target, but in the end, we will compare overseas and Japan and introduce the medical field that can replace music therapy. I would like to propose a proposal that would prove the usefulness of music therapy and put an end to the use of large medical bills for the elderly and the lack of workers and suicides due to the physical and mental illnesses of modern working people, which have become a social problem. First of all, there is a lot of information about music therapists, but it's not quite accurate. I have been researching music therapists for two years on the Internet and in the literature, but when I spoke to music therapists and university professors who study music therapy, they told me that most of the stories are just assumption and rumors and are not true. Using research papers that have been published about music therapists and interviews with music therapists or others involved, and pages that can be judged to be credible (association information and papers) to gather information and use a variety of approaches to get the word out about music therapists and ultimately to reduce health care costs, we are trying to We will come up with ideas that we can connect with.

1 Introduction

I think everyone has the experience of being healed by music. Music therapy is a treatment that uses music to improve quality of life, maintain good health, and improve physical and mental disabilities and behavior problems. However, it is not recognized as a medical treatment in Japan because the scientific basis has not been shown. Therefore, insurance does not work and there is no subsidy for medical cost.

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2 Discussion and implications

In order to find out why music therapy is not as popular in Japan as it is overseas, I interviewed Mr. Kotaro Totsuka, the president and head of the music academy I attended, and found out that the differences in the history of music between Japan and other countries may be related to the differences in music therapists between Japan and other countries. For example, in Japan, there are different high schools, the musical instrument. Broadly speaking, there are two schools, the Ikuta school and the Yamada school. Students of each school were excommunicated if they brought out their techniques. Therefore, there was no exchange of musical skills, and the idea was that students had to seek out performance techniques on their own. However, in foreign countries, various genres of music have grown up to this day by influencing each other. Applying this to today's music therapists (not just music therapists, but the music industry as a whole), we can see that each music therapist, under the guidance of each top teacher, has only shared experiences within that group, whereas abroad, music therapists have the opportunity to exchange ideas with each other and Research papers have been published and we are sharing information with each other. I am not saying that all music therapists are like that, but I am not saying that they are, but I thought we should do more to share the experiences and skills of music therapists.

3 Conclusion

I propose the creation of a music therapist's chart bank. A chart bank, a term I have coined, would be a place where music therapists could view (and draw out) a summary of their treatments, patients and effects. This will allow music therapists to interact with each other and, in addition to gaining experience and skills, will also allow them to consider approaches to treating symptoms. Once the data is collected, it will be possible to create a reliable manual.

The problem depends on the ethics of patient privacy and other issues, and the fact that it would be useless if there weren't a lot of users. In future research, we will investigate how to solve these problems in more depth and try to make it practical.

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Assistance in covering the story

Professor Shunichiro Hata, Professor of Applied Musicology, Graduate School of Music, Tokyo University of the Arts

Mr.Kotaro Totsuka, Chairman of the Board of Directors and Headmaster of Gunma Music and Arts Academy Group

Abstract

This research aims to spread light novels overseas. The reason is that I think light novels should be spread along with anime and manga. These two things have already spread overseas. Most of the Japanese anime production often uses the original work. Most of the original work are manga, so they are spreading both domestically and internationally. However, there are many works based on light novels, too. People do not know about it. For this reason, I think that we can also spread light novels overseas. I considered how to do it. I conclude that it can be done by the novel posting site. I proceeded with research on the process leading to this conclusion and the method of disseminating it. Also, I referred to the system of a novel posting site called Taskey, which no longer exists, to create a translation system. With the spread of light novels, it is expected that reading will be promoted as a new hobby.

Definition

There is the question of what the definition of a light novel is in the first place. This does not exist clearly, and the definition of light novels has been debated in various ways in the past. Some people proposed definitions such as "published by a label that publishes light novels," "uses some illustrations like an anime," or "targeted at middle and high school students. However, if you think about it, there are many exceptions and it is difficult to define clearly. Works that look like light novels don't necessarily come out under the light novel label. And, There are a small number of publications that do not use illustrations, let alone cartoon-like illustrations. The definition of "targeting middle and high school students" is also becoming vague as the age of fans is expanding more and more. Therefore, for the purposes of this study, books published by the following labels will be defined as light novels.

- Kadokawa Sneaker Bunko
- KADOKAWA BEANS Bunko
- HJ Bunko
- HJ Bunko
- Dengeki Bunko
- GA Bunko
- Gaga Bunko
- Fujimi Fantasia Bunko
- MF Bunko J
- Dash X Bunko
- Overlap Bunko

1 Introduction

In this study, I studied to find a way to get more people to read it. The reason is to spread Japanese subculture worldwide. Speaking of Japanese subculture, many people will raise manga and anime. However, I think light novels should be transmitted with them.

Anime and manga are in the limelight worldwide. This is because most Japanese

animation production requires an original, which is often a manga. However, there are works that are animated based on light novels as well as manga.

There are three main reasons why light novels are not widely used. There is a way of selling, ambiguity in definition, and resistance to illustrations. In other words, devising concrete measures for these will lead to the spread of light novels in Japan and the world.

In other words, devising concrete measures for these will lead to the spread of light novels in Japan and the world.

The Internet was mainly used for this research. And, I also conducted a survey on major Japanese novel posting sites.

2 Discussion and implication

I think that there are two reasons why light novels are not widespread.

First, most of Japanese book store are selling light novels in corner of the manga section. There are few specialty stores of light novels. It is difficult for people who want to buy light novels to find the section, so the number of new readers does not increase.

Second, the illustration of light novels do not always be liked by many people. It is sexy. Also, the illustration prevent to be sold in the place which many people see.

Considering this fact, I think that we can solve this problem to use novel posting site. I have three reasons.

First, most of novel posting site are free. It reduce resistance to buy, and lead to increase the number of readers of light novels.

Second, novel posting site can lead to be sold with paper. The major way how to publish light novel is new face award and using novel posting sites. Many publisher have new face award. If we have something good prize in the award, our books will get published. Since the magnification is about 200 to 600 times, it is quite difficult to get a high ranking. Then, most writers post on the site and get evaluated to make their book better. Depending on the award, the application can be completed simply by tagging the works on the site with hashtags. Also, if you get good results in the site ranking, you may be asked to make a book by the management.

Third, novel posting site do not have illustration. We can enjoy only the contents obediently without feeling any resistance to the illustrations.

In conclusion, novel posting sites can contribute to spread light novels.

Next, I thought about how to spread novel posting site. In this case, it is effective to use mainly SNS. One way is to spread it by tweeting and retweeting on Twitter. Another way is to display advertisements on popular websites and games. But, latter one will have to spend a great deal of money. Therefore, I think it is effective to create a personal Twitter account for spreading the word.

Moreover, I also think about two more things. I think that we have to spread by novel posting site or some novels in the novel posting site. There is still merit in both cases. However, I also think that by letting people know that a work has already been made into a popular book or film and that it originated on a novel posting site, it can attract the interest of readers. Therefore, I thought it would be better to share popular works within the site to increase the recognition of the site itself. I decided that I needed to see whether the visibility of the work itself was relevant, so I tried posting my own novels. Many novel posting sites allow you to check the access analysis of your work. From that data, I found that even if a novel is not well known, it can be seen by many people.

3 Ideas for future research

In this study, I aim to eventually publish abroad. One way to do this is to establish a new novel posting site. This idea was based on the novel posting site Taskey. It had a social translation system, which people could team up and have a manager to control the quality. It's a very good way to be read by foreign people. But it has been closed down now. The reason for this was that the server was getting heavy. Conversely, we can assume that there were almost no problems other than the server.

There are several problems when it comes to creating a novel submission site. For example, who will write the program, the salary of the translation team, and other financial problems. It is unlikely to be feasible. That's why we use crowdfunding. We believe that if you have a large budget, many problems can be easily solved. And, I aim to spread the spread of light novels through the spread of novel posting sites.

4 Conclusion

I studied the use of novel posting sites to promote light novels. From a lot of data, it was determined that the dissemination of novel posting sites is effective. If this method works, it is also expected to promote reading as a new hobby instead of watching videos and so on. It would be nice if more people get to know about light novels through novel posting sites.

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Exercise More Casually in the World

~ Review your life and UP amount of exercise ~

5113

Abstract

Today's people are less active comparing with old people. The cause is mainly that the number of indoor persons is increasing. Also, not exercising would have various influence on the people and society. WHO says that people who live in developed countries are less active than people in developing countries.

For these reasons, I decided to research this problem. Specifically, I researched the reason of the decline of exercise and the effect it has, then I thought what initiatives have affected. My goal is to increase the number of people who excise. It is difficult for indoor people to excise outside, so I thought initiatives which all people carry out easily. I sure that I can review my life style.

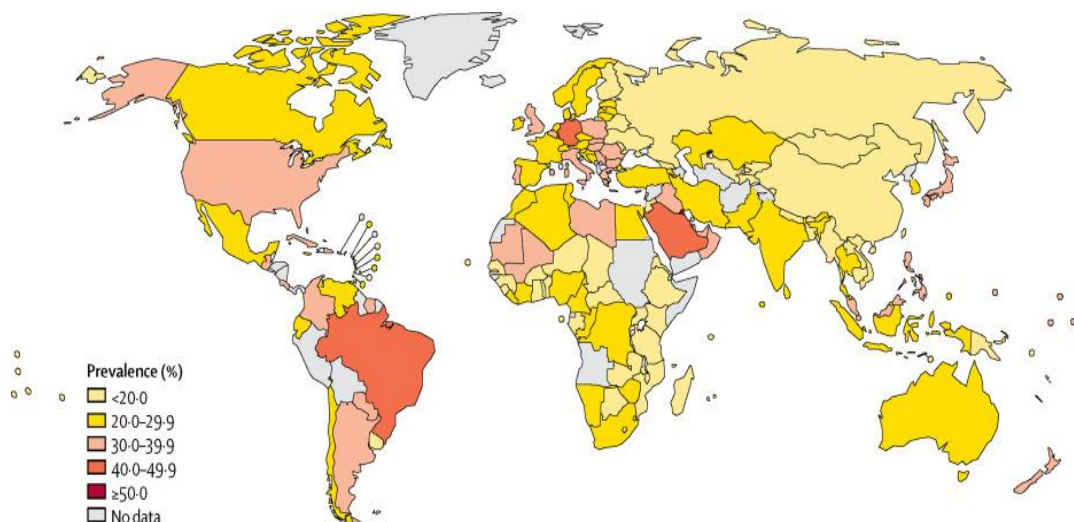
Introduction

I researched about Japanese children data two years ago, and I have researched about world people. They include not only children bout also adults. My goal is to increase the number of people who excise. I want to find world serious problem about activity.

Discussion and Implications

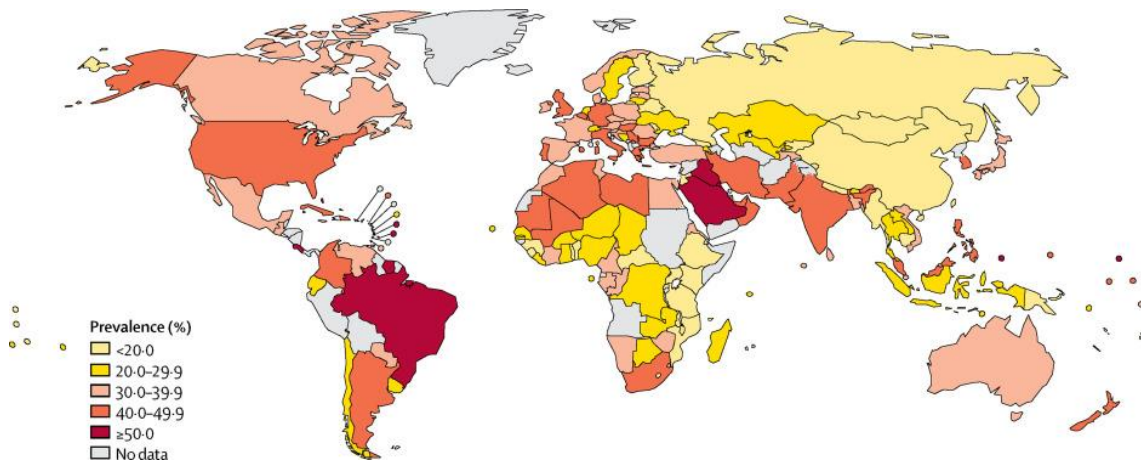
〈WHO〉

WHO report estimates that more than a quarter of people worldwide - 1.4 billion – are not doing enough physical exercise. Globally, more than a quarter of adults were insufficiently physically active in 2016, and women were less active than men. The questionnaire of “Ranking Amount of Exercise in the World” says that the 1st was Uganda, and the lowest was Kuwait. Uganda is a developing country. Japan is 121, so it is not so high.



↑ Country prevalence of insufficient physical activity in **men** in 2016

<https://els-jbs-prod-cdn.jbs.elsevierhealth.com/cms/attachment/f8e5d0fe-66dd-4d77-bbed-a8048e0f10d0/gr4.jpg>



↑Country prevalence of insufficient physical activity in **women** in 2016

<https://els-jbs-prod-cdn.jbs.elsevierhealth.com/cms/attachment/a2fd4e1f-8671-4537-af1c-a086130454a7/gr5.jpg>

The background that people became less exercise is around 1950, it is end of Second World War. Mechanization, industrialization, digitization induced change of work style, social system, and life style. Then they gave people less active.

Researched more details, there are some reasons of decline of exercise. First, it is spread of TV and game consoles. TV have been installed in almost all homes, and game consoles have begun to spread after the end of the world war II. Second, Natural playgrounds and parks are decreasing. Old children played outside like rivers, mountains, and so on. However, they lost natural places because of development, so they can't play outside.

Next, I researched influence. The first is obesity. The number of obese people is increasing around 1970s. Obesity is defined energy intake is larger than energy consumption, so people who don't exercise is tend to be obesity, then the numerical value is higher. Obesity causes diabetes and lifestyle-related diseases. Lifestyle-related diseases can be withdrawn. The second is that decline of head rotation that is because of not rich oxygen in the brain, people can't stay focused.

Conclusions

I thought a solution that every people exercise easily. That is "regional sports day". Everyone likes sports day, and its merit is that every people can participate in. That is regional competition, so we can cooperate with people of wide ages. We can exercise happily, then that can resolve this problem. It will also revitalize the region. This is relatively easy to do, so I want to implement.

Besides this, I am going to think the solution to increase amount of exercise.

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Spreading of e-sports in Japan

～Revitalizing it by holding domestic e-League～

5114

○Abstract

I propose to hold “e-League” to make e-sports more familiar to Japanese people. This league refers to the structure of the J League, which is popular in Japan. The purpose is to create opportunities for fans to watch e-sports games more easily. This idea is based on my experience as a core fan who enjoy watching e-sports from usual, some statistics, and existing paper. I think economic growth is essential for creating better society of Japan, and what can promote the economic growth is the spread of e-sports in Japan. In practice, e-sports is becoming more popular in the world, and as the number of viewers increases, the revenue generated by this has increased significantly. Japan should not miss riding on the crest of e-sports industry. However, Japan has not been established e-sports as a sports competition because of delay in spread of PC games, bad impression of the game, laws and regulations. Policies for the spread of e-sports have already been proposed in the national or local government. But there are few plans that have been realized, and I have not yet confirmed the effect.

1 Introduction

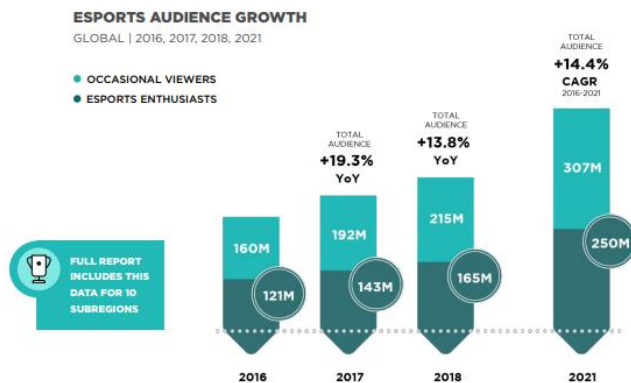
The spread of e-sports has a great economic effect. However, compared to the thriving regions overseas, Japan has a smaller population and fans of e-sports, and its understanding is low.

E-sports can compete on the same ring regardless of gender, age, or physique, and it is highly equal. On top of that, in many cases anyone can watch the game for free by using a distribution application. Despite these advantages, I think that there was a problem in how to spread it because it did not spread. Japan's Ministry of Economy, Trade and Industry advocates the significance of e-sports and proposes some measures for its development. They have been working with Japan esports Union, and submitted “For the Esports Development in Japan~ From the perspective of further market growth and social significance ~” in 2020. In this report, they state that they are effective in many ways such as market formation and expansion, generation of new market and industry and regional revitalization. They also show proposal for the long-term growth of the Japanese esports market in five (A~E) categories. These are Improve game attraction (A), Improve event attraction (B), Improve the economic status of professionals (C), Development of casual fans to hardcore fans (D), and Lower the barrier of legal system / rules (E). In my research, I focused on Selection of title (A-1), Hold themed competitions, etc. (B-3), Prepare environment - Online view environment (D-5) and Establish guideline for esports event (E-4). From these perspectives I have a suggestion. Then, I drew on prior research, statistical data and my own experience.

2 Discussion and implications

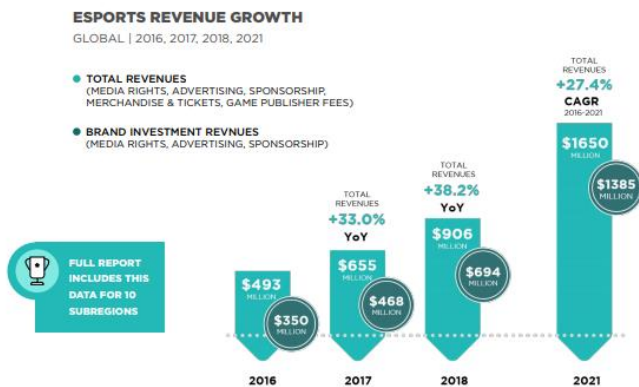
The term "e-sports" is short for "electronic sports. In a broader sense, the term refers to all entertainment, competitions, and sports that are played using electronic devices, such as computer games and video games. The awareness and popularity of eSports is

growing in the world right now. Since 2016, the audience for eSports has grown significantly in both core and light fans. newzoo predicts that by 2021, the total audience will reach 557 million viewers.



Reference : newzoo

And as the competition becomes more popular, the revenue generated from it will also grow. Recognizing the potential of the eSports market, the industry has seen a significant increase in revenue over the past few years as some organizations had already invested heavily in eSports marketing. According to an analysis by newzoo, e-sports will be projected to generate more than 1.6 billion dollar in total revenue by 2021. The breakdown of total eSports revenue in 2018 shows 40% from sponsorships, 19% from advertising, 18% from media rights, 13% from game publisher fees, and 11% from merchandising and tickets. From the breakdown, it is expected that promoting eSports will generate economic benefits for many organizations, including sponsors, advertisers, and game software companies that compete in the sport.



Reference : newzoo

E-sports is believed that differences in age, gender, and physical ability are less likely to occur, and I feel that there is more equality in competition compared to other sports. Also, players who live far away can practice with each other, and hold tournaments without the need to prepare a venue because matches can be held online. Not having to meet frequently in one place is also a low burden on the players in terms of efficient use of time and reduced effort and cost of travel. Of course, offline competitions are exceptionally exciting and fans are enthusiastic about them. In addition to that, in many cases, anyone can watch a match for free through the streaming application. You can find out how other fans react in real time in the distribution where the comment section is open. The players of the popular game will also live stream their daily practices to entertain fans. With all these advantages and an environment where you can support your favorite team, why isn't e-sports becoming more popular?

There are three main reasons why e-sports is not popular in Japan. First, many people in Japan are uncomfortable with the word "game" as a sport. Second, Japanese laws and

regulations make it difficult to pay out high prizes like in overseas, and it is difficult to train players. Third, the long-lasting popularity of home consoles and the slow spread of PC games, despite the fact that e-sports are more common in PC games.

Policies for this are being considered by national and local organizations.

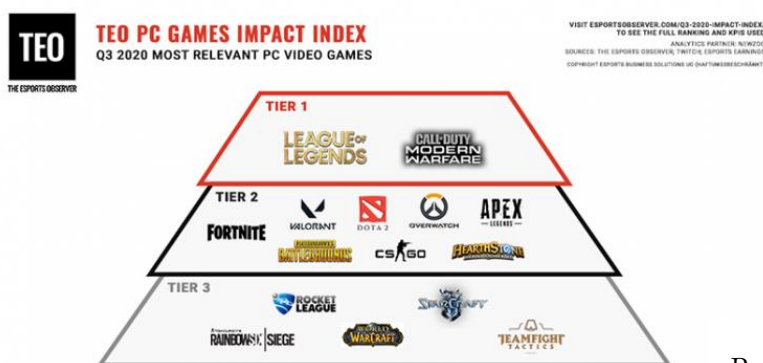
- Hold themed competitions by age, gender, region, level, etc
- Japan to take the lead in hosting the World Cup by cooperating with other countries
- Primetime TV broadcasting

There are some examples of it. I think they can make good effects, but the most important thing is making opportunities for many people to know e-sports competition such as rugby world cup in 2019. It affected the Japanese and made the majority of them fans. I think we should aim for the effect even in e-sports. I present specific measures below.

3 Conclusion

I propose to hold an e-League. The system of this would be to take a page from the J-League, which is currently one of the most popular leagues in Japan. However, this would present two major problems unique to e-sports.

First, choosing a competition from among a number of game titles, and second, holding a tournament with prize money without breaking the law. I have come up with my own solution, and I will present it. In order to solve the first problem, we looked into the Japanese gaming situation and found that the most popular games in Japan are characterized by a small population of PC games, which are often the most popular e-sports in other countries, and a large number of mobile games. Game titles that are recognized as e-sports are categorized as 1) popular in Japan or not so popular overseas, 2) popular in both Japan and overseas, and 3) popular overseas but not so popular in Japan. The data of game titles recognized as e-sports were used as a reference for this analysis, based on the total prize money, monthly viewing time, and number of SNS fans.



Reference : The esports observer

It is world tier of PC game in 2020. This is updated about four times a year by SBJ. They used much data about e-sports, so it is credibility.



Reference : haishingiken

On the other hand, the Japanese tier is not often updated, so I referred to the 2019 one. It was updated by haishingiken. I compared the two tiers, although the criteria are slightly different.

Classified as 1, most of the games are mobile games with Japanese commentary. Classified as 2, most of the games are PC games, but many of them are also compatible with mobile phones. Most of the big official tournaments have English commentary, but in the case of area-specific tournaments, Japanese commentary is also available. Classified as 3, most of the games are PC games, and the big tournaments are English commentaries. From the above, I think the reason why eSports competition has not been familiar with Japanese is that the world's most exciting tournaments with large prizes are in a different language with different commentary, making it difficult for the Japanese to watch. For this reason, I believe that e-League should handle game titles that fall into the second category and establish itself as an e-Sport, making it popular in Japan in general, in order for players and fans to advance to larger tournaments abroad.

Second, it is a legal and regulatory measure. In order not to break the criminal law, of course, the e-League entry fee is free. To avoid breaking the anti-freedom law, the prize money will be provided by the companies sponsoring the tournament. In order not to violate the Premiums Act, we do not try to attract people with things, but with their interest in new things. In order to do so, the advertisement of the company mentions the hosting of the e-League. As you can see from this measure, it is important for the e-League to have sponsors for its competitions, and the Japan e-Sports Association should provide a place for companies to cooperate with each other.

In the future, I will think more about how to organize a league that does not break the laws and regulations. I should learn more about how other domestic leagues are run. I also felt it necessary to think about what Japanese game companies should do to increase the popularity of e-sports in Japan. So I would like to research in this perspective as well.

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Plastics and Life

~ Earth-friendly and effectively to

use plastics products ~

5115

○Abstract

Plastic waste is a major cause of marine pollution, which is one of the environmental problems, and has become an issue in recent years. Japan has been gradually implementing measures such as charging for plastic bags from July of this year, but compared to other countries, Japan's policy on plastic waste lags behind that of other countries. Plastic containers and packaging now account for nearly 70% of plastic trash so, we should reduce plastic containers and packing firstly. In my opinions, we should actively introduce alternatives to plastic products that are reasonable price and easy to use, while at the same time considering ways to make effective use of plastic products, such as using them repeatedly. It is necessary to promote the spread of biomass plastics. I would like to think about specific measures in the future.

1 Introductions

The purpose of this study is to learn about the problems caused by plastic waste and think about what we should do about it, how we use plastic products and how to solve the problems caused by plastic waste.

The study will combine several pieces of information and use previous research of plastic waste and reliable Internet sites.

2 Discussion and implications

Plastic waste is a major cause of marine pollution, which is one of the environmental problems, and has become an issue in recent years. The majority of marine debris is plastic garbage, and plastic products are difficult to decompose in nature and therefore remain in the environment semi-permanently. As a result, there is concern that plastics have a significant impact on the marine environment, organisms and ecosystems. Sometimes, fish accidentally ingest plastic waste and choke on throat. Fish eat micro plastics. There is also concern that the ecosystem will be destroyed from it. Plastic is derived from petroleum and therefore emits carbon dioxide during production and disposal. However, in the use phase, plastics are extremely energy efficient than the materials they replace. Therefore, we believe that plastics can be made more environmentally friendly by changing the way they are used.

Japan generated 9.6 million tons of plastic waste annually, ranking third in the world after the United States and China. In Japan, more than half of it is incinerated. There are three types of ways to recycle plastics. The first is material recycling, where waste plastic is melted down and recycled into plastic raw materials or plastic products again. The second is chemical recycling, in which waste plastics are chemically broken down or otherwise recycled into chemical raw materials. The third is thermal recycling, in which waste plastics are incinerated to recover heat energy or to make solid fuel. Much plastic waste in Japan is recycled as thermal recycling.

There are “the ocean cleanup” that are going on in the world. It involves pulling a kind

of net with a large buoy the boat to collect and dispose of things like plastic garbage from the sea it involves pulling a kind of net with a large buoy. It's still improving, but it's also working.

Japan has been gradually implementing measures such as charging for plastic bags from of this year, but compared to other countries, Japan's policy on plastic waste lags behind that of other countries. Plastic containers and packaging now account for nearly 70% of plastic trash. Plastic products often used, because plastic product can keep food refresh and effective to safety and health. Also products instead of plastic product are expensive so, taking in that products is not easy. Many products instead of plastic products are also developed but not many people know these products now. It is hoped that policies such as charging for plastic bags will change the attitudes of many people towards plastic waste. In Japan, a material called "LIMEX" has been developed as an alternative to plastic. "LIMEX" is made from limestone so can reduce the cost of which has been a problem. Instead of plastic products, paper products were often used. However, we think that because it consumes a large amount of resources such as water and wood the use of more paper products is also problematic. On that front, we think "LIMIX" is a good fit. We think that more "LIMIX" and other products that replace plastics should be used. Since it is impossible to completely eliminate plastic, we think it is important to use biomass plastic for those plastic products as well. It is necessary to promote the spread of biomass plastics too.

3 Conclusion

I think we should reduce plastic containers and packing firstly. It is also necessary for Japan to increase the number of national rules and measures for plastic reduction as this will lead to ameliorate sense of the plastic issue. We believe that we should actively introduce alternatives to plastic products that are reasonable price and easy to use, while at the same time considering ways to make effective use of plastic products, such as using them repeatedly. It is necessary to promote the spread of biomass plastics. I would like to think about specific improvement measures in the future.

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Abstract

According to National Attractiveness Ranking from Brand Research Institute in 2019, the three north Kanto prefectures, Tochigi was 43rd, Gunma was 45th and Ibaraki was 47th. I thought it is not that North Kanto is not attractive, but that it is not appealing to people, which is why it is ranked so low. Until last year, I researched the specialties and appeal points of Gunma Prefecture, but this year, I looked for the appeal of "the North Kanto area" and thought about how to transmit the message that would have an impact on many people. Since the North Kanto area is often used as a location for dramas and movies, I will use dramas and movies filmed in the North Kanto area to convey the appeal to people.

In other areas, there were bus tours around the locations and many people participated.

I came up with the idea of a location tour, thinking that it would be a great way to convey the information and appeal of the places used as locations to many people. However, it was not possible to estimate the cost of holding the event or the expected profit when it was actually held. In the future, I would like to estimate and propose to the tourism associations and film commissions.

1 Introduction

According to National Attractiveness Ranking from Brand Research Institute in 2019, Gunma Prefecture was 45th out of 47 prefectures. Tochigi Prefecture and Ibaraki Prefecture, which are other prefectures in the North Kanto area are 43rd and 47th. This ranking is created by consumers who evaluate each prefecture from various perspectives. The various perspectives are whether you want to buy special products of the prefecture, want to visit the prefecture, how much you know about the prefecture, etc. In short, it is said that people in Japan think "Gunma Prefecture is an unattractive prefecture" and "the North Kanto area is an unattractive area". However, I thought that the North Kanto area was not unattractive, but it could not convey its attractiveness well.

By last year, I had researched Gunma Prefecture's specialties and attractions, but I felt that they did not have much of an impact in terms of appealing to other prefectures and the whole country. That's why I wanted to search for specialties in the North Kanto area (Gunma, Tochigi and Ibaraki Prefectures) and think of ways to communicate them in a way that would have an impact on as many people as possible.

A survey of the common appeal of the three North Kanto prefectures shows that locations for dramas and movies. I surmised that the reason why so many dramas and movies are filmed there is because it is not far from Tokyo, where the actual drama and movie production companies are located, and it is easy to get to by car. Therefore, I decided to use the taken in the North Kanto area to communicate the appeal of the film to many people.

Hida City, the model for the movie "Your Name", has increased the number of tourists by 40% in the first year after the movie's release. From this, I thought that the fact that the area is the setting for dramas and movies, as well as a film location, could have a significant economic effect and provide an opportunity to convey the appeal of the North Kanto area to a large number of people.

2 Discussion and implications

I began my research with the aim of planning a “location tour” that would visit the places where the films were filmed and convey the appeal of the North Kanto area. I thought about putting together a list of locations and sending it out on the internet and social networking sites, but I do not think that would mean going to the places in person, just to see them on the internet. There is also the appeal of visiting and seeing for yourself and understanding it in person. Also, if we do not get people to come to the site, we will not be able to generate economic benefits for the North Kanto area. I think it makes sense to have people come to the area as a tour because it will also be possible to buy local food and specialty products directly.

3 Conclusion

(1) Why are there so many locations in the North Kanto area?

I spoke with producer Ms. Miyazaki and director Mr. Kondo of TBS TV’s drama production department. According to them, the distance between Tokyo and the North Kanto area and the population of the North Kanto area are related.

Most of the time they drive to the locations, but if the distance from Tokyo is too far, the travel time would be longer. This would mean less time for filming, and the performers’ bodies would be too tired to give a good performance. The North Kanto area is often chosen as a location because it can be reached in about two hours from Tokyo.

When filming on location, restrictions are put in place to prevent people from coming in, but if the population is too large, the number of neighbors coming to watch increases, and the number of people needed to regulate those increases, or they become too noisy and the location is interrupted. On the other hand, if there are too few, there will be fewer people available to help out as extras and it will be harder to shoot. Compared to the other prefectures in Kanto, Kanagawa, Saitama, and Chiba Prefectures have about 9.18 million, 7.33 million, and 6.26 million people, respectively, while the population of the North Kanto is smaller, with about 2.88 million in Ibaraki and 1.95 million in Tochigi and Gunma Prefectures. Because of this, the North Kanto area is easily chosen as a location.

The distance from the Tokyo metropolitan area is just right, so a location tour to and from Tokyo would be less taxing on the body and easier to move around.

(2) Examples of location tours in other areas

Mishima City in Shizuoka Prefecture, where the 2014 TBS drama series “Gomenne Seisyun! (Sorry School Life!)” was set and filmed, has been actively trying to attract tourists to the location. After the broadcast of the drama, the Mishima Tourism Association issued a “Location Map” to allow tourists to visit the locations that were used as filming locations in turn. The location map is popular not only among Japanese people but also among foreign tourists, and has been published in Japanese, Korean, and simplified Chinese versions, with a total of about 40,000 copies published to date. Bus tours from Tokyo are also held, and in the year immediately after the broadcast, the number of participants was up to 5,000. The fee for one tour is about 8,000 yen per person, so the tour alone moved about 40 million yen. Since location tours are unfamiliar to most people, we thought that their rarity would make them more interesting to a wider audience.

(3) Tour idea

I thought of a tour that would start and end at Tokyo Station and visit locations in Ibaraki, Tochigi, and Gunma Prefectures, in that order.

In Ibaraki Prefecture, we will walk around the Suwa Shrine, the location of the TV series “Hiyokko (The Young Girl’s Life)” broadcast by NHK in the first half of 2017, as well as the nearby Namase Waterfall and the ruins of Tsukiore Castle. In Tochigi

Prefecture, you will visit Nikko Toshogu Shrine, enjoy the famous Yuba cuisine, and then stroll around Lake Chuzenji, which was the location of the year-end special drama "Inugamike no Ichizoku (The Inugami Family)" broadcast by Fuji TV in 2018. In Gunma Prefecture, you will stay in Kusatsu hot springs and explore Lockhart Castle, which has been the location for many films, and the Tomioka Silk Mill, which is also a World Heritage site.

I cannot finish estimating how much it would cost to actually hold the event and what the expected profit would be, so we would like to do that in the future. I also want to make suggestions to tourism associations and regional film commissions.

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○Abstract

With the development of the tourism industry, hotels have been attracting attention, but nowadays, there are various types and affiliations of hotels, and I wanted to think about the hotels of choice in the intensifying competition. This time, I focused on luxury hotels and compared three of the most favored, The Ritz-Carlton, Imperial Hotel, and HOSHINOYA, in terms of service. In conclusion, it was found that all of these hotels have an originality that sets them apart from other companies, not to mention a service that pleases the customers, and due to the thorough training of their employees, they have created what could be called a top quality service. Nowadays, when it comes to choosing a hotel, there is no shortage of choices, and in the luxury category, people tend to choose the famous ones, so hotels need to incorporate customers by differentiating themselves from other companies. I also think that hotels of the future will be required to respond flexibly to changing needs and keep up with the trends of society.

1 Introduction

The purpose of this study is to consider what changes have taken place in the hotel industry in terms of service, which is the cornerstone of the industry in a society where demands are changing, along with the changes in today's society.

In Japan, thanks to the influence of Tokyo Olympics 2020, a lot of hotels have been built. In particular, the momentum of foreign hotels are very strong. Therefore, I think it is time to think about the future of the hotel industry.

2 Discussion and implications

In order to make my research easier to understand, I decided to compare three types of hotels that are popular in Japan and have a high level of customer satisfaction.

One is “The Ritz-Carlton”, a foreign-owned hotel affiliated with Marriott, which is world famous and has the largest market share in the world.

Second is the “HOSHINOYA” of Hoshino Resort, which has always been known for its innovative management strategy.

And,” The Imperial Hotel”, which is said to be one of the top three hotels in Japan.

3 Conclusion

The reason why I focused on the service aspect is that service is a key part of the hotel industry. Service is the key to the hotel's overall reputations.

First, The Ritz-Carlton is famous for the many myths it has created in service.

For example, at The Ritz-Carlton on the beach in California, USA, an employee was asked by one young man to lend him a chair. When he asked why, he said it was to propose to his girlfriend on the beach. So the employee took it upon himself to hastily change into a tuxedo and set up chairs and a table on the beach. A flower and a bottle

of chilled champagne of the finest quality were placed on the table.

By virtue of this inspirational service, The Ritz-Carlton got a huge following around the world. In this way, The Ritz-Carlton differentiates itself from other hotels through its service and thoroughly trains its staff to deliver a service that is more than satisfying and inspiring. It can also be said that these services are supported by “awareness”. Even if the guests don't notice the attention, if it leads to a comfortable and pleasant space, it becomes a delight and a captive audience.

"What do we want The Ritz-Carlton to be for our guests? What do we need to do to achieve this goal? "

At the time of the company's founding, they discussed these questions and compiled them into a single sheet of paper. At The Ritz-Carlton, it's called Credo.

By putting these philosophies into practice, they have become a strength.

Second, while The Ritz-Carlton goes beyond what it seeks, the Imperial Hotel is more concerned with the quality of its services. Japanese hotels tend to believe that services can only be achieved by thoroughly and perfectly following a set manual, and it is no exaggeration to say that this is a representative example of this. The Imperial Hotel is said to be the first hotel in Japan to offer laundry services and hotel weddings, as well as a buffet breakfast, which is now a standard of hotels.

To provide thorough perfectionist training, leading to the creation of a comfortable space and makes you want to keep coming back, this is the strategy of Imperial Hotel.

Third, The Hoshino Resort's luxury hotel, HOSHINOYA, which has revived a number of resorts, has a clear concept: “Creating an overwhelming extraordinary feelings,

Japan's first luxury Japanese stay, A day of rest for the modern world.”

The thoroughness of the project is down to the smallest detail. For example, there's no TV or clock in the room of HOSHINOYA. Because by doing so, we can enjoy an extraordinary space, disconnected from reality. The hotel's strategy is to limit its services to these unnecessary needs in the hope that unnecessary tasks will be reduced and the work will be more attentive.

In this way, each company has a completely different commitment to service, as in the case of the three parties.

However, the one thing that these hotels have in common is originality and strength. Differentiation from others will be a major key to winning over the competition in the industry.

Also, with so many hotels of different types and concepts, customers will have a choice. At that time, the color of the hotel will lead to an aggregation of customers who have the same goal, which will be a major factor in making a choice. In order to do so, it is necessary to have a clear target audience and concept in advance, and to spread it.

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Abstract

This year, based on last year's research, I have been researching how to prepare for earthquakes and heavy rains so that foreign tourists can spend their time in peace. In order to think about how to deal with foreign tourists, it was found that it is important for each person to learn about disasters and disaster prevention so that people can practice them in the event of a disaster. From this, I felt that it is necessary to make manuals for each local government and facility what I should have been going to do at the time of a disaster. In addition, I felt it was important to periodically review existing manuals and provide training. As I continue my research, I learned that what foreign tourists want most in times of disaster is information in their native language. In light of this, I felt that I should create a system to prepare forms with information such as "Please evacuate to ..." and "A fire has occurred" for distribution in the event of a disaster.

My future tasks are to study what information needs to be included in the paper to be distributed.

1 Introduction

When I visit the Japan Tourism Agency, I was introduced to "Safety tips". Safety tips is an appreciation developed by the Japan Meteorological Agency to inform foreigners of earthquake early warning and tsunami warnings in native language. I also learned that foreign tourists who visit Japan are anxious in the event of a disaster due to language and cultural differences. In last year's research, I studied what foreign tourists in Japan should do in the event of natural disasters like earthquakes. As a result, I came up with a plan to improve the appreciation called Safety Tips, which is distributed by the Japan Tourism Agency. Since the appreciation does not have enough languages, I proposed to increase the number of languages, to open a chat room where tourists can connect with each other, and to use GPS to send out information on nearby evacuation sites. This year, we have decided to conduct research to ensure that not only foreign tourists visiting Japan, but also Japanese tourists who may be at the risk of experiencing a disaster overseas, can travel safely and not lose their lives due to the language barrier.

2 Discussion and implications

I mainly used the Internet for my research. We also used the materials we received during our visit to the Tourism Agency in 2018.

3 Conclusion

Tokyo Disney Resort had 32.558 million visitors in 2018 and 29.011 million people in 2019. International guests account for 10 percent of that total. We thought we would learn from Tokyo Disney Resort, which made headlines for its quick response to the earthquake, about how to respond to disasters. From the Tokyo Disney Resort's efforts, we learned that in order to prepare for foreign tourists, it is important for each individual

to learn about disasters and disaster preventions, and to be able to put this knowledge into practice in the event of a disaster. From this, I wondered if I could make use of the method making a manual and putting it into practice.

In this way, each municipality and facility should prepare a manual for disaster situations. The manual should be used as a reference point for training for disaster preparedness. Although many communities and facilities have already prepared manuals, it is important to periodically review existing manuals and conduct drills.

What foreign tourists are looking for when a disaster strikes?

① Information (in their native language)

What is happening? Will there be more disasters or crises? Traffic situation

② Instructions for safety and evacuation activities

③ Communication with family and concerned parties

④ Food and beverage

⑤ Charging their phone

In times of disaster, what foreign tourists are looking for most is information in their native language. Please evacuate to and "A fire has broken out" and "A fire has broken out" should be prepared for distribution in the event of a disaster. The language can be set by studying in advance which country's tourists come from in the area or facility. It was felt that it was necessary to require that the content be prepared in advance, changing it depending on earthquakes, tsunamis, heavy rains, fires, terrorism, etc. I suggest that the paper should include a description or pictogram of the disaster in the language of the mother tongue, with information about the disaster, such as evacuation and recharging sites, and contact information for the embassy. Pictograms are public signs that can be used by all speakers to lower the language barrier. Pictograms will be understandable regardless of language and cultural differences.

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Dementia Prevention Using Esports for Elderly People

~Nurturing Senior Esports Gamers and Forming Senior Esports Teams~

5120

Abstract

There is a decade difference between life expectancy and healthy life expectancy in Japan. Dementia is one of the biggest factors in shortening healthy life expectancy. According to Stanford Health Care, to prevent dementia, intellectual activities such as remembering, thinking, and judging things are necessary as well as eating healthy food and exercising. I assume that electronic sports known as esports can be used in preventing dementia because they require players to put their brains into full gear. In fact, an experiment conducted by the University of California, San Francisco revealed that playing video games improves the multitasking ability of elderly people. In other words, video games help prevent the early symptom of dementia, the decline in the multitasking ability. Another study conducted by Marko Siitonen from University of Jyväskylä, it is found that online multiplayer games encourage interaction and collaboration with other players both online and face to face. Therefore, I affirm that esports are effective to help prevent dementia. The majority of people think that esports are for young people, but senior esports players including Silver Snipers, a Swedish senior esports team, have proved that age does not matter when it comes to esports. On July 2, 2020, an esports center, ISR Esports, dedicated to the elderly opened in Kobe, Japan. This center provides opportunities for the elderly to play esports. Although more and more esports centers have been opened all over the country recently, this center is the first and only place, where seniors don't hesitate to play esports in Japan.

Therefore, I am planning of doing activities to spread esports among elderly people. After I go to university, I plan to establish a non profit organization. These are details of the organization: (1) collect money through crowdfunding such as "CAMPFIRE" (2) hold lecturing events at local community centers or esports centers (3) round up those who are skilled in playing esports as members of this organization (4) prepare gaming gadgets such as remote controllers and gaming PCs and lend them to the elderly. I hope not only to teach the elderly how to play esports but also to hold esports tournaments for them and form senior esports teams. Through these activities, I believe more and more elderly people will be passionate about esports and lead a life without worrying about dementia.

1 Introduction

Over the past three decades, the average lifespan in Japan has increased by more than five years for both men and women. According to the Ministry of Health, Labor, and Welfare, the average life expectancy in Japan in 2019 was 87.45 years for women and 81.41 years for men. Japan is now gaining more and more attention as one of the world's top countries for longevity from all over the world. However, it seems that healthy life expectancy is attracting little attention from society compared to life expectancy. According to WHO(World Health Organization), healthy life expectancy is average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury. Health Japan 21 (the second term) Analysis and Assessment Project conducted by National Institute of Health and Nutrition revealed that healthy life expectancy of women in 2016 was 74.79 years old and that of men was 72.14 years old. There is about a decade

difference between life expectancy and healthy life expectancy. I believe that further efforts to shorten this gap is needed.

What is the cause of the difference between life expectancy and healthy life expectancy?

According to the study of dementia burden and preventive potential by Wolters FJ, the burden of dementia on individuals and society in terms of healthy life-years lost is large, but could potentially be mitigated by preventive interventions. Based on this study, prevention of dementia is necessary in order to prolong healthy life expectancy. I assume that we can use esports as a means of preventing dementia. The purpose of this study is to extend healthy life expectancy and bring about a fuller life to everyone by prevention of dementia using esports.

2 Discussion and implications

Stanford Health Care says that you can prevent dementia with these strategies: don't smoke, stay at a healthy weight, get plenty of exercise, eat healthy food, manage health problems including diabetes and high blood pressure, stay mentally alert by learning new hobbies, stay involved socially.

I infer that esports can be a brain teaser and provide plenty of opportunities to interact with society, thus preventing the onset of dementia.

In fact, some studies have shown that esports are effective in preventing dementia. At the University of California, San Francisco, a verification experiment in which elderly subjects were asked to play car racing video games for a total of 12 hours over a four-week period was conducted. As a result, the subject's multitasking ability was higher than that of the twenties who did not play any games, and their abilities remained maintained even after half a year. This study found that esports help prevent the early symptom of dementia, the decline in multitasking ability. In a study conducted by Marko Siitonen from University of Jyväskylä, he says, "Online multiplayer games typically encourage interaction between players. Collaboration with other players may be a prerequisite for making progress in a game, or a game may be based on competition between players. In addition to using the modes of communication offered by games, members of multiplayer communities may keep in touch face to face, over the phone, or via email." Most of esports' games are online games, so there is no doubt that esports will give elderly people the opportunity to interact with others.

In general, it is thought that playing esports is difficult for the elderly and that esports are an entertainment for young people. However, there are many more older players out there than most people realize. In the US, according to an AARP study in 2019, there were nearly 51 million American players over the age of 50 who played an average of five hours a week. In the field of esports, there is the world's first professional CS:GO senior team, aptly named the Silver Snipers, in which all players are over 65 years old. There is also the Finnish senior team Grey Gunners, who are also at home in CS:GO. CS:GO(Counter-Strike : Global Offensive) is a multiplayer shooter video game developed by Valve and Hidden Path Entertainment. Silver snipers won the World Cup against Finland, USA, and Germany at DreamHack Summer 2019. These senior esports players have proved age is nothing but a number when it comes to gaming, and gaming is for everyone.

Interest in senior esports players is increasing in Japan as well. On July 2, 2020, an esports center dedicated to the elderly opened in Kobe, Japan. Under the name of ISR Esports, it only accepts people over the age of 60. The doors are open to both

those who're experienced in gaming and those who have never played a video game before. First, the seniors will be given some basic gaming instructions to help them understand the game mechanics. Then they can play what ISR Esports calls the "full esports title", which range from simple point-and-click games to actual games used in professional esports. With communal learning and exploring of esports between the interested players ISR Esport wants to combat the increasing loneliness in old age. As further benefit for the older population, ISR Esport says that playing video games heavily stimulates the brain as players have to multimanage several tasks at the same time. However, only a small number of seniors use this facility, and the vast majority do not even know the word esports.

3 Conclusion

I assert that it is possible to prevent dementia with esports and that some elderly people play a crucial role as professional esports players. It is never too late to play esports.

I am planning of doing activities to spread esports among elderly people. Setting up a nonprofit organization, we, the students, want to play a central role in developing senior esports gamers. For example, we plan to teach elderly people how to play esports by using the computers and gaming devices we have prepared at local community centers or nursing homes. If we can convey the fun and benefits of esports to the elderly, they may prepare their own gaming devices and personal computers and start playing esports.

These are details of the organization: (1) collect money through crowdfunding such as "CAMPFIRE" (2) hold lecturing events at local community centers or esports centers (3) round up those who are skilled in playing esports as members of this organization (4) prepare gaming gadgets such as remote controllers and gaming PCs and lend them to the elderly. If senior gamers emerge to some extent through these activities, we are also considering holding senior tournaments and forming a senior professional team.

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1 .abstract

I researched about crime prevention measures in events. When I went to some events such as concerts, handshake events, I am interested in crime prevention measures in events. I have researched related contents since two years ago. It was very interesting, and I want to know more. Therefore I decided to research it.

While I researched it, I had visited some concerts and hand shake events. I watched there are some guards, so I will introduce them as example. First, I showed a ticket and my certificate. Second, I was inspected my belongings with staff and a metal detector. When this inspection, if I have a water bottle or a plastic bottle, I have to drink a little to prove that it is a drink. Moreover, if I have an insect repellent, I have to put it on my skin, too. In addition to them, at a handshake event, I showed my palms just before shaking with idols. Also, if I go out the hall, I do same things from to show my ticket again.

I could participate in my favorite idol group's events, but I could not go to other events. And after this, probably I cannot go them because these days most of events were canceled. However I could hear about other events' crime prevention measures an acquaintance who experienced some events' staffs, but almost events did each enough guards.

When I was doing information gathering, I found a website which introduces something we should be careful at a place with many people. For example, we should use a bag which can shut well, we should put valuables in the bottom of the bag, and we should not to post pictures on SNS before we arrive home because our whereabouts may be detected. Certainly, if each of us to be more carefully, events' security are easier. Therefore, I think that how we can do to let know them. I think it is not enough to put up a poster on the wall, or to write them on the official website.

2 .Introduction(目的と方法)

I used internet mainly to gather the information.

I was interested in crime prevention measures in events, and I was thinking about the way to be more peacefully events.

3 .Conclusion(結論)

From this research I found a good way to tell the matters to be attended.

Before my favorite idol group's concert, they always do "kagenare". It is a broadcasting about matters to be attended by the members. People who attended the concert hear it well because they want to hear the members' words, so this effect is bigger than other ways.

I think it is a good way to tell about we should be careful there, so it should do other events such as, sports contests, musical, and so on. It lead to be better events.

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Abstract

Recently, Design Literacy skill have been required in the business situations, such as meeting or marketing. It is important for business person to learn Design Literacy. However, we don't have any chance to learn about Design Literacy without going university and specializing in design. So I think high school students and junior high school students have to learn about it.

Design Literacy is one of the human ability which consists of analyzing design and creating design. These years, Japanese company have done innovation in order to adapt AI society. Design Literacy helps us innovate. We usually judge what products are good design by using our color sense and function sense. Although we can make a good option, it just depends on our sense, like likes and dislikes.

Learning Design Literacy is improving our ability of judgement. I think if we are able to get this skill, it connects to reduce waste.

Introduction

Last year, I studied sustainable design. I discovered that people don't have literacy about sustainable resources. So I thought it is necessary to nourish acknowledges and literacy.

Discussion and Implications

There are underlying some differences between art and design. Art is one method which expresses a human's emotion, thinking. On the other hand, design is composed of a human's plan, for example, who is the target, where we will use it, how we will use it. To make design appropriately is a skill that gets hold of the society's needs. So understanding the points of design, we could consider what is the most important part of the problem. Such skill is called "Design Literacy". Currently, businessmen and businesswomen are required to use "Design Literacy" when marketing. I think we should learn about "Design Literacy" before children become adults in order to consolidate such skills.

Then, I made a hypothesis that learning design literacy helps children, so my goal is to introduce the subject of Design Literacy. In the background, we should have capability in order not to be replaced by AI.

Also the purpose is getting skills that assess rightly about many products, according to the number 12 of SDGs, "Responsible consume and production".

1, Criterion for selection.

We always choose something by our subjectivity, like it is somehow cute, or it is somehow cool. by standard what we need functionality to use. The criterion for selections are divided into four. First one is sensitivity assessment by human's five senses: hearing, sight, touching, smell and taste. Second one is cultural and spiritual judgment. Third one is functionality judgment. Last one is social judgment such as environmental considerations. We would change our perspective by gaining knowledge of functionality and social judgment.

2, The needs for business.

Design Literacy is a term which includes means, theory of design shaping, the process, the knowledge of history and culture. These days, it has become important to serve customers, so we must decide guidelines based on analysis of design. Design is not only

for products and posters, but also for business with a tendency of adapting to AI society. In fact, Google, a company in America, purchased design companies. In addition, IBM companies in America introduce many designers.

In global society, Japanese companies are facing danger. Now, Japanese companies have to innovate. Innovation is not simply a technological revolution, also producing new social value. In other words, they are asked to innovate new roles in the business. So we have to learn about design mechanism in order to keep Japanese economy.

3, Design Literacy for education.

Generally, students learn about design in university. Although students are taught about color and shape in art class, the education is mixed art and design. In order to improve great sense in long term, students should learn them while compulsory education. We learn by observing the problem, making solutions, communicating with other people about solutions, assessing each other and determining final plan. The curriculum is quite different from art.

Conclusion

As “Media Literacy” and “Information Literacy”, it is necessary to introduce “Design Literacy” into children’s education.

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Abstract

Everyone can make more happy life.

Last year, I studied "What is happy life" but this theme is not see the correct answer. So I want to study more about this theme. This year, I want to find the good way to make relax time. I think relax time is connect to fell happy. I suggest three things.

First, let's increase happy hormone. There are three types of typical substances called "happy hormones" is Serotonin, Oxytocin, and Dopamine. The common effect is reduce the stress and feel relax. Second, let's listen to natural sounds like sound of rain. Natural sound is good way to relax. For example, sound of rain is familiar sound for us. It has 1/f fluctuation that can feel people relax. Third, using to an app, "watersound" because it is easy to listen 1/f fluctuation everywhere.

1. Introduction

Thus, this study was conducted in order to examine to what is happy life and how to we can make happy life. My thesis is find a way to live a better life. Last year, I studied Japanese people are not feel happy every day. Also, base line and sense of value about happy is different from each other. I want to decide base line about happy in my study. I decide that it is when we can feel relax. I want to increase more relax time and I want to find how to do that in my study.

2. Discussion and implications

First, I used "World Happiness Report". I analysis the date and find Japan's problem. Japan's problem is low of freedom to make life choices and generosity. In World Happiness category ranking, freedom to make life choices is connected with volunteer works. Low of freedom shows us Japanese people are not do volunteer works. I think Japanese people are very busy so they can not have enough time to do other things. So encourage more volunteer works is not good. Volunteer work's merit is spread social relationships, tell thanks directly, and we can have confidence. Therefore, I want to find another way to get these merits. I suggest increase happy hormone. Happy hormone is consists of three hormones. There common effect is it can feel people relax.

I think Japanese people are very busy. Some of the people are difficult to make relax time. I want to find easy way to make relax time so I suggest three things to make feel more relax.

First, increase happy hormone is good way to feel relax.

The first happy hormone is "serotonin". In fact, serotonin is not a hormone but a "neurotransmitter" that regulates the autonomic nerves. If we could increase serotonin, we can relax without getting angry. Increase serotonin have two ways. First eat soy foods and dairy products. Second walk during the way. Soy foods and dairy products is for example, tofu and cheese. Walk during the way is good for us because we can take the light of sun is important for our health.

The second happy hormone is "oxytocin". It has three effects. Gives happiness, enhances sociability, and relieves anxiety and fear. It is said that this can be expected to reduce stress and boost immunity. Oxytocin is also known as a love hormone, a compassionate hormone and more. Increase oxytocin have two ways. First Talk with your family or friends. Second be kind to people. The most important thing is engage with people. I think engage with people can make people become kind. We can think and understand what kind of behavior is good for another people. We can learn people's

feeling.

The third happy hormone is “dopamine”. Dopamine is a hormone that stimulates the motivation and happiness needed to live. When dopamine secretion is activated, it can be expected to improve learning ability and work efficiency. Increase dopamine has four ways. Set simple goals, work with listening to music, eat soy foods and dairy products, and do meditation.

Second, listen to natural sound is good way to feel relax. The effect is 1 / f fluctuation, Alpha waves are emitted from the brain at high frequencies, and Image of being washed away with water. 1 / f fluctuation is the fluctuation of the sound contained in the natural sound, and it is said that the natural sound has 1 / f fluctuation with a certain rhythm although it does not have a precise regularity. Of course, this also applies to the sound of rain. It is known that when you experience both this and the sounds you hear, the brain functions that control your body and mind are activated. Also, when you touch Hypersonic, alpha waves are emitted from the brain, leading the brain to a relaxed state. So far, I have explained the scientific aspects, but next I will give the effect of the image of the sound of rain. The sound of rain is the sound of water droplets falling and flowing one after another. Therefore, you can have the image of being washed away by the sound of rain. This makes you feel refreshed by washing away your depressed mind and tiredness, so it can be said that the sound of rain is suitable for relaxing.

Third, using app kind of we can listen healing music is good way to feel relax. Now, there various app of natural sound. I use watersound. This is free app. When I want to relax, I use this app and feel relax. The reason I chose this app was because it was ranked high in the app ranking. This app has two good points. First we can listen to 23 kinds of water sound. Also we can make original sound. This app can be played at the same time so we can select own favorite sound. Second this app can set timer so we can sleep comfortably. Using app is easy to listen to natural sound anywhere and anytime so we can take relax time quickly.

Increase happiness hormone and listen to natural sound is my suggestion.

3. Conclusion

Making relax time is connect to we can feel relax.

Increase happy hormone, listen to natural sound, and using app is good way to feel relax. Everyone can change their minds in many ways.

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Abstract

This paper considers the effect of a new online lawyer's consultation service, called "F+Law". The number of lawyers has been greatly increased in these 15 years by judicial system reform in Japan. However, there has been no big increase in clients. It is said that lawyers are saturated. The new online service will solve two problems occurred by lawyer's saturation. The first one is from lawyer's side, income decrease and the second one is from citizen's side, losing good opportunities to utilize lawyers. How the service contributes to solve these problems is described from three angles, money, time and distance in this paper.

1. Introduction

The government has promoted judicial system reform since 1999. One of the plans was to increase the population of legal professionals because the government thought that people would need more legal services in the future society. They have increased the number of successful bar examination applicants since 2006. According to the Japan Federation of Bar Associations, the total number of legal professionals increased from about 20,000 in 2003 to 41,000 in 2019. In other words, the number of lawyers in Japan doubled in only 15 years. However, contrary to the government's expectations, the amount of cases treated in the court have leveled off over past 15 years.

As a result, the income of lawyers has decreased compared to the time before the reform. The average decreased from about 17.5 million yen in 2006 to 9.5 million yen in 2018. The median decreased from about 12.0 million yen in 2006 to 6.5 million yen in 2018. It means that both average and median became half. Although people have a lot of lawyers, they don't make use of them.

To increase the number of clients, a new and different way to connect lawyers and people without conventional worries is needed. In this essay, money, time and distance are regarded as conventional worries. The new online service, "F+Law" has no restrictions on them. It is not only for providing consultation service but also it is aimed at spreading the value that lawyers are close to citizens. It will be the first step to make a society which people can lead a life with lawyers daily.

2 Discussion and Implications

Before the discussion on how "F+Law" contributes to solve the two above-mentioned problems, the fundamental system should be remarked. Lawyers and people can be connected on a website. Lawyers who registered on the site can only decide the price per consultation time. People can choose a lawyer based on gender, age, and price according to his or her needs. The feature of legal consultation using the Web conferencing system is that there are no restrictions on money, time and distance.

It is the first point that the lawyers himself or herself decide the price. The lawyers registered on F + Law would be those who work in areas where lawyers are saturated due to the increase of lawyers. The income they earn may be low because of demand <supply. So, lawyers will naturally set a balanced price. The important thing is that they are different from the high-income lawyers, so the consultation fee will settle down to a lower price than the market price. In other words, this system allows people to provide legal counseling at low cost.

The second point is time. The most important thing is how quickly people can connect with lawyers from they wanted to do. On the page viewed by users, "online" lawyers who can immediately start counseling are displayed as priority. So, it allows a lawyer who has time to work and an urgent user to match quickly. They can start consultation soon using the web conferencing system.

The last point is distance. Wherever they are, users can utilize the service with the internet environment and a device. It doesn't matter how far they are from the lawyers. No limit of physical distance also leads to the less regulation of money and time. For example, when a consuler truly goes to a lawyer's office to get legal advice, the farther the office is, the more costs and time are needed. However, this is not the case with "F + Law", using a web conferencing system.

These three points, less time, low cost and quick matching with lawyers will support making a habit of seeking advice from experts even for small worries. It is easy to understand to think about why doctors are close to people's life. First, the public medical insurance system enable us to go to the hospital at low cost. Second, you can consult quickly. Third, there are many hospitals nearby us. So, even if people have a slight physical or mental disorder, they consult a doctor. In this mean, "F + Law" wants lawyers to be like doctors to people, not family doctors, but family lawyers. The site name "F + Law" is taken from the spelling "Family Lawyer". Therefore, "F + Law" does not aim only to provide a one-time legal consultation service. Beyond that service, the goal is to create a new sense of value that lawyers are familiar to citizens. The + of "F + Law" also includes the meaning of adding new values to society.

3 Conclusion

The suggestion, a new online lawyer's consultation service "F+Law" realize the new type of legal consultation without barriers of money, time, and distance. However, there are two challenge of this paper. First, the concrete figures are not showed in this paper. Second, "F+Law" is limited for only consultation.

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Protecting student's individuality from excessive guidance

～What the hairstyle is suitable for modern students?～

5125

Abstract

In recent years, to guide students' hair excessively has become a serious problem. For example demands to submit a certificate for original hair from high school, the guidance of hair straightening, and the guidance of dyeing hair black. Also the certificate for original hair is a document that students with blown hair or natural perm hair have to submit to school. They have to submit it with picture taken in childhood and parents' stamp. In my research, I don't think that the demands to submit certificate for original hair is not a problem. If students submit them, they can protect their original hair. Both teachers and students have many kinds of opinions and questions about hair guidance and school rules. Teaching and school rules are connected with each other. I wanted to make solutions about school rules because it enables us to improve teaching. However, it was too difficult for me. I could see many differences in school rules among high schools, and I found that those differences arise because school rules are based on each school's policy. So, I set this study's goal to suggest hair style suitable for modern students.

1 Introduction

I watched some videos about excessive hairstyle's guidance. The video was made by pantene (P&G), which is hair care brand. I know that there are many students who suffer the excessive guidance. In my high school, I don't think that we have excessive guidance, so I am interested in this problems, and I thought that I want to help those students.

2 Discussion and implication

First, I learned the outline about this problem from the video. Some students are suffering from excessive guidance of hair style. For example, demands to submit a certificate for original hair from high school, the guidance of hair straightening, and the guidance of dyeing hair black. I didn't know about certificate for original hair from high school, so I looked them up. It is a certificate submitted by students with light hair or natural perms to prove that it is natural hair. They have to submit them with pictures taken in childhood and parents' stamp. These days, about 60% of high schools in Tokyo require submission. I don't think that the demands to submit certificates for original hair is not a problem. If students submit them, they can protect their original hair. I think the problem is to instruct them to dye hair black and adjust their curly hair, even though they have submitted a certificate of natural hair. I don't think this guidance protect the individuality of the students. Also, there are school rules for hairstyles that I don't know if I really need them. For example, a school rule of tying hair and cutting bangs above eyebrows. It may not be considered excessive guidance, but it does not protect individuality of student. How can we protect individuality of our students?

Second, I researched what students and teachers think about hairstyle school rules. Then I referred to the results of a survey conducted by Pantene on 1,000 people, including junior and senior high school students, graduates, and teachers. To summarize the opinions roughly, students said "What are the school rules for?" and "I want to have my favorite hairstyle." Teachers said "The purpose of students is studying, so I want

them to concentrate on their studies.” and “Students should be appropriate for the school atmosphere and reputation” Also, some teachers said “I don't know why there are school rules for hairstyles” I found that both teachers and students have different opinions, but they have doubts about school rules for hairstyles.

Third, based on the above, I thought of solutions. I thought that the improvement of school rules would lead to the improvement of excessive guidance because teaching and school rules are connected with each other. So, I wanted to make a solution about school rules. From my research, not all schools provide excessive guidance, also, there are schools that don't have school rules. Why is there a difference in strictness among guidance and school rules? The most interesting information I found was a consideration that strictness of school rules and the deviation value may be related. According to this, schools with higher deviations have looser school rules. Schools value individuality and freedom of students. Another purpose is to make students think about the limits of their freedom. It may not be common to all schools with high deviations, but I thought that school rules are based on traditions and guidelines by each school. So, it is so difficult to come up with solutions about school rules with considering many kinds of schools.

In the early stages of research, the purpose was to devise measures to eliminate excessive guidance in order to protect individuality of students. After research, just as each student has different opinions about school rules for hairstyles, I found that schools and teachers on the instructing side also have their own policies and ways of thinking. Excessive guidance may or may not be caused by school's rules and teacher's values. It is difficult to think about school rules and teaching methods of whole Japanese schools. Therefore, instead of devising measures to eliminate excessive guidance, I decided to think about the hairstyle suitable for modern students.

3 Conclusions

Comparing schools where school rules for hairstyles are set, it seems that the specified hairstyles were common, so I thought that we have a concept of hairstyle suitable for students. It mainly refers to black hair, straight hair, and tied hair. Why was such concept born? Why do we apply that concept to modern students? The word “hairstyle suitable for students” is often used in school rules and guidance. I thought that we should reconsider whether the concept is still necessary today. Without being bound by old concepts, we should prioritize protecting the individuality of our students. So, I wanted to suggest “hairstyle suitable for modern students”. To do so, I have to know how the concept was created, and research about modern students. Also, how to define the word “suitable for students” is important.

I am still in the middle of research, so I would like to continue my research in the future.

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●Abstract

First, most of the almost all the elementary school, junior high school and high school have school counselors now. I have a question that how many times do they use the school counselor when they are at school? For example, if a student want to talk to counselor, then the counselor is not at the school. It has no meaning, because the counselor comes to the school once a week and the time is 4 hours to 6 hours. I think it's very little time to consultation. When you feel sick, it depends on the person. Recent a years, number of school refusal students is increasing. The student has mental illnesses, I think student find place to stay in school, they will able to go more. I think school counselors makes the place where they belong. Therefore, I'm thinking about what to do resident of school counselor, and I suggest.

●Introduction

First, I'll examine the transition of school counselor and I consider they can always resident in the school. I researched literature on the internet, paper or I call or email for ministry of education.

Second, I research a number of school refusal children and a number of bullying on the internet. I will contact to ministry of education if need to that.

Third, I research whether there is actually school counselor who is in school every day. Therefore I think merit or demerit of resident them in the school and I judge that they can resident in the school. Also, if that possible I suggest that in detail.

●Discussion & Implications

First, the background and current situation of school counselor. I researched homepage of ministry of education. It was "Recent year against the background of various problems related to the children's or student's mind such as the seriousness of bullying and the increase in school refusal children. To take that children and their parents have trouble, and Enhancement of function of counseling at school. Therefore, school need to be utilized Out-of-school specialists with specialized knowledge and experience in clinical psychology at school in japan. (Heisei 7 years 154 number of school.) To implementation practical research giving how it should be the utilization." Also, school counselor's work is consultation advices for students, their parents and their teachers (counseling and consultation), participation meeting in the school, stress check and stress management. The contents are involved with the relationship.

Next I think school refusal students use school counselor in many cases. So, I researched about it. The number of junior high school students has been increasing since 2012. It need to school counselor but, my frank opinion is that I don't know what's inside the school.

Finally, merit or demerit of resident school counselor. First is about merit. Merit is I think s make a place of students in the school. It is a sense of security and that is mostly. If you think that your place is there, your mind will be a little lighter and your body will be lighter. Second is about demerit. Demerit is that It difficulty is that the number of days you visit the school is different according to the school. However, I think it is possible to have a school counselor resident if you make adjustments.

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Physical Fitness of Children

~ Relationship between changes in life and physical fitness ~

5127

Abstract

I like sports. That's why I wanted to know that I was involved in the exercise. At first, I learned about the physical fitness test that was done at the beginning of the new semester. Comparing the physical fitness of modern children 30 years ago with their parents, in most areas modern children are below the records of their parents' generation. As a result of the investigation, three causes were found. First of all, our lives have become more convenient and lifestyles changed. With the development and popularization of electrical appliances, the amount of daily exercise is decreasing. Second, there is no time and space. Looking at how elementary and junior high school students spend their holidays, more and more children are spending time indoors. In addition, urbanization and the spread of automobiles are depriving vacant lots and living roads where sports and outdoor activities available. Third, changes in children's lifestyles. Disorders in children's lifestyles, such as sleeping and eating habits, are said to have a negative effect on the mental side. Based on these, we considered improvement measures. First, let's look back on exercise and physical education in elementary and junior high schools. Physical education is an opportunity for elementary and junior high school students to move their bodies. These days, many schools are reviewing PE classes. We will improve our physical strength by reviewing physical education. The other measure is lifestyle improvement. The parental cooperation is needed to improve lifestyle habits. Therefore, it is possible to adjust the lifestyle from an early age by improving the lifestyle of the family. There is a problem that the improvement measures are still shallow, so I would like to find more practical conclusions.

1, Introduction

Today's children lack their physical abilities and physical strength prominently. For example, they can't tie their shoes and they can't skip. These are greatly related to the convenience of life and lifestyle changes. Therefore, in this study, I would like to investigate the decrease in physical strength of children and the changes in their lives that cause them, and consider measures to improve their physical strength. For the survey method, I referred to the materials provided by the Internet and the Ministry of Education, Culture, Sports, Science and Technology.

2, Discussion and implications

I thought there were three causes for physical fitness of children.

- Changes in children's lives

It was found that daily exercise such as walking and playing outside is decreasing with the progress of science and technology and economic development. Specifically, due to the development of transportation like the spread of automobiles, the chances of walking are decreasing, it becomes difficult to play on the living road, and the chances of being easy to move are decreasing. Moreover, the development and popularization of home appliances has reduced opportunities to help with household chores and physical movements, and parents' consciousness does not allow dangerous play and tends to

dislike dirt. In addition, with the rapid advances in information technology, contact with information devices is spending more time and less opportunity to travel. It has been pointed out that the range of activities is narrow, because the housing environment has changed due to urbanization and children living in high-rise housing prefer indoors to going out. On the other hand, few games and sports are adapted to the changing lives of children.

- Reduction of time and space

Looking at the time spent playing sports by junior high school students and high school students in the "National Life Time Survey" conducted by the NHK Broadcasting Culture Research Institute, the number of junior high school students has decreased and most of the high school students remain. It hasn't changed for 25 years from 1975 to 2000. In addition, according to the "Basic Survey on Youth Life and Awareness" conducted by the Cabinet Office, elementary and junior high school students have been spending their holidays, watching TV, playing video games, etc. indoors for five years from 1995. Spending is increasing and outdoor play is decreasing. In this way, it is thought that the time for physical activities such as outdoor play has been shortened and replaced by the time for learning activities outside of school and indoor play. In playgrounds, urbanization and the spread of automobiles are depriving children of simple sports and outdoor playgrounds such as vacant lots and living roads. Although the number of city parks, schools, and public sports facilities is increasing, there are problems such as children not being able to play freely.

- Children's lifestyle

In the "Questionnaire Survey on Children's Experience Activities" conducted by the Ministry of Education in 1998, 33% of second-year students answered that they were "normal" and "sometimes" tired on a daily basis. The percentage of second-year junior high school students is 60%. According to the "National Lifelong Survey" conducted by the NHK Broadcasting Culture Research Institute, all elementary, junior high and high school students reduced their sleep time for 35 years on weekdays from 1965 to 2000. According to the "Infant Health Survey" conducted by the Japan Health Insurance Association, the bedtime of infants is delayed by about one hour in the 20 years from 1980 to 2000. You may also skip breakfast or eat too much meat during your meal. You lose fat and sugar, and your nutritional balance. Lifestyle-related disorders in children such as sleep and eating habits, not only adversely affect the maintenance of health, but also cause mental disorders such as weakness, loss of energy and motivation, and lack of concentration. There is also an effect. It is also said to have an adverse effect. This children's lifestyle disruption is believed to be due to changes in people's lifestyles such as urbanization and nightlife. The world is full of things that guide people's lives to the night style, such as late-night TV and 24-hour stores, and families with children are also involved in such adult life. It can be said that the disorder of children's lifestyle, which is one of the causes of the child's physical weakness, reflects the appearance of modern society and home.

3, Conclusion

I come up with improvement measures based on these.

- Improvement of exercise and physical education in elementary and junior high school

Physical education is an opportunity for elementary and junior high school students to move their bodies. Recently, many schools are reviewing PE classes. Also, by reviewing

physical education, you can enjoy exercising with your friends, and I think that the image of exercising will change. One example of enhancing physical education classes is to create curriculum that allow students to move your body having fun.

- Improve children's lifestyles.

It is little difficult for a child to improve his lifestyle alone. Therefore, we need to work with our parents to improve. Ideally, a child should have a proper lifestyle by the age of three. It is also effective to set a period for reviewing lifestyle habits at school so that children can consciously correct their lifestyle habits.

Challenge points

I would like to think of ways to secure a space where children can play in the urbanization.

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Braking the Chain of Child Poverty Differences can be Made by Reading

5128

Abstract

In Japan, about one in seven children are in poverty. Their poverty is not absolute poverty, but is relative poverty. This type of poverty is so easy to cause a negative chain reaction that more adults and children will be in poverty in the future if we don't break the chain. This is the reason why child poverty is an urgent problem. One of the main reasons of adult poverty is academic ability and their background, and it can cause serious results of child poverty. Ochanomizu University surveyed relationship between the income gap and the academic achievement of the children. According to the survey, the item which had strongest correlation was reading. Therefore, I propose a solution to establish reading habits between parents and children without being affected by income disparity from an early age. The solution is implementing reading marathon utilizing Child Care Support Passport. Child Care Support Passport is a card published by the cabinet office for families which have under-18-year-old children. Families can be provided services cheaper with the card.

1. Introduction

Children in poverty are unable to receive advanced education both inside and outside home due to lack of funding and they are tend to have low future annual incomes. Therefore, we should look for ways to improve their academic ability at a low costs. In addition, parental involvement is important for the formation of a child's reading habit. In order to do realize this, we should establish a system that parents who are busy with work or reluctant to educate their children can have benefit financially by being involved in their children's education.

2. Discussion and Implications

According to Ochanomizu University's "Survey Research on Factor Analysis that Affects Academic Achievement Using the Results of the 2013 National Achievement and Learning Situation Survey (Detailed Survey)", working on reading activities and lifestyles at home, between parents and children. It surveyed which habits have a certain positive influence on academic ability. Focusing on the difference in the proportions of the favorable (Highest SES) and disadvantageous (Lowest SES) of the socio-economic background of the family, it can be confirmed that the higher their SES is, the more books they read. This former had higher academic ability. This is because parents with high SES are more active in this behavior than parents with low SES. On the other hand, it can be confirmed that these behaviors have a strong and inherent influence on children's academic ability, regardless of the differences in the socio-economic background of the family. Among the activities related to reading, the ones that have the strongest influence on academic ability are "I encourage children to read books and newspapers", "I go to the library with my children", and "I read picture books for children when they were a little" From this result, parent's involvement in the child's reading has significant effect on the child's academic ability, and the child of the parent with a low SES also can obtain high academic ability by being encouraged to read by their parents as well as children whose parents have high SES. In fact, a report from the Ministry of Education, Culture, Sports, Science and Technology points out that a characteristic of children with high academic ability even if their parents have low annual income and educational background is that they have a habit of reading and reading aloud at home. Therefore, making the target of reading intervention "parent and

child" is one of the effective reading interventions.

In terms of the system, I thought that it was necessary to have a solution that could be implemented on a low budget by utilizing the existing ones, that is, public libraries and child-caring support passports all over Japan. Also, from the participant's point of view, I thought that there was a need for a solution that is interesting, that the benefits could be obtained by participating, and that it could be continued. Therefore, as a result of our research, I propose a "reading marathon that utilizes child-caring support passports."

The following is the system of it.

1.) Go to the library and borrow a book.

2.) When you go to return the borrowed book, write your impression on the form and submit it to the counter.

a.) 1 point for each book if children submit his or her impressions of the book you read by themselves

b.) 1 point for each book if parents submit their impressions of the book they read

c.) If parents and children submit their impressions of the books together, 3 points per book

3.) When they reach 30 points, they will receive a 10% discount ticket that can be used at the stores that support child-caring support passports.

4.) When they go shopping, show their child-caring passport and discount voucher to receive the service cheaply.

3. Conclusion

In this research, I combined two existing systems. This might be a little unrealistic, but I am sure that drastic solution like this is required to deal with this urgent problem. I hope to break as many negative chains as possible with this idea.

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Abstract

There are a lot of people who are bothered by bugs bumping into their faces. This study is about solving this issue in an ecological way so that humans and these insects, Chironomidae, could live together without being bothered by each side. People bump into swarms of Chironomidae, which are formed to mate. The appearance is also bothering residents and local government are having to deal with Chironomidae using pesticides. However, putting buoys on rivers and ponds, the habitats of Chironomidae, could prevent the uncomfortable incidents from happening. Chironomidae tend to form swarm around pointy objects in darker areas than surrounding such as shades. Creating buoys that holds those particular characteristics in order to promote swarm forming in areas that do not harm anyone.

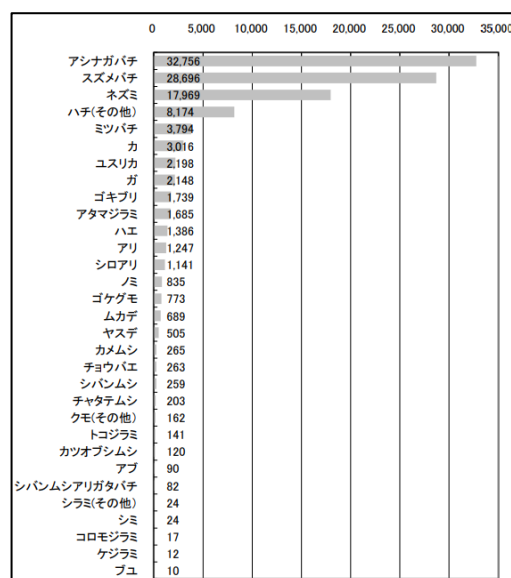
Introduction

Have you ever been annoyed by tiny bugs bumping into your face when riding bike? In most cases, those small insects are Chironomidae. Chironomidae comprise a family of nematoceran flies, also known as lake flies or midges. They are found in almost any aquatic or semiaquatic habitat. Males create swarm and attract females in order to mate. They do not give any harm to humans. Creating swarm in large number of individuals, however, they can be nuisance. Being bothered with them so much, I started to do this research in order to find a way not to be troubled by them.

Chironomidae annoys the residents near their habitats (Hirabayashi Kimio 1991). Some local government have stopped but some do still use pesticides to deal with them. According to graph 1, the number of complaints to local governments on Chironomidae is large following bees and rats. Moreover, adults of Chironomidae could cause allergy (Kawai Kouichiro, Konishi Kenichi 1988). However, Chironomidae also have good influence on the environment. Through their lives under water as larvae, they contribute cleaning the water (Sassa Manabu 1983). Being eaten by other marine organism, they are significantly important creature that supports the eco-system (Hirabayashi Kimio, Okinogai Teruo 1999). Clearing away Chironomidae will harm the nature because they are deeply connected with people's lives.

The reason people bump into Chironomidae and the nature of Chironomidae was analyzed using articles. Ways to move swarms out of human reach was considered .

Discussion and implications



Graph 1

The number of complaints from residents to local governments, excluding prefectures

Source :

Minagawa Keiko, Muto Atsuhiko(2009)

自治体に対するアンケート「衛生動物に関する対応の現状」調査の結果

The bug annoying people under these occasions was Chironomidae which was determined by its long limbs and outstanding tactile, long and thin two wings, and the fact they are found near rivers. Swarms are created near specific marks. According to Hirabayashi Kimio professor of Shinshu University, who has long been studied Chironomidae, "males create swarm around specific land markers"(Hirabayashi Kimio 1999). According to Kon Masahiro, "males form an aerial swarm in the neighborhood of a landmark (swarm marker)"(Kon Masahiro 1984). Syrjamaki Jaakko says "branches (outlines of them) may possibly be discerned and used as marker" (Syrjamaki 1964). Kon Masahiro showed Image 1 and "swarming marker, foliage of the pine tree" explained that swarms occur in such conditions (Kon Masahiro 1984).

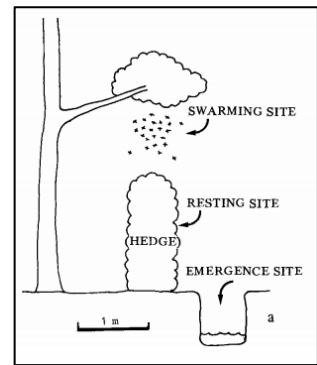


Image 1 Swarm marker
 Source : Kon Masahiro (1984) Swarming and mating of Chironomidae yoshimatsui (Diptera:Chironomidae)
 Seasonal change in the timing of swarming and mating.

Further characteristic of markers is the difference of strengths of light. Syrjamaki says "This swarm was likewise situated above a pale patch on the ground."(Syrjamaki 1966) 。 Rail Kaskinen says

"swarms very often occur over swarm markers which are either paler or darker than the surroundings" (Rail 1969).

For these things, swarms are created under outstanding areas that are darker than surroundings. Chironomidae usually survive in aquatic areas so buoys are effective. Swarms can be moved above the water and out of human reach using buoys with the characteristic of swarm markers. These buoys are to be created after further research.

Conclusion

Before I started my study on Chironomidae, I really hated the bugs that bump into my face. It really hurts when they fall into my eyes and it's hard for me to remove them because they get soaked with my tears. It feels awful when they enter my mouth. I am sure that I have swallowed couples of them accidentally. However, as I did my research, I gradually started to feel some kind of affection for them. They have very short lives, only about 3 to 5 days or so, as adults. The eco-system will collapse without them because they are the fundamental food for other aquatic organisms. They are not doing anything bad. It's just the humans who are bothered by them. I believe it is necessary to keep looking for the best way to live with other creatures, not only Chironomidae. I will be really happy if my study could contribute establishing a better society.

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Rail Kaskinen (1969) 「Observations on the swarming of Chironomidae salinarius kieff(Diptera,Chironomidae)」

Abstract

This paper tells you about we can improve our imagination by listening to radio, and suggest you that listening to radio for progressing your imagination. I wanted to research chemical charm point of radio, because I like listening radio. So I assumed that imagination is improved by listening radio, because nowadays, imagination is declining, I researched along with this hypothesis. So I needed to know what imagination is and the way of improving imagination. After that, I thought radio have those points which way to improving imagination. First, I will tell you about the cause that imagination is declining. We increase to use smartphone, so we increase to think intuition and decreasing to use brain. The element what stimulate frontal lobe by listening radio is two elements. First, we must plan schedule and carryout. Second we must image states.

1 Introduction

I like to listen to radio and want to listen to it more. Because I want to know radio's interesting points. I think the best way to get to know the funny points is listening, but if I say only that "I want to listen to radio", of course everyone do not listen to radio. I thought it would be good if people could know the benefits and benefits of listening to the radio. So I made a hypothesis that we can increase imagination by listening to radio. My goal is demonstrating the hypothesis. Why I saw imagination, I think declining imagination is world problem.

Next, I will tell you the study's way. First, I will research imagination what, where how. Second, if I can almost know about imagination, I will move to third step next step. I research why our imagination decline. If I also can know that, I do next step. I assume that they can be trained by listening radio. I mainly use internet for getting information.

2 Discussion and implications

Nowadays, many words such as "sugoi" and "yabai" are used. Frequently words like these are useful words that you don't have to imagine, so they make sense. In recent years, it has become easier to obtain information with TVs and smartphones, but on the other hand, we can receive information in an instant by TV, reducing the work of thinking and processing with the brain, and intuitive operation of smartphones. It is said that spending time without thinking too much leads to a decrease in "imagination". First of all, "imagination" is said to be improved by obtaining information mainly from one viewpoint such as "ears" and "eyes". Also, it seems that the prefrontal cortex of the brain must be stimulated to improve the so-called "imagination", and the prefrontal cortex is used when a person tries to do something. When I investigated how to train the prefrontal cortex, there were several methods. Mainly, "work without using memos", "calculate more than two digits", "take actions as planned in advance", "imagining the state" and so on. By listening to the radio, I think that the main things that can be trained are "take actions as planned in advance" and "imagining the state". Time to broadcast is decided, and the one as a radio puts that in the life, so it's possible to get planning ability and I think you can be than comparison of the broadcast hour in a television. When hearing a radio, it's imagined whether it's how is that a speaker speaking or about whatever kind of thing that I'm speaking, so I think it applies.

3 Conclusion

I think we can improve our imagination by listening radio, and suggest you that listening radio for progressing your imagination. Because, listening radio have the point that way of training frontal lobe. For example, "Imagining state", "take actions as planned in advance". And when we listen radio, we get information and think a lot from only "sound". Listening radio need more handling of the brain than watching TV, so we can train our imagination.

I have left that I have never done an actually test. So my suggestion is only logic effect. It is my issue.

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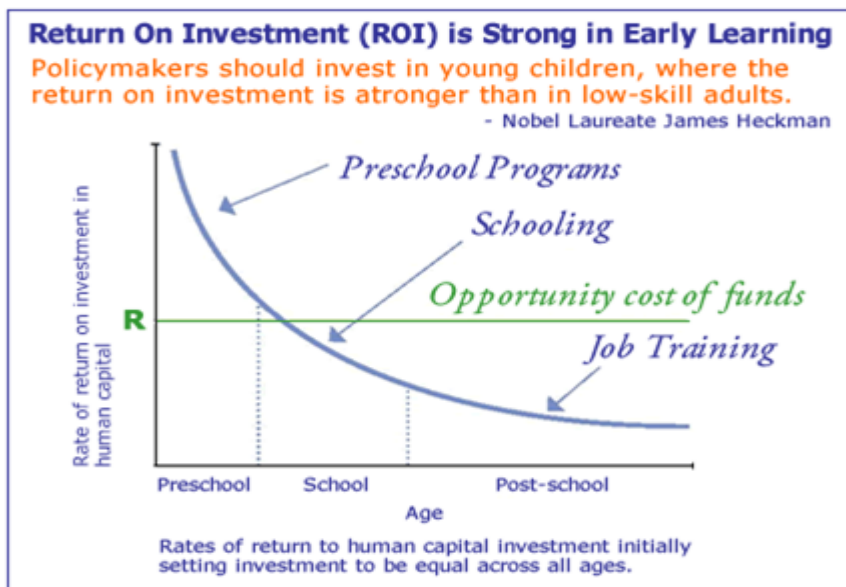
「前頭前野」 2019 10.12

Abstract

In this paper, I would like to suggest three points, “making compulsory education for the grades equivalent to kindergarten to high school”, “reconsidering the grade composition in terms of fostering independence”, and “installing the institute which decides whether or not each student can promote each grade”. Recently, “connection reform between high school and university” has been done by the Ministry of education in Japan. The project aims to get student to acquire their independence. However, it seems that the project cannot be succeeded in developing students’ independence because it must be too late for them to get the abilities. That indicates that we have to reform the education from kindergarten. In fact, to make an investment in early childhood education is still more effective than the education after kindergarten (Heckman 2007). Based on the above, the paper explores a new role of education equivalent to kindergarten to high school which aims to get children to develop their independence required by the Ministry of education in Japan.

Content

First, I would like to show how important early childhood education is. This is one of the most famous data which indicates the importance of early learning in terms of economics of education.



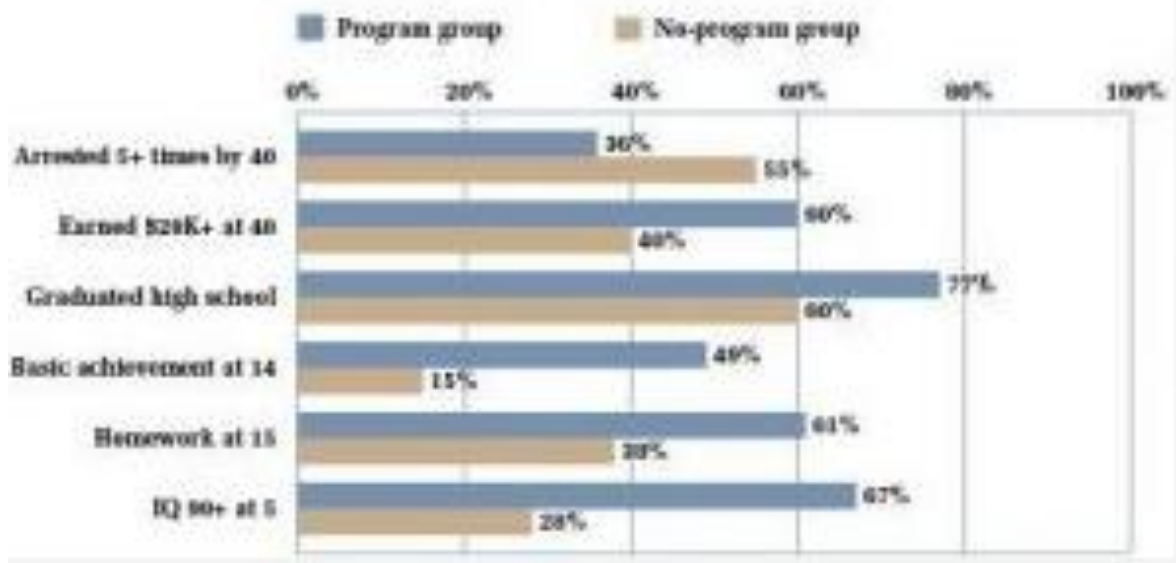
This data is generated by James Heckman, who is a professor in University of Chicago and Nobel Memorial Prize in Economics. This data shows that investment in early childhood education is still more effective than education in school and post-school.

Also, there is a study through which we can get more detailed data related the importance of early childhood education. The name of study is “Perry Preschool Project”.

From 1962–1967, at ages 3 and 4, the subjects were randomly divided into a program group that received a high-quality preschool program based on High Scope’s participatory learning approach and a comparison group who received no preschool program. In the study’s most recent phase, 97% of the study participants

still living were interviewed at age 40. Additional data were gathered from the subjects' school, social services, and arrest records.

Major Findings: High/Scoops Perry Preschool Study at 40



The study found that adults at age 40 who had the preschool program had higher earnings, were more likely to hold a job, had committed fewer crimes, and were more likely to have graduated from high school than adults who did not have preschool. See figures below for more information. Like this, “independence” should be educated in early days.

From these points, I want to suggest that we make new institutions in order to develop students' abilities. Specifically, 1) make all grades equivalent to the current kindergarten, elementary school, junior high school compulsory, 2) reconsider grade structure from the perspective of fostering independence, and 3) establish a body to determine if a student is fit to the next grade from the perspective of independence development.

I propose the establishment of education institutions that meet the above three points.

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Abstract

This paper recommends students to study in mutual. The image of the person the world wants is global students so students must get communication ability in English these days. However, people have a filter of shame. The filter occurs when people start to learn new things. Students are afraid to make mistake in the class by the filter so, students do not answer the question from teachers. The situation is very bad for study. Lesson needs mistake because students can learn many things from the mistake. I want to remove the filter. I think the filter do not occur study among students. People do not feel shame among friends so I think students should study with friends. And Japan want to do active learning. Active learning is any learning activity in which the student participates or interacts with the learning process, as opposed to passively taking in the information. In particular group work and debate between students. I learned learning pyramid. The article shows how much students can study and understand. Class is the lowest percent to understand. Class is not good environment to understand. Active learning is better to understand. Conversely active learning is the highest point to understand. If Japanese school do to study among students, I think that Japan achieve to grow global student and do active learning. However, there is a problem. The problem is students cannot teach enough study. I will continue to research and to find solution.

Purpose of the study

I knew that people feel filter of shame, so I want to remove the filter and study more activity.

Research method

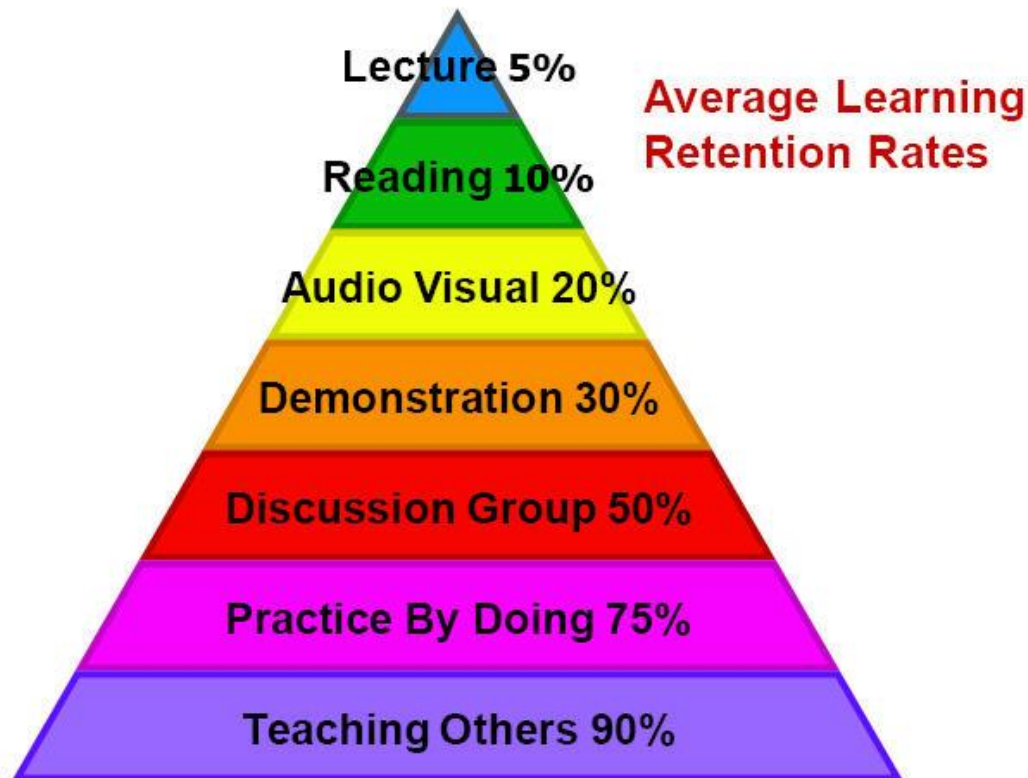
Internet
Book

Research results and issues

In communicating at school, students like to talk with friends during break time and club activities and discussion in group is popular during class. Conversely student do not like to talk with teacher.

As for the reasons for not speaking during class, "I don't know what to say" and "I'm embarrassed to be pointed out mistakes" why students do not speak during class. After all, it can be seen that today's students are feeling a wall in speaking and are not confident in their answers. However, I think that active learning is to give the unconfident answer to everyone, think about it with the whole class including the teacher, derive the correct one, and understand it. Mistakes are necessary for class. In other words, creating an atmosphere where you can make mistakes is the first step toward active learning.

What is the environment which students can make mistake? I think the best situation is among friends. People can just be themselves among friends. I think when we teach each other with friends, we can ask the commonplace question that we cannot ask in normal class, so we will be able to learn better.



Source: National Training Laboratories, Bethel, Maine

<https://otsu-houmu.com/blog/wp-content/uploads/2014/05/Learning-Pyramid.jpg>

From the picture of learning pyramid, the lecture that school do now is 5 percent, but teaching others is 90 percent. I do not know how to calculate the percent in the pyramid, so we cannot believe completely, but I think the pyramid has something of value.

There are two challenges. First, teaching students who do students learn from? Second, Can students be taught the content perfectly?

Quotes

[考えるとはどういうことか 0歳から100歳までの哲学入門] 梶谷 真司

<http://ypec.ed.jp/center/kenyukaihatu/kiyou/H16/kokugo/kokugo2.pdf>

Problem of waste plastic

~ The best way to live with plastic products ~

5204

○Abstract

Annually plastic of 800 million tons have escaped into the sea in the world. Most of them are used as wrapping like plastic bottle labels, plastic bags and so on. 84 % of plastics are collected in Japan. It is one of the largest value in the world. However, 56 % of them are burned to make electricity. Only 27 % of plastics are changed and used again. A prediction said weight of ocean plastics will be heavier than all weight of fish in the sea. There is a company called EnviGreen in India. It invited organic plastic bag. Organic products are good for environment, but they are not affordable prices. In Japan, people are not interested in environmental problem. Organic products' demands are low, so Japanese organic technology doesn't develop. I think recognizing the plastic problem is important to expand the demand of organic products in Japan. Advertisements and education is important for plastic problem to be paid attention.

1 Discussion and implication

In 2018, carcass of the 9.5m whale was found in sea near Kapota Island in the Wakatobi National Park. About 6kg of plastic was found in the carcass. In the stomach there are 115 drinking cups, four plastic bottles, 25 plastic bags and two flip-flops. I was shocked by it. Problems of waste plastic become more serious than we imagine, so I think we have to learn circumstances of plastic of each countries and solutions.

2 Conclusion

According to Forbes, 56% of the 84% of plastic collected in Japan is burned to generate electricity. Although the recovery rate is high, the burning is not a good way to reuse the plastic, which is not good for the environment. 6.3 billion tons of plastic has ever been produced by humans. 9% of plastic is recycled, 12% of plastic is incinerated, and 79% of plastic is landfilled. Mr. Sawano of GODAC said that disposing of it in a landfill is as same as leaking into the environment.

How long does decomposing perfectly takes time.

Plastic bottle	450years
Aluminum	200 years
Plastic	400 years
Vinyl	10-20 years
Banana	2 months

Japan's plastic collection rate of 84% may make it look like an exemplary country, but it is actually a backward country in terms of environmental measures. In Japan, the plastic bags fee will be mandatory from July 2020. However, many countries around the world have been taking measures for a long time. This shows that Japan is lagging behind.

Denmark introduced a plastic bag tax in 1993, the first in the world. Stores were

allowed to make consumers bear the cost of plastic bags by either charging for them or adding them to the price of other items. When this system was implemented, it had the effect of reducing the amount of plastic bags by 60%.

Ireland adopted a plastic bag tax in 2002. It was the first tax in the world to demand directly on consumers, initially at 15 euro cents per plastic bag. In the first five months after the tax was introduced, the use of plastic bags decreased by more than 90 % and littering of garbage was greatly reduced. However, as the years went by, the use of plastic bags began to gradually increase, so the tax was increased to 22 euro cents in 2007.

In 2003, a desire to save the whales off the coast of Tasmania led to the introduction of the country's first local government plastic bag ban. Half of the country's states and territories have banned the use of plastic bags.

Countries other than Denmark and Ireland have also begun to impose restrictions on plastic products, including plastic bags. I believe that Japan is not very aware of the environmental issues in the country.



The organic plastic bags were developed by an Indian company. They are completely organic as they are made from 12 different materials including potato, tapioca, corn, natural starch, vegetable oil, bananas, and flower oil. Once discarded, the bags are biodegradable and return to nature within 180 days, decomposing in normal temperature water in less than a day. And for quick disposal, the organic plastic bags can be placed in boiling water, which will decompose and disappear within 15 seconds. However, it costs 35% more than a typical plastic bag.

The Japanese designer group AMAM introduced an alternative to plastic using agar in 2016. The material is made entirely of agar and agar powder mixed with red algae fibers and shell ash used in the production of konjak and other products. It is completed when mixed with hot water, poured into a mold, frozen, thawed and air-dried. It can also

be used as a water retention agent. It is being developed for a wide range of applications, including delivery bags, cable ties, toothbrushes, cutlery, and ball-point pens. The consumption of agar is decreasing year by year, and the increase in production is a good thing for manufacturers. Another advantage is that red algae and shellfish ashes, which are discarded in large quantities, can be used.

Organic plastic bags are eco-friendly but expensive. For this reason, companies are not able to switch from plastic bags to organic plastic bags. However, they are becoming very popular in Europe, where people are more concerned about environmental issues. In Italian supermarkets, the cost of plastic bags is printed on receipts. About two years ago, Italian supermarkets sold organic plastic bags to shoppers for 0.01€, or about 1 yen. In Japan, the demand for organic products is not growing due to the lack of interest in environmental issues among the Japanese people. This prevents the development of organic products. Cost reduction → Lack of awareness → Products don't sell well → More expensive products → No one buys them → No expansion at all. This is a vicious cycle. In order to increase demand, I think it is necessary to raise people's awareness of environmental issues. In order to do so, Japan needs to increase awareness of organic products, publicity of current environmental problems and countermeasures by the government and companies, and education about environmental problems from childhood. Also, it is nearly impossible to completely eliminate plastic products from our lives. Along with efforts to reduce the specifications of plastic products, we also need to consider how we should deal with them in the future.

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Abstract

Recently, only a handful of woman want to take children leave in Japan. I think that increasing women's motivation for work society as a whole year by year. Pregnancy and birth. What will the woman who is a "mother" do after that? I think there are several ways to leave it at a daycare center, but I would like to recommend a "workplace with children". Workplace with children means to take your child to the office and work as it is. Of course there are some reasons why I chose to take your child to work instead of taking him/her to day care center. That's because of the following reasons. When a human being is born, he or she recognizes the person he or she comes into contact with as a parent. Childhood experiences are very important in the process of growth. This is why I thought that a workplace with children, where they are in close contact with their parents, would be a better choice than a day spent without seeing them for a long time.

1 Introduction

The purpose of this study is to improve the image of working with children and to improve the environment for this purpose.

2 Discussion and implications

The main method of research will be to use the Internet and literature to investigate cases of work systems with children that have already been introduced throughout Japan. Based on this information, I will create my own ideal workplace with children. I will also use the interview method to incorporate the opinions of working women with children.

3 Conclusion

To begin with, we believe that the greatest merit of introducing the "coming to work with children" system is that it allows talented female employees who have been forced to leave their jobs due to childcare to continue working. Considering this aspect, the advantages are the ability to return to work immediately after a short maternity leave (maternity leave) or childcare leave (childcare leave). Encouraging workplaces with children will lead to company-wide appeal.

The above two points can be broadly divided into two advantages. In terms of corporate appeal, having a nursery and breastfeeding facilities in the company can show that the company is friendly to female employees and that it is making progressive efforts, which can lead to enhanced recruiting power. However, everything has its advantages and disadvantages. So what exactly are the disadvantages.

It is difficult to concentrate on work when you bring your child to work. Because you are worried about the child. It is difficult to concentrate on work when "coming to work with child" is a concern for the child. The work environment is not good for the children themselves. This means that the work environment is not good for the children who are brought to the office. For companies, budgetary issues such as the development of facilities for safe and healthy "coming to work with children" must also be considered as a disadvantage. In particular, if the safety and health of mothers

and children who come to work with their children are endangered due to the company's negligence, they may be accused of "breach of duty to take care of safety" and may face a claim for compensation. There are also opinions that the national and local governments should take other measures, such as the expansion of nursery schools and kindergartens, as a different issue from the introduction of a "work with children" system by companies. Understanding the disadvantages of "coming to work with children" may be difficult for small and medium-sized companies, venture businesses, and start-ups that do not have a sufficient internal system or the luxury of money. Although more and more companies are setting up in-house nurseries, it is difficult for companies without the equipment and staff to take care of their children while working, and the disadvantages of "coming to work with children" may be highlighted. In other words, apart from the disadvantages, there are other issues that companies need to be aware of when introducing this system.

1, On-site nursery and other facilities.

An increasing number of companies that have introduced "coming to work with children" as a system have set up on-site nursery facilities. For example, famous companies such as Lawson, Yakult, and Mizuho Financial Group have attracted attention for operating in-office daycare centers with their names on them, as shown below. By setting up an in-office daycare center, employees who "come to work with their children" can concentrate on their work without the hassle of raising their children and without disturbing their colleagues. It has a strong appeal as a corporate welfare program for refugees who are struggling to get into daycare centers.

2, No sexism. (gender discrimination.)

Many employees who want to bring their children to work are mothers, especially those with infants to care for all the time. However, being male does not necessarily mean that they do not want to "bring their children to work". In fact, divorced fathers who have custody of their children may find it a bigger hurdle to balance childcare and work. Discrimination between men and women in the workplace is strictly prohibited under the Equal Employment Opportunity Law and other laws (labor laws), but "discrimination against men" as well as "discrimination against women" cannot be tolerated as a matter of course. In institutionalizing the "coming to work with children", it is necessary to establish rules that do not discriminate regardless of gender.

3, Change of start and end time.

It is not advisable to allow "coming to work with children" while leaving the rest of the rules as rigid as they are. For example, mothers and fathers with young children who are required to bring their children to work may often wish to start work a little later. Others, such as couples, partners, and parents who can help with childcare, may also wish to end work a little earlier to accommodate their schedules. We would like to be able to allow employees to work shorter hours in parallel with "coming to work with children". Allowing some employees to work from home is one way to go, but unless the company has a system in place to properly monitor working hours in the case of telecommuting, there is a risk of being charged for overtime.

4, Follow-up system by other employees.

One of the most important points for a company is to establish a firm rule on the "Bring Your Child to Work" system so that employees around them will not be bothered when they bring their children to work. However, if the employees around them are indifferent, "coming to work with children" will not be successful. Only when there is a follow-up system and consideration by other employees can a company be said to be one in which employees who take care of children can play an active

role. Infants frequently become sick or fall ill. The most important thing for children is to be with their parents in such an emergency situation. It is not an exaggeration to say that it is the duty of the company to create an environment and a system that allows children to take a day off when they become sick, and to promote "coming to work with children" at the same time.

My suggestion is to set up a "baby room. The target occupations are non-physical desk work. I would open up a meeting room in the company to set up a baby room. There, they can feed and change diapers for their babies, making it a kind of private space, so to speak. In order to avoid problems there, the entire company will discuss the situation and report back to each other. We also discuss with the company the details of the furnishings in the baby room, such as picture books, diapers, and carpets, and whether to use the company's own budget or to bring them in individually.

Future issues include how to pay employees with children and whether there is insurance to cover the baby room and the baby itself. We haven't been able to examine the cases surrounding the day-to-day work environment since the adoption of the with child policy, so I think we need to think about that. In addition, if we look overseas, the example of bringing a child to parliament has become a kind of daily occurrence, and I am keenly aware that the line between acceptable and unacceptable is also a difficult one to draw.

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(11月20日)

Abstract

Until 2019, the number of travelers who came to Japan from other countries was increasing. Last year, I made a study about requiring to expand demand of travelers from other countries. However, not only in Japan but also in many countries, the tourist industry get in crisis. The purpose of this study is make an idea to recover demand of travelers from other countries. To do this study, I examined what countries' demand were increasing and how percentage of people who came again is. According to the government tourist bureau, I found that travelers from south-east Asia are increasing. I had a question about the statistics of Indonesia. The number of travelers from Indonesia is small even though the population in Indonesia is the largest in south-east countries. I searched the Internet for the reason of that. One of the reasons is that service for Muslim is inadequate. I think we should make the system that hotel and restaurants can get benefit by accomplishing service for Muslim.

1 Introduction

(I)Background of the study

In 2019, 3.2billion foreign tourists came to japan. This value is the largest since the survey starts. However, the growth rate is low compared to last year. That is because relationship between Japan and Korea is becoming worse. Now in 2020, the number of foreign tourists is declining rapidly because of COVID-19.

(II)Purpose of the study

Last year, I studied on the subject of “Necessary thing for expanding demand foreign tourists”. This time, I set the theme of recovering demand of foreign tourists because I think I can utilize last study. Goal of this study is to think about necessary things for recovering demand of foreign tourists.

2 Discussion & Implications

According to government tourist bureau, tourists from South-east Asia are increasing these years. The number of tourists from Thailand per year is increasing by 0.9 million from 2012. Number of tourists from Viet Nam, Singapore, Malaysia, Indonesia, Philippines is also increasing. According to the Yomiuri Junior and Senior High School Newspaper, the key to Japan's "tourism-oriented country" is the growing population. Be considerate of food and worship for slim people. The Muslim population is 1.6 billion, accounting for about 23% of the world's population, and is expected to surpass Christians to become the number one in the world by the end of the 21st century. In Southeast Asia, where the number of tourists visiting Japan is increasing, 90% of the people in Indonesia and 60% of the people in Malaysia are Muslims. In order to recover demand of foreign tourists after COVID-19, it is necessary to be more aggressive in responding to Muslims. Specifically, it provides a place to worship Muslim tourists and provides halal foods. As one idea to solve these problems, it needs to spread using a portal site FOOD DIVERCITY that sends halal information in Japan. Many restaurants that support halal are listed on TODAY. I think that hotels and restaurants that are active in Muslim support should be put together into a guidebook, which will lead to the profits of the hotels and restaurants. Also, I think we should create a mechanism to discount coupons for restaurants and tourist facilities instead of having Muslims visiting Japan

write down the points for improvement of the facilities they visited.

3 Conclusion

In this study, I found that Muslim can help tourist industry of Japan. However, there are many difficulties such as constructing worship space and providing Halal food. Therefore, Hotels, restaurants and sightseeing spots should make relationships. Corona virus attacks tourist industry. Enhancing the Muslim response will help the recovery of the number of foreign tourists who come to Japan.

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1. Abstract

Now I living with dog, he is one years old and my family and me loves him. One day when we went to the park together, dog dropped down by his stroller and he broke his left leg. We were shocked by this accident. So I started this research. I searched about “how to protect pappy’s safe” last year. These days many people livening with dogs in the house. So, we should change the room’s layout, the ideal way of living space is also required. Above all, the floor is a part where people and pets live on it and are in constant contact with each other. Within the scope of this survey, which investigated carpets, flooring, and vinyl flooring materials, the resistance to various external forces was evaluated for flooring and vinyl flooring materials, and scratches and deformation may occur. There is. Carpets are easier to replace than other flooring materials and have a shorter renewal cycle, so it is presumed that the priority for dealing with deformation is low. In addition, it is necessary to give some consideration to stains such as water and urine in all floor materials. Regarding safety, items that should be considered in terms of safety were extracted from the viewpoint of pet health and injury prevention. In particular, flooring with a smooth surface and vinyl flooring are likely to slip due to the fact that measures are taken against slipping. The smooth floor is easy to clean and is an advantage for humans to live in pets, but it is a disadvantage from the viewpoint of pet diseases.

2. Introduction

The pets are number of the family and that life is very important. So finally I want to find new way to lead a full life with pets more safety. And I concentrated my research on the material of floor and toilet for the pets, and I actually tried them.

3. Discussion and implications

Periodically change the environment in which your current dog is housed and consider what environment is most comfortable in terms of the number of times he falls, for example. When counting the number of falls, only count the number of times the dog has fallen and only count the number of times the dog has fallen while walking, not wearing clothes. As for the problem of toileting, we considered measures to prevent the owner from feces, which may lead to feces eating, when the owner is away from the house. Also, it has become commonplace to keep pets indoors these days. This is partly due to changes in the size of the land area, but we also investigated this aspect because it is possible to think that the disadvantages unique to outdoor breeding and the advantages of indoor breeding are also related in no small measure. This was done by interviewing a grandmother who had actually kept her dog outdoors several times in the past. We also looked at articles written on the Internet about pets and humans living together, as well as pet product catalogs of the manufacturers, which were available on their websites.

4. Conclusion

When I live with my dogs, most of them fall over due to slips. Therefore, in this study, I propose a method to prevent dogs from falling over.

We selected flooring materials that are expected to be used in pets' living spaces in the

future, focusing on flooring, carpets, and vinyl flooring, which are commonly used in homes.

Carpets are characterized by two main shapes, but it is important to note that loops are, as the name suggests, loop-shaped, which can cause problems for dogs, such as tearing and breaking of thumbs.

Secondly, flooring is one of the most commonly used flooring materials in modern houses. There are two types of flooring: solid wood flooring and composite flooring in which plywood is attached to a board. One of the general characteristics of this flooring is that it is smooth, easy to clean and suitable for pets to live on, but on the other hand, the dog's nails do not dig into the surface, so the dog's walking motion is a big burden, which may lead to diseases. In addition, it has been pointed out that the surface of natural wood flooring can be easily scratched by the dog's nails.

The second characteristic of vinyl flooring is that it is smooth and does not allow moisture to penetrate, making it easy to clean. In the scope of this study, which examined carpets, flooring, and vinyl flooring, we evaluated the resistance of flooring and vinyl flooring to a variety of external forces, which may cause scratches and deformation. For carpets, it is presumed that the replacement of carpets is easier and the renewal cycle is shorter than for other flooring materials, so that the priority is not to deal with deformation. In addition, for all flooring materials, certain consideration should be given to water and urine contamination. In terms of safety, the items that need to be considered from the viewpoint of preventing pet health and injuries were extracted for all the flooring materials. Particularly for smooth flooring and vinyl flooring, slipping is more likely to occur since measures against slipping have been taken. Smooth flooring is easy to clean and is an advantage for people to live on pets, but it is a disadvantage in terms of pet-related diseases.

In summary, all pet flooring materials have their own advantages and disadvantages, and each dog breed differs greatly from one another.

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閱覽日：2020年6月26日

○Abstract

First, I suggested that many tobacco company make packages which give to people fear、 and recommend using electronic cigarette. To decrease smoking rate. I started this study because I have disliked its smell, of course it affects bad influence to us. I think this is a big problem because WHO reported that the amount of people who died of tobacco was more than seven hundred million for one year. Then, we have to be careful that tobacco contain about seventy kinds of Carcinogen. Consequently, it has effects to people who suck tobacco, and Sidestream smoke promote the mortality of Non-smoker. Also, passive smoking is more dangerous than usual smoking. I think smoker must smoke in smoking room, they do not have to do smoking on the street. By the way, I wanted to suggest that many countries encouraged electronic tobacco to smoker, for example “Bitaful” which doesn’t discharge harmful materials. Instead of it, electronic tobacco can emit plant nutrition like vitamin. In addition, we need not to worry about passive smoking because if we use it, we suck and discharge steam including nutrient.

1 Introduction

I think how we decrease the percent of the smoking in the world. Also, I have come up with rising in price, so finding plans to decrease it is my search’s purpose.

2 Discussion and implications

First of all, examining about tobacco by using Internet. Also, we need to know impression which were felt by experienced person of smoking. When we should use information by word of mouth on the Internet, in addition, it is essential for us to move senses about tobacco in the future.

3 Conclusion

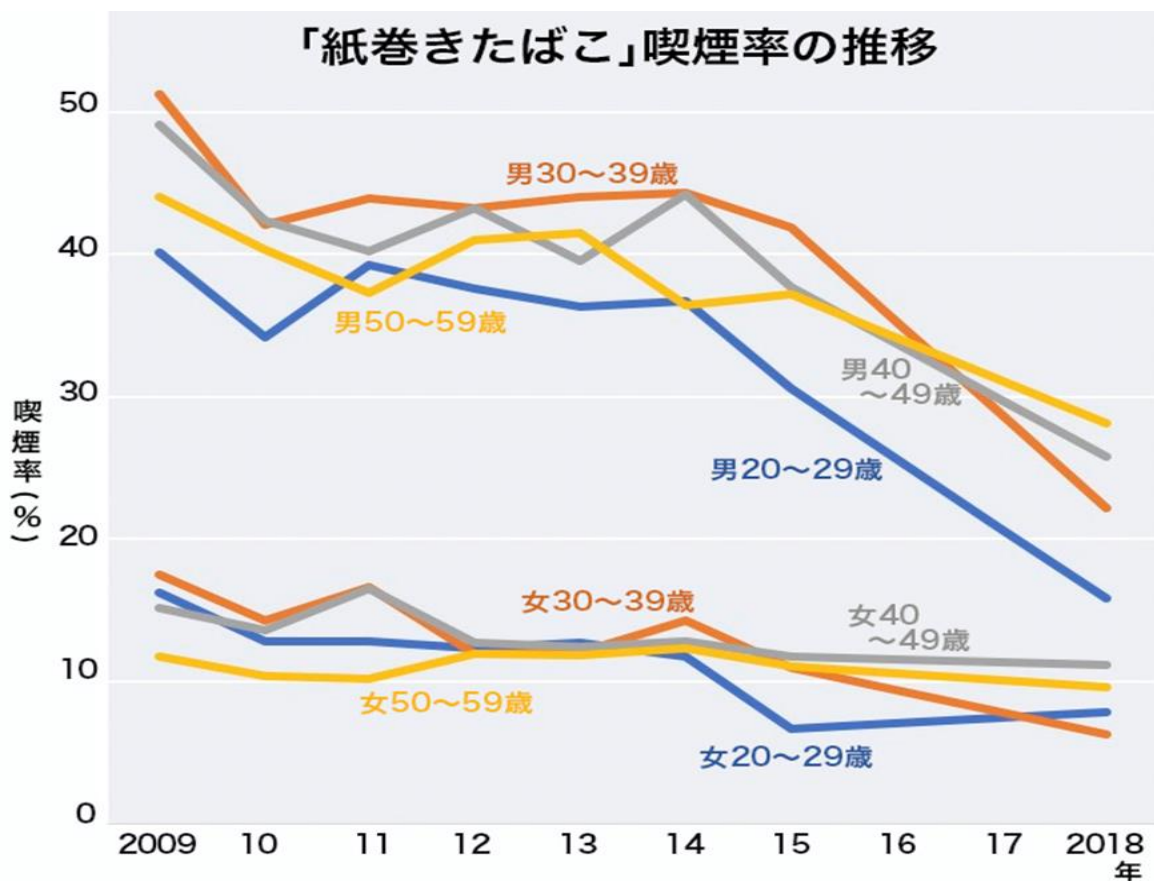
The solution of price increase of tobacco is measured by government. However, compared to the present of smoking, Japan’s present is bigger than other countries. I want you to know that there is a rule which is prohibited smoking in public in 2010. However, the number of people who were died of the excess of smoking is about 7 hundred millions of people in a year. This fact was reported by WHO. On the contrary, the population of smoker decreased 100 million people from 2000 to 2016. Also, I anxious about cancer. Tobacco include about seventy kinds of carcinogen, like PAH. These materials throughout our lung, and hurt the body. Needless to say, we have to be careful about this problem. Then, I thought if we use electronic tobacco, when we can avoid dangerous of passive smoking in addition, it does not need to suck because this equipment does not drain from those materials. Therefore, I decided that using electronic tobacco is a solution which decreases tobacco. But, we definitely must not forget spending money on it made in foreign countries, not made in Japan. There are a lot of issue that it exploded, and injured jaw. From these reasons, I encouraged electronic tobacco. However, the best solution is to stop using tobacco, and prohibit

doing as soon as we can.

表1. 現在習慣的に喫煙している者におけるたばこ製品の組み合わせの状況、2018年

		紙巻きたばこのみ	加熱式たばこのみ	紙巻きたばこおよび加熱式たばこ	左記以外
男性	総数	68.1%	22.1%	8.5%	1.4%
	20-29歳	47.7%	38.5%	12.3%	1.5%
	30-39歳	47.9%	40.7%	11.4%	0.0%
女性	総数	76.1%	14.8%	8.8%	0.4%
	20-29歳	65.5%	27.6%	6.9%	0.0%
	30-39歳	53.8%	35.9%	10.3%	0.0%

From this list, the percent of people who smoke only cigarette was about sixty eight percent, and people who use only electronic things was about twenty two percent. You can see, electronic tobacco do not spread more than normal tobacco in 2018. I think it is because of a lot of incidents in foreign countries. I want you to know that Japanese products are safer than foreign ones, but there are a lot of painful problems, for example it exploded in the mouth. As a result, they should tell safety.



From this graph, we can understand young people have resistance to tobacco. However when they get older, they thought we will not be able to stop smoking and many people gave up to prohibit smoking. This thing is being in the site by word of mouth. We can know the present circumstance of tobacco. Also, I want to suggest that tobacco companies should write about encouraging electronic tobacco on cigarette's package as an advertisement. Especially, foreign packages affect so strong fear to us. However, Japanese things have so kind effects, so we should learn overseas. This advantage is

that they can take measures it.

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To reduce the number of child on waiting list for nursery school

～ Educational institutions created with companies ～

5209

○ Abstract

One of the social problems in Japan is the problem of child on waiting list for nursery schools. I think that many people who do not know in detail what child on waiting list for nursery school are familiar with the phrase "Nursery school fell, Japan died". Two years ago this word was established and I was wondering that what happened to Japan today, so I decided to research the issue of child on waiting lists. The purpose of this research is to consider and propose measures to reduce the number of child on waiting list as much as possible, as well as countermeasures for the future. Various measures are now being taken in Japan to solve the problem of child on waiting list. However, none of them have been able to completely reduce the number of children waiting for admission. Therefore, I propose the creation of a new institution for preschool education in collaboration with the Ministry of Education, Culture, Sports, Science and Technology.

1 Introduction

I started to wonder about the realities of nursery schools in Japan after hearing the phrase "Nursery school fell, Japan died ". I decided to conduct this research in order to investigate the causes and problems, and to reduce the number of people who are still suffering from child on waiting list, even if only a little.

Basically, gather information on the Internet and be sure to use multiple sites to collect accurate information.

We will also refer to the materials we obtained during our visit to research institutions last year.

We will discuss the merits and demerits of the measures already being taken for child on standby lists and consider which one is the best. We will consider whether a plan that is similar to the current plan or a combination of several plans is actually possible.

2 Discussion and Implications

Last year, we looked overseas and gathered information to see if there were any ideas that could be incorporated into Japan. First of all, I researched Sweden, which is known as a great welfare country because it has no children on waiting lists. In Sweden, there are no children on waiting lists due to it is mandatory to prepare a place for every child who applies for admission to a nursery school. In addition, a system of financial support for parents during parental leave has been established so that children under the age of one can be raised at home, and 80% of their salary is paid. Moreover, parents with young children are guaranteed by law to work six hours a day, so children do not have to be in the nursery for 12 hours a day. Thus, in Sweden, unlike Japan, the government has its own policy on childcare.

Next, we looked at the United States. In the United States, the cost of childcare is much

higher than in other countries, and not many parents are willing to send their children to daycare centers, so there are few children on waiting lists. However, this does not mean that families have to take care of their children who do not go to daycare centers. In the U.S., most families leave their children with a babysitter. A babysitter is a person who takes care of a child on behalf of the parent and is much cheaper than a daycare center. There is a wide range of babysitters in the U.S., from students to experienced babysitters.

Babysitters exist in Japan as well, and some people use them. However, the concept of leaving a child in the care of a stranger who is not related by blood is not as common in Japan as it is in other countries, and many people leave their children with grandparents or relatives rather than with a babysitter.

The next research I did was on France. In France, the birth rate is rising, and there is a waiting list for children, especially in the cities. In Japan, many parents want to take childcare leave while their children are under the age of zero and send their children to a nursery school when they turn one year old. French mothers, on the other hand, often return to work as soon as their maternity leave ends. In France, most families use kindergartens after the age of three, as they are unconditionally allowed to enter public kindergartens at the age of three. The first thing to do is to apply for a place at a licensed nursery school when you find out you are pregnant, but sometimes there is already a waiting list of places available at that point. In France, the law stipulates that licensed nursery schools can only accept up to 60 children, so not all families who wish to use them are able to do so. In parent-participatory daycare centers, working parents in the community get together and hire their own childcare workers to take care of their children, and in many cases, the place is the parent's home. The advantage of this system is that it is more flexible than licensed nursery schools, as it can be supported by the government if a certain number of parents come to the nursery.

However, we have decided not to apply this system in Japan due to the financial and social situation.

Various measures are now being taken in Japan to decrease the waiting list for children on the waiting list. However, none of these measures have been able to completely reduce the number of children waiting for admission.

3 Conclusion

That is why I propose the creation of a new institution for preschool education in collaboration with the Ministry of Education, Culture, Sports, Science and Technology. In Japan, there is a corporate initiative for childcare services. This is a subsidy system for companies, launched by the Cabinet Office in fiscal year 2016, which subsidizes the cost of establishing and operating childcare facilities in order for companies to provide flexible childcare services in line with their employees' working styles, as well as childcare facilities established and used jointly by local companies. We propose that something similar to this system be established as a new educational institution in cooperation with the Ministry of Education, Culture, Sports, Science and Technology. In addition, to differentiate itself from corporate nursery schools, kindergartens, and certified childcare centers, it would be different from existing educational institutions in that it would target children from kindergarten to high school, that is, from 3 years old to 18 years old.

In terms of future tasks, we have not yet worked out the details of how to create the institution or which regions it will target, so we will organize and summarize our

thoughts.

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○Abstract

At present, Japan is very far behind in terms of telecommunication, and I think that most of the people in Japan and foreign tourist are in trouble. Actually, according to statistics from the Japan Tourism Agency-one of the Japanese administrative organ-, foreign tourists feel much inconvenienced, but last year I came up with a proposal to make sure that foreigners don't get in trouble for communications. In addition to the graph from the Japan Tourism Agency shows that foreigners are having trouble coming to Japan in terms of transportation as well as information and communication. Then I started to research and I reflect on what we needed to do to make sure that people from overseas can enjoy the Olympics in 2021 without any inconvenience about traffic surface. Then I turned my attention to 5G and did some research. I was able to understand the features and good points of 5G and many of the challenges. In addition to this, I devised my own recommendations. It is about using a connected car to rent a car. More on that later, but I think this proposal solves the problem.

1 Introduction

As mentioned in the overview, the purpose of this study is to allow foreign nationals to enjoy the Olympic Games in 2021 without any inconvenience. Also, although 5G is being used in Japan, there are surprisingly few proposals on how to utilize 5G to create better services. Therefore, my objective is to think through an idea in my own way. Based on past research, first gather information by referring to resources and the Internet. Then, as your knowledge grows, you will think about what the biggest problem is and what problems really need to be solved. Then, I will come up with my own and consider the merits and demerits of that proposal. And then think about how to solve the disadvantages as much as possible.

2 Discussion and Implications

There are three features of 5G: ultra-high speed, ultra-low latency, and multiple simultaneous connections. With 5G, you can download a 2 hour movie in 2 seconds instead of 20 minutes with 4G, which is what people in Japan are using now. The ultra-low latency doesn't slow you down when you open an app, for example. However, there is a downside to this: the deeper you go into the mountains, the harder 5G is to reach compared to traditional lines. With multiple simultaneous connections, many devices can be connected to a single base station and there is no chance of them going down. Therefore, I would like to propose linking 5G with public transportation and introducing connected cars to rental cars. According to a survey by the Japan Tourism Agency asking foreigners about their problems in Japan, many of them had problems with traffic.

3 conclusion

First of all, a connected car is simply a car with ICT functions. For example, it transmits the status of your car and the surrounding area to a communications center via the

network and uses the information to send useful information- such as the quickest route to avoid traffic - back to the car. So why did I find this car so convenient for foreigners who are inconvenienced? Well, if the car is a connected car, the car is first connected to your smartphone, etc., so if you are a foreigner who is used to using a smartphone, you can easily enter your destination for the day and even avoid traffic jams, as I mentioned earlier. This eliminates the concerns of people who don't know how to get on a train or how to get to their destination. Also, if a disaster occurs during the Olympics, even the Japanese are expected to be confused, which could cause even more confusion for foreigners.

In such cases, connected cars would be very effective because they would avoid traffic jams and provide safer evacuation routes. Of course, car navigation systems can also provide information on traffic congestion during a disaster, but with the increase in the number of connected cars, information from individual vehicles will be centralized, such as "I just got stuck in a traffic jam" or "This road is impassable due to mudslides, etc." By sharing this information with a wider range of users, it is hoped that this will have the effect of avoiding large-scale congestion. This would minimize disruptions and would be a great help to the Japanese as well as to emergency vehicle traffic. For these reasons, I propose to introduce connected cars in car rentals to foreigners.

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(トヨタのコネクティッドサービス)

Recommendation for Smooth communication ~Using skills to understand each other~

5211

Abstract

Most human have to make relationship with others to live life, but I am not good at talking, so my first purpose of research is to find the way to improve communication skill. I use the internet to search. In conclusion, there is no way to enhance communication skill other than having experience. I think someone who cannot communicate with others have no amount of chance of talking, so their skill cannot grow up automatically.

Therefore, I recommend the skill that can decrease our difficulty of communication.

For example, recommending skills, Mirroring, Pacing, Backtracking, Metaphor, and Metamodeling. These skill help them to talk more smoothly. They are famous in the business world, so it can work effectively.

I think spreading this idea can help people who are not good at communicating.

1 Introduction

Communication skill is one of the most important things to live in the modern society. However, I searched article that says young generation's communication skill is getting worse. I am not good at talking, so I am interested in this information. I want to find the way to correct dis-communication. I used the Internet to search information. I would like to clarify the features that someone who is not good at communicating, and find the way to solve this problem.

2 Discussion

There is no way to improve communication skill other than having experience. There is a lot of ways to make our awareness, for example, using analog game, copying the habits that are used by someone who is good at communicating. However, they can only change our consciousness. These ways are useless for our practical conversation, so I recommend the skill that can decrease our difficulty of communication that I found in the web site. I have five skills. Mirroring, Pacing, Backtracking, Metaphor, and Metamodeling. Doing the same as the other person is mirroring. Matching partner's way of talking is Pacing. These skills make partner relax because they tell him or her that I am similar to you. Human's instinct wants to make a group, so human like something similar to themselves. Repeating partner's words is Backtracking. If they used this, he or she would feel like talking more because this skill improves speaker's motivation. Using these skills, we can talk easily.

Implication

Using these skills in wrong usage make bad impression, so we have to be sure of correct ways.

3 Conclusion

We have to experience talking to improve our communication skill. There is a lot of difficulties to communicate, but it is essential for our lives. Using these skills help someone who is not good at communicating.

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The way to spread Electone
~ to be known to more people ~

5212

Abstract

The motivation of this study is to spread the charm of Electones to people who does not know it, because I thought the function that can make a lot of instruments sound is incredible.

First, I would like to consider where we should spread Electones from the data of the player's range of Electones. Second, conceive about the way to keep its price down or another way to use it at a low price. I feel the reason that Electones do not spread is it is so expensive. However I have no idea to keep its price down. I will research it.

The advantage of the Electone is that you can play complex tunes with just one instrument. Also, since we use both the left, right hands and feet to play it, I consider it will lead to activation of the brain. By appealing these points, I thought that I could have a good image of the Electone and music.

On the other hand, as mentioned earlier, the Electone is expensive. I thought that by renting out the room where the Electone was installed, we might be able to get in touch with the Electone as much as possible.

1 Introduction

I started this study because there are two reasons. I had learned to play the Electone, a musical instrument, from the age of three until I graduated from elementary school. I wanted to make more people aware of the joy of the instrument and the benefits of playing it. In addition, I started this research because I had conducted research on the Electone separately and found it to be an effective instrument for children's growth and the development of brain function. I thought that the Electone should be more widely recognized than ever before.

2 Discussion and implications

This research will use information obtained from the Internet and research on Electones.

1. Find out information about the selling price and sound quality of the Electone
- Consideration of why they are not as popular as other instruments
3. To develop a plan to promote its dissemination based on these considerations.

3 Conclusion

The ELS-02X is the name of an electronic organ manufactured and sold by Yamaha Corporation. The ELS-02X, said to be one of the best-quality organs currently available from Yamaha, sells for 1,580,000 yen. It is capable of producing a wide variety of high quality tones, not only for wind and string instruments, but also for ethnic instruments and chorus voices. Conversely, the ELB-02, Yamaha's cheapest model currently on the market at 180,000 yen, has 540 different voices and basic functions, but it differs from the other models in sound quality, recording quality, and key pressures. Also, the unit itself is small, which can be inconvenient when playing on the foot pedal.

In Japan, the piano was more widely known and played by more players than the Electone, but there were also advantages to the Electone that were not found in the piano. For example, in the case of the piano, only the hands are used to play the keys, but in the case of the Electone, both hands and the left and sometimes the right feet are used

to play the keys, which is a good exercise for playing a piece of music many times. You will also get a greater sense of accomplishment when you complete a piece of music because you will be adding rhythms to it from scratch. The figure below shows the calorie consumption of the piano, but it is thought that the Electone consumes far more calories than the piano, and if you play continuously, you can expect to consume a significant amount of energy. It is equivalent to the amount of energy.

However, jogging also places a great deal of stress on the large muscles of the lower limbs and the cardiorespiratory function, so the level of physical fatigue and pain is greater than in piano playing. A woman who practices for more than six hours a day in preparation for music college exams and recitals will consume 513-616 kcal during this time, while a 65-kg male player will consume 741-889 kcal. That's not a small amount of exercise. Adequate energy reinforcement is required.

Since the Electone is played by the whole body and hundreds of different sounds can be heard, it is expected to stimulate cognitive abilities. It also improves intellectual abilities, such as the ability to multitask, as the whole body moves in discrete ways.

One of the reasons why Electones are not widely used is that they are expensive, but I would suggest renting a classroom with an Electone. By doing so, people can play the Electone easily and at a low cost. However, the problem is that there are only a few soundproofing classes available at Yamaha, so I thought that I would like to try renting out these classes on a trial basis at stores in Tokyo and other cities where there are many classes.

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エレクトーンの変遷

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Abstract

This paper points out the need to school rules. I recommend to abolish to school rules of school uniform in Japan. Ways of research are internet, newspaper, interview the woman who have children. Today media close up problem that 'black' school rules. Actually we have a lot of dissatisfaction to school rules. The reasons may be that students are semi-forced to obey school rules that they do not understand well, and that they are behind in modern globalization. It is easy to feel stress because the psychology works that if you do not do the same thing as the group with Japanese stereotypes, you will be isolated. I thought that this might be related to the delay in education and the happiness of students. Comparing Japan with the Finnish school rules system, which has a high degree of happiness, there was a difference in the presence or absence of uniforms. Therefore, I thought that uniforms should be reviewed in the Japanese school rules system. Currently, in Japan, there are various types of uniforms with various patterns such as blazer and sailor suit. It is difficult to change the uniform system with this long history.

1 Introduction

○The reason of theme

The theme of the school rules among students is whether or not they have uniforms and the topic of clothing and hair inspection. From such a time, I wanted to study school rules vaguely, and at that time, I found an article on Black school rules and became more interested.

○The goal of study

Last year I studied it too, but it finished halfway through. I want to pursue deeper research this year compared to the rest of the world. Also I focus on school uniform in the kind of school rules.

I consider the need for a school rules system in Japan.

○the ways of research

○ Internet

Find out about Japanese uniforms as seen by people around the world, along with the image of Japanese uniforms. Find out why such a uniform system has taken root in Japan.

○ Innovation textbook

2 discussion and implications

Many schools in Japan have school rules to wear uniforms. However, I began to wonder if the school rules were really necessary for students. First of all, the school rules I was wondering about are the school rules that specify white socks and white shoes found in public junior high schools. These are not only the stress of being bound by school rules, but also the financial burden. In addition, white shoes and socks are conspicuously dirty, so they are often replaced. Here, I checked the definition of school rules on the website of the Ministry of Education, Culture, Sports, Science and Technology. School rules are certain rules that are set under the responsibility and judgment of each school so that children can lead a healthy school life and grow and develop better. Was written. The

question I have when I see this is that such a definition does not require school rules for color. So why are there school rules that specify colors? It goes back to Japan during the war. Japan, which banned all luxury during the war, expressed it by making everyone look the same. I think that is connected to the current Japanese school rules.

Next, I would like to consider the problems of the Japanese uniform system compared to the rest of the world. This time, the country to be compared was Finland. The reason is that Finland has the highest PISA ranking in the world (research of academic in the world) and the highest happiness level for three consecutive years, even though the class hours are half that of Japan. In addition, Finland has a high degree of life satisfaction. Unlike Japan, Finland has an environment where you can learn only what you need to grow and live for yourself. You will also learn about the Convention on Children's Rights. In Japan, on the other hand, obligations, not rights, are imposed. In Finland, there is no uniform system and you can go to school with free clothes. The reason why uniforms exist in Japan is to prevent bullying, but this is a strange story in the first place, and the Japanese environment that bullying may occur depending on clothes is strange.

Next, we should learn TPO. Japanese cannot learn TPO if they have uniforms as they are. School is place where we learn the world. After graduate from high school, I think there are many situations where people do not know the TPO, people might not know what to wear.

Finally, school uniform are not individual. Clothes are a way to express individuality, but wearing a uniform loses its place. You should lose your uniform in order to live a leisurely life at school.

3 conclusions

I think school uniform is not necessary, because the following reasons can be cited.

- 1 There is no need to bind the students with regard to color.
- 2 School uniforms are not reason to protect students from bullying.
- 3 We should be learning TPO.
- 4 School uniforms are not individual.

4 reference

「校則“高校生らしい”とは？」

<<https://www.nishinippon.co.jp/item/n/502700/>>

(2020年9月18日)

「その校則説明できますか？なぜ理不尽な校則は変わらないのか」

<<https://news.yahoo.co.jp/byline/senoomasatoshi/20190824-00139685/>>

(2020年9月18日)

· Abstract

In this research, I would like to research about pets, so I studied about microchip of pets. First, I checked about the problem of microchip. For example, the problem which the registered information is wrong, I guessed that Japanese needed the system with internet according to the system of some countries in Europe. The reason is that the enrolling procedure will be easier than now. Also, by using the system of mail delivery, the information management center need to encourage people to update their registered information. Through my research, I thought that microchip should have not only the functions for individual identification but also more attractive functions. For example, the functions which can take pets' temperature and blood pressure are necessary. On basis of my research, I thought about that we can make good use of these functions for the promotion of pets' shelter when disasters happened. For example, the increase of the number of wandering animals can be solved by individual identification. Also, management of physical condition is useful in order to reduce the stress for pets while evacuating.

1, Introduction

I like dogs, so I wanted to research them. Then, I heard about the news, an amendment law of animals. That required people to put microchip on pets. I got interested in whether the microchip had no bad influence on pets' bodies. Also, this new law is very useful to reduce the number of killed pets. Therefore, I was very interested in this topic, so I decided to research it.

The purpose of my research is that I think about inadequate point of microchip, work out measure about such point, and come up with new way to use microchip more effectively. Then, I refer to some example in other countries. Besides, I want to devise some functions more concretely for the spread of microchip.

I used newspaper to get some information. After the amendment law was announced, I read many articles about it. So, I used them. In addition, I used the internet to get information about the present circumstances of foreign countries.

By using such medium, first, I researched the present problem of microchip in Japan. Second, I got some information about the system of microchip abroad. Lastly, referring this research, I worked out my own solutions.

2, Discussion and implications

The new law requires shops of pets to put microchip on pets in Japan. However, data from Tochigi Prefecture shows that only about one-third of the registered dogs are fitted with microchips. This means that microchipping is not yet widespread in Japan. The reasons for this may be that awareness of microchipping is not widespread, it costs a lot of money, and many people feel that it is scared to insert a microchip. On the other hand, microchipping is becoming more and more common in Western countries. Also, it is mandatory for all dogs to be microchipped in some countries. These countries have developed systems for microchipping. So, I would like to refer to them.

First, I checked some objectives about microchip in Japan and thought of some solutions for them. The most important problem is "The correct information is not registered." For this problem, I thought that we needed a more easy system to enroll information. For example, I refer to the system in Europe and I considered that update

by internet is useful for many people. Now, we need to send paper to change registered information, but if we can do thorough the internet, we need less time to change. It will be related to improve the updating frequency. Also, I researched about the system of mail delivery. This system is also effective.

Second, I proposed an idea to manage some data of pets, for example, a record of preventive injection. In the original condition, pets owner manage such data by themselves. It is hard work for them. Previously, some applications to control such data are developed. So, this system is effective for many people. Also, I suggest the system to manage pets' health conditions by microchip. Actually, in America, patients and soldiers are managed their health condition by microchip which is inserted in their body. Pets' owners will feel difficulties to realize the change of their pets' health. So, this function will play important roles. Now, "Biothermo" is developed to take pets' temperature. We may be able to refer to this system.

3, Conclusion

Through such my research, I wondered that we may be able to use these new functions of microchip in order to reduce the number of wandering pets when disaster happens. In the confusion of disaster, some pets stray from their owner. Then, they become wandering pets and this is a big problem. However, I think we can help such pets by using microchip's individual identification. To do so, owners always need to register new information. So, the registration system which I suggested will be useful. Also, when they evacuate, pets will feel stress in the shelter. In such situation, the function of measuring their temperature and blood stress is effective. Thanks for it, owners can realize their pets' health condition.

Therefore, if microchip has such more functions, more owners have interested in them. Then, the proportion of microchip installation in Japan will be getting to grow.

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法科大学院論集

ドイツ・オーストリアにおける個人のペット飼養とマイクロチップ装着義務に関する法規制

椿 久美子

<https://www.yomiuri.co.jp/life/20190603-OYT1T50233/>

読売新聞 オンライン（法改正の概要）

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<https://www.axa-direct.co.jp/pet/pet-ms/detail/4219/>

アクサダイレクト（マイクロチップ情報登録の手順）

<https://sippo.asahi.com/article/10563261>

sippo（法改正の課題）

Abstract

In the conversation with my friend, I heard the word "Comyusho [Communication disorder]" and became interested in it. When I researched the word. It means someone who has trouble with have difficulty in communicating with others. I found out that means "Communication disorder".

I would like to suggest the way to reduce the difficulty which many people have in communication. At first, I researched what foreigners think about communication because I have an image that they talk with anyone with a very lively mind unlike Japanese people. I found that there are a lot of differences between American and Japanese attitudes toward conversation, and the difference in values, attitudes, and the way communication occur differences in educational environments. Therefore, I would like to propose a plan to interact compulsory educational curriculum with foreign countries. For example a remote method of interact that would allow students to interact with other countries without leaving school. However, most students would have difficulty speaking in English. I would like to propose interact class with Japanese students from America. One of the issues we need to address is whether or not it is possible to conduct interact with foreign countries remotely.

1 Introduction

I often hear the word "Comyusho" in everyday conversation with friends or in the news on TV. When I heard the word at the first time, I was like, "What's that?" And I wondered very much. I looked up the word "Comyusho" and found that it describes a person who is "not good at communicating" or something like that. I've been good at talking to people, so I wondered about people who think they are bad at talking to people. Furthermore, I thought that "communication" is absolutely necessary and very important for daily life. In addition, I heard that "strange or strange people." helps to activate our brains even more. Therefore, in this year's research, I would like to be able to propose methods and ways of thinking that can help people who are not good at talking to people to reduce their sense of difficulty in talking to people, even if only a little.

Mainly use the Internet. Also, interview them.

- 1) Research on the Internet about Comyusho.
- 2) Interviewing people who are not good at talking to others, such as friends.
- 3) Researching the way of thinking about conversations foreign people
- 4) Compare the way of thinking about conversation between people from abroad and Japanese people.
- 5) Further investigate what was found through this comparison.
- 6) Research and compare what is related to communication from the perspective of education.
- 7) Think about ways to reduce the feeling of difficulty in conversation from an educational perspective

2 Discussion and implications

Some people have examined why they feel bad about communication and have considered three patterns.

1. People who really can't communicate with people

2. You can't talk to people who don't share your interests, but you can't stop talking to someone you like.

3. Someone who can talk to a variety of people and play the good-natured person, but not because it consumes a lot of energy

Other than that, if you're a complete stranger and you're a partner, you can have a great conversation. But I won't be approached or spoken to by anyone I'm going to talk to a few more times. There's a notion that some people get intimidated by the notion that they don't like everything and can't move at all.

I know the feeling of "using energy," but I wondered if it takes that much energy, so I did some research and found out that with people who are close to me, there is a lot of common knowledge, so I don't have to use my brain to carry on a conversation. However, with strangers, they have to be aware of how to communicate with the other person, so they use the following six brain functions instantly and to the fullest extent.

1) Our "understanding brain" works to understand people we have never met before while exchanging business cards with them.

2) Our "observational brain" works to read how the other person feels about us and the atmosphere of the place.

3) Use your "imaginative brain" to think about what will happen and what words to use.

4) Looking back on past experiences, etc., use your "memory brain" to find the right words to say.

5) Use your "choice brain" to choose the right word among them.

6) The "vocal brain" works to effectively communicate the words you choose.

Then, "How do you do?"

In addition to the above six brains, the existence of a brain called the angular gyrus has recently been discovered. The gyrus is a brain that uses metaphors and similes to enhance the other person's ability to understand the conversation. Thanks to this, the "angular gyrus" fully stimulates and activates the six brains. It has been shown that the "angular gyration" stimulates the six brains to the fullest extent. Certainly, if the brain is being used so instantaneously, it is no wonder that a lot of energy is being consumed.

Next, I examined and compared the attitudes of foreigners and Japanese toward conversation. This time I used the United States as an example. I used the United States as an example because it has the most information on the Internet and is the most credible. Although American society has a moral norm of equality, equality, and friendliness, the reality is that there is a huge disparity. That disparity is considered to be a legitimate personal responsibility, we call each other by our first names everywhere in America, we have casual conversations, and Americans are clearly aware of the social stratification that accompanies the economic aspects of society while striving for a class-free society. They call each other by their first names, regardless of whether they are superior or inferior, but speak with a certain level of politeness regardless of the age of the person they are addressing, and there is no significant difference between men and women (gender) in the way they express themselves. On the other hand, Japanese people often use different words for their superiors and subordinates. What may be common and unremarkable to Japanese people is easily off-putting to Americans. Also, in Japanese society, modesty and humility elevate one's character, but it is difficult for Americans to understand this expression. This is because humility is taken to mean exactly what it says, and is negatively evaluated as a personality that demeans itself. Americans, who come from diverse cultures and ethnic groups, use words to communicate what they want to say, explaining the reasons for things, and believe that it's only natural that they won't understand unless they say it.

It has been said that the American people value harmony and are reluctant to assert their own opinions. In the United States, the Declaration of Independence advocated "freedom and equality" and the immigrant society was the foundation of a multi-ethnic and multicultural society. These historical cultural differences may be the reason for the difference in the way of thinking about communication. However, another major difference may be related to education. I wondered if differences in childhood education might lead to differences in the way of thinking and interacting with people.

In addition, I think there are differences in communication between countries due to different education from childhood. Also, I believe that education and experiences in childhood will have a great impact on one's life after adulthood. Therefore, I would like to propose interact with the rest of the world in the compulsory education curriculum. Until now, not many people have had the opportunity to go abroad for a long period of time, or to visit other countries on a long-term basis, which requires a lot of time and effort. Therefore, I wondered if it would be possible to have a remote interact class that would allow students to interact with other countries while at school. There are many problems to solve, such as time difference, language, and necessary equipment. I think the only way to solve the time difference problem is to interact with countries where we can communicate within the time frame of the class. As for the language issue, English education has become more popular in Japan in recent years, so some people may be able to converse in English. However, the majority of students would have difficulty speaking in English. So, I thought of interact with Japanese student from America. Still, there is a big difference between the number of Japanese schools abroad and the number of Japanese schools in Japan, so I have to think of other ways. Also, some people may think that the students of Japanese schools will be Japanese to each other since what I wrote about in the first half of my results is the difference between foreigners and Japanese. However, I believe that those who live in the country and the people of the country can build up similar sensibilities to those of the people of the country. In terms of equipment, Japan lags behind the rest of the world in terms of the introduction of ICT equipment.

3 Conclusion

When I researched on education, I found that the differences in values and ways of thinking due to differences in the educational environment are responsible for the differences in communication between Japan and other countries due to differences in education from early childhood. Therefore, I would like to propose a new type of international interact in the compulsory education curriculum. In the past, people didn't often go abroad for long study abroad or school trips. Nowadays, there are more and more opportunities to travel abroad. Therefore, I wondered if it would be possible to have a remote interact class that would allow students to interact with other countries while at school. Also, I think it would be great if we could have active interacts with people who are studying in Japan. There are a lot of problems with the remote system such as time difference, language, and necessary equipment. The only way to solve the time difference problem is to interact with countries where we can make contact within the time frame of the class. In terms of language, with the recent increase in English education in Japan, it is likely that some students will be able to communicate in English. However, most of the students would have difficulty speaking in English. So I thought of interact with a school for local residents from Japan.

Still, there is a huge difference in numbers between a school for local residents from Japan and a Japanese school. I had to find another way to do this. Also, some students in a school for local residents from Japan might think they are Japanese. That said,

there's a big difference in numbers between schools for locals from Japan and schools for Japanese. I had to find another way. Also, some people might think that students in schools in Japan are not foreigners. However, I believe that those who live in the country and the people of the area will not be able to develop similar sensibilities to those of the people of the country. In terms of equipment, Japan lags behind the rest of the world in terms of introducing ICT equipment. Therefore, I think one-on-one communication is difficult. I propose that group activities should be used to generate conversation and interact.

As a future challenge, we need to study the issue in more detail and verify whether it is possible to e with people overseas remotely. We would like to think about how to verify whether or not this interacts initiative will really reduce the sense of difficulty in conversation.

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日米コミュニケーションスタイルの違いから分かる 3つの傾向

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・日本人と外国人の違い? コミュニケーションスタイルはどう違う?

<https://fron.tokyo/24641>

Abstract

I propose an idea for pediatric palliative care with a therapy robot using crowdfunding for children with cancer who are emotionally overwhelmed and have few opportunities to interact. Specifically, we will use the therapy robot to reduce the stress of childhood cancer patients, and foster their development, spontaneity, and positive attitude. In addition, patients can interact with the therapy robots with other patients and it can support patients' communication skills. Another major advantage is that, unlike the actual animals, there are no hygiene or allergy concerns, and there is no need to train the animals or train the trainers. One major problem is the issue of funding, and I suggest using crowdfunding to solve the problem. I thought that by using crowdfunding, the burden on the facilities could be reduced.

1 Introduction

I researched the method of making childhood cancer patients smile in 2018. I suggested a new event for them and examples of facilities where they can live comfortably. Through this research, I'm interested in the palliative care of children more, so I decided to study how to seek the improvement of it. Also, by knowing what I don't know, I thought that I could broaden my horizons and help as many people as possible. However, the theme of palliative care of children was too broad to research so I specifically researched therapy. This research is intended for childhood cancer patients. My purpose of this research is to make a suggestion to improve the palliative care of children.

For the research, through the Internet, I collected information. Also, in 2019, I went to National Center for Child Health and Development in Tokyo to listen to the real opinions of people in the field. I would like to use the experience.

I did this research in the following order. First, I collected information about living conditions and the state of mind of childhood cancer patients. Second, I did some research about the palliative care of children, especially therapy. Last, I would like to propose ideas about how to improve the palliative care of children.

2 Discussion and implications

First, childhood cancer is a disease which occurs in children under the age of 15 and there are various types of it. Now, 70-80 % of patients can recover from the disease, but the treatment takes a long time and it's severe. So the fear strikes childhood cancer patients. Also, after they get well from the cancer, some of them become PTSD or unable to return to society. Therefore, there are many problems of condition about childhood cancer patients though it is getting better. Because of this, I think it is important to enhance the therapy to improve patients' feelings and condition.

Next, there are many kinds of therapy but I was interested in "animal therapy". Animal therapy, which is one of the psychosocial cares, is an activity that aims to improve independence, improve quality of life, and reduce stress by interacting with animals.

Two examples of animal therapy are facility dogs and therapy dogs. Facility dogs are

dogs that are professionally trained to work as a member of the staff at a particular facility, such as a hospital. They specialize in "psychological care". A key feature of facility dogs is that they work in the same facility every day, such as a hospital, and can tailor their activities to the individual needs of the facility.

Therapy dogs are dogs whose loyalty and deep love for people helps patients with injuries and illnesses that require treatment to restore their physical and mental functions. Snuggling up with them for rehabilitation can help them regain their memories and allow them to move their immobile hands and feet. Therapy dogs work in a variety of places, such as hospitals and senior citizen facilities, too, but unlike facility dogs, therapy dogs visit a variety of facilities. They also differ in terms of certification.

However, there are many drawbacks to animal therapy, including infectious disease, allergy issues, costs problem, and a shortage of trainers. In terms of funding, a facility dog costs about 10 million yen a year and a therapy dog needs about 300,000 yen a year to be raised, so even if a hospital is considering introducing a therapy dog or a facility dog, not many hospitals can afford to raise the money. Cost is a major obstacle to the spread of animal therapy. Therefore, I think that it is important to create a new therapy that is as effective as animal therapy.

3 Conclusion

I propose a therapy that uses robots instead of actual animals. Specifically, we will use the therapy robot "Palo" and Sony's "aibo" to reduce the stress of childhood cancer patients, and foster their development, spontaneity, and positive attitude. Patients can also interact with the therapy robots with other patients and it can support patients' communication skills. Some people may argue that therapy robots are real animals and therefore cannot be expected to be effective as a therapy, but long-term experiments on "Palo" have confirmed that it is as effective as animal therapy. Also, National Center for Child Health and Development in Tokyo and Sony are looking forward to the results of their research, as Sony's autonomous entertainment robot, "aibo", has been used since December 2018 to test its effectiveness in providing psychological care and stress reduction for children undergoing long-term treatment for illness. As you can see, there are examples of this kind of therapy, so therapy robots could be an alternative to animal therapy. Another major advantage is that, unlike real animals, there are no hygiene or allergy concerns, and there is no need to raise them or their trainers.

However, there is one problem, funding. Therapy robots can be introduced with less money than facility dogs and therapy dogs, but they are still expensive. "Palo", for example, costs about 400,000 yen per unit and "aibo" costs at least 300,000 yen per unit. So, even though they can be introduced with less money than actual animals, it would be difficult to introduce them in many facilities. This is why I propose the use of crowdfunding. The use of crowdfunding may help to reduce the burden on the facilities. In conclusion, I propose the use of a crowdfunding-based therapy robot for seeking the improvement of the palliative care of childhood cancer patients, who are emotionally burdensome and has few opportunities for interaction.

I need to conduct research on the therapy robots and the use of crowdfunding.

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[Translated from Japanese.]

For expanding airport demand

~To achieve the world's highest level of service~

5217

Abstract

Japanese airports are internationally acclaimed for their passenger service. But the required service level is improving, and further efforts are required. The services required at the airport are 1elimination of inconvenience in the terminal 2streamlining procedures 3creation of liveliness. I reached a conclusion 1 last year, so I focused on 2 and 3 this year. I learned that there are concerns about labor shortages in the aviation field as passenger demand increases and the working-age population declines. So I focused on aviation innovation. I thought that the introduction of innovation would make working conditions less stringent and help solve the shortage of human resources. Also, it can expect further service provision. I propose the introduction of an "ID chip" to improve the efficiency of procedures related to CIQ (Customs Immigration Quarantine), security, boarding, etc., and to create a hospitality environment and liveliness. By registering face information as an ID, we can automatically pass through boarding procedures, baggage check-in, security inspection, immigration, and boarding gate. The reduced waiting time will give you more time to enjoy the airport. However, issues such as security issues still remain.

1 introduction

Innovation in the Japanese aviation industry by utilizing automatic check-in using "ID chips" in order to respond to issues facing the Japanese aviation industry, such as increasing inbound demand and other aviation demand, and labor shortages due to the declining working-age population. To promote. And provide further services.

This was mainly done using materials and questionnaires from the Ministry of Land, Infrastructure, Transport and Tourism's Aviation Innovation Promotion Public-Private Liaison Committee

2 Discussion and implications

The number of air passengers in Japan is expanding, especially international passengers.

Number of international passengers: Approximately 1.43 times

(2016: 86.54 million ← 2012: 60.69 million)

Number of domestic passengers: Approximately 1.14 times

(2016: 98.12 million ← 2012: 86 million)

The number of foreign tourists visiting Japan increased to 10 million in 2013, exceeded 20 million in 2016, and increased to 28.69 million in 2017. The presence of inbound tourists is increasing at all seven major airports, with more than 30% at Narita Airport and nearly half of the number of foreign passengers at Kansai Airport. The presence of foreign tourists visiting Japan is expanding at each regional airport, and some airports, such as Shizuoka and Ibaraki airports, account for more than 20%. According to various forecasts by international organizations, aviation demand and tourism demand are expected to continue to grow steadily, especially in the Asia-Pacific region.

In order to capture the expanding demand for aviation and tourism, new airports and new terminals will be opened and renewed one after another in neighboring countries. However, with the expansion of aviation demand, various issues related to airports such as increasing security threats, aging airport infrastructure, and dealing with the problem of global warming are occurring. Japan's airport is the 2019 World Airlines Awards operated by SKYTRAX, which is given to airlines that offer the best economy class (comprehensive in-flight meals, services, etc.) in the world. Although it has received high international acclaim in terms of passenger service, such as receiving the "Best Economy Class" award, the required service level is improving and further efforts are required. Passenger services required for the airport include 1. Eliminating inconveniences in terminal 2. Streamlining procedures related to CIQ, security, boarding, etc., and creating a hospitality environment and liveliness. Since 1 has reached a conclusion in last year's research, I focused on 2 and 3 this year.

While passenger demand is increasing, there are concerns about labor shortages in the aviation field, including security and ground handling, against the backdrop of a declining working-age population.

<< Excerpts from interviews with 9 aviation-related companies regarding employment status and securing employees >>

- The ground handling industry tends to be shunned compared to other industries, and the shortage of human resources is a major issue.
- As the entrustment overlaps with the second and third, working conditions become stricter and the shortage of human resources is remarkable. In addition, it is difficult to grasp the employment situation, and the problem often becomes apparent due to the withdrawal of the contractor.
- There is a shortage of qualified personnel due to the high turnover rate and the large number of young employees hired.
- As a measure against the rise in the turnover rate, the salary level has been raised. Increased costs for ground handling operations.

3 Conclusion

I focused on aviation innovation. I thought that the introduction of innovation would make working conditions less stringent and help solve the shortage of human resources. In addition, we can expect further service provision. What I would like to propose is automatic check-in with an "ID chip". This means that you can automatically pass through boarding procedures, baggage check-in, security inspection, immigration, and boarding gate by registering your face information as an ID. The reduced waiting time will give you more time to enjoy the airport.

Benefits of introducing an "ID chip"

Immigration authorities: Can assign examiners to foreigners entering the country
Airlines: Expectations for optimizing human resources, improving

on-time performance, and improving security

Airport manager: Expectations for eliminating congestion and queues at the airport, improving facility processing capacity, improving security, and increasing non-aviation revenue

Passengers: Simplify procedures, reduce waiting time → Secure time for shopping, etc.

Disadvantages of introducing "ID chip"

In order to link information between institutions such as national security and protection of personal information, it is necessary to establish a system and develop a system that enables information linkage while ensuring security.

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令和 2 年 7 月 17 日 国土交通省

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令和 2 年 7 月 3 日 国土交通省 航空

<https://www.mlit.go.jp/common/001220273.pdf>

《雇用形態、従業員確保に関する航空関連 9 社ヒアリング内容抜粋》（H29 年 12 月ヒアリング実施）

令和 2 年 7 月 30 日

（岩波文庫：シュムペーター著「経済発展の理論（上）」塩野谷裕一ほか訳）

令和 2 年 7 月 30 日

（中公新書：吉川洋著「人口と日本経済」）令和 2 年 7 月 31 日

○Abstract

This paper estimates the estimated economic effects of same-sex marriage in Japan based on the Williams Institute's method of calculating direct expenditures from same-sex marriage. The Williams Institute reported in May 2020 that the economic impact of same-sex couples getting married has been approximately \$3.8 billion since 2015. The Obergefell v. Hodges case allowed same-sex marriages to be performed across the United States. However, although the economic benefits of same-sex marriage in Japan have been touted, they have not yet been calculated in concrete figures. Estimates show that Japan is more likely to benefit from the economic spillover effects of same-sex marriage on a per capita basis than the United States. Since the figures in this paper do not take into account the economic damage caused by the new COVID-19 infection and the new values for weddings, it is a challenge to calculate the economic impact of these factors.

1 Introduction

1. Research Background

An estimated 293,000 same-sex couples married and wed in May 2020 by the Williams Institute, CLA Law School's LGBT-focused Public Policy Institute, since same-sex marriage was recognized across the United States in 2015 in Obergefell v. Hodges. The study found that the economic impact of the project was about \$3.8 billion, creating 45,000 jobs and bringing in \$240 million in tax revenue.

Meanwhile, Japan does not have a partnership law or a law recognizing same-sex marriage, and relationships with partners are not legally protected. Liberal Democratic Party (LDP) House of Representatives member Mio Sugita caused a stir when she wrote in the August issue of the monthly magazine Shincho 45 about government services and whether it was "a good idea to invest taxpayer money" in "unproductive" LGBT couples. The American Chamber of Commerce in Japan issued an opinion piece, "Helping Recruit and Retain Talent by Establishing Marriage Equality in Japan," recommending that LGBTs be granted the right to marry.

2. Research Purpose

As far as I can see, all of the papers suggest the economic benefits of same-sex marriage, but they do not show any specific economic ripple effects. This study explores the estimated economic ripple effects of same-sex marriage if Japan were to legally recognize same-sex marriage, based on the aforementioned Williams Institute's research, and explores the pros and cons of these recommendations.

In response to the question of whether there are economic benefits from same-sex marriage in Japan, I will assume that there are economic benefits based on the results of the Williams Institute's May 2020 survey.

3. Research Significance

The basic premise is that people of all sexualities should have equal rights. The economic effects are merely a by-product of the legalization of same-sex marriage. By calculating the likelihood of this byproduct to the contrary, we believe that promoting the legalization of same-sex marriage will contribute to gender equality.

When the promotion of an organization's activities under one strong value system becomes too strong, it becomes difficult to embrace different ways of thinking. The result is an organization that is unable to create new value. The Austrian economist Schumpeter states that "new bonds create innovation". According to him, creating new bonds requires going outside the familiar territory. In other words, if you fall into fixed thinking and habits, you will not innovate, and you must always be open to change to innovate. One of the processes of diversity inclusion not only for companies but also for society as a whole in the pursuit of innovation is the legalization of same-sex marriage.

2 Keyword

LGBT/Same-Sex Marriage/Obergefell v. Hodges / Sexuality / Gender / Partnership /

3 Results, Consideration and Conclusion

1. Results

The number of same-sex couples who registered their marriages in one year if Japan legalized same-sex marriage was determined by referring to the number of same-sex couples who registered their marriages in Taiwan and cross-checking the data with the Williams Institute. On May 24, 2019, Taiwan's Legislative Yuan enacted a special law guaranteeing the right to same-sex marriage, and on the same day. The reference was made because Taiwan became the first country in Asia to legalize same-sex marriages as marriage registration began to be accepted, according to the report.

The number of same-sex couples registered for marriage from May 24, 2019, when the special law came into effect in Taiwan, to May 22, 2020, was 4,021. Taiwan's population is approximately 23.6 million, and the ratio of the number of same-sex marriages to the population is 0.034%. Japan's population (as of January 1, 2020) is 125,988,000, and if we adjust for Taiwan's population ratio, the number of same-sex couples registering for marriage (same-sex marriages) in Japan during the year was 21,417.96.

According to the Williams Institute, the number of same-sex couples married since Obergefell v. Hodges was 293,000, which is a five-year total, which means an average of 58,600 marriages per year. Japan's population is 0.385 times larger than that of the United States. Thus, the number of same-sex couples registering marriage in Japan (the number of same-sex marriages) per year, calculated from the number of same-sex couples in the U.S., is 22854.

According to the Marriage Overall Attitude Survey 2019 (conducted by Recruit Bridal), 80.7% of couples held an event on the occasion of their marriage and 19.3% did not hold an event at all. 72.9% held a wedding party, 2.7% held a wedding ceremony, and 5.0% held a photo shoot at the time of the event.

Of the wedding parties held, 51.1% were wedding receptions and reception parties, 21.6% were family dinners, and 0.3% were other wedding parties. The percentage of respondents who chose any number of events (including planned events <contents/determined timing>) is combined into a single response. The combinations

are as follows. The respondents who conducted the wedding reception and reception party chose "conducted the wedding reception and reception party, as well as any or all of the following: dinner with family members, other wedding party, wedding ceremony, or photography" and "conducted the wedding reception and reception party only". For those who have a family-centered meal, it is either "family-centered dinner and any of the following: other wedding party, wedding ceremony, photography, or all of them" and "family-centered dinner only". Other Wedding Party" and "Other Wedding Party only" are categorized as "Other Wedding Party and Ceremony and/or Photography" and "Other Wedding Party only". Wedding Party" refers to those who have conducted the ceremony and photography, and "only the ceremony". Photography only" and "Wedding Reception and Wedding Party" means "Photography only" and "Other Wedding Party". (figure1,2,3,4)

Wedding reception and reception party" means that the respondents conducted the wedding ceremony and the wedding reception and reception party in total. According to the Zexy Marriage Trend Survey 2019, the total cost of the wedding ceremony and reception and reception party was 3,549,000 yen. The "ceremony" was considered to be the only ceremony performed. According to Hanayume's survey, the average cost for the wedding ceremony alone is 341,000 yen. The average cost is 341,000 yen according to Hanayume's survey. According to Hanayume's survey, the average cost of a family-centered dinner and wedding was 1.1 million yen. The "other wedding party" was called the 1.5th party, which is a party between the wedding reception and the after-party, and its cost was 350,000 yen. The cost of "photography only" was set at 150,000 yen per couple, based on a survey by Hanayume. Multiplying the above wedding costs and ratio by the "number of marriages of same-sex couples," we can estimate that 47721531772.76 yen, or about 48 billion yen per year, would be generated in economic benefits.

2. Consideration

According to the Williams Institute, "direct wedding spending" in the U.S. per year is \$640 million; as of midnight on July 28, 2020, it was \$105.20 on the dollar, so 673.28 billion. That's about 67 billion yen. Although the population of the United States is 0.385 times larger than that of Japan, the economic impact of the legalization of same-sex marriage is about 0.75 times greater in Japan than in the United States, suggesting that Japan has benefited more economically from the legalization of same-sex marriage than the United States.

Therefore, Japan can expect the economic benefits of legalizing same-sex marriage.

3. Prospects and Issues

The main focus of this paper has been on economic benefits, but of course no one is born for "productivity". Economic benefits are a byproduct of a society that accepts the diversity of sexual orientation and gender identity in a mutually acceptable manner. In addition, although not mentioned in this paper, same-sex couples face a number of challenges, such as not being able to inherit their partner's estate because same-sex marriage is not recognized in Japan, or not being able to enter a hospital room when their partner is in a critical condition because they are not recognized as a relative. The choice of factual marriages and partnership systems to create partnerships that are free from the gender role division of labor and traditional values based on family registers is also an option,

but because of the limited legal protections and the need to have a third party ultimately determine whether a couple is the same as a legally married couple, legislating same-sex marriage We believe that this should be recognized and acknowledged.

As of 2020, the enormous risk of a novel COVID-19 pandemic has been recognized, forcing the bridal industry to suffer a decline in demand and a disruption of the supply chain. This study does not take into account the impact of these new COVID-19. Although we cannot deny the impression that this is a temporary measure at present, there may be an "online wedding" movement. The future challenge is to calculate the economic impact of the new COVID-19 infection, including the economic impact of the new COVID-19 infection and the new values of weddings.

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5 Figure

All of these figures are based on Reference⑥,⑦,⑨,⑩

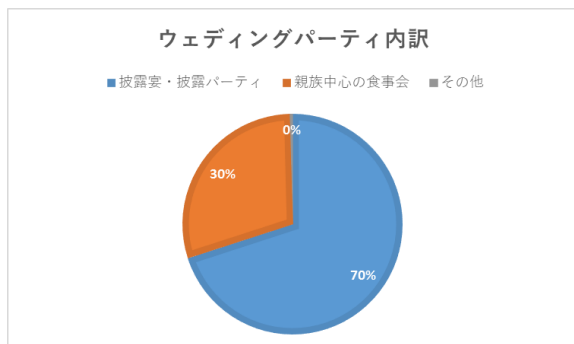


Figure 1

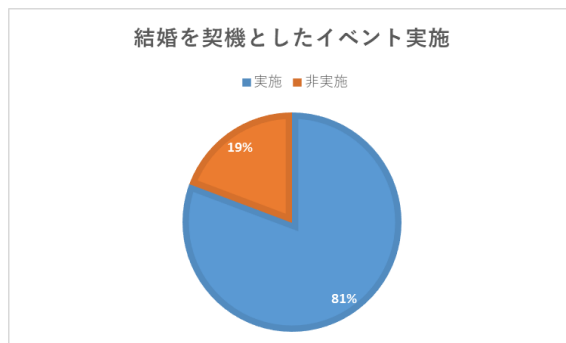


Figure 2

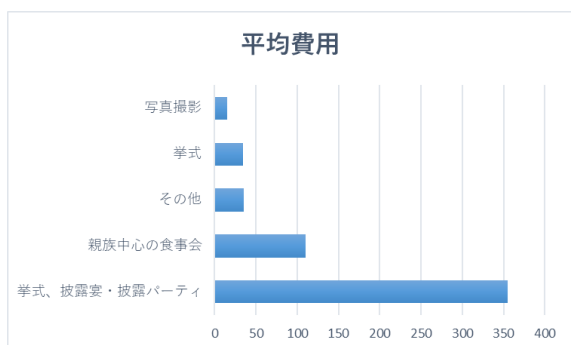


Figure 3

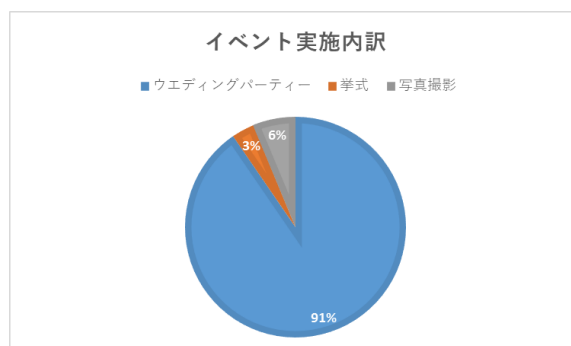


Figure 4

Abstract

I believe that Sports has lots of powers. Sports can change the World. I think Sports will be an important key to make the World Peace. I want to suggest a new plan to use the power of Sports effectively. I suggest that using the “Japan Junior Sport Club”(日本スポーツ少年団) to spread “SDP” (Sport for Development and Peace).

“SDP” (Sport for Development and Peace) is a Worldwide activity. The activity’s purpose is to save people and make World Peace with the Power of Sports. It is not the financial support. Sports can make many advantages. For example, to make lively community, to improve people’s stamina and health and to make money and to send many information...and so on. “SDP” is an activity to make use of these sport’s effects. And it is classified two kinds of activities. “DTS” (Development through Sport) and “IDS” (International Development Sport). “DTS” is the internal activity and “IDS” is the international activity. Both of them are important and effectivity.

But it is not famous in the world. Overseas activities are still small. Not to mention Japan. So, first of all, I think it is better to spread this activity from Japan. If we had succeed to spread “SDP” in Japan, Japan can send the information about activity of “SDP” and help other countries. I think we can spread the information and the activity of “SDP” to establish the organization of “SDP”. However, there hasn’t been any organization to now. To establish the organization costs a lot. And we have to gather many people. We need big space. It’s is hard to establish the organization. So, I want to suggest that using the “Japan Junior Sport Club”.

“Junior Sport Club” is a Japanese children sports activity. Conventional “Junior Sport Club” have been active on a scale up to elementary school students. However, I would like to suggest that elementary school students + junior high school students + working people (+ infants, elderly people) be the size of the “Japan Junior Sport Club”. The realization of this system may lead to the continuation of sports, revitalization of local communities, overseas support through donations, exchanges with foreign countries, and sports guidance. Various merits can be expected. Disadvantages include making some places and leaders.

Introduction

Utilize sports to solve domestic and overseas problems. The idea of utilizing sports to solve problems in this way is called "Sport for Development and Peace (SDP)". This effort is expected to contribute significantly to the achievement of "Sustainable Development Goals (SDGs)". "Sports for Development and Peace (SDP)" can be broadly classified into two types. The first is DTS (Development through Sport). DTS is mainly a domestic sports activity. The second is IDS (International Development Sport). IDS is mainly an overseas sports activity. "Sport for Development and Peace (SDP)" cannot

be said to be widespread worldwide. First of all, from Japan (DTS (Development through Sport)). I propose to expand the scale of activities of the "Junior Sport Club".

Scouts in order to spread this activity and disseminate it overseas.

Discussion and implication

I would like to propose the use of sports for a peaceful solution to the problem. Sports have the power to create a community of people. As an actual example, when people played a soccer match with an enemy race in Bosnia, where ethnic conflicts were fierce, the distance between the opponent team became shorter to repeated, matches. Community was created between the conflicting ethnic groups. They lent place and tools each other. This activity gave them a chance to understand each other little by little. In addition, when a beach volleyball event was held in Iwaki City, which was affected by the Great East Japan Earthquake that occurred in Japan in 2011 the survey result were an unexpected results. 88% of the respondents said that they were able to gain vitality after the activity, and "I want to participate in this event again." 86% answered, "I want to come to the beach of Iwaki City again" 92%, and the participants were very satisfied. Many of the participants from outside the local area said, "I'm glad I knew the current situation in the disaster area" and "I want to continue to cooperate in the reconstruction of Iwaki City." In addition, fund-raising activities for reconstruction were also carried out at the venue, which was effective in revitalizing the region.

In this way, sports cannot directly solve problems, but it can provide opportunities for social participation and clues for solving problems. From that point onward, it will be important for the gathered people to speak out in order to improve their lives and happiness in the region and country. And holding charity events and lectures based on sports not only secures support costs, but also creates opportunities to deepen understanding of various issues such as conflict areas and disaster-stricken areas.

Activities to solve problems by utilizing sports in this way are called "Sports for Development and Peace (SDP)" and have been attracting attention in recent years. Peaceful solutions and further development and development can be expected by utilizing sports for problems. I would like to expect new methods such as sports as well as relying on financial support. "Sports for Development and Peace (SDP)" can be broadly classified into two types. The first is DTS (Development through Sport). DTS is mainly a domestic sports activity. Garbage collection by sports youth groups in the area, development of corporate human resources through sports, and revitalization of local communities by comprehensive regional sports clubs. The second is IDS (International Development Sport). IDS is mainly an overseas sports activity. Support for sports organizations in developing countries, physical education, sports-related support provided by Japan Overseas Cooperation Volunteers in each country, and international sports, charity events. In recent years, this activity is expected to greatly contribute to the achievement of the goals of the SDGs. In the 2030 Agenda for Sustainable Development Goals (SDGs) adopted in September 2015, "Sports are also an important key to sustainable development. We hope that sport contributes to development and peace by promoting tolerance and dignity, as well as to empowering women, young people, individuals and communities, as well as to health, education and

social inclusion goals. Recognize. ”and expect sports to play a role as an important and powerful tool with the potential to tackle the challenges of achieving each of the 17 SDGs.

From these things, I thought that we should promote the approach method to the new problem of sports. I think that such activities can make sports indigenous rather than as a tool for solving various problems by establishing an organization to carry out activities. It is necessary to establish an organization in order to make the activities permanent and continuous. Currently existing organizations include JICA, Project Abroad, HEART OF GOALD, etc. Some of these are carried out by volunteers. Many have various problems with funding and employment. Some have to rethink the structure and structure within the organization. Currently, it is not well known in the world. Further expansion of activities is required. I wondered if I could spread this activity while being involved in other ways than establishing an organization, and first of all I wanted to aim for the spread of sports activities (IDS) in Japan. By activating sports activities in Japan, it is possible to influence the effect of name recognition of activities and the solution of domestic issues. After that, I thought I could provide support overseas.

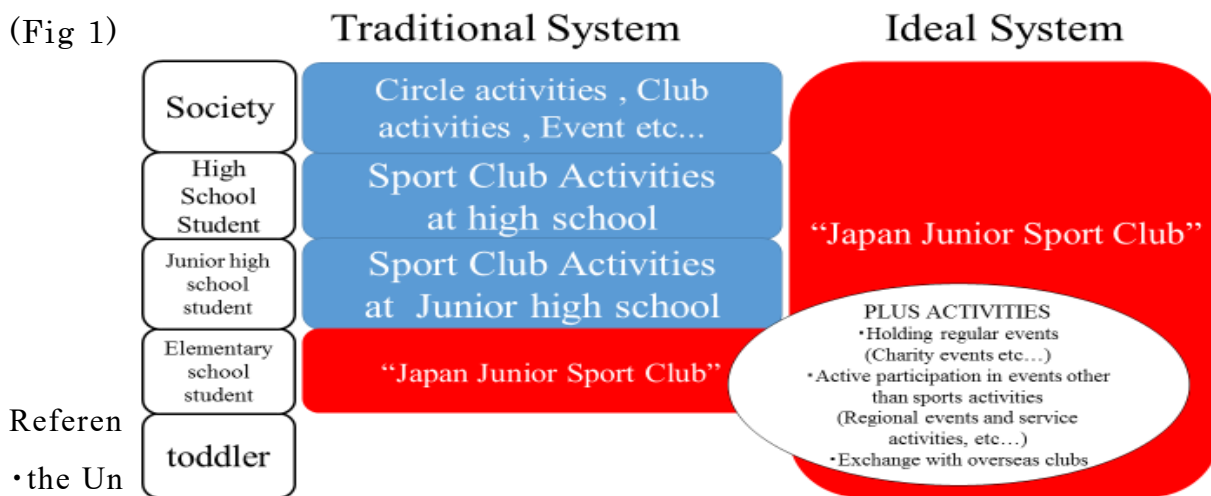
Therefore, I would like to propose the use of the Sports Youth Group. Activities include not only various sports activities, but also joint activities with members, parents, and local residents, communication with local people, local projects, active participation in events, and service activities such as cleaning the town. Is done. From these things, I thought that the expansion of the “Junior Sport Club” would make it easier for local communication to be born and create new merits. Conventional “Junior Sport Club” have been active on a scale up to elementary school students. However, I would like to propose that elementary school students + junior high school students + high school students + working people (+ infants, elderly people) be the size of the sports boy group. (High school students may be going to different areas, so I excluded this time. However, I think it is better to be involved in the “Junior Sport Club” as a leader.) (Fig. 1) Continuation of sports by realizing this system. There is also the possibility of developing from overseas support by donations, exchanges with foreign countries to sports guidance by holding events, revitalizing local communities. Various merits can be expected. Disadvantages include securing a place and securing a leader. Many overseas systems are region-centered, and the introduction of child-region-centered systems in Japan may have a positive impact on problems such as the declining birthrate and aging population and depopulation. In this way, the activities of "Sport for Development and Peace (SDP)" will be disseminated from within Japan, and domestic problems will be resolved and disseminated overseas.

Conclusion

We should spread “SDP” (Sport for Development and Peace) which is a Worldwide actively. The activity’s purpose is to save people and make World Peace with the Power of Sports. It is not famous. Firstly, we spread IDS” (International Development Sport). Then we use “Junior Sport Club”.Conventional“Junior Sport Club” have been active on a scale up to elementary school students. However, I would like to suggest that elementary school students + junior high school students +high school students + working people (+ infants, elderly people) be the size of the “Junior Sport Club”. The realization of this system may lead to the continuation of sports,

revitalization of local communities, overseas support through donations, exchanges with foreign countries, and sports guidance. Various merits can be expected. Disadvantages include making some places and leaders.

(Fig 1)



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『『The impact of sporting events on reconstruction from the earthquake』』

~To make sporting events an Olympic legacy~』

Lecture, Human Development and Culture, Fukushima University Tetsuya
Hasunuma

(<http://www.lib.fukushima-u.ac.jp/repo/repository/fukuro/R000005063/18-283.pdf>)

Abstract

I decided to study the efficient promotion to attract a large number of people. This was because there was a small audience in the hall, where the UNESCO chorus in Fujioka City, the community chorus I had belonged to for seven years, held the annual concert every November.

Through the questionnaires, I found that more than 70 percent of people who came to our annual concert in 2019 had known about it by hearing the information from us. Also, I saw that about 30 percent of those knew it from publicity, handbill, or community notice. In addition, not less than 80 percent of them said that if we had started the promotion earlier or had spread the range of the place where we had installed our handbill, more and more people would have come to our annual concert.

Although we couldn't make the hall full on that year, I found the most effective way is to advertise by ourselves if we want to attract people to the event rooted in the area that we have been working. Furthermore, I recognized that the tools especially limited to the area; such as publicity or community notice, are influential.

Hereafter, I want to research what we have to pay attention when we advertise events not to the specific areas, but to the wider areas.

Introduction

I decided to conduct research on this theme "The promotion to attract a large number of people" to know what I have to do to attract many people to the annual concert of the UNESCO chorus in Fujioka City. Therefore, I started to search on the Internet what the most efficient advertisement is or what the most attractive way to capture many people is. However, I could barely find the information that I wanted, so I decided to obtain information by means of questionnaires in Fujioka and Takasaki City. From 2018 to 2019, I sent out questionnaires six times.

1. Questionnaire for those who see the advertisements (2018, 9, Fujioka and Takasaki)
How old are you?
What is your gender?
Which tool do you use the most when you go out or go shopping?
2. Questionnaire for those make the advertisements (2018, 9, Fujioka and Takasaki)
Which way of advertising is the most efficient?
3. Questionnaire for the audience of the annual concert (2018, 11, Fujioka)
4. Questionnaire about the design of handbill (2019, 9, Fujioka and Takasaki)
How old are you?
What is your gender?
Which direction is more readable or more attractive, length or width?
What font is the most readable or the most attractive?
Which color is clearest or the most attractive, pink, yellow, sky blue, or white?
Which one is more readable or more attractive, with illustration, or with the picture?
5. Questionnaire about the way to disperse the leaflets (2019, 9, Fujioka and Takasaki)
How old are you?
What is your gender?

Where do you think is the most effective place to disperse the leaflets to capture many people?

When do you think is the most effective time to disperse the leaflets to capture many people?

6. Questionnaire for the audience of the annual concert (2019, 11, Fujioka)

How old are you?

What is your gender?

How did you know about our annual concert?

What do you think is the effective way to make many people come to our annual concert?

Discussion and implications

In 2018, I took a survey of 1 and 2 in Fujioka and Takasaki City. Then I found two things;

The most used tool is SNS, and the second is handbill.

SNS is so efficient to capture people, but the most effective way is that we, the members, tell about the concert by ourselves.

Therefore, I asked the members to tell people around them about our concert. Also I tried to make our official account of some social networking services. However, I found that using SNS is prohibited by the regulations, so I gave up using it. Through the questionnaire no.3, I found that the tool that shows people about our concert the most is our word-of-mouth, and the second is the leaflets. Therefore I decided to focus on making and using handbills and keep studying next year.

The next year, 2019, I suggested to everyone in the parent-teacher conferences that I would make the handbill, and was given two requirements;

Leaflets should be printed on A4 paper.

Leaflets should be printed monochrome so you have to make it readable.

In response to this, I took a survey of questionnaires no.4 and no.5. Then I found four things;

ARP Roman-U is the most attractive font.

Pink-colored paper is the most attractive.

Leaflets with illustrations are more attractive than ones with pictures.

Leaflets set in public buildings such as citizen's halls or city government, and the places where many people use such as family restaurants are attractive to many people.

After I got these results, I started to make handbill cooperating with everyone in the parent-teacher conferences, and I put or passed on them. However, I couldn't make many people come to our concert.

Therefore, I decided to find the bad points of advertising in 2019 through the questionnaire no.6. I found that over 70 percent of people who came to our concert knew about it by anyone in our community chorus. Also, about 40 percent of those thoughts that if we had started advertised earlier, or had advertised in wider areas, more people would have come to our concert.

Conclusion

Through the questionnaires and the results of the study, when we are to hold some events rooted in the area, I found three things that we have to do;

People who hold the events should advertise it with word of mouth by themselves.

Those have to start advertising no less than two months before the events.

Those have to put or pass on their advertisements in some publicity buildings,

From now on, I want to study how to advertise not only the events rooted in an area,

but also one of the wider areas.

References

Thank you very much for cooperating with me!!

Those who answered my questionnaires

Teachers in Chuo Secondary

Everyone in the parent-teacher conferences

Everyone came to our concert in 2018, and 2019

Abstract

Recent years, many junior high and high school students have been Internet-dependent.

Using smartphone related to this problem. The investigation of the Ministry of health, Labor and Welfare shows that the number of high school students suspected of being morbidly addicted to the Internet almost doubled in the five years from 2013 to 2017 and estimated 930,000 people nationwide. If we can't control the use of the net of oneself, we become Internet-dependent.

Purpose of research

The spread of the Internet is spreading all over the world and people who fall into internet dependence, so I decided to think the education so that we can use Internet without addiction.

Research methods

I researched these with Internet

1. I researched the current status of junior and senior high school students depending on the Internet
2. I researched the causes of internet dependence
3. I thought the solution

Summary

(1) The current status of junior and senior high school students depending on the Internet

I researched how many junior and senior high school students are suspected of being dependent on the Internet. The number of junior and senior high school students suspected of having morbid Internet addiction has almost doubled in the five years to 2017 and according to a survey by the Ministry of Health, Labor and Welfare research group (representative, Professor Ozaki Yone Atsutori University), there are an estimated 930,000 people junior and senior high school students suspected of having morbid Internet addiction nationwide.

- "I feel crazy about the internet"
- "Use longer than planned"
- "Sometimes trying to limit it doesn't work"
- "Use the Internet to escape troubles and unpleasant feelings"
- "It's uncomfortable and frustrating without using the internet"
- "I've lied to my family to hide my passion for the internet"
- "Internet usage time is getting longer and longer"
- "The use of the internet has ruined important relationships"

Those who answered 5 or more of these 8 questions about internet dependence were classified as "morbid use" of the internet. As a result, 10.6% of junior high school boys, 14.3% of girls, 13.2% of high school boys and 18.9% of girls were applicable. It is estimated to be 930,000. It seems that the spread of online games using smartphones and membership exchange sites (SNS) has had an impact.

In addition, 58%, 55%, and 41% of the respondents answered, "I feel crazy about the Internet," "use longer than planned," and "sometimes even if I try to limit it, it doesn't work." I think this number is high. From these, it was found that the cause of internet dependence is that you cannot limit the time you use.

(2) Measures for internet dependence

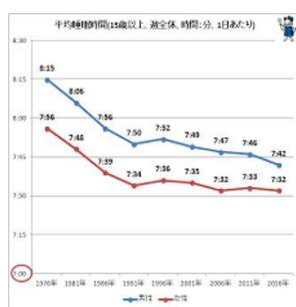
If the inability to limit the use of the Internet on our own leads to addiction, I think we need to be instructed from an early age so that we can limit and use it ourselves. In addition, many children have smartphones since they became junior high and high school students, and having a smartphone increases the opportunity of touching the Internet, so it is necessary to educate about the dangers of internet dependence and how to use it without dependence before having a smartphone. Therefore, I think we should start education from the elementary school stage. I think it has already been done at this point, but I think it needs to be strengthened. At the moment, classes on Internet addiction measures are mainly held in the 5th and 6th grades of elementary school, but I think it is better to start from the lower grades. It seems that the main classes on addiction countermeasures currently being held are "watching DVDs about internet dependence," "lectures," and "thinking about the correct way to use the internet," but these classes are temporary. Therefore, I think it is necessary to hold these classes on a regular basis. I think that you can get a sense of crisis about internet addiction on a daily basis by making time to think about internet addiction about once a month.

Is there a close connection between the hours of sleeping and academic ability ~To ensure a good night's sleep~

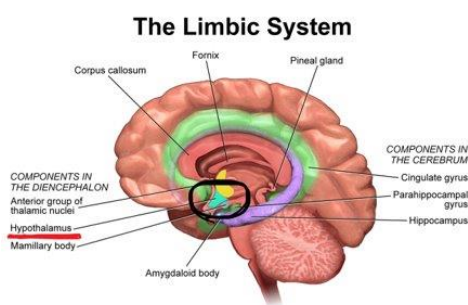
5222

1 Abstract

In Japan, bedtime is delayed in line with the high economic growth of 1960, and sleep time is decreasing. In addition, as parents become more night-type, their children are becoming more night-type, and the daily rhythm of waking up in the morning and sleeping at night is disrupted, and irregular sleep / wake-up types are increasing. Clarify what sleep is needed to get better performance in Japan, where students are forced to work short hours and working long hours. We will collect the relevant information from university research materials and accurate literature such as treatises, and consider what kind of action is necessary.



(picture1)



(picture2)

- (1) <https://news.yahoo.co.jp/byline/fuwarai/20180121-00080574/>
- (2) https://en.wikiversity.org/wiki/WikiJournal_of_Medicine/Medical_gallery_of_Blausen_Medical_2014#/media/File:Blausen_0614_LimbicSystem.png

2 Introduction

The origin of this research is to improve one's lifestyle. In addition, while conducting previous research and collecting information on sleep, I learned that short sleep time in Japan has become a social problem and that it is called "Insomnia Power Japan", so I researched it. A long time ago, I was interested in whether it was true that "sleeping children grow up" and "sleeping well makes me smarter", which was said by elementary school teachers and parents, and "the effect of sleep on student life". I set the theme of "Is sleep time related to academic ability?" And proceeded with the research. As the research progresses, it is difficult for modern people, including students, to secure the ideal sleep time due to the spread of the Internet and changes in working hours, so the research policy is to provide good quality sleep time in a short time. I changed to taking it and proceeded with research on this theme and sub-themes. The research target is students from junior high school students to university students, and the goal of the research is to clarify whether sleep time and academic ability are related, and then devise a method for getting good quality sleep. Through this research, if you can improve your own lifestyle and see significant results, I want put together a formal document and create a website.

3 Discussion and Implication

The Japanese have late bedtime in line with the high economic growth around 1960, and their sleep time is decreasing. An NHK study found that sleep time has decreased by about an hour since the survey began in 1960. (picture1) In addition to recovering from fatigue, the effects of sleep include stress relief, memory retention, and obesity

prevention.

During sleep in our brain, an organ called the hippocampus works in our brain while we are dreaming. This hippocampus is an organ involved in the memory and spatial learning ability of the brain. (picture2) During sleep, very complicated memory information is organized around the hippocampus. Therefore, if you neglect to sleep, no matter how hard you learn, you will not be able to accurately process the information you have taken in, and you will not be able to acquire it in the end.

So far, it turns out that sleep and learning are deeply involved. But is it enough to sleep for more than 6 hours every day? Is it really effective to sleep between 22:00 and 2:00, which is called the golden time of sleep?

A two-week experiment was conducted at the University of Pennsylvania and Washington State University to investigate the effects of sleep time on the body and how many hours sleep corresponds to sleep deprivation. In this experiment, 48 healthy men and women who slept an average of 7 to 8 hours a day were collected and divided into 4 groups. The first group did not sleep for three days, and the other groups had a fixed sleep time of 4, 6, and 8 hours. As a result of the survey, the group who slept for 8 hours did not have any deterioration in cognitive ability, attention, and motor nerves during the 14 days of the experiment. On the other hand, the groups sleeping for 4 hours and 6 hours steadily deteriorated their physical functions day by day. The group with the most decline in ability was the group with 4-hour sleep, but the group with 6-hour sleep was not so different. In this way, it can be said that there is a high possibility that sleep deprivation is high even with 6-hour sleep, as with 4-hour sleep. By analyzing the results of this experiment, it was found that sleep deprivation accumulates and that the decline in ability cannot be noticed by oneself. Lack of sleep is also nerve exhaustion. About a week after starting the experiment, the 6-hour sleep group became drowsy all day long. And after two weeks, the performance of the 6-hour sleep group was at the same level as the 4-hour sleep group. If you sleep for less than 6 hours every day, your mental and physical

fitness may be as low as you were without sleeping for two days. In other words, we cannot maintain a healthy body unless we have more than 6 hours of sleep every day. However, it is difficult for modern people to sleep more than 6 hours every day. Suppose a student attending school between 7 or 18 sleeps for 7 hours. Then he has to finish his homework, hobbies, rice and bath in 6 hours. Even if this can be achieved for one day, few people will be able to continue it every day. We have to get more effective and efficient sleep in less time. Recently, "Sleep Tech" has been attracting attention. It uses the power of technology to improve sleep quality. You can buy it at online shops, but many of them are expensive. Therefore, there are problems such as being difficult for students to obtain. We will continue to make better methods and suggestions in the future.

3 Future research topics.

Devising a way to get better sleep with less sleep.

4 Literature

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Abstract

It is said that by 2025 one in five Japanese people aged 65 and over will have dementia. From this we have to deepen understanding of it. However, most students know little about it because we do not learn it at school. I think that we need to introduce its lesson into school. We may face some kinds of problems. For instance, there is the interest of students and the cost. To solve the first problem I suggest that we have to the lesson with using VR. I expect the lesson makes it possible to understand the feelings of people with dementia by not only listening to people's telling, but also seeing them with their own eyes and actually experiencing them. To solve second problem we have to introduce Hakosuko instead of VR. The reason is it is by far cheaper than VR. By having many people have knowledge of dementia, we would like to eliminate the gender role division consciousness of society that "women should take care". A future task is to clarify how to disseminate lessons on dementia using VR while referring to overseas efforts.

Introduction

The reason for setting this theme is that my grandmother was diagnosed with dementia two years ago. When I was told that by my mother, I had no knowledge of it and was wondering how to interact with my grandmother. Therefore, I started to gain information about it by using Internet to learn it well. Then, I attended the lecture which my mother's colleague hold with my brother in Maebashi. It was a good opportunity for me to learn how people who have dementia think. However, there were no students expect for him and me at the lecture. Based on these things, I thought that students should have a better understanding of it.

Discussion and Imprecations

First, there are four main types of dementia: Alzheimer's disease, Lewy body dementia, frontotemporal dementia, and vascular dementia. According to Awareness Survey on the Elderly Comparison between Japan and Thailand, Japanese people express a negative opinion of home care. I assume this is because there is a growing "nuclear family" in which parents and children live apart, and many people are aware that long-term care is provided by women. In addition, home care imposes a heavy burden on the caregiver, and people with dementia may also accumulate stress due to their concern for their families. On the other hand, institutional care has less burden on the family, and users can spend their time with peace of mind.

Nonetheless, according to the graph of the Cabinet Office's "Awareness Survey on the Health of the Elderly", it was found that there are many elderly men and women who want to receive long-term care at home. In addition, while more than 40% of men answered that they want long-term care at home, women want to enter welfare facilities and medical institutions in addition to home long-term care. Turned out to be about the same. The reason for this difference is that women have more opportunities to engage in long-term care and many do not want to put the same burden on their families. However, one of the advantages of home care is that people with dementia can live with almost the same daily life as before, so they can feel at ease. In other words, I expect that you should have knowledge of dementia because you have the opportunity to meet

people with dementia whether or not you take care of them at home.

Next, I investigated foreign education of dementia. According to the Asahi Digital Newspaper, the spread of education about it in Europe and the United States when young people aged 65 and over in the United States decreased to 11.6% in 2000 and 8.6% in 2012. However, this shows that there is a relationship between dementia improvement and education. Furthermore, when I investigated overseas efforts for dementia, I was interested in the Dutch "Alzheimer's Cafe". Nearly 200 Alzheimer's cafes throughout the Netherlands are held regularly about once a month. You can chat and receive a lecture by a profession for about two hours while enjoying coffee and sweets. It was found that the purpose of holding this cafe was not to empower people with dementia and their families, to make friends, and to emphasize "treatment", but to promote emotional and social interaction. Through these, I expect that measures against dementia should be deepened in Japan as well.

Therefore, I found that there are teaching materials on dementia. The contents include DVDs, textbooks, and instructional guides for stories of families who have developed dementia. However, I think that these teaching materials only existed and were not widespread. Today's children just thought that they couldn't learn difficult things even if they were taught in class, so I want to spread the class on dementia using VR. I consider that it would be easier to learn in VR because you can actually learn while using sight and hearing. It was found that there is an advantage that you can experience the core symptoms in a simulated manner using VR and you can stand in the position of the other person. Nevertheless, general VR is expensive, and it costs a huge amount of money to spread it to schools. Therefore, I decide to introduce a device that allows you to watch VR videos by inserting your smartphone into a cardboard box called Hakosuko. You can get it as cheap as 700 yen each. The price of VR is about 50,000 yen, but it has the advantage that it is cheap and easy to use because you just plug in your smartphone. I want to use it to give students a simulated experience of dementia. Therefore, I think that the hallucinations that develop with dementia with Lewy bodies can be experienced using Hakosuko. Other than that, the main symptoms are memory impairment, personality changes, and effects on the body, so it would be difficult to experience them in a simulated manner. The contents of VR are that strangers suddenly appear in the house, furniture is visible to people, and people are on the train and cannot find the location.

Conclusion

The ultimate goal of this study is to educate many students about dementia and eliminate prejudice against dementia in society. I think that people with dementia should stop looking down and give extra consideration and treat them equally as the same people. In this way, I hope that a society will be realized in which not only people with dementia but also their families can spend time without worrying about the eyes around them.

Furthermore, I think it is important to learn about dementia from a young age and take measures in advance so that you will not develop dementia in the future. The task is to think concretely how to spread this class on dementia using Hakosuko.

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Likelihood of renewable energy

~ efficient power generation by connection between developing country and
developed country ~

5224

Abstract

Recently I heard the word “Sustainable society”. So I decided to start the study to solve environmental problem in terms of renewable energy. The purpose of this study is to suggest the way of power generation by renewable energy.

Considered advantages and disadvantages of renewable energy and the current situation in developing country and developed country. If renewable energy cultivated by developed country set in developing country, we can produce some merits. For example, extension of employment and fund-raising.

But there is a problem if people in developing countries have intelligence to learn how to use renewable energy.

Discussion and Implications / Conclusion

Renewable energy has some merits. For example, progress of self-sufficiency rate of domestic energy, reduce damage to environment, extinction of new industry, and extinction of employment. Renewable energy also has problem. For example, to need big facilities, change of energy supply, to need technical knowledge to continue, to need much money.

Electricity spreads 99.9% in developed country, while it spreads 76.5% in developing country. In other words, about 1.3 billion people live without electricity. Especially, it spreads only 32% in Sub-Saharan Africa.

So I came up with an idea to set renewable energy in developing countries. There are vast area to set renewable energy and people who need work to live in developing countries. On the other hand, developed countries have technology to run renewable energy, but they don't have vast area, nature and people to maintain renewable energy. Based on these facts, this idea can realize efficient power generation and produce merits both developed countries and developing countries. In developing countries, to work for maintaining renewable energy helps people who don't have job to earn money.

There are some problems about this idea. To realize this idea, we need a lot of money. I think to use renewable energy power plant for the purpose of not only producing energy but also tourist resource is a good way. The water power plant used as a tourists resources is in Norway Helgerland. Light in the power plant is reflected in the water in front of it. It is fantastic landscape.

Also, it is essential that people in developing countries learn skills or knowledge how to maintain renewable energy from people in developed countries in other to maintain renewable energy futuristic their own. It needs guidebooks or website expressed by videos, charts, and pictures for people in developing countries to learn that skills or knowledge. Junior high school students and high school students in Japan paint the pictures explaining how to maintain renewable energy. Due to this campaign students can understand about the present circumstance of developing countries and renewable energy well. Also, we can get pictures free of charge.

The reason why spread of renewable energy in Japan is so slowly is high costs of labor force, problem of geography, and slow speed of procuring equipment and construction. So renewable energy which needs less people, has no relationship with geography or produces energy using geography, and doesn't need big equipment and construction is demanded in Japan. I think that it is ideal to use aqueduct, because Japan rice production is thriving in Japan.

However there are some problems. Garbage thrown out to aqueduct is cause to break generator. So I should think the way how I exclude garbage in aqueduct. Also, decreasing in farmlands is problem. I want to do more research about them.

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○ Abstract

I conducted research on the theme of “difference of brain” two years ago and “suicide” last year. Discrimination against black people is gaining global attention recently, however, it goes under reported in Japan. I thought Japanese people didn't feel close. We received benefits from black culture such as Hip Hop and street basketball. Accordingly, I thought we need to think deeply about racial discrimination. I want to check the data connected with my knowledge that learned from thinking of foreigners. I knew the case that George Floyd was unjustly murdered by police officer on TV. This case made me interested in history of discrimination. While Apartheid is a conflict between white people and black people, it seems to be a conflict between black people and police officers now. I think that a lot of people know these things lead to be help for black people. Signature-collecting campaign and fund-raising campaign are carried out now, however, we should participate these activities more than now. In addition, I think that to use moral education class is one of the best way for high school students to know about discrimination more deeply. For these my thinking, I suggested three plans.

○ Introduction

| 1 | Purpose

Make many people aware of and think about the current state of black discrimination that is still ongoing. I believe that to think about discrimination against and act is become helping for black people and lead to solve the problem of the world. I think it's difficult to eliminate black discrimination, but I hope my study will be a useful to stop discrimination that has been going on for a long time.

| 2 | Method

Internet

I used the internet to know the history of discrimination and check the newspaper of each day about the case in the world.

Investigation/Interview

I talked with my foreign friends about appearance of local people in their countries. When I had heard the case from her, I knew the situation and other case of discrimination against for the first time.

Questionnaire

I take the questionnaire to Chuo Secondary Students.

Contents are three questions.

Do you know the case that George Floyd was unjustly murdered and other case?

Do you think how long does discrimination against continue?

How do you think what we are able to do for black people?

I make the collected data statistical and consider the solution of them.

○ Discussion and Implications

I saw the words “Black Lives Matter” “Black Out Tuesday” a lot of time in Instagram when the case that black was killed by police happened.

The first word means activism calling for the elimination of racial discrimination.

The second word means the day that people stop working and only think the people of black.

Difference of bottom of the pyramid between black and white are great.

That of white people in 2017 is 8.1 and that of black people in 2017 is 20.8.

In addition, the median of fortune of white is 10times as much as that of black.

This difference is one of the reasons that black people can't get social opportunity like going to school, getting jobs, and so on.

People in financial difficulties can't pay fines and bail for minor offenses such as traffic violations and shoplifting, and are often sentenced to imprisonment.

And, greater reasons, studies have shown that blacks, especially men, are more likely to be asked job questions than white people due to police prejudice, with a relatively high number of physical examinations.

According to 2013-2019 statistics, black people were three times more to be killed by police than white people, even though 76.3% of the American population were white people and 13.4% were black people and white people. In fact, black people with weapons were 1.3 times less than white people.

There are a lot of people who have been discriminated against because of black.

: Civil Rights Movement and Assassination of Rev. King

From the 1950s to the 1960s, blacks stood up to apply civil rights and eliminate racial discrimination. The Civil Rights Act was enacted in 1964, but when the leader Malcolm X was assassinated in 1965 and the Nobel Peace Prize laureate Martin Luther King was assassinated in 1968, the Black Panther Party, which advocated an armed struggle, was not. Some groups have taken legal steps.

: President Obama elected

Barack Obama was elected the first black president of the United States in 2008. On the other hand, there is a view that the liberal policies under the Obama administration have ignited the activities of white supremacists. In response to the repeated violence against black people by police officers, the movement launched by three black women in 2013 is "Black Lives Matter = BLM".

: Demonstration

Black and some white stood up to the police officer.

While many whites also participated in the demonstration, an elderly white man was pushed down by a police officer, hit the back people of his head, and was taken to the intensive care unit. A white college student was hit on the head with a baton and sewed 20 stitches. Excessive violence by police officers against journalists interviewing the scene was often seen, and some female journalists were blinded by a rubber bullet. As of June 6, at least 11 people, including police officers, had died.

Black people are still suffering from these direct acts of discrimination, but at the same time they are also fighting different types of discrimination, "institutional racism," which at first glance do not appear to be discrimination and are therefore very difficult to eliminate.

○ Conclusion

While I was living safely in Japan, I realized that black people lived every day with the fear that they might be killed.

There are three things you can do for black people through this study

: Fundraising activities

Donations can be considered as direct support. By collecting a lot, I think we can show strong support for black people. I'm thinking of collecting like the red feather donation that is held every time.

: Providing an opportunity to know

I think Japanese don't have knowledge of discrimination against.

By actually inviting a black man to give a lecture, I think it will make you feel different from when you hear from others.

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繰り返される黒人暴行死(11/13)

Abstract

Last year, I researched for aiming the coexistence of human beings and wild animals. Through this, I concluded that to disseminate therapy dogs is the best way. So, this year, I continued researching the way of this. I concluded to spread Prison Dog Program throughout Japan. It means prisoners bring up dogs. Currently, children and elderly people have various problems such as suicide and dementia respectively. So, I focused on it. Children have a lot of bullying and people who killed themselves. Also, many elderly people have dementia. There may be opposing opinions on the prison dog program because our taxes are used for prisoners. However, these dogs can play an active part for children and elderly people. That is to say it continue to contribution to society. The problem of children and elderly people can solve by raising dogs by a prisoner. It yield a profit for people and dogs. Also, it has advantages for prisoner because they can one of the occupation choices. So it has advantages for everyone. I want to continue this research to get closer to realization from now on.

1. Introduction

Among the developed countries, the number of animals slaughtered is particularly high in Japan. I thought it is one of big problems and I want to solve it. I have a dog. She is being like my best partner through she got injured. However, a lot of people throw away like those animals but some foreign countries do not slaughter. So, I thought this problem can solve to incorporate what they are doing in those countries into Japan. Finally, it enables animals to contribute to society. I noticed dogs first because it is easy to train and friendly to people. I use the internet and research content up to last year as a way to find out. First, I researched the number of culling in foreign countries. In America, the number of it is so small. Second, I researched the reason. Then I found The United States has introduced Prison Dog Program. Finally, I concluded to spread this problem is the best.

2. Discussion and implications

In Japan, children have a lot of problem that bullying and people who killed themselves. And many elderly people have dementia. Also, culling of animals in Japan is so many. I thought there is Japan's one of the big problems that we have to solve. Dogs give people healing. This is scientifically proven. I noticed this. Children's problems are mental. Dogs can help to solve. Also, about dementia that elderly people have can help to solve too. I think to introduce the Prison Dog Program in America.

<What is Prison Dog Program?>

In this program, prisoners raise abandoned dogs to become therapy dogs. It is one of the curriculum that prisoner to rehabilitate. It has a lot of benefits for both prisoners and dogs. Prisoner can acquire the skill to raise dogs, so they can do the one of the occupational choice when they go out from prison. Also, it has been scientifically proven to stabilize their mental, and it can reduce the number of culling dogs. Prisoner's goal is raising a therapy dog. However if they couldn't do it, reduce the number of culling dogs. Finally, if prisoner could raise therapy dog, they can play an active role for children and the elderly. In other words, this program make the cycle in which dogs raised by prisoners are useful to people.

I think if this program can be realized, we can solve a lot of problems.

-It leads to bullying of children and a decrease in the number of suicides.

-Symptoms of dementia patients improve

-Mental stability of prisoners

-Decrease in culling

3. Conclusion

I researched how to reduce the number of animal's culling and contribute to society. Finally, I concluded that to promote the Prison Dog Program is the best thing. First, I thought this program is for the elderly, children, and animals. Each of them has a problem, and what they have in common is that they relate with their spirit. Dogs can heal people's hearts, but it is hard to grow and many dogs have been slaughtered. It is a big problem. The Prison Dog program can solve this problem. First of all, it is important for many people to understand the current state of animals.

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日本でも実現可能！？刑務所における里親施設プログラム

リスク対策.COM 危機管理と BCP の専門メディア

Abstract

In order to overcome our unconscious biases, I propose to undertake Unconscious Bias Trainings (UBT) during the moral education class in Japanese elementary schools and junior high schools. Having prejudice against different race, gender, age, and religion has been a highly controversial issue in modern global society. These biases are easily led to discrimination. Personally, I had an uncomfortable experience in Canada being looked at with prejudiced eyes just because I was Asian.

However, it had become clear from various experiments that getting rid of our unconscious biases will help us create a highly diverse society and improve our performances and schools and work. Therefore, I believe that we can promote Japan's diversity and recognize the biases in ourselves by working on UBT such as group discussions at schools. By taking this plan, I wish that nobody will be hurt anymore by the deadly weapon; unconscious bias.

1 Introduction

Last summer, I participated in a leadership program in Canada where I felt uncomfortable because of the unconscious bias of others. For instance, some of my foreign friends said that I must be good at math or bad at sports because I am Asian. Of course, race and our academic or physical abilities are not necessarily relevant. From this experience, I became concerned that even though the speaker do not mean it, we might hurt others by our prejudice without noticing. The goal for this research is to eliminate our unconscious bias and enhance the diversity of the Japanese society.

2 Discussion and Implications

-Examples of unconscious biases

According to the book "Teacher Expectations in Education 1st Edition" written by [Christine M. Rubie-Davies](#),

Gender Bias. Teacher bias was found to be the primary reason male students were 19.3% more likely than their female peers to take advanced math courses.

Racial Bias. Researchers at Johns Hopkins University compared the differences in predicted education outcomes white and black teachers had for their black students. They found white teachers were:

- 30% less likely to predict their black students would graduate from high school.
- 40% less likely to predict their black students would attain a four-year college degree.

From these examples, we can see that unconscious bias can deprive others of their opportunities in various scenes.

- Unconscious bias trainings at companies

Unconscious bias is a serious issue which captures attention worldwide. Major corporations such as Google, Facebook, and Microsoft mandate their employees to receive the training. These companies provide their teaching materials at no cost so that everyone can use them. For example, you can watch a video called Unconscious Bias @ Work from Google, use the online training system from Microsoft, and use the training materials from Facebook for free. I am planning to use these reliable materials that were made based on scientific research for my original training for students.

-How a diverse team benefit

Eliminating our biases and creating a diverse society has various advantages.

In business teams, members

- make voluntary efforts by 1.12 times more
- hope to stay in the current team by 1.19 times more
- cooperate by 1.57 times more
- increase their commitment to the team by 1.42 times more
- feel that their ideas have developed or have been accepted
- feel that their innovation has been put in practice
- feel that their market share has enhanced since the previous year by 1.45 times more.

From these data, we can see that a group with a high diversity can improve their performances in many ways.

3 Conclusion

From the facts mentioned above, we can clearly see that it is necessary to eliminate our unconscious bias and enhance the diversity of our society. Therefore, I propose to undertake Unconscious Bias Trainings (UBT) during the moral education class in Japanese elementary schools and junior high schools. One reason for this is that moral education class became compulsory in Japan. Due to this movement, moral education is becoming more and more important. Therefore, we can expect students to take part in class in earnest than before and deepen their understandings. Moreover, education at an early age greatly affects how children will grow up. The biggest concept of my class is to enhance self-awareness. It is difficult but very important to recognize our biases by ourselves in order to overcome unconscious bias. I have two processes to realize this concept. First, students will take a test called Implicit Association Test (IAT) which is an online test that reveals our biases toward certain things such as race, nationality, age, gender, skin color, and etc. This test will help students notice their biases and gain interest in this topic. Second, I'm going to use Unconscious Bias @ Work, an original teaching material made by Google to teach students what unconscious bias is and give hints on how to overcome them. Since the materials were made for their employees, I'm going to change them into easy words. Moreover, I will provide opportunities to have discussions with each other so that they can cultivate their ability to think from different perspectives. As a result, I believe that more people will be able to be aware of their unconscious biases and become a member of creating a highly diverse society.

4 Future prospects

I am planning on creating my original lesson plan "Bye-Bias" and carrying it out when I go to university.

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(2020年7月15日)

Abstract

I study historic heritages conservation. I suggest a way of using crowd-funding, and the object of the study focus on local heritage in this year.

Crowd-funding is coinage which put “crowd” and “funding” together. It uses the internet, and it can fund a small amount of money from a large number of unspecified people. Crowd-funding has many kinds of way. I decided to use a type of purchase. Type of purchase’ system is that supporter supports money to be drafted project, and supporter gets many things or service as a return.

1. Introduction

Context of study: I was interested in historic heritages. In April 2019, there was a fire in Notre Dame Cathedral. I knew the thing in the news. I was surprised, so I decided to study about historic heritage conservation. And I studied the topic last year. I suggested three things. First, we are donating actively. Second, we are using of crowd-funding. Third, we are teaching about historic heritages for children. Children can know the importance of historic heritages. And children actively donate. In this year, I decided that I concentrate focus on crowd-funding to study. I studied the target of local historic heritages.

Purpose of study: The context of purpose is the same as the study of last year. I suggest that we can do a way how to support for supporting organization. And I will suggest that I concentrate focus about crowd-funding to study. So, I suggest a way how to use of crowd-funding.

The way of study: The main way is the internet. I collect information about crowd-funding. I used information which collect last year.

I compare with the information on some website when I collect information.

I can the collect information.

2. Discussion and implications

I search about crowd-funding. Crowd-funding is coinage which put “crowd” and “funding” together. It uses internet, and it can fund a small amount of money from a large number of unspecified people. The people who have many ideas or wish can send as “do drafting”. And the people who sympathize with these things can support them as “supporters”. Easily point to both people is the greatest characteristic.

There are some advantages of crowd-funding. For example, to spread the likelihood about funding, to be got an attractive return, they can do test marketing to use return. It has demerits, but its advantages larger than its demerits.

Crowd-funding has many kinds of ways. So I searched which way is the most suitable for my study. And I thought that “type of purchase” or “type of hometown tax” is the most suitable for my study. The type of purchase is generally known as crowd-funding. Supporter supports money to be drafted project, and supporter gets many things or service as a return. The type of purchase is machinery like this. Type of hometown tax’s machinery is that local government concretely change project which they want to solve the problem, and they can raise money with hometown tax from the person who sympathizes with the project. Type of hometown tax use hometown tax’ system, so we can get a deduction for the donation.

I think that “do drafting” is local people, so I suggest a measure of support which use type of purchase.

The issue is to set the targeted amount or return, and I want to think in case of doing crowd-funding. This study hasn't finished yet.

3. Literature

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Coronavirus and hunger problem in the world

～For a stable supply～

5229

1, Abstract

Population of hunger have increased in the world since 2016. People are concerned about it by the spread of infection. We have to resolve the problem quickly. So I paid attention to the food losses. In developed countries, people dispose of foods that we can eat yet as it is. However, if we get rid of the food losses, we can get foods for two billion people. So developed countries are do their best to solve the problem as soon as possible. For example, France and Italy passed new law. In France, donation of foods increased by 15 percent. And the disposal prevention made a decline in losing foods rate. In Italy, donation of foods increased by 21 percent. And losing foods decreased by 31 percent. These law are improved consciousness of people for losing foods and it will lead to send developing countries foods through donation of foods. Japan has Food loss reduction promotion law and Food recycling law. However Japan could not improve considerably. So Japan needs the law as law of France and Italy. I thought that we have things we can do by our self. Supermarkets and convenient stores make a lot of losing foods. When we take goods there, most of people select goods which have a long best before date. So goods with an imminent expiration date remain unsold. It makes losing foods. I suggest that stores reduce number of selling goods. And stores should sell goods near best before date.

2 Introduction

Infection of coronavirus spread around the world now. So it is concerned by a lot of people. The number of fatalities from corona virus reached 18thousand in Japan. It reached 100million in the world. Japan is developed country but most people cannot not work and earn a living. So developing countries are more serious than us. I knew there are a lot of people suffering from hunger in the world. However I could not do anything for them. When I read the article on the coronavirus and hunger problem, I thought that I should research into them.

2 Discussion and implications

WFP defines hunger as “Maintaining a reasonable minimum weight for your height and not getting the energy you need to perform light activities”. The United Nations estimated 820 million people are suffering from hunger in the world according to their report in 2018. It is increasing for three years. Among the hunger problems that are occurring worldwide, Hunger and food problems in Africa are particularly serious. Africa has the highest rate of hunger, with 30.8% of people in East Africa malnourished. There are four main reasons why hunger in Africa remains unresolved. The first is an abnormal phenomenon such as climate. The second is the competition for resources and food. The third is civil war and conflict. The fourth is education. In order to solve these problems, it is possible to reduce food loss and distribute food to people all over the world, support and strengthen agriculture, and support by donations and donations. One-

third of the food produced worldwide is thrown away. The amount reaches more than 1.3 billion tons a year. The problem of "food imbalance" is that surplus food is thrown away in developed countries and the hungry population is increasing in developing countries. Global food demand is growing year by year. Reasons for this include "increasing world population," "increasing demand for livestock products due to rising incomes," "rapid growth in China and India," and "increasing demand for agricultural products for biofuels." The world population is estimated to exceed 9.2 billion by 2050. With the development of China and India and the improvement of people's income, the demand for meat is increasing. Many grains are needed for the production of livestock products. By 2020, 13% of the world's agricultural grain production, 15% of food oil production and 30% of sugarcane production are expected to be used as raw materials for biofuels, and there are concerns that they will compete with food demand. The current situation is that supply is not catching up with these demands. Agricultural technology has improved and the yield per area has increased, but supply is unstable due to "frequent abnormal weather," "progress of desertification," "constraints on water resources," and "outbreak of livestock infectious diseases." It is in a state. However, reducing food loss can increase supply as much as possible. Another problem is that there is no mechanism for delivering food loss to developing countries. In developed countries, food that is still edible is still discarded, but according to the Food and Agriculture Organization of the United Nations (FAO), eliminating this food loss and waste will secure food for 2 billion people. In developed countries, there is a growing movement to reduce food loss that causes hunger, and as part of this, new laws have been passed in France and Italy. In France, a law was promulgated in 2016 prohibiting food loss for large supermarkets with a store area of more than 400 square meters. The law requires that expired food be donated to charity or reused as fertilizer or feed, and fines will be imposed for violations. The law increased food donations by 15% and reduced waste prevention losses by 14.5% across the food industry. In Italy, a law to regulate food waste was passed in 2016. This is an attempt to reduce food waste by simplifying the donation procedure, and unlike France, there are no penalties, but tax incentives are set. The law has also been successful, with food donations increasing by 21% and food loss per capita from 95 to 65 kg, down about 31% over the four years from 2016. Such laws raise public awareness of food loss and lead to the delivery of food to people suffering from hunger through donations. Although Japan also has laws such as the Food Loss Reduction Promotion Law and the Food Recycling Law, it seems that food loss has not been improved much compared to France and Italy. A similar law is needed in Japan.

3 Conclusion

When I thought about something more familiar to us, I came up with food loss at supermarkets and convenience stores. Many people will choose the one with the earlier expiration date when picking up the item. By doing so, the customers who come later will get closer to the expiration date, and eventually some products will expire. Therefore, we propose to reduce the number of products to be lined up and thoroughly sell products with the closest expiration date. If all the items with the same expiration date are placed on the spot, it is possible to prevent the later customers from getting closer to the expiration date. People who line up products often have to check to see if they're gone, which increases work, but they'll have to do it because it's something they can do to reduce food loss.

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○ Abstract

My motivation for me to pursue this research is that my father is a smoker. I wanted to find out about second-hand smoke. He learned that just smoking would shorten his lifespan by as much as 10 years.

The purpose of the research is to think about how to prevent non-smokers from being harmed by second-hand smoke. As a research method, we will investigate using the Internet and books. At this time, credibility is important.

1 Purpose of research

I have been studying cigarette since last year. So I was looking into minors. The average lifespan of cigarettes is shortened by about 10 years just by smoking. Moreover, the incidence of cancer increases from two to four times. From the above, it can be asserted that tobacco is very dangerous. I found out that second-hand smoke is very dangerous in school lessons and research. There are mainstream smoke and second-hand smoke in smoking. Second-hand smoke contains about twice as much dangerous substances as mainstream smoke. Even non-smokers may be inhaling second-hand smoke. And I would like to think about what kind of measures should be taken to reduce the number of second-hand smokers.

2 Research method

Think about it with reference to the Internet and books. Since there are various data on the Internet, it is important to check the publisher and find out accurate information based on some data. Books get information from relatively up-to-date ones.

3 Conclusions and issues

First, I will explain about cigarettes lightly. Tobacco contains more than 200 kinds of harmful substances, and highly addictive nicotine, tar, and carbon monoxide are well known. In addition, it contains more than 50 types of carcinogens, which cause cancers such as lung cancer and increase the risk of second-hand smoke. First, I will explain the effects of second-hand smoke on children. Health hazards from second-hand smoke in children include sudden infant death syndrome (SIDS), respiratory symptoms (cough, sputum, shortness of breath, etc.), bronchitis, pneumonia, and middle ear inflammation. Among them, SIDS is a disease in which a previously healthy baby suddenly dies. Tobacco is a risk factor for SIDS and is said to increase the risk by 5.77 times if the father and mother are smokers. Considering the risk of smoking during pregnancy, it is still best to quit smoking. It is believed that the effects of second-hand smoke as a fetus continue even after the child grows up and becomes an adult. It has been found to be associated with obesity, diabetes and metabolic syndrome in adulthood.

Prevent Traffic Accidents

~Utilization of AI~

5302

Abstract

My motivation for this research is that in recent years we have seen more and more news about traffic accidents caused by elderly people mistaking their brakes for their accelerator or driving in reverse. As the population ages, these accidents will inevitably increase in the future, so changing people's attitudes is important to reduce these accidents. I started this research, because I thought that mechanical support would be essential.

Introduction

The goal of this research is to deepen our understanding of current and future measures that are being implemented and developed to prevent traffic accidents, and to present our own views on how we can support the elderly to reduce the number of traffic accidents. I have been researching this theme since last year, but my research of the past was limited to search technologies. This year, I would like to conduct research with a view to proposing how the technology can be used to reduce traffic accidents.

In conducting this research, I mainly used the Internet and books. I was able to hear from people who are actually using the technologies.

Discussion and Implication

One countermeasure currently in use is JINS MEME DRIVE. By simply driving with the glasses on, the eye potential sensors and six-axis sensors of the glasses capture the blinking and eye movement associated with fatigue and drowsiness, as well as head movements. It then detects changes in the driver's alertness (the degree to which the brain is awake) and alerts the user to the possibility of drowsiness on screen and in voice via the application. According to those who have actually used the system, it will alert you to drowsiness with a fairly loud sound. Some other companies have installed cameras in the car to detect eyelid movements and apply an electric current to wake you up. However, all of these systems have to be linked to a smartphone application or send an electric current through the body, both of which can be a bit burdensome thing for regular people.

Self-driving cars have also been widely used in recent years. The use of self-driving cars offers a variety of benefits. A look at the Metropolitan Police Department's website shows that most car accidents caused by people over the age of sixty-five are caused by driver carelessness. It is hoped that by shifting drivers from a person to a system, the number of traffic accidents could be reduced by preventing carelessness, carelessness, and misplaced brakes and gas pedals. Already Softbank, DeNA, Okinawa Electric Power Company, and others are conducting research on the prevention of traffic accidents by automated drivers using AI. In particular, an American company called Nauto, which started using self-driving in 2007, has driven a total of 400 million kilometers of self-driving cars in a year. I believe that self-driving buses are a very effective countermeasure, because they can be used in mountainous areas where the population is depopulated and aging.

Conclusion

I propose the use of smart glasses using AR, which is an augmented reality that superimposes a variety of information on the real world as it is actually seen. Users wear smart glasses, which are similar to glasses, and tell the smart glasses their destination by voice, and the glasses display maps and directional information superimposed on the actual landscape in front of them, allowing them to navigate safely and without getting lost. By adding a function that can warn drivers of dangerous or risky places on the road, everyone will be able to drive safely. The eyeglass-shaped device allows both hands to be free, allowing the driver to concentrate on driving.

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The Medical Problem in Developing Countries How to eliminate the medical gap

5303

Abstract

There are few drugs in developing countries because drugs was developed for profits rather public health. Because of this, developing countries in a vicious cycle (can't be cured→can't work→can't earn→can't be cured). This vicious cycle triggers not only medical gap but also economic gap. Moreover, developing countries is not under the circumstances that people really cure because infrastructure is not developed and there is areas where electricity is not supplied enough. As a solution, I suggest subsidy to scientists or doctors who make medicine for developing countries.

Discussion and Implications

(i) The cause of death in developing countries

According to シェア = 国際保健市民の会, "The world's leading causes of death are lifestyle diseases such as heart disease, cancer, and cerebral hemorrhage, yet 3.3 million people die from infectious diseases every year such as diarrhea, AIDS, pneumonia, malaria, tuberculosis, and measles. In addition, 500,000 people have died from pregnancy-related causes. These preventable and treatable diseases account for more than half of all deaths worldwide, with 95% of these deaths occurring in the developing area." It shows that in developing countries there are many deaths from preventable and treatable infectious diseases.

(ii) Problems in developing countries

Why do so many deaths occur from preventable diseases that are known as curable? It's because they don't have hospitals to begin with, or they don't have the money to get the medicine. Many people in developing countries do not have access to adequate health care because of the country's tight finances or low personal income. The status quo of health care remains bad because the lack of access to adequate health care destroys their bodies and reduces their income, and the government cannot collect enough taxes. It's a vicious circle. To solve this problem, we need to break out of this vicious circle. Also, according to Medicines Sans Frontiers, "Medical research and policy is based on market principles rather than public health needs. The system relies on patents for drugs and medical tools to recoup its R&D costs, and those products are distributed at high prices. Drugs are developed to meet the needs of economically powerful developed countries, so not much is being developed for the developing world's needs. According to Medicines Sans Frontiers, "Development of medicines for children with HIV, which is common in developing countries, has been slow. Whereas, developing countries have a shortage of medical personnel, poor transportation infrastructure, and power shortages in many areas, and have not developed vaccines that do not require needles or cold chain transportation systems, and Therefore, solving this problem requires ingenuity to ensure that drugs are developed to meet the needs of developing countries.

(III) Solutions

- Breaking away from the vicious cycle

Economic development is necessary, but concrete methods have not yet been considered.

- Devices to ensure that drugs are developed to meet the needs of developing

countries

I think it would be a good idea to create a system of subsidies for scientists to develop drugs tailored to the needs of developing countries. This would make it easier for scientists to develop the medicines needed by developing countries and help solve their problems. We need to think a little more about where the subsidies come from.

(IV) Issues

- How to develop the economic aspect of developing countries?
- Are there any other factors that create health care disparities?
- Where do the subsidies come from?

Conclusion

The problems with drug discovery, which is based on market principles rather than public health needs, are that the medicines needed by people in developing countries are not developed and the prices of medicines are set too high. Because of these problems, medical care in developing countries does not work well, and it is a vicious cycle of not being able to receive treatment, not being able to work, decreasing income, and not being able to receive treatment. This vicious cycle is not only causing problems with medical care, but also economic disparities. In addition, developing countries have inadequate transportation infrastructure and power shortages in some areas, so the environment is not conducive to treatment. It is necessary to subsidize the developers of drugs for developing countries and to improve the environment.

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The Future of VR Technology

~ Promoting Education through VR

5304

Abstract

The global epidemic of the coronavirus has changed our lives dramatically. For example, there are VR trips that make you feel like you're on a trip without actually going on one. School closures for long periods of time have led to educational disparities and other problems, but if VR technology spreads, it may be possible to create VR classrooms in virtual worlds to teach classes. However, introducing VR technology requires special applications and expensive devices. If this disadvantage can be remedied, VR can make learning feel like playing a game for children.

1 Introduction

Due to the outbreak of the coronavirus, schools were closed for about three months and children's academic performance is said to have declined. The reason for this is thought to be that children are no longer able to go to school and study, and their desire to learn has declined, which has been compounded by a disturbance in their lifestyle. I would like to develop VR technology and think the way to reduce the cost.

2 Discussion and implications

Technologies similar to VR include augmented reality (AR).

Definition

Actual use of VR

Medical x VR (surgical simulation)

Real estate x VR (property preview)

Sightseeing x VR (You can experience the atmosphere without actually going there)

Sports x VR (training. Experience a sense of presence.)

About Learning with VR

Advantages

Functionality

It is possible to create actions that are far more subtle than models and that can only be done in VR. The ability to show children more detailed and realistic details is great for education. In fact, according to a survey of 1,000 K-12 teachers in the U.S., 85% of them said that VR education is useful.

Children's interests

Children are more engaged in studying and able to participate in activities independently because they feel more immersed in the space and are not limited by their own perspective, rather than shown in photos and videos. "Active learning," or children's active participation in the classroom, also affects children's learning outcomes.

Disadvantages

Cost

The reason for the lack of implementation may be the high cost and burden of implementation. First of all, it is necessary to have many cameras and tablets to observe. In addition, classroom software and 360-degree video do not yet exist sufficiently for this purpose.

Enough knowledge

Some Japanese parents are concerned about whether the knowledge memorization, which is thorough in the usual classrooms, is being done well enough. Compared to paper-based teaching materials, VR that conveys information visually does not emphasize the information to be memorized.

3 Conclusion

Here I propose the use of VR to make the problematic 'online classes', which are now being tried and tested around the world, more like a conventional school atmosphere. Specifically, we are considering the introduction of English conversation and out-of-school learning.

By using VR for learning English conversation, it is possible to practice realistic situations over and over again, and the learning effect is expected to be high. In addition, by using avatars, you can practice pronunciation and phrases without being shy.

Field trips allow students to see 360° and 3DCG images of landmarks around the world, which allows them to do field trips while at school.

However, there are plenty of problems to introduce these. Therefore, I think it is most important that we first actually touch VR. By doing this, we can reduce the resistance to VR.

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Abstract

Now, 3600000000ha land is becoming desert in the world . Artificial factors of desertification is overgrazing , forest loss and overcultivation . According to the United Nations Convention to Combat Desertification, one in three people (2.4 billion) live in the arid land, which accounts for about half (41%) of the earth's surface, and half of these people (1.2 billion) are among the poorest in the world, according to the United Nations Secretariat for the Convention to Combat Desertification. In this study, we focused not on how to stop desertification, but on how to make effective use of the desert. Therefore, this research focused not on how to stop desertification, but on how to make effective use of the desert.

Deserts are vast and large enough to generate electricity, a climate with little precipitation per year, and strong sunshine, making them ideal for solar power. The Sahara Desert already has experimental desert solar power generation. There are several issues there, including transmission and maintenance aspects. It is technically and financially difficult to run a transmission line to the bottom of the sea in a plan to send electricity from the Sahara to Europe. In terms of maintenance, it is important to keep the panels and Sand and dust gets into the machine and needs to be cleaned out. However, it is one of the challenges because humans cannot continue working under the hot sun. In addition, it is still difficult to send the electricity generated there to other countries because of the political issues specific to the region. However, it is also said that electricity could be generated on about 1.2 percent of the Sahara Desert's land to power the entire world. The study's final proposal is to solve the world's overall power shortage by generating electricity not only in the Sahara but also regionally using other deserts.

Introduction

The goal is not to stop the rapid growth of deserts, but to solve both desertification and other social problems (power shortages) at the same time by making effective use of them.

Conclusion

Fourteen three percent of tropical and sub-tropical forests are dry forests. The majority of the world's biodiversity is maintained in arid forests. Solar power in the Sahara Desert could potentially power the entire world if an area of roughly 1.2% (335 x 335 km) of the Sahara Desert were solar powered. In fact, solar projects in North Africa are creating new hope for the world. At a time when thermal power contributes to climate change and the dangers of nuclear power, solar power can not only alleviate power shortages but also reduce greenhouse gas emissions, and deserts, a vast area of land with low precipitation rates and strong sunlight, are extremely suitable for solar power. Several large solar power projects are already underway in North Africa, and the electricity produced is being used in the region. Exports of electricity to Europe are also expected, and although there are still some barriers to overcome, it is possible that North African countries will lead the power industry in the future.

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1 Abstract

Pharmacist is a job that prescribes medicines for patients who came for their health. Needless to say, some of pharmacists work in not pharmacies but companies that develop new medicine. These days, pharmacy has become a place that pharmacists not only give patients medicines but also patients talk with frankly. However, under the effects of COVID-19, there are movements to avoid personal communication with close distance in Japan. Therefore, this problem may lead the impossibility of having communication between pharmacists and patients eye to eye.

I think that utilizing an App and using electrical prescription will enable them to have personal communication with close distance.

2 Purpose

Today, COVID-19 is affecting our economics activities intensely, and pharmacies at which pharmacists work are no exception of the effect. In these days, there are plastic sheets in the counter in the pharmacies. Also, there are some hand sanitizers for patients. Like this, the pharmacies are countering measures for spread of COVID-19. Because of this, communication between pharmacists and patients are obstructed. To solve this problem, utilizing an App for having conversation smoothly with patients and digitize prescriptions which patients receive are essential for pharmacists. I think that these plans will realize the future that they can have conversation smoothly again. They will be able to feel senses of security because they will not be exposed the risk of catching COVID-19.

3 Method

I used Internet mainly in order to research. I visited website by ministries and agencies and confirm the truth all over when I visited an unreliable website carrying the URL of there. Also, I tried not to trust the uncertain information by making sure of the fact. Regarding the research path, first I narrowed down the specific workplaces where pharmacists are in short supply using objective data, and determined the research target. In addition, using a search engine such as google scholar, I will be able to make concrete proposals to realize smooth communication between pharmacists and patients again by referring to previous research.

4 Suggestion

I believe that three elements are indispensable for the "smooth communication between pharmacists and patients under this situation where COVID-19 is widespread" that I proposed. It is electrical prescriptions, App, and delivery systems.

1: Electrical prescription

The electronic prescription is a new type of prescription that utilizes the My Number system to convert the medicine prescribed by the doctor to the patient into data and send it to the patient's mobile phone instead of using a paper medium. Japanese government has stated that it will start operation in the summer of 2022, but it is still not well known in many pharmacies. One of the merits of electronic prescription is that patients do not have to carry a prescription if they bring their health insurance card because the nation manage their personal prescription with My Number, and once pharmacists enter the data, they need not do the same work multiple times. It is possible to prevent medical

errors because there is no such thing.

2: App

For applications, where pharmacists and patients meet online, there is no need to think of any new mechanics, and current videophones will do.

3: Delivery systems

In September 2017, the Ministry of Economy, Trade and Industry provided a service to deliver the dispensed drug after the pharmacist provided necessary confirmation and medication guidance to the patients before drug preparation, but the Pharmaceuticals and Medical Devices Act (Pharmaceuticals)

Clarified that it does not conflict with the method. In other words, even online, if the pharmacist gives the patient proper and sufficient explanation and guidance, the medicine can be delivered to the patient's home. Delivery to the patient's home may be the delivery company hired by the pharmacy or the pharmacy itself.

5 Future tasks

In the future, I think that I must disseminate efforts to build new forms of pharmacist-patient relationships, such as the shift to electronic prescriptions, the utilization of the My Number system, and communication with videophone. Also, many of the patients who go to pharmacies are elderly, I will have to consider whether they can respond to new initiatives.

6 Sites

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Abstract

Aging and depopulation are in progress in the area I live in. Around my house, there are many houses which cannot judge people are still living or not. It has been thought that a number of rural vacant houses are increasing, because they are no demand. The problem was treated as difficult one, because it connected with bad smell and view deterioration, also it cost a lot to demolish. However, people who want to move to rural towns from the city are increasing, because of COVID-19. These days, remote work has become popular, so we do not have to go to the office. We also can work at home, someone move from the city. I thought I will take this opportunity to think of a suggestion on how to reduce a number of vacant houses. Now, vacant houses are managed by individuals or companies. I will change it to only one or a few real estate companies which are able to manage them. Then, it will donate a good house for the customer. However, new houses are more in demand than vacant houses, so we have to donate low cost. It is essential that subsidies from government or municipality are realized. If we can realize this system, a number of vacant houses would reduce.

1 Introduction

Recent years, vacant houses problem is getting serious. From the Nihon Keizai Shimbun survey, in October 2018, vacant houses rate was 13.8 percent. It was the highest rate since it started. Furthermore, the expected vacant house rate in 2033 is 30.2%, and about one-third of the houses will be vacant. Recently, many topics such as the vacant house problem have been taken up in the news. Unoccupied houses spoil the landscape and adversely affect the surrounding houses. Therefore, it can be inferred that if the number of vacant houses continues to increase, it will cause enormous damage to the area. In Japan, the birthrate is declining and the population is aging, and the population is declining. Therefore, it is expected that the number of vacant houses will increase steadily in the future at this rate. Therefore, I thought that the vacant house problem had to be solved as soon as possible. I thought that a high school student could make a novel proposal for this vacant house problem, which many scholars have tried and error, and decided to do this research to solve the vacant house problem as much as possible.

2 Discussion and Implications

1. Know the current situation of the vacant house problem. Specifically, we will investigate the ratio of vacant houses to the total number of units, the total number of vacant houses, problems caused by the increase in vacant houses, and the causes of the increase in vacant houses. These are mainly searched on the Internet.
2. We will investigate the measures taken by the Japanese government for vacant houses and clarify the problems. Take a look at how to improve it.
3. Use Google scholar to review and browse scholarly research. Take a look at how to improve it.

3 Conclusion

The impact of vacant houses on the surrounding area is deterioration of the landscape, fire induction, and foul odors. Over 70% of respondents said they did nothing to deal with vacant homes. The Japanese government's policies include the integration of vacant house banks and the housing stock distribution support project (subsidy system for purchasing used homes). Unification of vacant house banks allows you to search for vacant houses nationwide at once, but there are cases where real estate does not handle the property, so it may be a transaction between individuals. The housing stock housing management support project is a system that provides subsidies up to 650,000 yen when purchasing a second-hand house. However, there is a problem that there are few people who apply to this system because there are various conditions.

Special measures to curb the occurrence of vacant houses are the transfer of the vacant house if the heir who inherited the residence of the decedent transfers the house or site after seismic reform or demolition. An ordinance that specially deducts 30 million yen from the amount of capital gains. It is the idea of the Ministry of Land, Infrastructure, Transport and Tourism.

1. Amendment of law

Amendment of special deduction for vacant house measures announced by the ministry of health, labor and welfare

2. Unification of administrators

Let the real estate company manage it. Make it easier for real estate companies to buy vacant homes by paying real estate companies subsidies for the number of vacant home purchases

3. Opening the site

Create a site where you can search for vacant houses nationwide. If there is a vacant house you like, you can chat with the person in charge of the vacant house.

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Ministry of Land, Infrastructure, Transport and Tourism Unoccupied house special deduction

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Nihon Keizai Shimbun

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Abstract

The 17 goals of the SDGs: Sustainable Development Goals, adopted by the United Nations in 2015, include item 6: "Ensure access to and sustainable management of water and sanitation for all", and water scarcity and poorly maintained sanitation is a challenge to improve in today's world. I became interested in water scarcity in Africa when I learned about it in a school class, and I decided to do research to contribute to the SDGs by understanding this problem to the extent that I could and thinking of solutions.

First, I researched the current situation of water scarcity on a global scale. I found that many sites indicated that water scarcity was severe on the African continent, and that the situation had not changed in recent years. This is due to the fact that the water supply facilities that have been installed are not being used sustainably, according to the study. In 51 provinces in Africa, only 54% of the water supply facilities are in operation, and about half of them are not being used, even though they were installed. In response to these findings, I decided to propose two solutions to the "high cost of maintenance and management of water supply facilities," which is believed to be the cause of these problems. The first is to reduce the water charges associated with the use of the facilities, and the second is to spread the education necessary to maintain and manage the facilities. Since there is still no clear evidence and results for these proposals, the collection of information and materialization of the proposals are the subjects of future research.

1 Purpose of the Study

Around 663 million people in the world still lack access to clean drinking water. This is because there are some of the poorest and most vulnerable people in the country: the rural population, the elderly, the disabled, and those who are discriminated against based on caste, race, or religion. Many of them are concentrated in Africa, and many women and children are not able to receive adequate educational and social services because they have to go to distant water sources every day to fetch water. In addition, approximately 289,000 children under the age of five die every year due to unsanitary water and other reasons.

This situation led me to believe that water scarcity and poorly maintained sanitation is a challenge to improve in today's world, as stated in item 6 of the SDGs: Sustainable Development Goals, adopted by the United Nations in 2015: "Ensure access to and sustainable management of water and sanitation for all". Therefore, I decided to do research with this as a major objective in order to understand this problem to the extent that I could and contribute to the SDGs by developing solutions. I narrowed down the subject of this research to wells, which are the most common "water supply facilities using groundwater" for local support, and set as a specific objective the consideration of its issues and future.

2 Research Methodology

The research method was mainly based on the Internet literature review, which was based on articles on water scarcity in Africa and global water scarcity in Google scholar and other sources, as well as information from the websites of reliable

government agencies such as the Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of Foreign Affairs. To obtain the most up-to-date information, we tried to find and use the most recent documents and data with the latest information and description dates. The references for the information used in the study are described in section 4 below.

3 Research Results and Issues

First, I looked at the current state of water scarcity on a global scale.

Figure 1 is taken from the Ministry of Land, Infrastructure, Transport and Tourism's website and shows the seriousness of water scarcity on the African continent. Also, although this data is from 2013, UNICEF's "Percentage of the population using safely

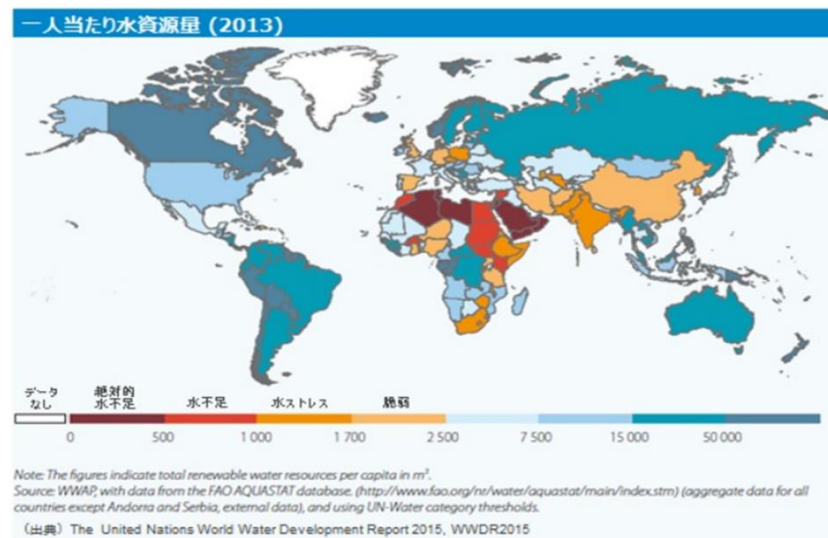


Figure 1: "Water resources per capita (2013)" (from 4 references / 3)

managed drinking water services (2017)" and "Percentage of the population with basic hand-washing facilities at home (2017)" (see 4 references/four), based on data up to 2017, show that there is still We have found that water shortages are not fully resolved in Africa. Each of the aforementioned three data sets also shows water shortages not only in Africa, but also in Central Asia, East Asia, and equatorial and inland areas such as southern North America and northern South America. (In addition, according to 4 references / 5), "In 2008, the percentage of the world population without access to safe drinking water by region was 37% in Africa, 25% in South Asia, and 17% in East Asia, with Africa accounting for more than 1/3 of the total" (partially modified), so although the information is outdated I focused on the African continent because I found that water scarcity was particularly acute in Africa).

Next, I examined the current situation of water scarcity in Africa.

Figure 2 shows the "Trends in Access Rates to Safe Water in Africa." The blue bars show the access rates for the whole of Africa, the red bars show the access rates in rural areas, and the green bars show the access rates in urban areas. The graph shows that the overall access rate has increased over the years, but there is also a large difference between the access rates in urban and rural areas. For example, while the access rate for urban areas was 85% in 2012, the access rate for rural areas was much lower at 53%. We also find that rural areas (here synonymous with rural areas), relative to urban areas, are home to about 60 percent of Africa's population. Taken

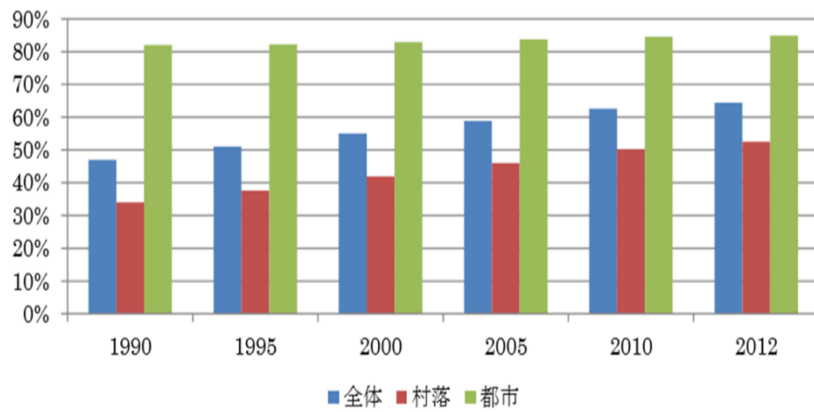


Figure 2: "Trends in Access to Safe Water in Africa: Differences between Urban and Rural Areas (2013)" (4 references / 5)

together, this access rate has been improving in Africa as a whole, thanks to foreign support, but the problem is the improvement in the rural areas.

In addition, with regard to water sources, it was found that

- (1) Groundwater is present in large areas of the African continent
- (2) Abundance and stability as a water source
- (3) In many cases, the water quality is good
- (4) It is possible to develop near residential areas.

For these reasons, we also found that about 80 percent of the African population uses groundwater, which indicates that many "groundwater supply facilities" (here synonymous with wells) have been installed for assistance. This indicates that many "groundwater water supply facilities" (here synonymous with wells) have been installed in support of the project.

In light of the aforementioned improvements, I decided to focus my research specifically on the dissemination of wells in rural areas.

Figure 3 is a graph from UNICEF & WHO (2011) showing the "non-utilization rate" of installed water supply facilities in 20 African countries. As can be seen, four countries (from left to right on the horizontal axis) - Congo, Sierra Leone, Cote d'Ivoire, and Nigeria - have an inactivity rate of more than 50 percent, with three of them close to 70 percent. Many of the following countries also have about 30 percent of their domestic capacity out of service. In addition, it is said that the amount of loss is as high as 1,320 to 1,650 billion yen in Japanese yen. It was also found that in

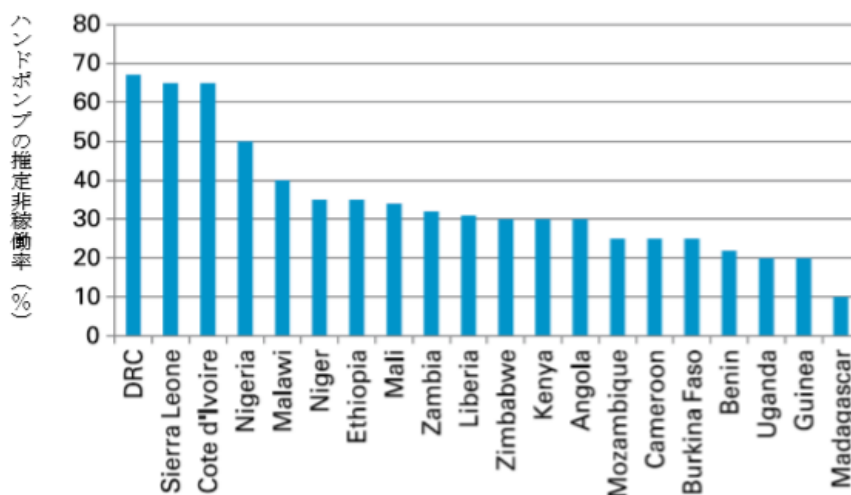


Figure 3: "Estimated Non-Operation Rates of Hand-Pumped Water Supply Facilities in 20 African Countries" (from 4 References / 5)

Africa as a whole, only 54% of the 51 provinces surveyed had an availability rate, with about half of the wells "installed but not being used" and 25% of all the facilities installed ceasing to operate within two years of installation. In other words, it turns out that the most important improvement to the current water shortage problem is not the installation of new wells, but rather "sustainable use of existing wells".

There are many possible reasons for these facilities management problems, including lack of clarity about the organization of maintenance and management by users, lack of maintenance costs, and lack of knowledge and education for repairs and inspections.

(1) The high cost of water for the residents to use the facilities

(2) Lack of knowledge (education) to facilitate maintenance and management

We would like to propose solutions to these two causes.

(1) Water prices.

The first two major possible ways to reduce the user's fee burden are the following Theories.

Hypothesis 1] To increase the income of the residents, provide well-positioned jobs for the local population.

Hypothesis 2] Reduce the cost of installing and maintaining the facility in order to lower the cost of use.

Education of the population is expected to be essential to the former, and will be included in the next section, "(2) Education". On the other hand, the latter is expected to have many solutions, such as simplification of the equipment and reduction in the cost of materials used for the equipment.

(2) Education

As mentioned in [Hypothesis 1], in order to provide local people with a job, it is expected that they will need to be given a good education to some extent, but it is unclear whether they will have the funds and manpower to do so, and it is highly unlikely that they will be able to afford it in the first place. My hypothesis is that

Hypothesis 3] Reduce the cost of equipment installation and have the local population do their part.

Hypothesis 4] Encourage people to move to urban areas, or move temporarily, and place themselves in an environment where they can receive an education.

I see the most potential in the former. It would be a great way to kill two birds with one stone if we could impart knowledge of equipment and other skills to them through their work, and even if they are not educated, they would be able to share the workload. The latter is expected to be difficult to achieve from a human rights and moral standpoint, but if such services are enhanced, there may be some possibilities.

The four hypotheses described in (1) and (2) have not yet been thoroughly investigated. Therefore, the first task is to collect enough information to consider the possibility and usefulness of these hypotheses.

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○Abstract

At present, Japan has been faced the issue of a super-aging society, whose rate of elderly population (over 65 years old) is higher than 21%, since 2007. With this change, it is concerned that national expenses for public medical insurance system would be larger. How can we solve this problem? In this paper, I explain the three methods not only to reduce the expense for the system but to enhance Japanese' public health condition. A data from National Cancer Centre, Japan, indicates that Men's cumulative death rate of cancer is 23.9% and women's one is 15.1%. Also, 14.2% of medical treatment expense was spent for cancer cure in 2017. It is a well-known fact in Japan cancer is the main cause of death. Nonetheless, most Japanese have low awareness of prevention of cancer. I find that this situation is caused by complicated current cancer screening test, considering the Japan National Survey 2018. Therefore, I suggest three reform plans to reduce the budget and remove the barrier of test, focusing on cancer and related things. Briefly, the methods are: 1. Simplification of the cancer screening method, 2. Enactment of the system to reduce medical bills for cancer surgery according to his/her past screening test, 3. Management of Individual health information using The Social Security and Tax Number System. I expect great reduction in public medical budget associated with increase in cancer screening rate due to simplification of screening methods, medical expenses subsidy system, and effective individual medical data management system.

Keywords: Cancer screening; Public medical insurance system; Social Security and Tax Number System; Blood test.

1. Introduction

1.1 Cancers and medical treatment expenses

The first cause of death in Japan has been cancer since 1981 [1]. It is true that age-adjusted cancer-death rate has been decreasing; however, number of cancer-death is still huge. 14.2% of medical treatment expenses which cost approximately 4.4 trillion yen in 2017 was spent for cancer cure. [2]

1.2 Awareness of prevention of cancer in Japan

Though the fact that the main death cause is cancer is known well in Japan, cancer screening test is not spread adequately. Japanese government recommend taking cancer screening test of five organ (lung, stomach, large intestine, mamma, and uterus). However, implementation rates of the test are almost under 50%. [3]

Efficacy of the tests is proved scientifically, therefore, we need to make the tests widely performed to prevent cancers.

1.3 Anticipated effect of cancer screening test from the perspective of treatment costs

The progress of cancers is usually measured by "The TNM Staging System", and it is revealed that higher the number of the stage is, larger expense is required.

Therefore, we can suppress the expense for cancer treatment as Public medical insurance system using screening tests effectively.

2. Discussion and implications

2.1 Simplification of screening of screening test

According to the survey in 2015 by Japan Cabinet Office〔4〕, the most commonly expressed reasons why they did not receive cancer screening test were “Too busy to take screening tests”, “Have confidence in my health status” and “Have quick access to hospitals”.

Current ways of screening test are quite complicated and need time and many people tend to avoid them. However, the progression of cancer is not clear and cancers often develop without one’s consciousness.

Therefore, test which is simple and does not require long time is essential to solve these problems. Currently, some research on simple screening methods are being developed. AICS® (Amino Index Cancer Screening) is one of the most developed methods, which requires only 5mL of blood. In this method, by analysing PFAA (plasma free amino acid), what kind of cancer he/she have can be diagnosed.

Another method is called Liquid Biopsy which detects cancer by analysing micro-RNA in blood. While AICS requires 5mL of blood, this method requires only 100µL.〔5〕

Cancer screening tests like these two methods can enable us to have “cancer screening in our house”.

2.2 The system to reduce medical bills for cancer surgery

I propose a system in which if a person who has undergone a cancer screening designated by the government during a certain period in the past needs treatment for cancer, the government will bear the out-of-pocket cost of the treatment. It is said that more serious cancer needs more money to be cured.

Therefore, screening test as secondary prevention is very important.

The intervals between cancer screenings for five sites designated by the government are as follows.

- Stomach, cervical, breast..... Once every two years
- Lung, colorectalOnce a year

Based on this consultation interval, if a person who has received cancer screening at each site in the past within the above period is diagnosed with cancer, the government will aid with treatment costs. While focusing on helping people with cancer, we hope that this system will provide an opportunity for more people to undergo medical examinations to reduce the burden of cancer treatment.

2.3 Using the social security and tax number system

Cancer screening is performed not only by local governments such as municipalities, but also by companies and the like for employers. However, data such as individual examination history and examination results are not managed in an integrated manner. Therefore, we propose to centrally manage the data related to cancer screening received

by everyone using My Number. Centralized management of data can encourage each person to have appropriate and effective cancer screening.

3. Conclusion

I suggest these three ways to improve national health expecting effective cancer prevention by new systems and technology. In Japan, it is predicted number of elderly people will continue to grow. This will cause more cancers and life-style related disease. Therefore, this research apply to other diseases prevention.

However, whether public medical insurance system budget will increase or not could not be proved precisely because there are some ways to decide the increasing of diseases will affect public medical insurance system budget or not.

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Abstract

These days, many countries including Japan are getting energy from fossil fuel. But, fossil fuel is limited. So, we have to get energy from renewable energy, such as solar, wind, and geothermal power. In my research, I gave attention to solar power. The purpose of my research is to think how to spread solar power generation and increase the amount of generation.

To increase the amount of generation, I suggest setting up solar panel in the desert area. There is a vast land in the desert and the sunlight is strong, so the sunlight can be taken in sufficiently.

Next, I suggest setting up solar panel in the snowing area. In this area, the amount of solar radiation is high and the weather is stable in summer, so we can increase the amount of generation. If it is not a large amount of snow, we can melt the snow accumulated on the solar panel by the heats of generation. As a result, it is generate even in winter.

1. Introduction

Now, power consumption in the world is increasing because of population growth and improving standards of living. But, resources such as oil, coal, natural gas, and uranium, which are mainly used as energy sources, are limited. So we have to get energy from renewable energies such as solar power, wind power, and geothermal power. In my research, I took attention to solar power generation, which is familiar and has been introduced at a high rate in recent years. The purpose of my research is to think how to spread solar power generation and increase the amount of generation.

1. Examine the reality of solar power generation in the world.
2. Summarize the advantages and challenges of solar power generation.
3. Think how to spread solar power generation.

Use Internet, books, and homepage of electronic companies.

2. Discussion and implications

First, I examined the reality of solar power generation in the world. These days, Introduction rate is increasing in every regions. The amount of generation is highest in China and continue America, Japan, and Germany. Next, I researched merit and demerit of solar power generation.

Merit

1. reduction of electricity cost in each house
2. no carbon dioxide emissions
3. cutting off solar heat, live cooler in summer and warmer in winter

Demerit

1. The amount of generation is greatly affected by weather and region
2. Installing cost is high and need regular maintenance
3. Generation efficiency is about 20%, not high (water power 80%, wind power 45%)

3. Conclusion

To increase the amount of generation, I suggest setting up solar panel in the Sahara desert. There is a vast land in the desert and the sunlight is strong, so the sunlight can be taken in sufficiently. If solar power generation is realized in the Sahara Desert, it is thought that the world's electricity demand can be supplied by using about 1.2% of the

area of the Sahara Desert. But, it is not realized because of the difficulties of installing equipment, collapse of solar panel and decline of generation efficiency by sandstorm. Also, African countries, where Sahara desert is located, have unstable international condition. Therefore, it is difficult for these countries to leave the management of solar power generation. For these reasons, I think that developed countries in Europe should buy the land which are used for solar power generation. Buying the land for free is unfair to African countries, so European countries should sell electricity obtained from solar power generation to African countries at a low price. This can solve the shortage of electricity in African countries and leads to economic development of the countries.

Second, I suggest setting up solar panel in the snowing area. In this area, the amount of solar radiation is high and the weather is stable in summer. Thus, we can increase the amount of generation. On the other hand, some people may think we cannot generate in winter because of the snow accumulated on the panel. However, solar panel generate heat when it change sunlight into electricity. Therefore, temperature on the panel rises and snow melts naturally. We can generate if there wasn't a large amount of snow. Actually, Nagano prefecture, which is a snowing area in Japan, has the largest amount of generation in Japan. Finally, I think the amount of the snow which is suitable for generation from Japan's data. Nagano prefecture, which has the largest amount of generation in Japan, annual snowfall is about 160 cm. In contrast, Power generation tends to be low in areas such as Tohoku and Hokuriku where annual snowfall exceeds 200 cm.

Therefore, I recommend setting solar panel in the area where annual snowfall is under 200 cm.

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太陽光発電への雪の影響 - エコめがねエネルギーBLOG

Abstract

1. Most students had to study at home because corona virus epidemic happened in Japan. The situation in which students study is very different among schools or areas. For example, there are high school students who cannot have any classes at school and at home, while there are elementary school students who can have classes with using Internet tools such as ZOOM. It made gap of study among students.
2. This study was conducted in order to suggest an environment in which students can study at home almost by themselves.
3. In this research, there are few data from government. However, according to Nippon Foundation, in the research, being asked “what is the most anxious thing?”, about 40% of students answered it is about studying. What is more, about 60% of them answered that they thought this epidemic made a big gap among students. There is no solution to this problem.
4. Now, I want to propose a new idea as a solution to this problem. It is using AI system called Qubena, which make it possible for each student to study by themselves. Actually, this system was invented to solve the problem of shortage of teachers in a small island, Ama town. However, it will be useful to study at home due to virus epidemic.
5. This idea will solve this problem and decrease hard jobs of teachers. Students can study at their own pace.

Introduction

Most students had to study at home because corona virus epidemic happened in Japan. Then, nobody expected this situation, therefore we were not ready to stay at home for more than 3 months. The situation in which students study is very different among schools or areas. According to ASAHI News Paper, for example, there are high school students who cannot have any classes at school and at home. While there are elementary school students who can have classes with using Internet tools such as ZOOM. That was because some students don't have tools to take classes online or don't have enough the Internet environment. It made gap of study among students. This study was conducted in order to suggest the environment in which students can study at home almost by themselves whenever corona virus epidemic happen.

Methodology

In this research, I used the Internet and tried to collect literatures. However, there are few data from government, therefore I extracted from some newspapers.

Discussion and implications

According to Toyo Keizai Online, 40% of the time to study decreased during staying at home.

Some local government tried to solve this problem. For example, in Gunma prefecture, some educational videos was put in the Internet. However, it was difficult to put videos for all kinds of students, such as elementary, junior, or high school. Therefore, it is so important for each school to support their students in their own ways so that students don't feel worried about their educational problems. However, according to Nippon Foundation, in the research, being asked “what it is the most anxious thing?”, about 40% of students answered that is study. What is more about 60% of them answered that

they thought this epidemic made a big gap among students.

Now, I want to propose a new idea as a solution to this problem. That is using AI system called Qubena, which makes it possible for each student to study by themselves. I think Qubena is the most reliable and useful system there is, because it's was made by Kawaizyuku supported the Ministry of Economy. Actually, this system was invented to solve the problem of shortage of teachers in a small island, Ama town. However, students can study only math by this system. That is because, in the case of math, it is easy to make that system of typical answers. And to do use this application, it is need to buy or borrow tablets. This is an obstacle to introduce this system to each student.

Conclusion

Today's students are anxious about the situation of study because they could not go to school due to corona virus epidemic. And now, there are no solutions to this problem and it all depends on each local government or school. I want to propose that they use AI educational system, Qubena, but they could study only math and other subjects system is being invented.

It is necessary to introduce more effective systems.

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<https://www.data-artist.com/contents/ai-education.html>

教育×AI 令和元年10月22日

Abstract

These days, I've come to see empty house when I was walking around the town where I live in.

In addition, those problems have become a frequent problem in the news etc. Therefore I studied the vacant house problem to solve. Gunma Prefecture had about 150,000 vacant houses at the end of fiscal in 2018. if the building had a need for each of these situations. The study found that there are many types of vacant houses, among them those classified as other vacant homes, which are particularly problem. Therefore, I considered some method to solve this. The first way is to make it just a vacant lot by dismantling what is classified as "other vacant houses" that are not used by anything in the vacant house. The second is to rent them out as rental properties. It was thought that it was possible to reduce the land efficiently and without waste of not being used by doing these things.

Results and issues of the research

The study found that the fact that there are about 150,000 vacant houses in Gunma Prefecture in 2018, the number is increasing year by year. The reason for this is that the population of Gunma Prefecture is decreasing and people are no longer able to live because of the aging of their homes.

Moreover, according to graph 1, there was a kind in the vacant house, and it was found that there was "secondary house", an empty house for rent, an empty house for sale, and

種類	内容
二次的住宅	別荘のように週末や休暇時に避暑・防寒・保養などの目的で使用される住宅で、ふだんは人が住んでいない住宅やふだん住んでいる住宅とは別に、残業で遅くなったときに寝泊まりするなど、たまに寝泊まりしている人がいる住宅
賃貸用空家	新築・中古を問わず、賃貸のために空き家になっている住宅
売却用空家	新築・中古を問わず、売却のために空き家になっている住宅
その他の 空き家住宅	上記以外の方が住んでいない住宅で、例えば、転勤・入院などのため居住世帯が長期にわたって不在の住宅や建て替えなどのために取り壊すことになっている住宅など（空き家の区分の判断が困難な住宅を含む。）

other vacant house houses as the classification of the vacant house.

Graph 1 the name of kinds of vacant houses

It was found that the secondary house was the one that there was a person who occasionally slept because it was a house where the person did not usually live in the house used for the summer and the recreation etc. at the vacation time like the villa, and the vacant house for rent and the sale were empty houses for rent and sale, too. Among the classification of vacant houses, what is in the classification of other vacant houses (houses that are not for rent or sale without anyone sleeping) has become a particular problem. Those houses become some menace. For examples, barned, abandoned and so on.

In this, I thought that it was necessary to reduce the one which corresponded to other vacant houses. I thought of two ways.

The first is to dismantle them and turn them into land for sale and rent. By doing this, you can increase the use of new houses and parking lots. However, since some of these are unknown to the administrator, I would like to think about how the owner handles unknown land.

The second is that the local government buys and manages vacant houses. We thought that this was effective because there was no trouble caused by the exchange between individuals. However, there seems to be no such margin in the financial situation of the prefecture.

However, even if such measures are taken, the shutter street will increase year by year. The reason is that fewer and fewer young people are able to move from rural areas to cities and manage their homes.

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Abstract

Nowadays, Japan is facing many problems, and depopulation is one of them. In my home prefecture of Gunma, it is also spreading, especially in the village of Nanmoku, which is famous throughout the country. It is difficult to solve this problem by ourselves, but I think it is important for us, the future leaders of Japan, to think about the future of Japan. For this reason, I decided to base my research on this theme. To begin with, is depopulation such a bad thing? Japan's total population is expected to decrease more and more, falling below 100 million by 2053. Isn't it inevitable that the population of rural areas will decrease and some areas will not be able to continue living? However, despite these problems, Japan is experiencing problems such as concentration of population in one area. While it is certainly true that it is more efficient to gather as many different institutions as possible, it is also clear that the concentration of population is becoming a problem. I believe that the best way to revitalize rural areas is to develop regional cities. Direct support for underdeveloped areas is certainly important, but what about aiming to revitalize under developed areas with the development of local cities as a starting point? But how can we achieve the development of local cities? Several methods come to mind, but it is necessary to consider the characteristics and features of each region. Recently, many regions are making efforts to promote their own attractions. With this in mind, let's think about the current situation in Japan and the world.

Introduction

At present, Japan is facing a variety of problems. One of the most serious problems is the lower birthrate and aging population. However, we can't change the birth rate or anything else. Depopulation is also a major problem, and it is spreading in Gunma Prefecture, where I live, especially in Nanmoku Village, which is famous throughout the country. Although this problem cannot be solved by ourselves, I think it is important for us, the future leaders of Japan, to think about the future of Japan. That's why I decided to base my research on this theme.

Discussion and implications

First, the effects of depopulation were studied. According to the Cabinet Office, the main effects of depopulation are: deterioration and abandonment of Japan's precious resources such as forests and fields, decline of key industries, decrease in the number of workers, increase in abandoned farmland and desolate forests, and inability to pass on the traditional culture and original landscapes that have been cultivated over the years to the next generation. I looked into the current state of the degradation of fields and forests due to the decline in population in the mountainous areas.

First of all, let's talk about the forests. The depopulation has already progressed and the forestry industry has been declining in recent years. However, the number of forestry workers in the country has been decreasing, but the speed of the decline has slowed down due to the "Green Employment" program that started in 2003. On the contrary, the number of new employees in each year has been increasing since the start of the project, and the number of new employees has remained stable at almost 3,000 every year. As the aging rate of the population increases, the total number of workers will probably decrease when the generation changes, but it will probably increase after that. Even if we take into account the impact of the decline in Japan's overall

population, the number of workers will not decline any further.

The type of industry does not seem to be that much of a problem. Imports of logs have been decreasing in recent years, and the proportion of processed synthetic lumber is extremely high, although this depends on the circumstances of the importing country. In contrast, the supply of domestically produced lumber for plywood was 2.49 million m³, 18 times greater than in H12. Domestic lumber also accounts for 30% of the total supply of lumber for pulp and chips, and more than half of softwood chips, or 62%, are made from domestic lumber. Domestic wood is considered to be of very high quality, and there will continue to be demand for it in the future. Although there are concerns about the degradation of forests due to the increasing depopulation, if the decline of the forestry industry is not so severe, the forests will be treated with care and their degradation will not progress rapidly. However, the disappearance of the areas that serve as the base of forestry workers may make it difficult for them to do their jobs.

Next, I would like to talk about the degradation of fields. In recent years, the idea of local production for local consumption has become more widespread, and many products produced in the region are now available on the shelves, but for consumers, cheaper foreign products are still easier to come by. Naturally, a farmer would want to locate their base of life as close to the fields as possible, but the disappearance of a region makes this difficult, and there is a risk that the land that has become so inconvenient will be abandoned. As we have been studying, the government is also taking a variety of measures. The government is taking a variety of measures to promote self-reliance in underdeveloped areas, improve the welfare of residents, increase employment, correct regional disparities, and create a beautiful and safe country. However, I wondered if direct financial support for these underdeveloped areas is really effective. For example, the budget for promoting self-reliance in underdeveloped areas is very small in relation to the overall amount. If they really want to get out of the vicious circle of underdeveloped areas, they should focus on promoting self-reliance rather than improving the welfare of the residents. However, Japan's population will continue to decline, and it is predicted that the population will fall below 100 million by 2053.

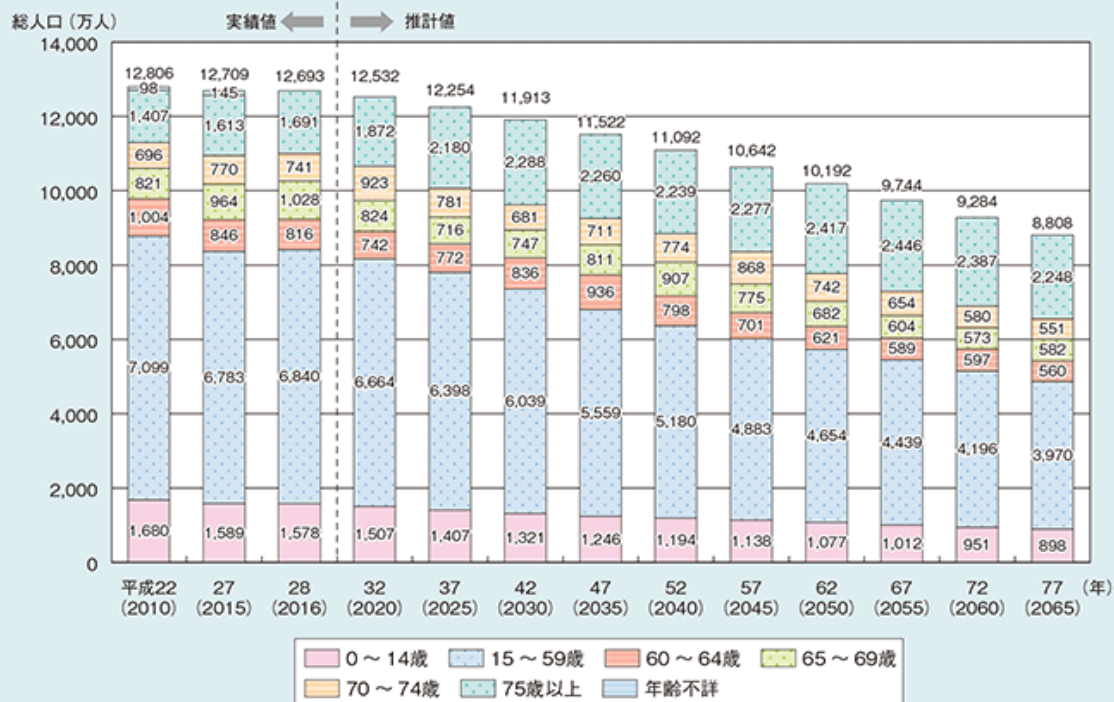
Unit: 10,000 (population), % (composition)				
		Total number	Man	Woman
Population (million)	Total Population	12,693	6,177 (sex ratio) 94.8	6,517
	Elderly population (over 65 years old)	3,459	1,500 (sex ratio) 76.6	1,959
	65-74 year old population	1,768	842 (sex ratio) 91.0	926
	Population over 75 years old	1,691	658 (sex ratio) 63.6	1,033

	Working-age population (15-64 years old)	7,656	3,869 (sex ratio) 102.1	3,788
	Juvenile population (0-14 years old)	1,578	808 (sex ratio) 104.9	770
Composition	Total Population	100.0	100.0	100.0
	Elderly population (aging rate)	27.3	24.3	30.1
	65-74 year old population	13.9	13.6	14.2
	Population over 75 years old	13.3	10.6	15.9
	Working-age population	60.3	62.6	58.1
	Juvenile population	12.4	13.1	11.8

Source: "Population Estimates" by the Ministry of Internal Affairs and Communications, October 1, 2016 (final figures)

Note: "Sex ratio" is the male population per 100 female population

図1-1-3 年齢区分別将来人口推計



資料：2010年と2015年は総務省「国勢調査」、2016年は総務省「人口推計」（平成28年10月1日確定値）、2020年以降は国立社会保障・人口問題研究所「日本の将来推計人口（平成29年推計）」の出生中位・死亡中位仮定による推計結果
 (注) 2010年、2015年の総数は年齢不詳を含む。

It is inevitable that some areas will disappear in this situation. Every citizen has the right to choose where to live, but to provide the same level of service everywhere would be economically difficult and, above all, manpower intensive. Residents who continue to live in those areas may have to choose whether to move to the city or continue living there, albeit at a reduced cost. Increasing the budget is difficult, but we can rethink how we spend it. For example, seeing a doctor after you get sick is inevitably going to cost you money for medical care. However, in order to prevent this from happening, cities and towns could drastically reduce medical costs by simply

holding health classes and making health awareness posters. I believe that such efforts by local governments will have a positive effect on the depopulation and aging of the population, which will continue to grow in the future. It is also found that the economy of underdeveloped areas will stabilize with the development of the local core cities. This is based on some research data (based on a comparison of the real deficit ratio of some core cities with underdeveloped areas), and although I do not know what is actually responsible for this, it can be interpreted as such from the factual data. So I decided to look into the ways in which regional cities develop. However, I don't need to think about it, but each local government has been taking various measures to improve the visibility of the city. The hometown tax, tourism strategies, and other efforts of each local government may lead to the survival of underpopulated areas. However, the hometown tax payment system, which is the most reliable instrument for these efforts, is also facing some challenges. Regional disparities. A lot of people in one region may collect taxes, but not in another. That's what happens. If you concentrate on one area, you won't be able to attract others; the popularity is concentrated in certain cities, towns, and villages. It would be nice if there was a perfect system or solution, but it is an idealistic system. Isn't it the role of the government to review the current system and respond to the changes in society? At first I thought it would be a good idea to decentralize the administrative agencies and companies concentrated in the cities to the rural areas, but of course, this is not going to be easy, and we have yet to find a solution. It might be more convenient for government agencies and research facilities concentrated in urban areas to be concentrated in one place. However, in this day and age, it is almost always possible to send and receive information anywhere in Japan (although there are exceptions). In this day and age, it is no longer meaningful to dare to concentrate in the same place. If a terrorist attack were to occur, it would bring down the national system at once. If they were dispersed to the rural areas, it might lead to the development of regional cities around them. In Japan, where the national population is declining significantly, it may be necessary to rethink the entire social system. That's why I decided to pay attention to an initiative by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT). The Ministry of Land, Infrastructure, Transport and Tourism has been promoting the formation of "small hubs" for several years now. The Ministry of Land, Infrastructure, Transport and Tourism has been promoting the formation of "small bases" for a few years now, and the "small base" is an initiative aimed at the revitalization of a new community area in a region where multiple communities, such as an elementary school district, congregate. The current situation and analysis of depopulated settlements (1)-The process of depopulation and depopulation measures

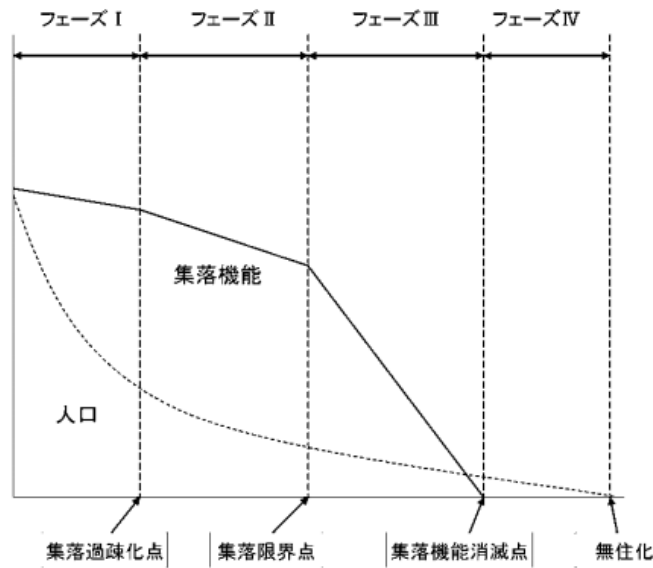


図-1 過疎化進展のプロセス

Analysis of Depopulation in Depopulated Villages (1): Depopulation Process and Depopulation Measures Asoh Kenichi

According to Asoh Kenichi, it seems that in the later stages of Phase III, it will be necessary to reorganize and consolidate settlements. Reorganization and integration will not be a simple matter of relocating the centers of life. What is important is how to connect the settlements. It is not easy to do so if there are government offices and stores scattered around. If we can create a place where these facilities gather, the number of people coming and going between them will increase, and community buses will be very convenient. However, even if they are able to survive as a community, the population will probably decrease again, and they will face the same problem. As mentioned above, the population of Japan as a whole will continue to decline, and it is obvious that this will eventually happen. That's why I think what will be important in the future is for Japan as a whole to come together as a single entity. That is to say, we need to think about how to connect local cities and communities by applying this idea of "small centers" to a larger framework.

愛知県 豊田市

一般社団法人 おいでん・さんそん

都市と山村が支え合う「暮らし満足都市」豊田市
～中間支援組織「おいでん・さんそんセンター」の取組～

全国過疎地域自立促進連盟 会長賞

都市部の小学生が観光を兼ねて山村の暮らしを体験する「セカンドスクール」を体験し、夏休みを中心に開催。延べ200名の児童が参加する。

北海道 上士幌町

特定非営利活動法人 上士幌コンシェルジュ

NPO法人上士幌コンシェルジュによる都市と農村の交流促進プロジェクト

総務大臣賞

月一回開催の誕生会は、先輩移住者が18年前から行っている会。夕食を持ち寄り、町民・移住者・移住希望者等が集い、人が繋がる場となっている。

From the list of good practice awards for fiscal year 1990 to 2018

Conclusion

Some local governments in Japan are already seeing the results of such efforts. Every year, the Ministry of Internal Affairs and Communications (MIC) awards several municipalities as good examples of countermeasures against depopulation. Among them, the above two are initiatives that focus on how to connect mountain and rural areas with urban areas. As long as these efforts are actually producing results, they are likely to be effective.

However, the question is how to make it happen, and it is not something that will work in every region, but rather, it is necessary to think of initiatives that suit each region. In order to do so, it is necessary to understand each region well and take time to solve the problem, but it is also a problem that needs to be solved as soon as possible, which cannot be done in such a short period of time. The people of urban areas, the residents of underdeveloped areas, and each of us should pay close attention and share an awareness of the problem. It is already a problem that will have a great impact on the survival of Japan itself, and it is not someone else's problem.

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Analysis of Depopulation in Depopulated Villages (1): Depopulation Process and
Depopulation Measures Asoh Kenichi

Abstract

While smartphone ownership among middle and high school students is very high [1] [2], it has been reported that students who spend more time on their smartphones have lower academic performance [3] [4]. On this basis, many parents and teachers may consider smartphone use by middle and high school students to be problematic or restricted. I hypothesized, however, that the longer students spend on smartphones, the lower their academic performance is because they spend less time sleeping and learning. If this is correct, then the use of smartphones while ensuring the necessary time for sleep and study would not decrease academic performance. After clarifying the relationship between smartphone use and academic performance, we began this study with the objectives of proposing a method of use that enables junior and senior high school students to balance smartphone use and academic performance, as well as proposing a service that allows them to practice the proposed method of use on a daily basis. Statistical data were used to determine the relationship between the time spent using smartphones and the time spent studying and sleeping, and to examine ways of using smartphones that enable users to maintain and improve their academic performance. Based on the results, it is proposed that in order to use smartphones while maintaining and improving academic ability, it is necessary to maintain the amount of time for study and sleep necessary for one's own use. We propose a real-time learning situation sharing service for this purpose.

Background

Currently, smartphone ownership among middle and high school students is very high; according to a 2016 MMD Research Institute survey, smartphone ownership was 93.0% among high school students [1] and 40.9% among middle school students. [2] On the other hand, according to the National Institute for Educational Policy Research's "H26 National Survey of Scholastic Achievement and Learning Status"[3] and the "Project on Scientific Research on Motivation to Learn"[4] by Tohoku University and Sendai City, people who spent more time on their smartphones each day tended to have a lower percentage of correct answers than those who spent less time on their smartphones. This could lead to the idea that prolonged smartphone use is detrimental to academic performance, which would limit the use of smartphones by middle and high school students. However, none of the statistics show a causal relationship between smartphone use and academic performance. The purpose of this study was to clarify the relationship between smartphone use and academic performance, to propose a method of use that would allow junior and senior high school students to balance the use of smartphones with academic performance, and to propose a service that would allow them to practice the proposed method of use on a daily basis.

Methods

First, in order to understand the factors that affect academic performance, such as study time and sleep time, I looked for statistical data that compared these factors with academic performance. I also looked for data that compared those factors with smartphone usage. From these, I declared what factor is related to decrease of academic ability. The statistical data were mainly published on the web.

Next, the obtained data were used to determine the relationship between the time

of smartphone use, study time, and sleep time. Based on this, we examined the usage of smartphones for middle and high school students to balance the use of smartphones with their academic performance. Finally, we suggested that the proposed usage can be put into practice on a daily basis.

Results

According to Ebina et al. (2019), a survey of 557 junior high school students on health-related factors such as study time and sleep and the time spent on smartphones showed significant differences in study time and sleep (Figures 1-8) [5]. According to the weblio dictionary, "mid-awakening" in Figure 5 refers to "waking up in the middle of the night and then not being able to sleep" [6].

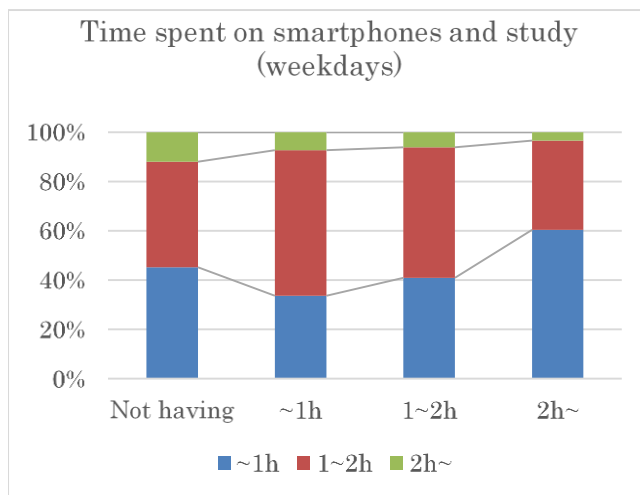


Figure 1

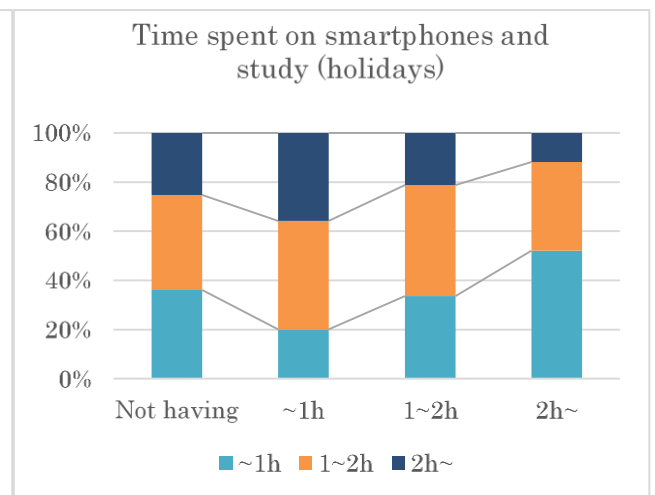


Figure 2

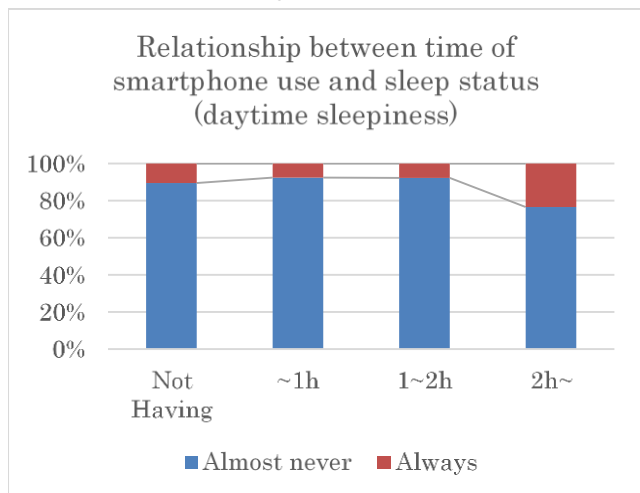


Figure 3

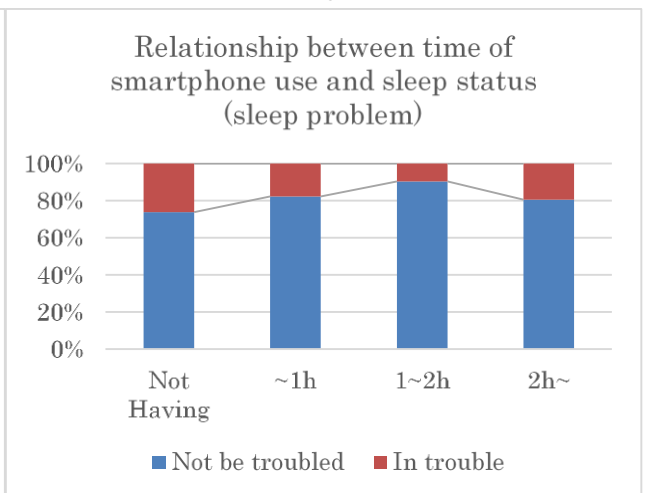


Figure 4

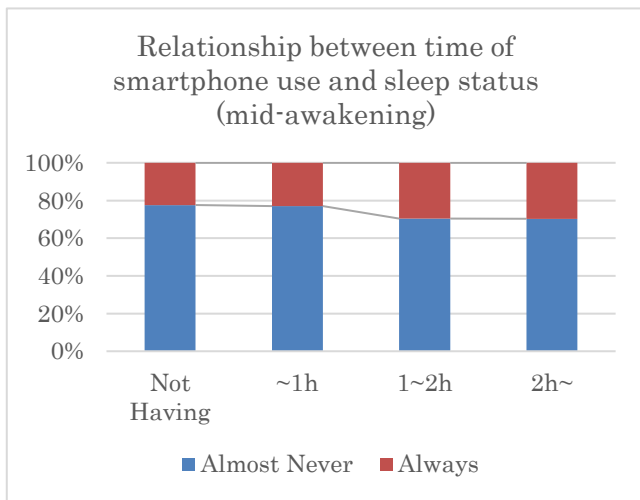


Figure 5

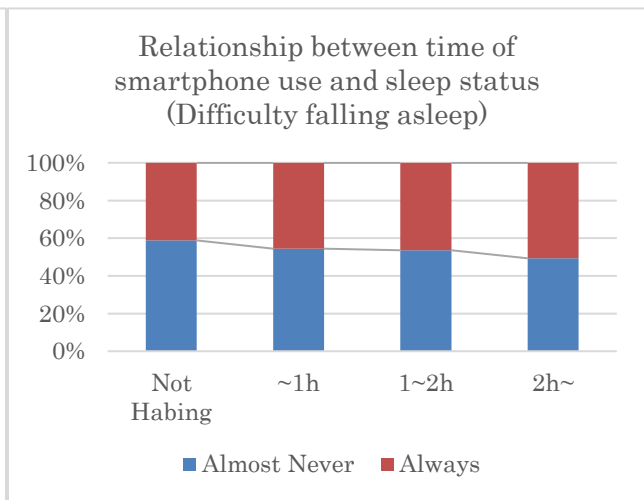


Figure 6

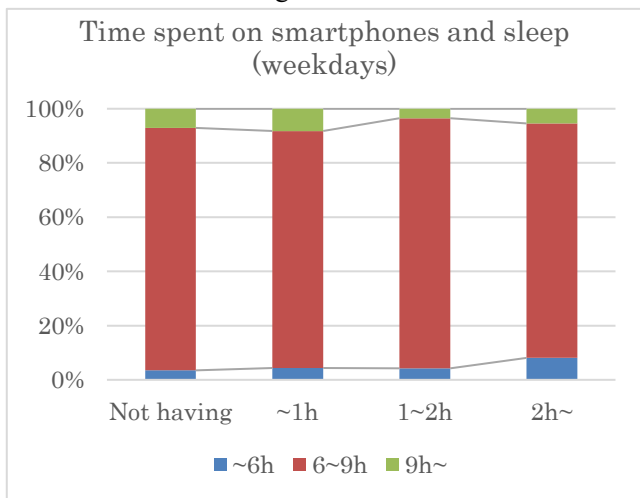


Figure 7

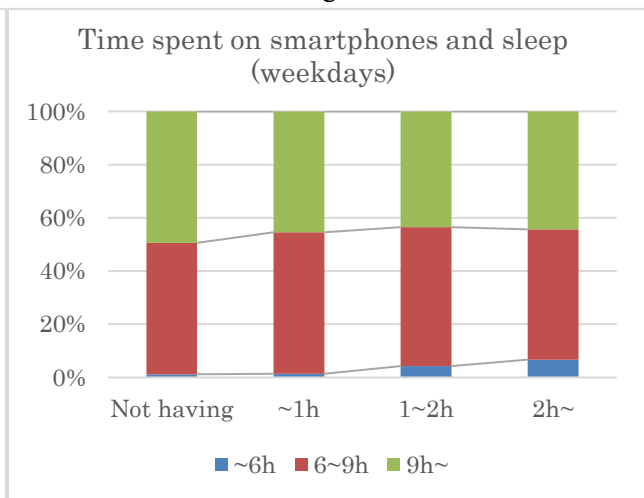


Figure 8

Overall, it was found that those who spent more time on their smartphones spent less time studying, less time sleeping, and have poorer quality sleep. In many items, a greater percentage of students who used their smartphones for less than an hour were found to have behaviors that had a positive impact on their academic performance than students who did not own a smartphone. In particular, in the item on sleep problems (Figure 4), students who did not own a smartphone were more likely than students in any other category to say that they were having trouble with it. We hypothesized that this was because students who had not been given a smartphone were less financially able to spend money on education at home than those who had not. However, the evidence to demonstrate this has not been examined so far. Thus, a number of other factors that cannot be revealed by this data alone may be responsible for the differences in other items depending on the time of smartphone use. This would require a large and detailed study to clarify, and was not considered feasible in this study.

At least from this data, we can say that people who spend more time on their smartphones tend to spend less time learning and sleeping and have poorer sleep quality. Therefore, they are likely to have lower academic performance.

Based on these facts, I propose that the best way to use a smartphone to maintain and improve academic performance is to use it while ensuring the necessary time for study and sleep. This is similar to the idea of the so-called "three-point fixation," which is the lifestyle habit of fixing the time of waking up, starting time for home study, and bedtime [7]. This helps more time for sleep and learning to become a habit.

There are two main things that middle and high school students need to do in order to achieve this usage. The first one is to understand how much time they need to study and sleep. In terms of sleep time, by observing one's own physical condition, one can understand the deficiency or excess and adjust it. Study time, on the other hand, is difficult to ascertain when you increase or decrease your study time, as your opportunities to measure changes in academic performance are limited to regular tests and practice exams. The other one is to understand how much time you need to study and sleep, and then figure out how to use the time in a day. We propose a real-time learning situation sharing service that allows you to manage all of these at the same time and is expected to improve your academic performance. This service allows users to share their plans for the day and their current progress with other users. We also propose a system that allows users to create questions and others to answer them. We also propose a system in which users can create questions and other users can answer them, so that they can check their own academic performance whenever they want and know how much time they need and what they need to learn. It also helps the question-makers to better understand their own learning.

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A remedial measure to pollen allergy
～Focus on planting no pollen cedar～

5315

Abstract

In Japan, it is said that one in four people have pollen allergy. We are in the situation that we have to take preventive measures against them. 75% of the cause is Japanese cedar. So, I focused on how we reduce cedar pollen. At present, the ones that have few cedar pollen count are being developed. To plant these ones instead of normal ones, we have some issues that have to be solved. First, we have to find the way to use cut trees. There are a lot of Japanese cedar trees. Besides, many trees are being imported. So, it is difficult to use them. What I thought of was to process cut trees into pencils and sell them at low cost. Second problem is that we are suffering from lack of forestry workers. We have to consider who should plant them and how we reduce the time to do that. I came up with an application to connect forestry workers and cedar forests. Forestry workers input their information of domicile and terms of employment they hope for. This application enables us to plant no pollen cedar trees quickly.

Introduction

In Japan, it is said that one in four people have pollen allergy. 75% of the cause is Japanese cedar. So, I focused on how we reduce cedar pollen. We are in the situation that we have to take preventive measures against them. At present, the ones that have few cedar pollen count are being developed. To plant these ones instead of normal ones, we have some issues that have to be solved. So, I decided to study about this theme.

Discussion and implications

Scientists are doing research of cedars that have little pollens. To plant these trees, we have to cut normal trees down. To proceed this plan, we have to solve some problems. First, we have to find the way to use cut trees. We can't cut trees without having purpose. Second, we have been suffering from lack of forestry workers. However, it is getting more difficult to find the way to use them because of the rise of foreign trees that are low price. So, using Japanese trees to build buildings is almost impossible. I think making pencils made of cedar trees is the solution to it. Cedar pencils are sold as quality pencils but we would be able to sell them at a low price after cutting trees. To solve the problem that we are suffering from lack of forestry workers, I think we should invent application to connect them and forests. Forestry workers input their information and terms of employment they hope for. Then, the application connect forestry workers and forests. These are my suggestions to promote the project to plant no pollen cedar trees.

Conclusion

75% of Japanese people have cedar pollen allergy. The reason that a lot of cedar trees have planted is to restore forests from the defeat of World War. Cedar trees grow quickly and straight. In those days, it is thought that cedar trees would be used for construction lumber. However, cheap lumber from foreign countries became popular and Japanese trees are hardly used. In recent years, roads paved with concrete had spread. Because of that, pollens don't absorbed into soil. Pollens continue to float in the air. Then, a lot of people are suffering from influence of cedar pollens. So, scientists are doing research of cedars that have little pollens. To plant these trees, we

have to cut normal trees down. To proceed this plan, we have to solve some problems. First, we have to find the way to use cut trees. We can't cut trees without having purpose. Second, we have been suffering from lack of forestry workers. However, it is getting more difficult to find the way to use them because of the rise of foreign trees that are low price. So, using Japanese trees to build buildings is almost impossible. I think making pencils made of cedar trees is the solution to it. Cedar pencils are sold as quality pencils but we would be able to sell them at a low price after cutting trees. To solve the problem that we are suffering from lack of forestry workers, I think we should invent application to connect them and forests. Forestry workers input their information and terms of employment they hope for. Then, the application connect forestry workers and forests. These are my suggestions to promote the project to plant no pollen cedar trees.

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The Unique Way to cure Game Addiction
~The Method to Solve without Pain~

5316

○Abstract

First of all the purpose of this research is to think of a way to solve game addiction, which is increasing and beginning a big problem all over the world. I'll consider the pain for patients and effect of that method. Firstly, ratios of game addiction people are increasing all of the world. There are a lot of heavy cases. For example, because of the addiction, so much the dead exist. We have already had some unique countermeasures for it. One example is to cure addiction with game. We call it "Reversal Thinking." We can set the timer not to use smartphone, and if we don't use it in time, it'll be cleared. I think that it' be good countermeasure for slight patients and people who has awareness, but it doesn't have effect for heavy patients. In Korea, dead person caused too much playing game was found. So they carry bold countermeasure. I think Japan should have more notice for addiction and make a countermeasure such in Korea.

○Conclusion

First, about the situation of game addiction in the world. The number of junior high school students and high school students who are diagnosed game addiction is increasing between 2012 and 2017. In Korea, an accident that a person who had been sitting dead by economy class symptom had happened. Also in Vietnam, a man couldn't stop playing games, and when others him made stop it, he was irritated. And if the situation is the worst, we should hospitalize to stop this symptoms. From these facts, game addiction is the big problem in the world, and immediate solution is required.

The problem for game addiction is a lot. For example, communication with people around you is reduced and we tend to be withdrawn. Also, the case that of playing a violent game, you will be the same and you will be violent against others is one example, too. In others, day and night reversal, absence and influence for society.

So I'll think the unique method to reduce these patients. Unique means that the less suffering to cure game addiction.

First, for people whose symptom is small, there is "The Idea of Reversal." People who use smartphone can use the app to solve the game addiction by game. This is so effective for the small game dependent. There are so many games, but here's one example. "If you stop using your smartphone, fish will grow." Set a goal of "do not touch the smartphone" in a certain period of time, and only this app will open during that time. It is a mechanism that the fish grows bigger and bigger if it is achieved without opening to the end. If you feel a sense of crisis, you can do it easily, and I think it's a tool that allows you to get away from your smartphone without much pain. However, I don't think this is enough for severe patients. One reason game addicts can't quit the game is because they're out of place. I think this is mainly due to the recent increase in games that can be communicated and the number of friends in the game who cooperate to complete missions. In other words, if you can make a place outside the game, you will be able to enjoy it outside the game, and you may be able to get out of addiction before you know it. However, finding and creating your own place is not so easy. I think some people blame others (because of that person ...) and others blame themselves (why I ...) when I can't feel where I am. The person who blames himself confirms his existence by what he is good at. "There are people who need me. I'm here." I'm absorbed in the game. Then, the ability to communicate with the people around them declines, and they tend to withdraw, creating a vicious cycle. How should we create a "whereabouts"? It's

difficult, but I think it's important that you like yourself. I think the reason why I don't like myself is "perfectionism". When I make a slight mistake or get noticed by others, I feel "I don't like this myself". In short, I feel guilty about my existence and fall into the feeling that I have nowhere to go. From this, I think it is important to eliminate feelings of guilt, acknowledge and accept your goodness and badness, and like yourself. If I can do this, I think I will be able to recognize my existence outside of the game and get out of dependence.

In addition, I introduced the case where a fatal accident occurred in South Korea earlier. Along with that, we investigated the measures taken by the Korean government against game addiction. In South Korea, it is reported that about 87% of the people know the word "game addiction" itself, and 79% recognize that game addiction is dangerous. Therefore, the government can also implement drastic policies. The countermeasures taken there are the "shutdown system". This is a policy to prevent people under the age of 16 from entering online games between 0:00 and 6:00 the next morning. In this way, the Korean government also implements such a policy after confirming the many awareness and sense of crisis of the people. This policy may not be unique, but I think it is a very efficient and effective policy.

However, such semi-compulsory policies without the understanding and awareness of the people can cause new problems for those who do not understand. Therefore, in the case of measures taken in relation to the country, it is necessary to newly consider a method to promote the understanding of the people, and if that is not possible, a method that does not cause great harm to such people.

This time, I thought about countermeasures to get out of addiction, but I was able to think a little about difficult methods. However, my goal this time is to think of unique countermeasures. This time I haven't thought about it yet and haven't found it. In the future, I would like to investigate previous research more deeply and consider better countermeasures after incorporating unique ideas such as "the idea of reversal".

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Abstract

In today's world, there is a frightening phenomenon occurring in Japan, known as the declining birthrate and aging population. As a result, the retirement age has been moved up, the pension system may be changed, and other problems are beginning to occur regarding the management of funds in retirement. It's at this time that I started researching stocks, which are attracting a lot of attention.

Until last year, I had been studying things like the preamble. However, the impact of the corona shock on Japan is incalculable. Jim Rogers, one of the world's three largest investors, wrote in his book, "There is no future for Japan. You'd better immigrate to Japan now. You should move to Japan right now. When I heard the reasoning behind it, I knew that there was no bright future for Japan. So I turned my attention to U.S. stocks. But getting into U.S. stocks is difficult for a beginner. Therefore, even inexperienced people can fleet it. I looked for ways to trade U.S. stocks.

Using books and the Internet.

The results show that the difference in GDP between Japan and the U.S. is huge, as you can see in the graph below. The Nikkei average has not seen significant growth since the high economic growth period, as shown in the chart below. However, the U.S. average has been on an upward trajectory. Also, the graph is currently under search, but both stocks fell sharply due to the coronary shock, but the U.S. has already recovered while Japan has not. Therefore, there is no future for Japan.

1 Motive

In today's world, there is a frightening phenomenon occurring in Japan, known as the declining birthrate and aging population. As a result, the retirement age has been moved up, the pension system may be changed, and other problems are beginning to occur regarding the management of funds in retirement. It's at this time that I started researching stocks, which are attracting a lot of attention.

Until last year, I had been studying things like the preamble. However, the impact of the corona shock on Japan is incalculable. Jim Rogers, one of the world's three largest investors, wrote in his book, "There is no future for Japan. You'd better immigrate to Japan now. You should move to Japan right now. When I heard the reasoning behind it, I knew that there was no bright future for Japan. So I turned my attention to U.S. stocks. However, getting into U.S. stocks is difficult for beginners. Therefore, even inexperienced people can do it easily. I looked for ways to trade U.S. stocks.

2 How I researched

Books

Ministry Sites

3 Result and Issue

Japan, which became the world's second largest economy in 1968, has prospered for more than 50 years. Even before World War II, and even before that, Japan had overcome many serious problems. However, it has turned a blind eye to the grave problems it faces

today. Japan's population is shrinking while its debt is growing daily. The number of births is also declining significantly, which means that in 20 to 30 years, if not a few years, we will be in trouble. Population estimates are the most accurate of all future projections. Jim Rogers says that.

In fact, there is a big difference between the GDP of Japan and the U.S. The Nikkei Stock Average has not grown much since the high economic growth period. The Nikkei average has not grown much since the high economic growth period. But the U.S. average has been on an upward trajectory. In addition, the coronary shock caused both stocks to fall sharply, while Japan's stock has remained the same and the U.S. has already recovered. Therefore, it would not be surprising to hear that Japan has no future. I have found that buying U.S. stocks is the better option, but I don't feel that buying U.S. stocks in Japan is a common practice in my lifetime. I thought buying US stocks in Japan might be a bit of a hassle because of all the paperwork involved, but it's not. This makes me think that I should pay more attention to U.S. stocks.

But if there are U.S. stocks, then other countries must be doing the same thing. I wondered if there were any other foreign stocks that were better than Japanese stocks, so I looked into them and found Chinese stocks. China's economy is developing at a frightening pace, and by 2050 it is expected to overtake the United States to become the largest economy in the world, and its stock price is on the rise. However, it is not a good choice for beginners, as its historical record is still limited and uncertain, and it has recently become stagnant due to economic friction with the United States. One should still look at U.S. stocks.

At least for beginners, we think U.S. stocks are good.

4 Literature

Jim Rogers Great Prediction; a Radically Changing View of the World

○Abstract

The reason why I have done this study is because I don't like insects and flyers. Do you like the place where a lot of insect gather? I think no one likes it. When I used the vending machine, there were some flyers around it, and I hesitated using it. So I don't want insects to gather around that. The goal of the study is to prevent collecting insects. The value of this study is some users of vending machine use it without concerning about insect conveniently. And then the company's profits may rise up. I wondered why a lot of insects gather around that, so I investigated into that question. The researcher has not found out the answer, but there are some theories. One of the theories is the insects misunderstood the light made by humans as the moon and used it as a marker of the direction, so they gathered in the light without knowing it. So how do you prevent insects from gathering? It was found that turning on the LED makes it difficult for insects to gather. However, I don't know when it will spread in Japan. I couldn't find any information about that.

1 Purpose of research

The purpose of this research is to make it possible to use vending machines with peace of mind by eliminating the difficulty of buying a large number of insects when using vending machines.

2 The way to research

I will mainly use the Internet to find out how insects do not come to the vending machine. It is often said that insects go by light, but we investigate why they go by light, and then seek solutions.

3 Discussion and Implications

One of the theories is Insects that are active at night have a mechanism to keep the height and direction constant by flying at a regular angle to the moonlight while looking at the moon. Since the moon is so far from the earth, the direction in which the moon is located does not change no matter how much they move, and it is a good marker to know the direction you are facing. When insects with such a mechanism look at an artificial light and try to fly at a regular angle with respect to the direction of the light, unlike the moon, the artificial light is very close, so keep a certain angle. As a result, when they try to fly, they get closer while spinning around the light. According to the site called "Iris Living Navi", they were conducting an experiment to determine which of the LED bulb and the incandescent bulb would keep insects away. The content of the experiment is to light and install LED bulbs and incandescent bulbs for 8 hours from 10 pm to 6 am the next morning. The measurement method is to check the number of insects on the drawing paper and the temperature and humidity every 30 minutes after the start of the experiment. Apply commercially available water glue to the drawing paper. The results showed that 10 LEDs and 90 incandescent LEDs were clearly effective. However, it has also become clear that it is not effective against all insects. Insects are generally

said to be easy to sense a lot of light below 400 nm (nanometers), which is the region of ultraviolet rays, and to be a guide when flying at night. Since the incandescent light bulb contains a wavelength corresponding to ultraviolet rays of 400 nm (nanometers) or less, it can be seen that the light is easy for insects to approach. On the other hand, both the neutral white color and the light bulb color of LED bulbs contain almost no wavelength corresponding to ultraviolet rays of 400 nm (nanometers) or less. Therefore, it becomes a light that "insects are hard to approach" like the experimental result. Insects with compound eyes such as moths and flies are said to collect in ultraviolet rays. Therefore, since the mercury lamp emits ultraviolet rays when it emits light, insects with compound eyes tend to gather. On the other hand, LED lighting has the property that compound-eye insects such as moths and flies do not easily collect because the wavelength of 400 nm contained in ultraviolet rays, which is preferred by compound-eye insects, is rarely generated, but other insects may approach is there. In addition, ultraviolet rays with a short wavelength of 100 to 315 nm (nanometers) are highly toxic to living organisms, and when they are exposed to insects and microorganisms, they die. However, no lethal effect on insects has been reported for ultraviolet rays with wavelengths longer than this (315-400 nm). Looking at the results of this experiment, I thought that it could be solved by installing LED lighting in the vending machine. Therefore, I investigated whether the institutions and companies involved in vending machines are promoting the use of LEDs. According to the material "Voluntary Action Plan for Reducing Total Power Consumption of Soft Drink Vending Machines" issued by the Soft Drink Vending Machines Council in 2019, "Furthermore, in recent years," vending machines equipped with LED lighting and solar power generation "have suddenly increased. It is expanding. " However, it was difficult to know the specific number and by what year almost all vending machines could introduce LED lighting. Therefore, I would like to consider measures that have immediate effects. When I thought about what I needed to do quickly, I thought that cost was important. Therefore, we considered measures to reduce the cost rather than the cost of installing a new LED bulb. We thought that measures could be taken by installing a panel that can cut UV rays in the vending machine. This is because it does not require specialized technology because it only needs to be attached to the glass plate of the vending machine. In addition, the material cost can be purchased at low cost. The conclusion of this study is that one of the factors that cause insects to collect in vending machines is that they are collected by the ultraviolet rays emitted by the vending machines. Therefore, LED bulbs that do not emit much ultraviolet rays can be considered as a countermeasure, but since it is not known by when they can be installed in vending machines, it is necessary to install UV-cut panels that can be installed as soon as possible. A company called HS Technology Co., Ltd. has a campaign to provide LEDs for free, but since there is not much literature, it is subjective, but I do not think that LED conversion is progressing rapidly. Therefore, I propose my own solution.

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○Abstract

These days, sharing economy and subscription have been expanding in order to make use of people, things, and money, which are important resources for society. Also, progress of technology are making it possible to realize things which were just imagination before. I suggest “House which is limited resident type and living period” to accept these new services and technology, not to waste limited resources, but fulfill the comfortable society. It limits residents, for example, business bachelor or students, and give them comfortable lives during short-term stay.

1 Introduction

My family was always been transferred. We had moved four times until I entered school. My father’s company paid our moving expenses. However, we had to pay for the cost of necessary items which could adapt our new house. Also if the items which we brought did not adapt our new house, we had to throw them away. That is wasteful.

In the case of entrance to school, some people have to give up their dreams because of economic reasons. For example, school expenses and the cost for living alone are too expensive. I do not think that the system of scholarship is perfect.

The family’s problems, not only money but also transfer of either couple in two-income family, the place leaving their child, and changing schools.

On the other hand, we can broaden our horizons through changing living environment. So the purpose of my study is to suggest how to reduce the extra expenses and problems, and to realize the lives which meet their needs by themselves.

I use Internet and books for my research.

2 Discussion and implications

I suggest “House which is limited resident type and living period.” It limits residents, for example, business bachelor or students, and give them comfortable lives during short-term stay.

Now, although we have dormitory for employees or university students, the residents of this house can make do with subscription for living. There are various fields about subscription, for example, furniture, home appliances, cars, clothes, decoration, toys, and cosmetics. We use vacant houses for subscription. If we join various subscription, residents do not have to do troublesome procedures by themselves. They can enjoy using it as a trial. Also they can reduce the risk of loss of accidents or disasters through decreasing belongings and fortunes.

At the houses for business bachelors, they will be able to broaden their horizons through the relationship with people of different type of business.

At the house of students, they have to do internship and volunteer work in exchange low-charge. They can deepen and make use of their learn. Also they will be able to live easily because local people accept students warmly.

For families who do not have their own house, we must solve the above-mentioned family problems. I think we can solve the problems with tele-work. In the case they have children, if they can do tele-work, they can give first priority

to living environment for children. I think it is difficult for parents to balance tele-work and childcare, and it is important for children to grow each other with other children. So they can select available childcare facilities of the whole country and live at the house near the facility during the several years. This system will lead to solve the problem of child on the waiting list for daycare. Parents will not be exhausted the care. Children who go to school should not change their schools.

Some people will think the house will be disadvantage for the companies of providing the services because this system reduces appetite for buying. But it is wrong. The residents become testers in charge for the services. They return impressions, evaluations, and opinions to companies regularly and companies make use of them. Companies can connect them to new activities and can produce products which meet customers' needs at right price and quantity. Stopping mass production and mass consumption and do activities which are close to the customers' feelings will take pride in contributing to society, protect the environment, and lead to happy work.

3 Conclusion

As digitalization progresses and we can use various services, life will become more and more convenient. However, if people depend on it and there is a lack of communication between them, both people and companies will lose sight of the relationship with society and will not know what the purposes and goals of their lives are. My suggestion of the house depends on the idea that it is ideal for people to continue the relationship with society receiving the benefits of digitalization. I think truly comfortable society is living well as a member of society and working happily.

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Gene Analysis for Preventive Medical Care
~ Suggestion for Raising Its Usability and Credibility ~

5320

Abstract

The purpose of my research is using gene analysis to keep oneself in good health. It will be connected to preventive medical care. People can inspect their genes at hospital or their own house. It means that people can test for their genes by themselves. It is good for people who do not have enough time to go to hospital and not want to spend much money for gene analysis. However, a doctor who had use this product said that the result of the examination is different partly among each company. The result may cause less reliable. Firstly, I suggest that companies which have gene analysis service make a group to share their study. If they use integrated information, it will support their trust and accuracy. Secondly, I suggest introduction of gene analysis for medical examination. Some people do not have to do with the examination, so it is important to give the chance.

1 Introduction

My purpose of my research is using gene analysis for health care and promotion of preventive medical care. Then I think that analysis service by private company is good for people in terms of money and time. In my research, I suggest the idea for trust of private companies and technology improvement.

2 Discussion and implication

I searched the information about this topic on websites concerning with gene analysis. The websites were written by a center for medical genetics, some companies, and university hospitals.

I used the thesis written by Kumamoto graduate school.

3 Reference

Gene analysis means tests that reveal genetic information about genomes and mitochondrion. We can learn probability of disease, constitution, some effect of medicine, abilities such as reflex and brains, and so on from the test. I learned gene analysis for individuals is conducted on online by private enterprise. The service is spread all over the world. The purpose of my research is using gene analysis for health care and promotion of preventive medical care. Then I think that the analysis service by private company is good for people in terms of money and time. In my research, I suggest the idea for trust of private companies and technology improvement.

Then the research about people's interest in gene analysis showed that if people know the risk of their own body, they will pay attention to their health and habits of lifestyle. In America, a man who used gene analysis was suspected to have a risk of high blood pressure and tried to refrain from having salt, the measure gives him good effect on his body.

In a Japanese company, 61 percent of people are interested in gene analysis, and 41 percent of worker at the company wanted to have the test.

Japan needs to consider the ethic for the gene treatment and announce right information. In japan, a doctor who used this kind of service said that there are clear differences among some result of one person's analysis.

I suggest that companies which have gene analysis service make a group to share their studies. If they use integrated information, it will support their trust and accuracy. Revealing the information each other is good for confirmation of each research and thesis of grounds. The rule help to maintain justice. It will give us good image for gene analysis.

Secondly, I suggest introduction of gene analysis for medical examination. Some people do not have to do with the examination. It is important to give the chance.

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1. Abstract

There are children whose dream is “To live until I become an adult” in Africa. There are also 8.1 million children who cannot reach their fifth birthday throughout the year. One child die every a few minutes. And most of them die because of pneumonia, diarrhea, or malaria. I want every children to talk about their own future with a smile, go to school with friends, and study hard for their future. For the above reasons, I decided to investigate infectious diseases which are suffered from by many children and people in Africa. Through the research, I think that it is very important to make the state in Africa known to a little more people. I think that teaching materials about infectious disease and Africa are adopted in elementary school curriculum of moral for them.

2. Introduction

As you do, African children have dreams of future, such as becoming a teacher and becoming a doctor. However, there are children whose dream are becoming an adult, drinking clean water, or studying hard at school. There are also many children who cannot go to school in developing countries. I do not mean these children are not childish, but I want children to do their best to realize dream, and go to school with many friends. There are many things to do to solve these problems, and I determined to study mainly about infectious disease.

I proceeded this investigation with collecting information from the Internet. First, I examine diseases which spread in Africa. I also look into the kinds of disease, what is factors, or the measures are done for these problems.

3. Discussion and implications

(1) The state of Africa

It is one of the reasons why some African children have the dream, growing up people, is that there are many children who cannot reach their fifth birthday in Africa. Many people are killed by “Three major infectious diseases” and “NTDs” every year. Three infectious diseases are malaria, tuberculosis, and AIDS. NTDs is one of the biggest infectious disease, like rabies. They spread in developing country, such as Africa, south Asia, or South America. However, people living in developed country, such as Japan, America, Europe, do not suffer from the infectious disease, because they know how to prevent and treat. Of course, even those who live in developing country, can use medicine, but they are not able to take this medicine. One of the reasons for this is “The problem of the access to medicine.

(2) The problem of the access to medicine

This is one of the biggest world problems which should be solved. This means that there are people who cannot take the appropriate medical care. It is said that one third of the people suffer from this problem because they cannot cure their disease. Some pharmaceutical companies try to improve the access to medical treatment. Eisai is one of the companies which try to let everyone take medical care. Eisai oppress Lymphatic filariasis, which is one of NTDs. This company decided to give medicine for nothing to 250 million people who can get infected. As of January in 2018, they had already offered 12 million drags to 27 countries. Thanks to this, some countries could have eradicated Lymphatic filariasis. Like this, not only Eisai but also Takeda, Sumitomo Dainippon Pharma Co Ltd, or Nihon pharmaceutical Co Ltd try to make the world better.

(3) To come to an end of infectious disease

There two point that we should do to come to an end of infectious disease. First, all partner, such as an international agency or bilateral aid government unite, accelerate innovation and act in cooperation more efficiently. They also should try to make completion of diagnose, predicted, and treatment. As innovation, they take measures for infectious disease to the poorest, and make efficient use of all resources. Second, it is funds. If there were least 83 billion dollars, we could cease these infectious diseases all of the world. Now, not only Global-found but also Medecins Sans Frontiers and UNICEF are doing fund-raising. However, there are not enough money to do so.

4. Conclusion

From those information, I think what we can do to solve the problems of infectious disease and help African children. Then, I came up the idea that teaching materials about three major infectious diseases and Africa are adopted in elementary school curriculum of moral. To come to an end three major infectious diseases which make people confusing, much more money is needed. Not only Global-found but also Medicines Sans Frontiers and UNICEF are doing fund-raising. To collect about 18 billion dollars, a little more cooperation is needed. Precisely for this, I think that it is most important that the state of Africa and African children make known to many people. However, it does not tell children that people cannot be in orbit for an end of three major infectious diseases or 18 billion dollars are needed. It shows that there are many children who die because of infectious diseases which can be prevented and treated in Japan, there are many children who cannot go to school, because they have to do housework instead of their family, and only small cooperation of each person can help those children. Then, children who learn about those children and state with their friends and teachers tell their family. Perhaps, they become interested in Africa and search them. If children living in developed countries know there are children, as they are, is suffering from the fear of "death", or do not go to school, study, and talk with friends, they may start thinking what they can do to save children and make the world better. Then, this may make the state of African children and infectious known to a little more people, and take growing interest in the state.

If we destroyed the infectious disease which rob many children living in developing countries of their lives, children could go to school, and we could make many smile and many dreams of many children over the world.

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○Abstract

I decided researching problems of medical care that is the most serious are caused by aging society that is Japanese big problem. Therefore, I set this theme. The purpose is researching aging society and problems of medical care that are caused by it, and thinking solution in my own way. I used the Internet checking the correctness of the written facts. Aging society is becoming a serious problem, and the number of dead person will increase. Then, the demand of home medical care is rising. These days, PA(=Physician Assistant) who assist doctors are introduced to meet patients' needs. I think correct understandings of PA and the demand are necessary to become popular among the Japanese. I suggest using media such movies and medical treatment form mixed outpatients with home medical care as solutions. Also, using application at home medical care is an effective way, because PA can report to doctors casual, and doctors deal with things rapidly. It is useful to familiarize multi-occupation with doctors' courses. I think that reconsidering medical treatment, using media, pushing ahead with home medical care and PA is necessary. Also, using application is effective to improve the quality and efficiency I think that problems I have to consider more are labor costs of PA and close solution to us.

1 . Introduction

A lot of problems are caused by aging society that is Japanese big problem. I decided researching problems of medical care that is the most serious of them.

The purpose is researching aging society and problems of medical care that are caused by it, and thinking solutions in my own way.

I connect aging society with medical care that seems irrelevant at first glance, so I can have a wide field of view.

I used the Internet to carry on the study. First, I collected information about Japanese aging society. Second, I researched problems of medical care related with it. After, I considered solution to solve their problems from an innovation perspective in my own way.

2 . Discussion and implication

Aging society in Japan is becoming a serious problem and a lot of problems are caused by it. In 2016, the percentage account for of over 65 old was 27.3% but this will reach 38.3 % in the future. Aging percentage is speculated to rise. So, the number of deaths will increase. In 2015, the percentage of it were 1.29 million people, but these may reach 1.6 million people in 2040. Number of deaths are considered to increase sharply. Then, the demand of home medical care will rise. Home medical care is a community-based medical service that doctors visit their patients' homes to see. Sometimes, hospitals are called "medical care to cure", and home medical care is called "medical care to support life". Japan set home medical care's medical fee high to promote the trend hospital to home in order to reduce medical costs that is increasing because of aging. Although special license except medical license isn't need to become a home doctor, families used this medical service made complain. Some home doctors don't

have high communicative skill and broad medical knowledge. These days, PA (=Physician Assistant) who assist doctors are introduced to meet patients' needs. They assist medical treatment. For example, they write medical records or prepare medical apparatus. Furthermore, they keep eyes out the qualities of patients' life. They play an important role. In America, PA has already spread as a national qualification, so I researched how PA play their role in America. The number of PA increased more than triple this 18 years and about 80,000 people have this license now in America. Also, 85~90 percent of people who have the license work. The need is high. To get the license of PA in America, completing two years' programs and passing the exam are necessary. After finishing them, it is possible to work in the clinical site without going through a training period like the resident system. They play the role as almost fellows or residents, prepare to perform an operation and write medical record at the operating room. PA has established a unique position as the cornerstone of team medical communication, and plays the role of a key man who manages the modern medical field by taking on the duties that can be created between doctors and nurses. These days, the medical care provided is complicated, the existence of occupations as a manager in a wide range of fields has become important, such as the need for treatment across clinical departments. That was just PA in America. It is believed that this fact remains the same in Japan. Teaching knowledge and skills to PA is employed longer is more efficient and safe, because residents often leave the hospital after several years. Also, the introduction of PA had the advantage of allowing doctors to spend more time educating residents. PA that is enjoyed the immense confidence of people always side of patients, keep continuity of cure, and protect the qualities of the hospital's cure. This way, existence of PA took root. If you want to acquire PA license in Japan, you don't need to take a national examination, but you can become a PA by taking a prescribed program and training. Some of the people who actually became PA in Japan had no previous occupation related to medical care.

3 . Conclusion

Aging society is becoming a serious problem, and the number of deaths will increase. Then, the demand of home medical care will rise. These days, PA who assist doctors are introduced to meet patients' needs. I think that generating PA's needs, understanding job of it, and improving the quality of home medical care are necessary to become popular among the Japanese.

One of the solutions to create needs is to take a medical treatment form mixed outpatients with home medical care. For example, outpatient care is provided in the morning and home care is provided in the afternoon. This ratio can be adjusted by increasing or decreasing little by little, so it is easy to implement in various regions. In addition, I think that the use of media is effective as a solution for getting people to understand correctly. In 2019, movies such as "The Peers Connecting Towns" and "Time to End Life" were released. These movies cover themes related to home medical care, long-term care, and death at home, so you can learn about the current situation. Utilization of apps is considered to be effective in improving quality and efficiency. The application of "EIR" is used in home medical care, and is used to maintain confidentiality and safely share patient information among multiple occupations. It can be used as an effective means to inform the doctor of what the PA has noticed and to respond promptly, and to inform the PA of the doctor's policy. In order to provide medical care that suits Japan, which is aging, it is necessary to review the medical treatment form, media usage, and promote home medical care and PA. It is also

considered effective to use applications to improve the quality of home medical care. The problem is that I have to think about where to start paying labor costs when using PA. In addition, this research carried out with a large scale in mind, so I think I need familiar solutions that allows us to start from ourselves.

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1, Abstract

Before I tell you about the research of this year, I explain about one of last year. In Japan, there are two types of care, palliative care and hospice care. They are defined as different, but they are treated as the same in Japan because they are little-known. The palliative care of Japan is offered to patients of cancer or AIDS on early stage. The care is carried out by a team of palliative in a hospital or their homes. On the other hand, hospice care of Japan is offered to patients of cancer or AIDS on late stage. The hospice care do not established the system of doing it in a general ward or a home like the palliative care, so it offered in a ward of palliative and hospice care. Next I compared with Japan, the US and the UK. As a result, I found a problem of the palliative care in Japan. The problem is the palliative care in Japan specify the diseases which can offer. Therefore, I suggested a solution that spread the information of two cares for not only elderly people but also young people.

In this year, I thought what I tell about the information for elderly people and young people. At first, I considered most important thing is that people have interests in palliative care. Then I will tell about the position of Japan's palliative care in the world based on the ranking which released in foreign magazine. Second, I will explain the correct information of palliative care. I am thinking I want to post the thing that integrated the information which I researched in last year. Also, I want to post the information about a number of facilities and distribution in each region if I could. But it is unclear if they have interests by this way, so I thought keep to this study with thinking a good way.

2, Introduction

The cause of this study is that I could not to research about palliative care when my grandfather suffered from the pancreatic cancer. To provide a solution about the problem of palliative care is a purpose of this assignment.

At first, I researched about the palliative care in Japan. Japan has two types of cares, palliative care and hospice care. They are offered as same thing in Japan, but actually they are defined as different. Also, Japan is ranked 14th in the 80 countries in the ranking about the quality of death. Japan's palliative care offered to patients of cancer or AIDS on early stage. The patients on early stage are people who have expectation of complete recovery. Purpose of this care is to relieve the pain of treatment for the disease. General wards, wards for palliative care, wards for palliative and hospice care and their homes are the place for providing this care. In general wards, the palliative care team do this care. There is no insurance for palliative care, so patients pay much money. On the other hand, Japan's hospice care offered to patients of cancer or AIDS on late stage. This care is offered in accordance with the contents of physical, mental and social side. Almost all care is done in wards of palliative and hospice care, but sometimes done at their homes. Like palliative care, there is no insurance for hospice care.

Next, I researched about the care in America. America is ranked 9th in the 80 countries in the ranking about the quality of death. In America, it is distinguished between palliative care and hospice care clearly. The people in America can take palliative care when they see a doctor, because America's palliative care is offered regardless of the name of disease or their remaining days. People get the care in general wards, wards of palliative care, or at their house. In America, there is an insurance for palliative care.

On the other hand, America's hospice care offered to patients was told that had only within six months to live, but this care not ask the name of disease. In addition, this care not ask the place, so patients can get the care anywhere. There is an insurance for hospice care, so it is less burdensome for patients and their families.

Finally, I researched about the cares in the United Kingdom. The UK is ranked 1st in the 80 countries in the ranking about the quality of death. The UK's palliative care and hospice care is not designated the target disease and their remaining days like America, and also there are many places to offer, so patients can take the care easily. Especially, the UK put a lot of energy into the hospice care, and an exclusive doctor, local hospital and nurses doing care 24 hours for to reduce the burden for families. Also the charity organization support the care.

3, Discussion and Implications

From the information, I think the four issues about Japanese care, "recognition of palliative and hospice care", "specification the patients who offered", "shortage of facility" and "insurance for care". In these problems, I thought "specification the offered patients" and I came to a conclusion that it is important to raise awareness. Today, despite the availability of information on palliative care, awareness is low. Therefore, the target of disseminating knowledge was changed from the elderly to the young. By doing so, information was spread from young people to the elderly.

Next, I thought about what to post on the app or website which I am trying to develop. I think it is important to get interested, so I will tell them how well Japan is standing. Since it is difficult to convey difficult information, I will post simple information. In terms of content, I would like to mainly explain the differences between patients for whom palliative care and hospice care are provided, facilities and treatment costs. Furthermore, I do not know if it will be possible to post it because it takes time and is a little unrealistic, but I would like to post the number of facilities that can provide palliative care and hospice care and regional differences.

4, Conclusion

I researched palliative care in Japan, America and the UK. As a result, I discovery four problems of Japan' palliative care, and I choose one problem, "specification the patients who offered". I suggested that to creative the application or a website about palliative care to increase the awareness of young people. I will create an application or a homepage for young people because I thought the elderly people do not use the Internet or cannot use them well. In addition, I want to spread the information from young people to elderly people. However, the solution has a room for improvement, so I want to suggest much better ideas.

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日本のターミナルケアを考える

「イギリスの緩和ケア」(2019年11月3日)

Abstract

The goal is to suggest how not to increase the patients. I mainly use the Internet to progress the study. Recently, in Japan the problem of psychosis is getting worse and worse. In fact, the number of the patients tends to increase and the number of psychiatry is overwhelming contrary to world. The prime cause is various, such as friendship in school and office and relation in family, but I think that the cause is on Japanese stereotype. It is said that Japanese stereotype have low self-esteem. Japanese have little confidence than other developed country. I compared Japanese measures with other countries', but I can't find difference among the countries. Therefore, what we must improve is the method of counseling. Now counseling is mainly used to cure psychosis in Japan, but there are few users because they not good at awkward atmosphere, they are afraid of being seen by others. I will suggest counseling while haircut, drinking sport and so on. With it, we would solve those problem and get easy to find hobby. However, the suggestion have a problem, which is difficult to hire person who have both of the qualification.

1、 Introduction

● Purpose

I have been interested in psychosis because media showed that it began to get one of the largest Japanese diseases and I have more chance to get information about it than before. My goal is to suggest improvement plan of temporary Japanese counseling comparing with other countries.

● Method

I progress my study with Internet, a book and papers. Firstly, search for standard information with Internet, such as concrete figure and change of the number of the psychosis and types of psychosis. Moreover, I checked the account of its patients' experiences and read some papers on psychosis. I read the book of innovation, and I have progressed my study following this book.

2、 Discussion & Implications

● What psychosis is

It is stood for medical term word, which is generally called the disease of heart or mentally disorder. There are eighteen kinds of psychosis. In Japan, one fifth population suffer from this diseases. Media regards it as a new society issue which happens because of temporary one. Moreover some of them is called modern disease, such as depression, schizophrenia and Neurotic disorder. Mainly the cause of these disease is stress from relationship and trouble at school, office or family. Then, I found remarkable date which show the feature of Japanese stereotype. It is often said that Japanese have low self-esteem, which is appropriate. According to survey by Cabinet Office, they did a research about the proportion of youth who has high self-esteem between 13 and 29 years old. The organization asked youth in seven countries if they were satisfied with themselves and if they have pros. Contrary to other countries, there are much less people who answer YES in Japan. We can find Japanese have low self-esteem. Korea also have a

few people who answer YES. It can be proved from tending to dislike excessive self-consciousness and being always humble. On the other hand, American, the British and German have high self-esteem. In America, as they have an unsatisfied grade, they often persuade their teacher to give them a higher score.

If they behaved as well in Japan, he or she would be disliked and regarded as a stranger. Moreover, the ministry of health, labor and welfare did research on the number of psychiatry contrary to other countries. According to the survey, ones of Japan and Korea tend to increase, while ones of other countries tend to decrease for a decade. And ones of three countries written in top has a few psychiatry.

Surprisingly, Italy is the country which get to have no psychiatry at the first all over the world. However it doesn't show they have no patients but it is an attempt to treat them by local cure. Thanks to this attempt, compulsory medical care is getting to be minimized. Some scholar claimed that the best way to cure those patients is a care by intimate communication, equal relationships and so on.

● Conclusion

In Japan, doctors mainly treat those patients holding counseling. Not only Japan but also Korea, America, Britain and German mainly use counseling as the measure of psychosis. In other words, there are little difference between the one of those countries. However we have negative impression toward being received counseling, so few people use the system. For example, they are afraid of being exposed to others, they are not good at awkward atmosphere, they have trouble going there and they don't feel like to be seen. In order to solve the problem, now counseling on phone or online are carried out, but it doesn't work well. Therefore I suggest counseling doing something else, such as playing sports, drinking, having haircut and nailing. With new system, patients would be easy to receive them from many perspective, and we can expect to get the customers among young generation. According to Mr. Hasegawa, a counselor, communicating through hobby is connected to raising own self-esteem, as a result, they can recover effectively. However, the new system have some troubles. As one of them, it is difficult to find people who have both qualification as a counselor and a beauty artist. Moreover, if owners hire two person per one patient, he or she should pay higher labor cost. From now on I do more research on that point.

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Allergic Relaxation Way by the Effect the Fragrance Brings

~ With the true ability of the aroma oil ~

5325

Abstract

This study was analyzed originally from the effect of giblets of the fragrance about the way to ease allergy. When there was nothing which can be done by itself, not the medicine prescribed to relaxation of the allergic reaction at a hospital or I looked for it, I came to the conclusion that to use aroma oil may be good. It's said that the effect several ingredients of a fragrance bring depends on manifestation of a cerebral internal cause child according to a study of Toho University, I found out that lavender and the hinoki fragrance make manifestation of a neural factor receptor gene in the brain (NGFR) increased. I also found out that lavender refinement brought the effect to allergic reaction relaxation of an asthma mouse according to a study of Okayama University. Aromatherapy is introduced an aroma to the interior of the body, and a mind and body is led healthily. The perfume ingredient absorbed from a nose is carried to a brain. It's said that it's possible to arrange those balances by hypothalamus is the important period when a balance of autonomic nerve and hormone is controlled in particular, and the fragrance of the aroma working here. Something to tell for hay fever in the aroma oil, more than one, its existed, but I decided to propose lavender and a peppermint this time. Lavender has various effects. Allergic since growing old, the effect is shown in the itch of the eye. On the other hand, peppermint brings the effect to the symptom of the nose in allergy. In other words, it's said that they can expect the effect to the different symptom. More aromas are to cross its fragrance, and the blend which brings the synergistic effect of the effect invents a new harmony, and is possible. The peppermint is very compatible with lavender here. Therefore it also becomes possible to propose blend oil. Aroma masking as well as perfume bathing are recommended as method of use. Even a beginner tends to use lavender and peppermint. I think there is also a lot of use method in these other ones. I want you to enjoy allergic relaxation by an aroma by original how to use which fits itself by all means.

Introduction

I have had hay fever since I was a child. The symptom were known peppermint to bring the effect to the stuffy nose which is one of the symptoms of the hay fever recently, and when 1~2 drops were hung to a mask, improved a little. I thought they might be able to improve hay fever and other allergic reactions by effective use of aroma oil from this thing, so the influence and the effect by which the fragrance exerts me on a brain, and, I decided to advance a study about how I hope that you use the aroma which tells for allergy.

This research work is made something to do by the following way. Aroma oil was allergic to it with the influence the fragrance plotted and exerts on a brain and the aroma allergic to it using the internet and, checked one itself.

Discussion, implications, and conclusion

1 About allergy.

Our form is equipped with an infectibility microorganism of bacteria and a virus parasite and the function as "immunity" to protect oneself against an alien substance. This work causes unusualness by the environment and a change in a life cycle and calls the state which brings the various symptoms allergy. The cause substance allergic to it is called

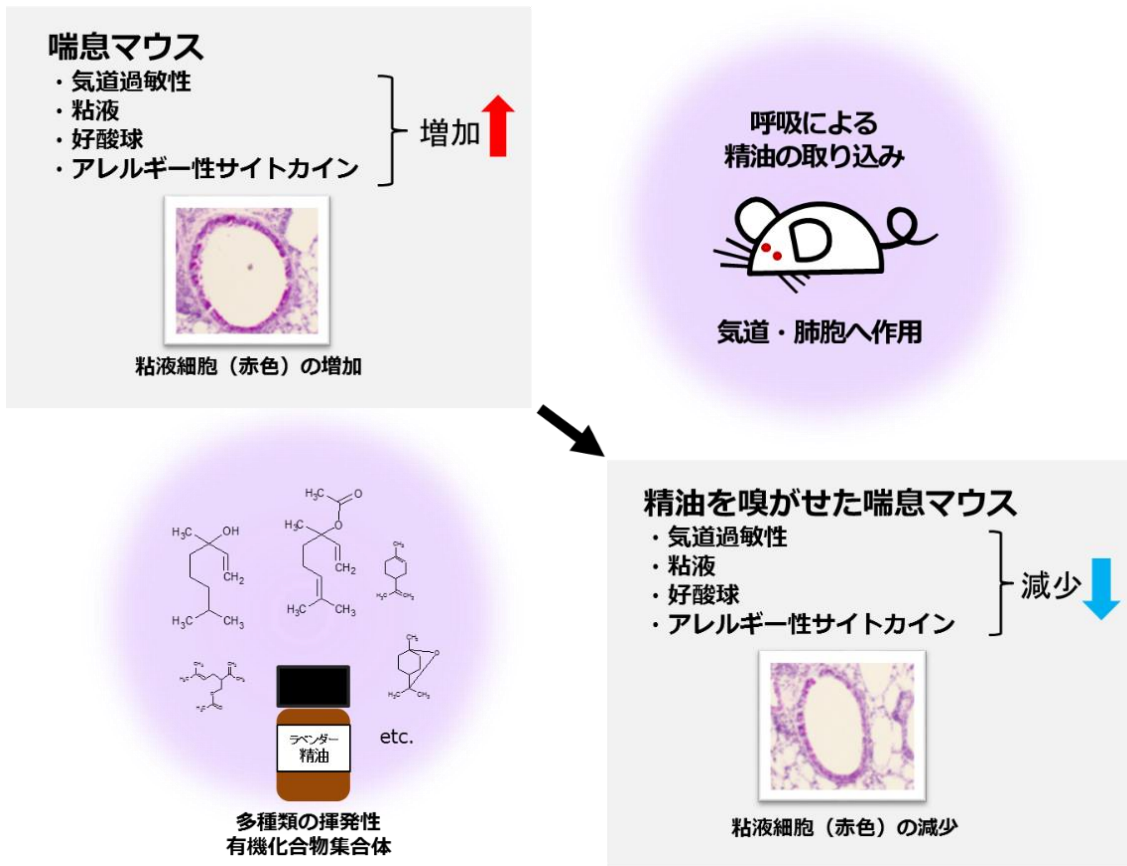
"allergen (antigen)", and it exists in our personal appearance much. When this enters the interior of the body, the immunity function I'll exclude regards as an alien substance, and functions. A substance as "IgE antibody" is made at this time. When an allergen invades the interior of the body once again after this state said "making susceptible", and was formed once, an IgE antibody is attached, and a chemical mediation substance of histamine is released from a mast cell, and this state causes the allergic reaction.

2 About the influence the fragrance exerts on a brain.

There is smell in an animal and the various fragrances are recognized. An aroma has been used for stress relaxation by a man. If it's the relaxation effect by the hyperfunctioning of a parasympathetic nervous system in many cases, that it's expected as the effect of the aroma seems. It becomes clear that there is something in which I have an antianxiety action, a calm action and a depressed action in the recent aroma. Indeed, several ingredients also showed that the effect a short while ago happens by manifestation of a cerebral internal cause child. For example it's that an obvious change in a gene in the brain and a protein in the process of the depressed development is restrained from a stress by the fragrance of the coffee beans. When a research team of Toho University department of science creature department was doing cerebral transcriptome analysis (genetic manifested analysis) and PUROTEOMIKUSU analysis (protein manifested analysis) for a search of the biotechnology manufacturer candidate who found it and replies to a stress, when paying attention to the effect of the fragrance, this was found. The thing which makes manifestation of a neural factor receptor gene in the brain (NGFR) increased also knew the fragrance of the lavender and the hinoki.

3 The effect an aroma exerts on allergy

A study group of the Okayama University graduate school preservation of health science postgraduate course inspection technique scientific field made it clear for the first time in the world in 2014 that there is an action which reduces the asthma symptom of the mouse model in the lavender refinement used for aromatherapy. You restrained permeating to the respiratory tract and an alveolus of the acidophil/eosinophil/acidophilic leucocyte by which the respiratory tract which is to make an asthma mouse smell at lavender refinement and is its symptom is narrow and is the leading role of acceleration of viscous liquid secretion and allergic reaction. An antiallergy action of lavender refinement was proved by this scientifically. It was still the experimental stage of the mouse, but when a study developed, they seem also able to expect the applicability to the man.



4 Aroma and hay fever

It's to introduce a vegetable leaf and a perfume ingredient of the refinement picked out from a flower to the interior of the body to lead a mind and body healthily by the power a plant has, and aromatherapy. A perfume ingredient of an absorbed aroma changes from a nose into an electronic signal, and it's communicated to cerebral cerebrum limbic system, hypothalamus and pituitary. Hypothalamus is the important organ which controls a balance of autonomic nerve and hormone in particular, and the fragrance of the aroma works here. Moreover, function said that it's possible to arrange a balance of autonomic nerve and hormone. Something to tell also exists in hay fever in the aroma. A tea tree, *Chamaemelum nobile* and lavender can be named as an eucalyptus and *RADIATA* for representative example. Suction with a mug, spraying to a mask and perfume bathing are effective as use method. It's a sprayer-type that even a beginner can use it surely among these. It's also practicable for space in the room as well as a sprayer to a mask, and you'd come in handy time of the hay fever.

5 Blend of an aroma

Even a kind of fragrance affects enough, but a harmony of the unexpected fragrance can be born and also expect the synergistic effect by an effect face by blending 2-3 kinds. There are no rules in a blend basically, and it's said that it's possible to combine by the taste. But when I think from the angle of the ham and the beginner, to combine by oneself would be difficult. Therefore too much, the one which gathered an aroma chemistry list, according to the symptom and something which smells and is compatible separately also exists. It would be better to think by making reference to there. Like my own mentioning it earlier indeed, too I proposed that I think.

6 Proposed aroma

The next is proposed from the above mentioned consideration result.

Effective use of aroma oil of lavender and a peppermint.

First lavender has a high rating and is one of the oil even a beginner can handle to use. Moreover I also have various effect. As well as the relaxation effect's being high, I also have the effect to the allergic reaction by which it's for hay fever and the itchy eye in particular sufficiently. Next peppermint is one of representative example of an aroma with the effect to the allergic reaction of the hay fever, and the effect to the symptom of the nose is expected in particular. In other words, it's said that the effect to the different allergic reaction is expected of two aromas. These two are also learned about as combination of the aroma with which I get along well. The further effect can be expected by blending.

Pra4 was described, but I also introduce a portion of something effective about use method.

(1) Aroma mask

It leads to cancellation of the dry a runny nose by puffing a sprayer of peppermint into a mask. The unpleasant smell peculiar to mask at the same time can be eased.

(2) Perfume bathing

The way to enjoy its smell by burning an aroma in the room. The relaxation effect as well as relaxation of the symptom are also the expectation large.

This is one of ways of hay fever relaxation using an aroma thoroughly. Besides many aromas with the effect also exist in hay fever and its other allergic reactions. I want myself to find me an allergic relaxation way by an original aroma by all means.

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アロマと嗅覚、そしてストレス 東邦大学

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Abstract

These days, the number of people with diabetes, one of the most common NCDs, is increasing. Type 2 diabetes is the most common type of diabetes and usually caused by excess body weight and lack of exercise. In Japan, a registered dietitian gives patients some advice on what to eat using “Food Exchange List for Diet Therapy of Diabetes Mellitus” issued by the Japan Diabetes Society. Although carbohydrate is considered to affect blood sugar levels fastest of the three macronutrients, the guideline recommends a ratio of 55~60 percent carbohydrate, 15~20 percent protein, and 20~25 percent fats. There are many studies on carbohydrate-restricted diets. Some of them suggest that restricting carbohydrate is effective for reducing the risk of diseases such as type 1 and 2 diabetes, while other studies suggest that there are no relationships between carbohydrate intake and decreased risk of diabetes. In this study, I compared a calorie-restricted diet and a carbohydrate-restricted diet in order to find out which one is more effective for reducing the risk of type 2 diabetes.

Introduction

According to World Health Organization, about 422 million people worldwide have diabetes, and 1.6 million deaths are directly attributed to diabetes each year. There are three main types of diabetes: type 1 diabetes, type 2 diabetes, and gestational. Type 2 diabetes accounts for about 90 percent of all diabetes cases. The cause of type 2 diabetes is unknown. However, it is considered that genetics, unhealthy diet, and physical inactivity may cause type 2 diabetes. Not all of the people with diabetes live unhealthy lifestyles, but it is extremely important for them to reconsider their lifestyle. It is because a healthy diet and regular physical activity are essential to keep blood glucose levels under control. Still, there is no definition of a healthy diet. It was almost impossible for me to find out the cure for diabetes, but I wanted to know something as to how foods we ate affected the onset of diabetes and how to prevent it. That’s why I started this research.

Discussion and Implications

Nutrition recommendations for diabetes vary from country to country. For example, American Diabetes Association says that people with diabetes should fill half their plate with nonstarchy vegetables, one quarter with lean protein foods, and the other quarter with carbohydrate foods. However, Japan Diabetes Society recommends a ratio of 55~60 percent carbohydrate, 15~20 percent protein, and 20~25 percent fats. So, I compared a calorie-restricted diet and a carbohydrate-restricted diet. Although there are some studies which suggest that a low-carbohydrate diet is effective in lowering the HbA1c (your average blood glucose levels for the last two to three months) and triglyceride levels in patients with type 2 diabetes, there are also some studies which suggest that the diet is not so effective in the long run.

These days, it has been said that high-dietary fiber diets may have some benefits for those who have diabetes because they reduce blood sugar, and lower insulin and cholesterol. Also, fiber can help reduce the risk of developing various diseases including heart disease, diabetes, diverticular disease, and breast cancer.

Conclusion

Although dietary carbohydrate is the major contributor to an increase in glucose levels. It is extremely difficult to say that whether a carbohydrate-restricted diet is effective to reduce the risk of type 2 diabetes or not. However, we all should intake some fiber in order not only to prevent or treat diabetes but to improve and maintain your health.

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Abstract

Do you know about doping? Can you answer this question? Maybe many people cannot answer. Even if you can answer, it would not be perfect. When many people hear “doping”, they think that it is dangerous drugs. However that is not true. Actually doping also reacts from the drugs that we use it on a daily life. So, I think that many people have to know about doping. Some people think that only athletes have to understand this. However I think everyone play sports through school physical education. So, everyone needs to learn about drugs. I used the Internet, books, and visits to research institutions to advance my research. I was going to try to conduct a doping experiment. But I considered doping to be dangerous to my body. So, experimented with Alinamin A, which is not designated as doping but has a recovery effect on fatigue. Three subjects snowboarded for five hours, and then compared how tired they felt the next day when AlinaminA was used and the next day when it was not. As a result, all three subjects experienced less fatigue and muscle pain when using Alinamin A. This suggests that even AlinaminA, which is not designated for doping, may have an even stronger effect on doping medications, as it has fatigue and other effects. Based on this experiment, I would like to suggest that there should be time to learn about anti-doping in health and physical education classes.

Introduction

Originally, the Tokyo Olympics and Paralympics were supposed to be held in 2020. I'm a skateboarder. I took a doping workshop and a doping test at a competition. I was under the mistaken impression that only dangerous drugs were doping. I didn't know a doping test conducted. Some drugs escribed by doctors can be doping. I didn't know enough. So I tried to do research on the subject of anti-doping last year, but I only ended up gaining knowledge of anti-doping. So, this year's research was aimed at broadening anti-doping and helping more people understand it. If the person you are competing against might be doping, can you get serious about your sport? It is difficult. You could have been doping without even knowing it. It must be scary to think of it this way. So I wanted to create a world where all people in sports could play their sport fairly.

As a research method I used the Internet to research knowledge of doping. And anti-doping book that I received at a doping workshop. As a company visit, I visited the Japan Anti-Doping Agency (JADA) as an athlete and used what I learned about doping to further my research.

I was going to try to conduct a doping experiment. But I considered doping to be dangerous to my body. So I experimented with Alinamin A, which is not designated as doping but has a recovery effect on fatigue.

Effects of AlinaminA

Vitamin B1 for tiredness and muscle pain, eye fatigue, stiff shoulders, back pain arthritis neuralgia, numbness in hands and feet, frozen shoulder, vitamin B1 for pregnancy and lactation

The results of the experiment

	age	No Alinamin A.	With Alinamin A
<i>test subject1</i>	44	Muscle pain and fatigue	Mild muscle pain
<i>test subject2</i>	43	Muscle pain and fatigue	Mild muscle pain and fatigue
<i>test subject3</i>	16	fatigue	Mild fatigue

Conclusion

All three subjects experienced less fatigue and muscle pain when using Alinamin A.

Consideration

Even Alinamin A, which is not designated for doping, has effects such as fatigue, suggesting that the effects of doping drugs are even stronger.

Conclusion

Based on the results of this experiment, everyone involved in sports needs to understand effects of doping. I'd like to suggest that there should be time in health and physical education to learn about anti-doping because, everyone play sports through school physical education. I thought that in the same way that we learn about alcohol and tobacco in health and physical education and learn about our bodies and health, we can learn about anti-doping and think more deeply about our relationship with sports. We will be able to think about anti-doping by learning about the effects of doping, he effects of using doping and what drugs can cause doping at school education.

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○ Abstract

I wanted to spread Karuta to the world as a good thing in Japan, so I decided to research about Karuta. The final goal of this research is to increase the population of Karuta players all over the world. I used books and the Internet to research.

Karuta is very simple sport, but it requires players a lot of things such as physical strength, patience, memorization skill, and concentration. These are very important things to win the game, but the most important thing is not to forget courtesy to the other person.

In recent years, a number of Karuta players in Japan is estimated to be about one million, and the number is increasing. But only a decade ago, it was the opposite. There were few players to participate in the Karuta tournament, so it was difficult to hold the Karuta tournament in various parts of Japan. But "Chihayafuru" changed this state. "Chihayafuru" is one of the most famous manga in Japan. Karuta player is the main character in this manga. In proportion to the popularity of "Chihayafuru", the population of Karuta players have been increasing rapidly.

Karuta is popular in Japan now, so I wondered if Karuta was popular in foreign countries. I tried to search about that, but it was very difficult to get the information.

I contacted some people related to Karuta in foreign countries, and I asked them to cooperate with my survey. Thankfully, most people cooperated with me. As a result, I knew that many people started playing Karuta because of "Chihayafuru". In addition, they told me many good points of Karuta that I did not know. Of course, Karuta is attractive as a sport, but I noticed that Karuta is attractive as a culture as well. I also knew that there were some difficulties in playing Karuta for foreigners.

The issues I found were to reconsider which aspects and at what level of Karuta have to appeal, and the language barrier in playing Karuta. The former issue came to the conclusion that it is the most necessary to get to know the existence of Karuta and to touch on its cultural aspects. The latter issue came to the conclusion that to make a collection of Japanese phrases for "mome" (It is a Japanese word. This word means a situation which both players would discuss each other during a game if they were not sure). It is because it is difficult to change the rules of mome in the current Karuta.

After I talked with foreigners about the survey, I found that all foreign Karuta players really like playing Karuta. I strongly felt that the attraction of Karuta is universal. I will continue to do my best to spread Karuta to the world.

1. Introduction

I knew Karuta when I was a junior high school student. Since then, I have practiced Karuta every day. I wanted to spread Karuta to the world as a good thing in Japan, so I decided to research about Karuta.

Karuta is not unknown to all foreigners. I found a few foreigners participated in some official Karuta tournaments. It proves that Karuta is able to be accepted by foreigners. I want all foreigners to know good points of Karuta.

The final goal of this research is to increase the population of Karuta players all over the world.

I used books, Internet and E-mail to continue my research.

2. Discussion and Implications

First of all, what is Karuta?

(In this research, "Karuta" means Kyogi (Competitive) Karuta.)

Karuta is a card game. Cards are based on one hundred famous *tanka* (short Japanese poem) which is called "Hyakunin Isshu" in Japan.

Karuta has some rules, but all of them are not difficult to understand.

Please refer to this website if you want to know the detail rule of Karuta.

(<http://karuta.game.cocacn.jp/detailedrule-e.html>)

Karuta is very simple sport, but it requires players a lot of things. For example, physical strength, patience, memorization skill, and concentration. These are very important things to win the game. And most important thing is not to forget courtesy to the other person.

In recent years, a number of Karuta players in estimated to be about one million, and the is increasing. But only a decade ago, it was the There were few players to participate in the tournament, so it was difficult to hold the Karuta tournament in various parts of Japan. But "Chihayafuru" changed this state. "Chihayafuru" the most famous manga in Japan. Karuta player main character in this manga. In proportion to the popularity of "Chihayafuru", the population of players have been increasing rapidly.

There is an organization called Karuta-kai which can practice Karuta at the local public hall. More Karuta-kai exist in Japan now.

Many high schools have a Karuta club. Karuta tournament for high school students is held every summer. Last year (2019), the largest number of high school students ever participated in the tournament.

Karuta is popular in Japan now, so I wondered if Karuta was popular in foreign countries. I tried to search about that, but it was very difficult to get information.

I contacted the people related to Karuta in foreign countries by e-mail, and I asked them to cooperate with the survey.

Many people from many countries replied to my e-mail.

DC Inishie Karuta Club

NYC Karuta Club

Krungthep Karuta Club

Singapore Okinoishi Karuta Club

Shanghai Takigawa Karuta Club

Karuta France

Munish Karuta Club

Tamkang University Karuta Club

Italy

Russia



Japan is
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(The names are put in random order. I am very sorry if there are mistakes.)

Thank you for cooperating in completing the survey.

In this survey, I asked five questions.

1. How did you know Karuta?
2. Why did you decide to start Karuta?
3. What is the attraction of Karuta?
4. Have you had any problems with playing Karuta?
5. How can I get more foreigners to know Karuta?

1. How did you know Karuta?

Most people said "I knew about Karuta through watching the anime Chihayafuru." In addition, some people were introduced Karuta by university teachers or friends. A few people knew Karuta at the Japanese festival held in foreign countries.

2. Why did you decide to start Karuta?

Many people started Karuta to study Japanese, or to enjoy Karuta as a game. Also, some people started when they started looking for new encounters, and the others started because they thought they could go to Japan.

3. What is the attraction of Karuta?

All people told me many attractions of Karuta which I haven't known. I think it is important to know the attraction of Karuta from the perspective of foreigners. It is the first step to spread Karuta to the world. I classified answers to this question into two.

① Attractions as a Kyogi(Competitive) Karuta

- Compete for speed
- The sound of cards hitting tatami mats and walls
- Pleasure of swiping cards completely
- Training of the mind and body
- Improvement of retentive power
- Pleasure to be able to play Karuta like Chihayafuru
- Cool
- Beautiful voice of reading Hyakunin Isshu
- Training of concentration
- Tension
- Unique sport
- Regardless of age or gender

- A sense of achievement
 - Interaction with people from various countries and cultures
- ② Attractions as Hyakunin Isshu (Japanese culture)
- The story(history) behind Hyakunin Isshu
 - Training of reading Hiragana
 - Japanese traditional picture drawn on Yomi-fuda(reading card)
 - Easy to learn more about Japanese culture and history

4. Have you ever had any problems with playing Karuta?

I asked this question because it is important for this research to know the obstacles for foreigners to play Karuta. I classified answers to this question into two.

- ① Problems common to the world, even Japanese Karuta players feel
- Memorization of Hyakunin Isshu
 - Inability to forget the arrangement of cards until the next game
 - Inability to read Hyakunin Isshu (difficulty in Japanese classical grammar)
 - Lack of time and place
 - Pain in legs
 - Difficulty in maintaining concentration
 - Pressure
 - Memorization of the arrangement of cards
 - Rules of Karuta
 - Hardship of judging which player got the card
- ② Problems peculiar to foreigners
- Inability to speak Japanese
 - Lack of basic knowledge of Hyakunin Isshu unlike Japanese people

- Few players to practice Karuta with
- Difficulty in hearing the real voice by reciter
- Difficulty in getting cards

5. How can I get more foreigners to know Karuta?

Many ideas about how to spread Karuta were given from the viewpoint of foreigners. I classified answers to this question into two.

① Get to know the existence of Karuta (for beginner foreigners)

- Introduction of Karuta at Japanese culture events in foreign countries
- Demonstration of short games
- Introduction of other ways of playing Karuta
- English version of Karuta
- Karuta-kai actively promotes Karuta to foreigners
- Appeal "Chihayafuru"
- Small-scale Karuta tournament held at public halls or schools
- Ask a foreign teacher (or a Japanese teacher) to play Karuta
- Movies about Karuta
- SNS
- Ask tastemakers(such as YouTubers) to play Karuta
- Appeal that Karuta is easy to start
- Pamphlets and videos about Karuta
- Appeal that playing Karuta is a good way to learn Japanese
- Lectures on Karuta at language schools
- Translate and publish a book about Karuta in many languages
- Explain the contents of Hyakunin Isshu

② Have foreigners play Karuta in earnest (for foreigners who are interested in Karuta)

- Make Karuta clubs in schools
- Hold more Karuta tournaments in foreign countries
- Promote mutual communication between Japanese Karuta players and foreign players
- Strengthen the global network of Karuta

Based on this survey, I found two issues.

① Which is better, spread Karuta as a sport or as Japanese culture? What level should I aim to spread Karuta? Is it important to urge foreigners to know the existence of Karuta? Is it possible to aim to cradle very strong, foreign Karuta player?

I thought that it was the most important to increase the number of very strong foreign Karuta players on a global scale at first, because many foreigners mentioned that they have few players to practice Karuta with. However, some foreigners advised me that it is important to know the existence of Karuta first because Karuta is difficult to play as a sport. In addition, this survey showed that many foreigners are attracted to Karuta as Japanese culture. For these reasons, I decided to urge foreigners to know the existence of Karuta, and I also decided to spread Karuta as Japanese culture first. After that, I thought about what to do to make it possible.

In this survey, most people said that they knew about Karuta through watching the anime "Chihayafuru". So, I thought promoting foreigners to watch Chihayafuru's anime and movie on the Internet is good way for foreigners to be interested in Karuta. Anyone in the world can watch Chihayafuru's anime and movie if it translated into various languages.

Also, I knew that many foreigners are attracted to the stories and the background of Hyakunin Isshu, so I would like to make it an appeal point of Karuta. For example, I want to publish a book of Hyakunin Isshu around the world, so that foreigners can understand Hyakunin Isshu easily.

In addition, some people said that there are few instructors of Karuta in foreign countries. They feel that teaching Karuta to beginners is difficult. Therefore, I suggest to make a manual book about Karuta. Using it is expected that anyone can teach Karuta easily.

Karuta as a sport is difficult for foreigners because it is difficult even Japanese people. This is the same for elementary school children in Japan. elementary schools in Japan use "Goshoku Karuta" for children to get to understand Karuta. Goshoku Karuta is simple game. It uses only 20 cards and takes 3 minutes to play the game. I think it is a good way for foreigners to be familiar with Karuta, too.



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In addition, I think it is important to communicate directly to spread Karuta. Each person who is playing Karuta should tell foreigners about Karuta when he/she goes abroad. Japanese Karuta players should tell about Karuta to foreigners who have visited Japan. The effect of this can be explained using judo as an example.

Judo was spread throughout the world by Jigoro Kano. He went to Europe to spread judo. Jigoro Kano's pupils also went to the world to spread judo and performed judo in front of many foreigners. Later, foreigners who came to Japan studied judo, brought it back to their countries, and the number of people who practice judo increased. The combination of teaching judo abroad by Japanese people and studying and bringing judo back to their countries by foreigners made Judo popular.

② What should I do with language barriers to spread Karuta?

In the fourth question of this survey, some foreigners answered that they have a language barrier to practice Karuta as a problem peculiar to foreigners. They told me that they can't speak Japanese well, so it is difficult to play Karuta. Also, they said that they can't explain the situation to the opponent when they have trouble during a game. (It usually called "mome" in Japanese. This word means a situation which both players would discuss each other during a game if they were not sure.) If the common language of "mome" were English, it would be necessary to have the ability to speak English to play the game. If it became true, more foreigners would be able to play Karuta comfortably. However, it is not good for Japanese Karuta players.

In the long term, the rules of Karuta may need to be revised to make Karuta universal, but it is difficult to change the rules of "mome" in the current Karuta. Therefore, I suggest to make a collection of Japanese phrases for "mome". It will be useful for foreigners when they encounter "mome". It will also help foreigners study Japanese.

3. Conclusion

Karuta must be difficult for foreigners, but promoting foreigners to know attractions of Karuta will surely increase the number of Karuta players on a global scale.

I will list my suggestions of the ways to spread Karuta to the world.

- (1) Promote foreigners to know the existence of Karuta
- (2) Get foreigners to know the aspects of Japanese culture of Karuta
- (3) Each person who is playing Karuta tells foreigners about Karuta when he/she goes abroad. Japanese Karuta players tell about Karuta to foreigners who have visited Japan.
- (4) Cultivate instructors of Karuta (make and use a manual book about Karuta)
- (5) Get familiar with Karuta as a game by using special Karuta like Goshoku Karuta
- (6) Cultivate very strong, foreign Karuta players

At first, I thought foreigners would start playing Karuta if they could earn money by practicing Karuta. However, after I contacted with foreigners with the survey, I found that all foreign Karuta players really like playing Karuta. I strongly felt that the attraction of Karuta is universal. I will continue to do my best to spread Karuta to the world.

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Abstract

To live more comfortable life, I suggest that people, especially elderly people do backyard vegetable garden. According to a survey of evidence grasping methods for a farming and health by NTT date Institute of Management Consulting, farming as a moderate exercise is expected to play a role in maintaining good health. Researching attraction of backyard vegetable garden, circumstance of land use, and elderly people, I think that doing backyard vegetable garden is good for future of Japan.

1. Introduction

This research was aimed at creating a surrounding that I could easily start a backyard vegetable garden after retirement. During my research, I found more about attraction of backyard vegetable garden and thought that it might be good for elderly people. This research was done by researching and thinking at my own will.

2. Discussion and Implication

Today, in Japan, the population is rapidly aging. According to the Cabinet office's White Paper on Aging Society in the first year of Reiwa, as of October 1 in 2018, the rate of the population aged over 65 to the total population of 126.44 million in Japan is 28.1 %, and expected to reach 38.4% of the highest total population in 2065.

The number of elderly people who live alone is increasing, too. Though, in 1980, 19thousand men accounted for 4.3% of the elderly population and 69thousand women accounted for 11.2% of them, in 2015, 1.92million men accounted for 13.3% of the elderly population and 4million women accounted for 21.2% of them.

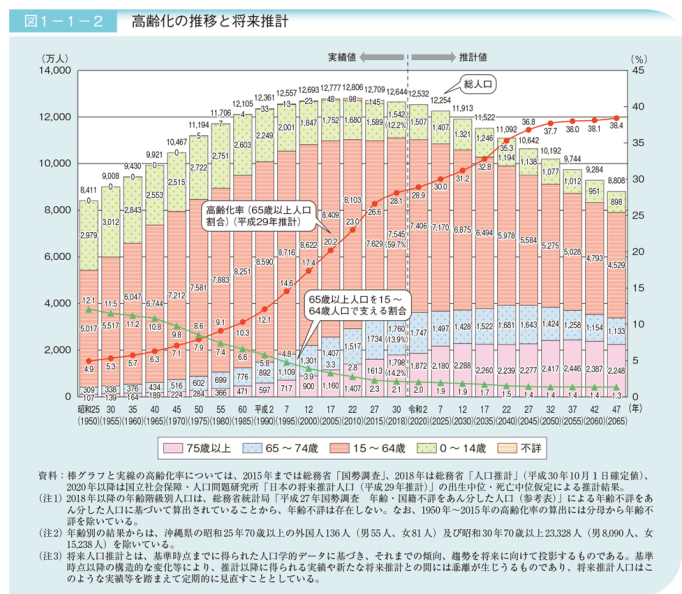
According to a survey of people aged over 60, 64.6% of people live financially without problem. Moreover, the higher the percentage of people who say they do not have problems.

According to the Ansin-kaigo, There are various problems in living alone for elderly, for example, there is progression of dementia, and solitary death.

According to the [Image evaluation, interest, and circumstances of practice about vegetables Survey on items unique to this year in COVID-19] treating 600 men and women over the age of 20 (excluding agriculture-related businesses, and food and beverage retailers and wholesalers), by TAKI & CO.,LTD., 50% of the total number of people in the survey experienced doing backyard vegetable garden. Moreover, 96.2% people want to continue in the future.

According to tochi kihon chyouusa ni motoduku akiti-ritsu ni tuite by house holds has increased significantly for 10 years from 2003 to 2013 against the backdrop of a declining population and increasing inheritance.

This is my experience. I went to my grandparent's field many times because of COVID-



19, and I found some good points of backyard vegetable garden. First, the atmosphere such as the sound of the mind, the smell of the soil make us feel calm. I think the thing that cannot be expressed with words gives peace to the elderly who have worked hard for many years. Second, growing vegetables leads to Ikigai. I helped planting and taking care of potatoes, and I wanted to make better shaped potatoes again. My grandfather also said that he would do his best because he wanted everyone to eat delicious vegetables. It is boring that just to stay at home, but I think if they go out and grow vegetables, they can find Ikigai, such as more things they want to make. Third, connection with people. My grandfather often talks to his friends in the field. Then I think what is he going to do in the field? But it is so important for elderly people. All elderly people smiles when they chatting with their friends. If they go to the field, they will have more opportunities to contact with people. If they have connection with a person, people who are around them notice the change of the other person. I think connection with people is very important for elderly people living alone who have lost their partners.

From these experiences and researches, it is good for the elderly to do backyard vegetable garden. In Japan, where the number of elderly people and living alone is increasing, it is important for elderly people who have time and money to move the body moderately to maintain good health and effectively utilize the excess land by doing a backyard vegetable garden. I think this will lead to effective use of land and overcoming an aging society.

3. Conclusion

I think it is very good for elderly people to do backyard vegetable garden. I want to think of a circumstances that people who want to start a backyard vegetable garden can start immediately.

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Teach logical thinking and make a programming website to help the future programmer

~ Active and creative logics and useful search in Information overload ~

5401

○ Abstract

More and more programmers are needed in society today. However, there is many students who don't know anything about programming. We should do active education of logical thinking to more students become interested in making something new. Then, some of them will want to become a programmer. We must make a website that can search about only programming. Internet is easier way to learn programming than going programming school. However, today's websites about programming is not so useful. Also, Advertising and guidance for programming classes will be displayed with priority. I was frustrated with it.

Here is how to educate logical thinking and how to help older students learn programming on the Internet.

This is essential for the students to be able to do programming.

1 Purpose of research

The purpose of my research is to gain my own programming experience and to use it to find out what is a good learning method for programming. It also aims to further popularize programming in a world where IT is becoming more and more popular. Originally I was interested in programming, and while trying to learn it, I decided to make it a research theme. In addition, education reform may make programming education from elementary and junior high schools mandatory, and I think that is the trend in the world. It was also the reason for this research that I wondered what to do for us, who may not have received enough programming education.

From the middle stage, I decided to focus on training logical thinking. This is because programming is not possible without logical thinking. In addition, there are many types of programming languages that can be started quickly, and it is a feature of this programming education that you do not necessarily use a personal computer.

2 Research method

We will summarize the characteristics and roles of programming languages that are active in various places and how convenient they can be in programming, and summarize their necessity. Create something like an introduction to various languages for reference. The goal is to think and propose a logical thinking learning program as if it were a conclusion.

3 Conclusions and issues

There were far more programming languages out there than I thought. Typical examples are CScript Java Ruby swift Python. It is used properly for many purposes such as games for business use and AI use. With Xcel VBA, calculations can be simplified and materials can be easily created. The language uses English words. This is also one of language learning because it is made up of several technical terms and grammar.

In addition, there are self-study, seminars, and cram schools as ways to learn programming languages, but depending on the person, self-study may be more suitable. I think VBA is a very easy-to-understand programming language. After all, you can do interesting things such as calling multiplication tables with one-touch just by

assembling and substituting formulas. I think this is the fun of programming. After all it is rewarding when I can do it myself. It's not practical yet, but I want to increase what I can do one by one. But there is a previous stage. I also thought that specialized languages were not enough to spread programming itself. In Finland, where programming education is advanced, there is no subject called programming. Logical thinking in programming is only used across all subjects. In music, the original drawing board composition is performed in the logic of music. In mathematics, how can we draw figures by programming to better understand triangles? SCRATCH is used at this time. Since it supports various languages, you can easily create games as long as you can think logically without knowing the programming language. Logical thinking is very useful in situations other than programming, so it is never wasted. Of particular interest was logical thinking in reading comprehension of Japanese. Since reading comprehension of a national language is always grounded and it is logical to explain it, it is the most familiar opportunity for students to use their abilities.

My new proposal is to foster logical thinking through creativity. Programming is still used to create new things. Creative activities are necessary when considering the process of achieving goals and solving problems. I think of a class to think about new sports (rule play).

I found a problem that it is difficult to find a site suitable for self-study programming with a conventional search engine. Therefore, I thought that (a search engine dedicated to programmers) would be suitable as the programming support site I propose. There are excellent educational site information exchange sites in each language. The easier access to it, the easier it is for more people to come into contact with programming. So-called "summary sites" have limited information, and are sometimes old, unusable code sites. Search engines are rarely seen. Just as Twitter and Line also have search engines, it's quite possible that search engines will work within programming learning sites.

If we achieve both programs, students can become a programmer by themselves more easily. By use these two step follow, more programmers that are needed in the future will be born.

Abstract

I thought about how to solve the problem of dementia in Japan using guitars and how to spread it under the themes of "increasing dementia, decreasing guitars" and "this is Japanese crafts", and presented it along with the demand for guitars whose sales are decreasing. We have further developed such research up to last year and started research with an eye on the world. When thinking about whether it would be a valuable research using a guitar, referring to Japan's evaluation from the world, we will focus on the three axes of "Japanese guitar," "Japanese architecture," and "Japanese electrical appliances." I came to the conclusion that I would like to send new crafts as Japanese exports to the world. Therefore, the theme and sub-theme were decided to be "Enrich your life by making full use of the guitar-Living in a stressed society".

1 Introduction

To think of a new guitar that fully utilizes the potential of Japan, to have an interest in the guitar all over the world, and to stop the decline of the guitar industry. Also, as a Japanese product, create demand around the world and make a profit. To present a stress relief method using guitar and music.

2 Discussion and implications

In addition to last year's research, it is recommended that you mainly refer to the Internet and magazines, check some materials, and make no mistakes.

3 Conclusion

[Changes in listening to music (sales)] (Pie chart below)

1987 Cassette tapes and LPs occupy most

1991 CD exceeds 50%, LP almost disappears

2000 More than 90% will be CDs.

In 2013, downloads exceeded 40% and CDs decreased to 30%. More ways to listen to music.

Similarly in Japan and around the world, guitar sales have been declining in the last decade or so.

Nerve cells called neurons are strongly involved in the prevention of dementia. And it is known that the nerve cells are activated by using the muscles that move the ring finger, which is rarely used consciously on a daily basis. Therefore, by using a guitar that often uses the ring finger, it is possible to effectively activate neurons and help prevent dementia.

According to a Finnish university study, the IQ test of students who have been exposed to music using musical instruments since childhood, and those who have not, showed that the former had a higher score.

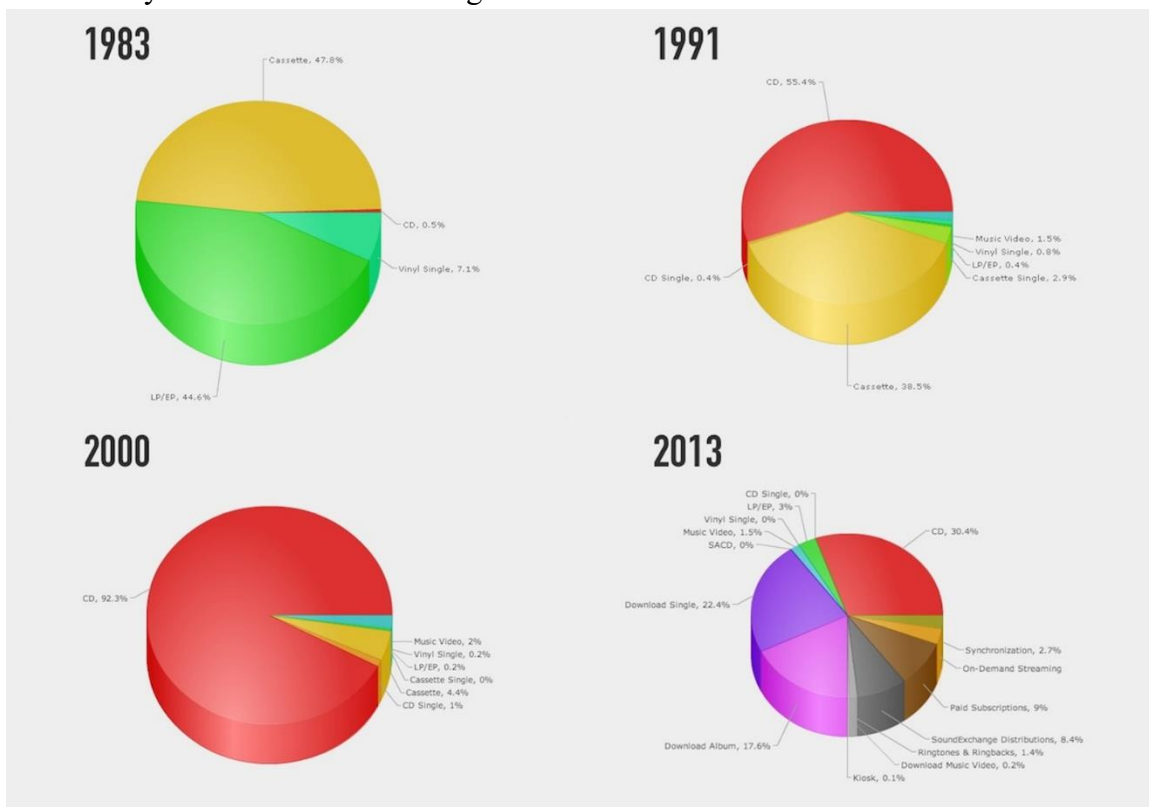
It turned out that there are pros and cons about "Japanese guitar" overseas, but the good cost performance and the small individual difference were posted on many sites. Since the instrument called a guitar is mainly made of wood, it is very delicate, and even if it is an expensive product, the quality of each is said to be good or bad.

One of the characteristics of "Japanese architecture" was "Kumiki". This is a traditional Japanese architecture that has been practiced for a long time, but not many are used due to the high skill required.

The world's evaluation of "Japanese electrical appliances" is very good, and the world's evaluation of "Japanese electrical appliances" is very good, and it seems that many Japanese people mention this in questionnaires. To give a concrete example, there was an opinion that Japanese products are durable and long-lasting, and that the guarantee system is solid.

Taking advantage of these things, I propose "Kumiki electric guitar using Japanese wood".

In recent years, there has been a lot of noise about global warming in the world, and people are often looking at forests that have been modified by humans. Some of them have already been restricted from collecting wood, which has been used for guitars for a long time, and some are said to be regulated in the future. Against this background, we must find wood that can be used to make new guitars. Also, as the rarity value of the wood used today rises, so does the price, which could add to the declining guitar industry. From the above, I look at Japanese wood, cherry blossoms, and cedars and make the best use of their respective characteristics, and propose to use cedar for the body neck and cherry blossoms for the fingerboard.



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Three reasons why my hobby guitar is effective in preventing dementia

<https://shumi2.com/gita-115>

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How to choose wood for guitar | Guitar Works

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List of popular domestic guitar makers and brands that are proud of in the world

<https://guitar.studiorag.com/japanese-guitar>

History and reputation of each of the 10 popular guitar makers

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[Made in Japan vs. Made in the USA] Professionals cut through the differences in guitar producing countries

<https://core-revolution.info/sham/?p=872>

1 Abstract

I thought about "changes in the flowering time of cherry blossoms" and "changes in the autumn and yellow leaves of maple and ginkgo" caused by the rise in temperature. In addition, with reference to the degree of temperature rise in the future, we considered the effects of cherry blossoms and autumn leaves on Japanese customs, culture, and economy. As a result, it was found that the higher the temperature, the earlier the flowering date of the cherry blossoms, and it was found that the flowering time of the cherry blossoms gradually became earlier due to global warming, and then became later. It was also found that the rise in temperature delayed the time of autumn leaves and yellow leaves. Furthermore, it was found that the economic loss due to this would be 651,740,130,000 yen for Japan as a whole.

2 Introduction

I wanted to do research related to global warming because it was a research that broadened my horizons to the world. However, it was vague even if it examined only global warming, and it felt like the common thing. Then, as an example of feeling global warming close to me, I came up with the idea of "change in the flowering time of cherry blossoms". Because when I was in the first grade of elementary school, I remember cherry blossoms blooming at the entrance ceremony, but now I have doubts about the cherry blossoms blooming around spring break. In the future, we will consider the impact on Japanese customs, culture, economy, etc. by predicting when cherry blossoms and autumn leaves can be seen.

We collect materials from the Internet and compare them with each other to consider how the rise in temperature affects cherry blossoms, cadets, ginkgo flowering, autumn leaves, and yellow leaves.

3 Discussion and Implication

First of all, the change of the temperature of each year was investigated. As a result, the average temperature in Japan tended to decrease slightly from 1953 to 1984 (Season 1). On the other hand, Figure 3 showed a rapid rise in average temperatures from 1953 to 2009 (Season 2), resulting in global warming.

Based on this, we examined the correlation between cherry blossoms and the average temperature in Japan. Then, from Figure 2, it can be seen that the flowering date is slowly slow in Season 1. On the other hand, from Figure 4, it can be seen that the flowering date in Season 2 is getting faster and faster.

They also found that the 600-degree law added the highest daily temperature since February 1 and found that cherry blossoms bloom on days when the cumulative value exceeds 600 degrees.

Therefore, it can be said that the higher the temperature, the earlier the flowering date.

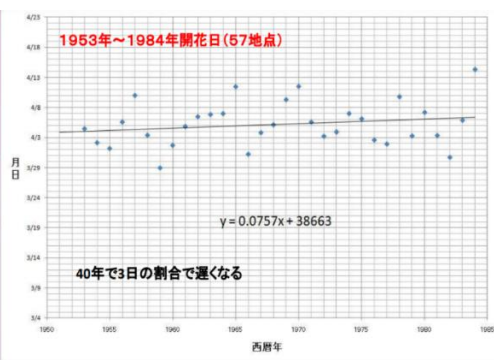
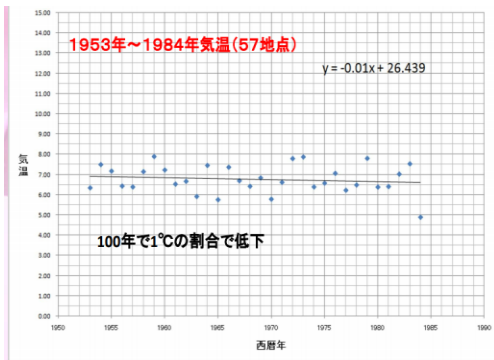


Figure1 Changes in temperature Season 1

Figure2 Changes in the flowering date in Season 1

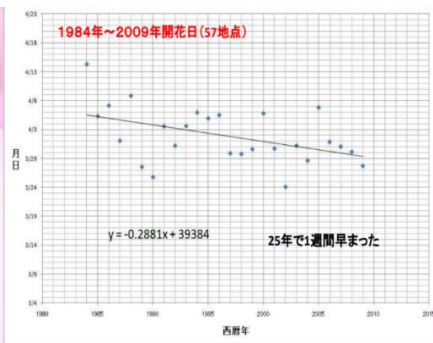
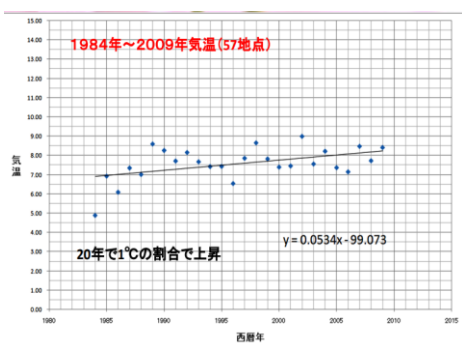


Figure3 Changes in temperature Season 2

Figure4 Changes in the flowering date in Season 2

(Figures 1-4 are quoted from the 7 years of cherry blossom flowering)

Next, the relation between the autumn leaves day, the yellow leaf day and the temperature was investigated. In the first place, autumn leaves and yellow leaves break down nutrients from them before the leaves fall due to the weakening of the sun, and the leaves are changed.

Figure 5 (Relationship between cadets and temperatures from 1981 to 2010 The relationship between ginkgo yellow leaf days and temperatures from 1981 to 2010)

In addition, it can be seen that the autumn leaves day year by year from Figure 6 (the autumn leaves day of the Irohakaede from 1981 to 2010) and the yellow leaves are getting late.

From these, autumn leaves, yellow leaves day is slower year by year(1981to2010),and there is a relationship that the day is slow and the temperature rises. In Addition, in Season2 (1984-2009),it was found that the temperature was rising year by year, so it was found that global warming delays autumn leaves and yellow leaves.

These results show that the flowering of cherry blossoms, autumn leaves, and yellow leaves are slow due to rising temperatures.

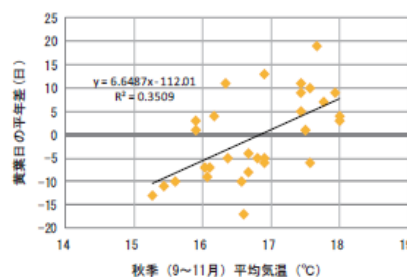
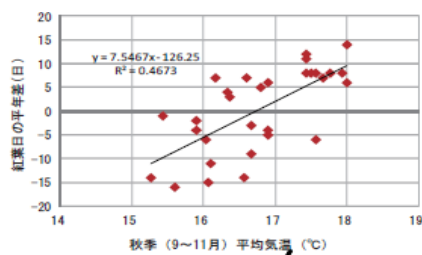


Figure 5 Relationship between cadets and temperatures from 1981 to 2010

Relationship between ginkgo yellow leaf days and temperatures from 1981 to2010

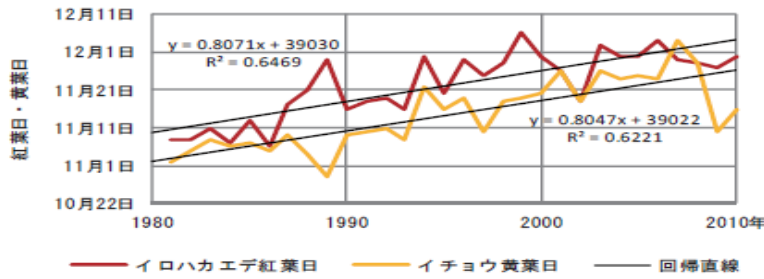


Figure 6 Autumn leaves of Irohakaede from 1980 to 2010 Yellow leaf day of ginkgo (Figures 5-6are ii. Impacts of global warming 2 From the effects on biological seasonal activities)

Next, as for the forecast of the flowering date of the cherry blossoms in the future, Figure 7 shows that the flowering date of cherry blossoms in most 2100 years in mainland Japan will be earlier than in 2000. On the other hand, in the region of lower latitude than Figure 8, flowering is delayed, it was found that or not flowering. As global warming progresses, flowering slows down in warm areas and dormrms are less likely to occur. Cherry blossoms go dormance with flower buds formed in the summer of the previous) year, and wake up from dormance when exposed to low temperatures (around 3 to10degrees Celsius) for a certain period of time in winter, but do not wake up from dormance if they do not become low even in winter, and the flowering is delayed (Figure 9).

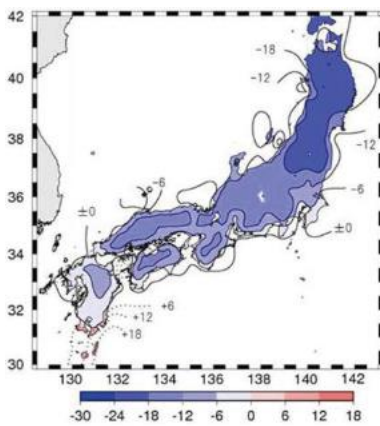


Figure 7 Changes in the flowering date of cherry blossoms in 2100 (blue is earlier than 2000 and red is slower than 2000)



Figure 8 2100 Cherry Blossom Flowering Situation (Weather News How Early Will

Cherry Blossoms Bloom?) Quoted from the change in flowering date seen in 31 years)

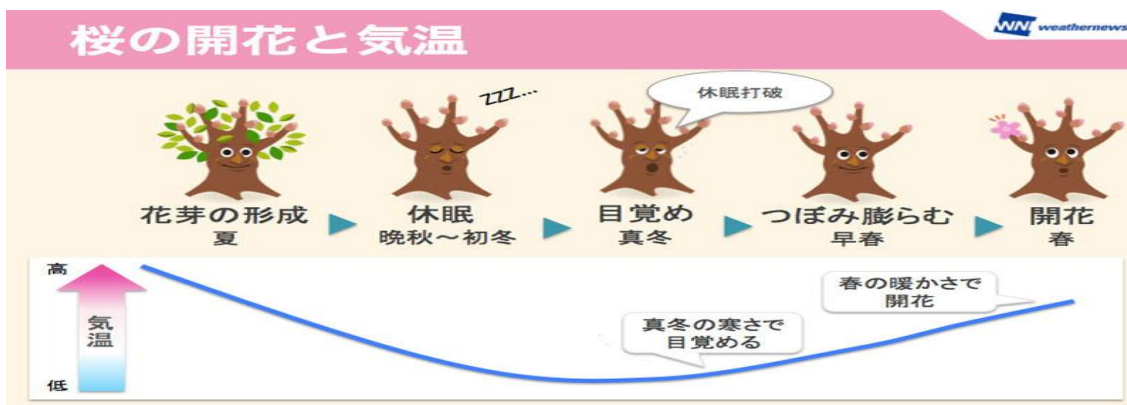


Figure 9 Cherry Blossoms and Temperatures (How Early Will Weather News Cherry Blossoms Bloom?) Quoted from the change in flowering date seen in 31 years)

From the above, it was found that the flowering time of cherry blossoms gradually slows down at a time when it gradually becomes early due to global warming. When this happens, there is a possibility that the cherry blossom viewing, which is a Japanese custom, will not be possible. According to Professor Emeritus Katsuhiro Miyamoto of Kansai University, the economic effects of "Hanami," a spring tradition that is one of Japan's major events and are now attracting attention from all over the world, amounted to 651.7 billion yen in Japan in about two months from late March to early May. They also analyzed that cherry blossom viewing, which Japanese people have loved for a long time, is a national event in Japan and is now a natural asset that attracts foreign tourists. This suggests an economic loss due to the inability to see cherry blossoms.

5 Impressions of research

Until now, the perception of global warming has been related to temperature rise, glacier melting, and sea level rise, but it did not seem to be a familiar problem, but through research it can affect plants around us. Especially for cherry blossoms, it was found that it could have an impact on the economy in the future. As a result, I feel that a sense of crisis about global warming has sprung up within me. I think our daily activities will affect the earth, albeit step by step. In order to leave the environment in which we live in the future, we would like to keep in mind to be environmentally friendly through our daily activities.

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II 地球温暖化の影響 2 生物季節活動への影響

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関西大学プレスリリース

Abstract

Currently, sky cars are being actively developed all over the world. The realization of a sky car can be broadly divided into three stages: technological development, legal development, and infrastructure development. In this research, first I propose the technological development. Since Japan has been delayed in starting to invent a sky cars, its activities are currently delayed compared to the rest of the world. Therefore, I would like to propose two ways to realize a sky car. The first is to make a cooperation over industry and ministries. The second is development that uses advantage of Japan's strengths. For these propose, I think this will promote to inventing sky cars in the future.

1. Introduction

The purpose of this research is to take a share in the sky car markets in the world but currently, Japan is behind the world in development because Japan was late to start inventing sky cars. However, the proposal to realize a sky car is too broad for research, so in this year, I will research the technological development that will be the basis for realizing a sky car, and propose a proposal that will bring us one step closer to realize a sky car.

2. Discussion and implications

- Internet
- Books
- Interview (Ministry of Economy, Trade and Industry, Manufacturing Industries Bureau)

3. Conclusion

Currently, sky cars are being developed active all over the world. I think the day when sky cars will become familiar to people around the world will come soon. In order to realize a sky car, it can be separated into three stages: technology, legal, and infrastructure. In this research, I would like to suggest the idea of technology development that is the basis for realizing a sky car. The main features of the sky cars are autonomous driving, electric power, and vertical takeoff and landing. If the sky cars realizing in the future, there will be many merit for our life.

For example, elimination of traffic congestion in urban areas, improvement of convenience of transportation and tourism in depopulated areas and remote islands, creation of new industries, speeding up of disaster and emergency medical care and so on. Development of the sky cars started to invent in the 2010s, but Japan has been delayed in starting inventing, so it is currently behind in development compared to the rest of the world. Under these circumstances, in order for Japan to take the sky car market in the world, I think it is necessary to utilize Japan's strengths and cooperate with each other beyond the barriers of industry and companies. There are two main suggestions for this research. The first is to overcome the barriers between ministries, companies, and industries, and reopen a public-private council that includes companies

and institutions involved in the development and production of sky cars, mainly by ministries such as the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism. That is. Previously, at the "Public-Private Council for the Air Mobility Revolution" held, research institutes of universities such as the University of Tokyo and Keio University, companies involved in aviation such as CARTIVATOR, JAL, and ANA, as well as Boeing and Uber Technologies of the United States, etc. Many overseas companies working on the production of sky cars also participated. However, I think it is necessary for not only large companies and universities but also small and medium-sized companies to work together to realize a sky car. There are many SMEs with cutting-edge technology and patents in Japan. I think that some of them can apply the technology to sky cars. Therefore, I think that such small and medium-sized enterprises will come up with new ideas and approach the realization of a better sky car by participating in the public-private council. In addition, the power of various ministries such as the Ministry of Economy, Trade and Industry, the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Justice, and the Ministry of the Environment is indispensable for the realization of sky cars. Therefore, I think it is necessary to go beyond the barriers between ministries and agencies through the public-private council. The second is the production of sky cars that take advantage of Japan's strengths. Japan has excellent automobile production technology, and has a lot of history and technology that the automobile industry has created so far. Since sky cars also function as automobiles that run on land, I think Japan's superiority in automobile production will be an advantage. Another strength of Japan is that there are many small and medium-sized enterprises in Japan, such as Okamoto Glass and Mitsuba Corporation, which have the world's most advanced technologies that are indispensable for the development of automobiles. In addition, many of the sky cars that are being developed in other countries are large, and it may be necessary to have a waypoint from the current location to the destination. However, the size of the sky car developed by many Japanese companies, including CARTIVATOR, a volunteer organization that develops the sky car in Japan, is smaller than that of overseas companies, especially The sky car developed by CARTIVATOR is the smallest in the world and is about the size of a current ordinary car, so I think we can expect demand for being able to move from the current location to the destination without going through. Especially in countries such as Thailand and Indonesia, where the land is small and the population is large, traffic congestion has become a social problem. In such a country, a small sky car that can be reached from the current location to the destination without going through the sky will be able to avoid traffic congestion by flying in the sky, so I think it will be an advantage in selling. Currently, many companies and organizations are working on the development of sky cars in Japan, but since most of them are venture companies and start-up companies, when developing sky cars, overseas companies that major companies are working on development etc. In comparison, I think it has the flexibility to keep up with the times for next-generation sky cars. However, many of these companies are at a disadvantage compared to major companies in terms of funding and human resources, so I think it is necessary to provide national support. Currently, among the corporate groups that develop sky cars, there are groups that produce sky cars from countries, although land is ceded and financially supported by local public organizations, and loans are provided by major companies. There is no support for companies. The importance of sky cars is also mentioned in the "Future Investment Strategy," which is one of the Abe Cabinet's growth strategies, but it only established a public-private council for the air movement revolution. .. It is said that in 2030, including the sky car related market, it will reach 2 trillion yen in Japan and 200

trillion yen in the world, and if the sky car is realized, many profits can be expected. Therefore, in terms of investing in the future of Japan, I think that the development of sky cars will further progress in the future if the government supports the development of sky cars. By working on the realization and development of sky cars that transcend the boundaries of Japan's strengths, companies, ministries, and the public and private sectors, it is possible to create sky cars that are second to none, which invigorate the Japanese economy. I think it will also lead to things.

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The decline of children's eyesight
~to maintain and improve present eyesight~

5405

Abstract

In the last 30 years or so, the percentage of elementary school students with unaided visual acuity of "1.0 or less" has increased more than 1.5 times, and the percentage of "less than 0.3" has more than three times. What is worse, Gunma Prefecture's eyesight is poor nationwide. So I searched the internet and the literature for things that could improve children's eyesight. It turns out that there are Gabor patches and violet lights, which can improve eyesight. Using a one, the eyesight tended to decrease, while watching TV, increase. For this reason, I suggest /you should play outside, watching TV as much as possible instead of a smartphone, and watching Gabor Eye. By the way, this year, I would like to investigate the contents I research last year more deeply. Specifically, I would like to create an ideal life table for what kind of behavior is suitable.

1. Introduction

According to a survey conducted by the Ministry of Education, Culture, Sports, Science and Technology in 2016, the percentage of elementary school students with unaided visual acuity of "less than 1.0" was 31.4%, and that of "less than 0.3" was 8.6%. According to a 1979 survey, the percentage of elementary school students who were "1.0 or less" was 1.5 times or more, and the percentage of elementary school students who were "less than 0.3" was more than three times. The percentage of people with unaided visual acuity of "less than 1.0" reached 54.6% for junior high school students and 65% for high school students, and the percentage is increasing year by year. Also, looking at the data by prefecture in the same year, it was found that the value of Gunma prefecture was higher than the national average, and that it was a prefecture with poor eyesight compared to the whole country. In other words, in the last 30 years or so, the naked eye vision has decreased significantly. There are many ways to improve your eyesight on the internet and in books, but they are not very credible. So I decided to start a study with the goal of clarifying how to really improve eyesight and improving poor eyesight.

2. Discussion and Implications

- Internet
- Book
- Dissertation
What I want to do
- Interview
- Experiment

3. Conclusion

As I proceeded with my research, I found that there are methods called Gabor patch and violet light that can improve eyesight. A "gabor patch" is a striped figure. "Gabor eye" is a method of recovering eyesight using a striped figure "Gabor patch". The Gabor

patch is a striped pattern created by a mathematical process called Gabor transformation. The Gabor transform is known to act on the "visual cortex", the part of the brain that controls viewing. Therefore, looking at the Gabor patch stimulates the visual cortex and leads to recovery of eyesight. The results of studies on vision recovery have been described in numerous papers. About 80% of people's eyesight is restored, and on average, about 0.2 is restored. Violet light is purple light, which is contained in sunlight and has a shorter wavelength than blue light.

Based on verification from both chick research and human research by Keio University, violet light works on the gene "EGR1" that suppresses the extension of the axial length, which is the cause of myopia, and progresses myopia. Research results have been reported that it has the effect of suppressing myopia. However, in an indoor environment, most of the glasses with a UV cut function, such as windows, which are currently widely used, do not allow violet light to pass through. According to the above research results, in a modern society where indoor activities are becoming the main focus, the time spent in violet light is reduced and the risk of myopia progression is increasing. Also, many people tend to have better eyesight as they watch TV, but I thought that it might be related to the fact that the TV is farther from the screen because the effect of blue light is proportional to the square of the distance. Also, more blue light comes out on smartphones than on TVs. In other words, the more time you play games, the lower your eyesight, so it's better to watch TV than to play a smartphone or home video game. Also, playing outside is good for the eyes, so it is important to play outside firmly.

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Relationship between distance and blue light (2020/11/20)

Abstract

Currently, employment shortages are a problem in the world. According to the Global Risks 2015 10th Edition published by the World Economic Forum, it is listed as one of the Top 10 most likely global risks and The most influential global risks. It is the only economic risk to be ranked in both rankings, and it seems that it will not be able to cope with population growth without employment of another 600 million people by 2030 in the world. Therefore, I examined the number of unemployed people and the number of employment regarding current employment in Japan.

1 Introduction

The reason why I decided to research on such a theme this time. I studied the nursing care problems in Japan in the previous year's research and found that the biggest problem was the shortage of caregivers. From this, I was wondering if there are enough current workers in the world, so I set this theme.

The goal of this research is to think the ways to maintain the labor force if it is sufficient, and to improve it if it is not enough.

2 Discussion and implications

- Internet

3 Conclusion

According to the "Global Risks 2015 10th Edition" published by the World Economic Forum, there are global employment shortages among the most common global risks and the most influential global risks. What this means is that without the employment of another 600 million people worldwide by 2030, it will not be possible to cope with population growth and face a global employment crisis. Then, I was concern about what the current employment of Japan is like, so I research it.

According to data from the Statistics Bureau of the Ministry of Internal Affairs and Communications, the number of employees was 66.87 million and the number of unemployed was 1.59 million in January 2020. Of these, 360,000 unemployed are unwilling turnovers. However, as of April 2020, the number of employees was 66.28 million and the number of unemployed was 1.89 million, the number of employees has decreased and the number of unemployed has increased. The number of reluctant unemployed has increased to 490,000, which is also a large increase. According to the latest May 2020 data, the number of employees is 66.56 million and the number of unemployed is 1.98 million, both of which are higher than last month, and 540,000 of the unemployed are reluctant unemployment. From such data, we can see the increase in unemployment due to the new coronavirus.

In response to such unemployment due to corona, in the United States, vocational training costs of \$ 4,000 per person will be supported only when those who are unemployed due to Corona's disaster take a program to acquire advanced technology such as digital related. We are taking various measures. On the other hand, Japan's corona support measures are mainly aimed at maintaining existing employment and supplementing temporary living expenses, and it seems that there is no support for re-employment of unemployed people. Japan, like the United States, should provide more support to help unemployed people re-employ.

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○ Abstract

Japan currently has a major energy problem. It is a well-known fact that most of the fossil energy depends on imports from overseas, and nearly 90% of Japan's primary energy supply is such fossil energy, so measures such as future energy development are necessary. I decided to think about the spread of solar power generation by connecting these problems and the sun that I learned and was interested in when I was in junior high school. As a result, I thought that the combined use of storage battery and hydrogen energy is suitable. It is a mechanism that uses electricity generated by sunlight to produce and store hydrogen, and uses fuel cells to supply electricity when it is needed.

Introduction

Japan is currently holding a large energy problem. Japan's energy self-sufficiency rate is 9.6%, fossil fuels are 99.7% dependent on foreign countries, natural gas is 97.5%, and coal is 99.3%, and that means that most of them are imported from overseas. The current spread rate of renewable energy is 17.4%, but it is increasing every year. I decided to think about the spread of photovoltaic power generation by connecting these problems and the sun that I learned and was interested in when I was in junior high school.

Conclusion

Renewable energy spread has grown by an average of 5% annually from 2003 to 2009 and by an average of 9% annually from 2009 to 2012. Since then, the average annual growth rate has been 26%, and it can be expected that there was an opportunity for renewable energy to spread between 2009 and 2012. In fact, a system called a surplus electricity purchase system started in 2009 and a feed-in tariff system started in 2012. These are mechanisms in which electricity obtained mainly from solar power generation in private homes, factories, or buildings. The solar power is connected to the electric power company's transmitter and sent, and the electric power company buys it at a fixed price. Part of the payment for the purchase cost was borne by the private homes that send electricity as a levy, thereby suppressing the increase in the cost. However, this system, which started in 2009, ended the fixed period of 10 years in 2019, and the problem was that the burden of levy became very heavy during that 10 years. This is due to the amount of power supplied, and I thought that it could be suppressed by fixing the maximum amount of power.

In order to further popularize solar power generation, I thought that the combined use of storage batteries and hydrogen energy would be suitable. At the hotel in Huis Ten Bosch, HIS, some rooms are operated using renewable energy and hydrogen, but the mechanism will be able to be expanded to the local area. Hydrogen is produced and stored by using electricity generated by sunlight, and fuel cells are used to supply electricity when it is needed. One of the problems with solar power generation, which can be said for renewable energy in general, is that it is easily affected by the weather. It could cover this feature. This is because a large amount of hydrogen can be stored on a sunny day or in the daytime. The merit of replacing it with hydrogen energy is the convenience of storage and transportation. In addition, hydrogen, which exists infinitely

on this earth, may be used as energy without adversely affecting the environment. First, the convenience of storage and transportation reduces transmission loss, promotes local production for local consumption of electricity, and makes it possible to transport electricity from areas with active solar power generation without waste, and uses energy without waste. Furthermore, there is no concern about depletion and it does not adversely affect the environment. I thought that implementing this system in a certain area, reducing transmission loss, and promoting local production for local consumption of electricity would lead to the spread of solar power generation.

The problem with this mechanism is about cost and that it is only ideal. Regarding the cost aspect, considering the long span and the impact on the environment, it may be said that it is worth trying it, but there are still things I do not know in terms of land and technology, so I will continue to think about it.

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○Abstract

The number of sleeper trains in Japan is decreasing. However, so many people are eager to revive the sleeper express. So I thought it was worth reviving it.

I thought of a plan to revive it with reference to the Orient Express and the Indian Pacific. As a result, I was targeted the rich and the elderly and I propose that tourism companies have their own vehicles in order to make effective use of travel time.

1 Introduction

“Sunrise Seto, Izumo” is the only sleeper train currently in operation in Japan. Sleeper trains have declined with the development of the Shinkansen and passenger jets since the late 1970s. But I propose to revive the sleeper express.

With the development of passenger jets, railways are inferior to them in terms of transportation speed and cost. However, traveling by air is less amusement and less memorable when traveling. Also, popular sleeper limited trains, like “Hokutosei” or “Cassiopeia” have still been hoped to revive by many people who like trains very much. So I think to revive sleeper trains is a new approach to travel in Japan.

Former sleeper trains in Japan was abolished because of reduced convenience and reduced demand in terms of cost. In other words, in order to revive the sleeper limited train, it is necessary to make travel time a part of the trip like the overseas "Orient Express" instead of seeking convenience as in the past. The purpose of this paper is to find and propose the value of the sleeper limited express as a means to enhance the travel time of domestic travel.

2 Research method

First, I investigated the status of previous studies. As a result, it was found that much research on sleeper trains in Japan has not been conducted so much. However, there were many articles and columns about abolished sleeper trains such as "Hokutosei" and "Cassiopeia", and some of them could be used as a reference. Therefore, I first considered the effectiveness of sleeper trains from an article in the Toyo Keizai newspaper by Shigeto Horiuchi, a transportation critic.

Next, when I turned my attention to research on sleeper trains abroad, I was able to find a paper by Akio Ishii entitled "The Man Who Revolutionized Rail Travel-, Nagelmackers Wagonri, and the Orient Express". As mentioned earlier, the Orient Express is a sleeper train that stretched from Western Europe to Asia until it declined in the 1970s. This paper summarizes the history of the Orient Express and the innovations that the Orient Express has had on travel, and clarifies the significance of the existence of sleeper trains and the challenges of reviving sleeper trains in Japan in the future.

Based on the above-mentioned paper by Akio Ishii, this research will study the essentials for reviving sleeper trains in Japan and the significance of the existence of sleeper trains. Finally, I will propose a new way of domestic travel in Japan using sleeper trains.

3 Results / Discussion

① Status of sleeper trains in Japan

Shigeto Horiuchi, a transportation critic, stated at the beginning of an article in the Toyo Keizai newspaper: "Hokutosei" and "Twilight Express" were abolished due to the aging of the trains, but the private room sleepers centered on "Sweet" and "Royal" were popular trains for which it was difficult to get sleeper tickets. Certainly there is potential demand for night trains.

In fact, while sleeper trains such as "Akebono" and "Sakura" were abolished due to declining demand, "Hokutosei", "Cassiopeia" and "Twilight Express" were very popular and were not abolished due to declining demand. It is said that the main reasons are the construction work of Hokkaido Shinkansen and the aging of vehicles. Therefore, even now that the Shinkansen and aircraft have developed, the sleeper limited express is still popular, and even now, "Sunrise Seto / Izumo" is the only regular sleeper limited express that continues to operate.

In other words, when the sleeper train is revived, it will not necessarily be forced into a difficult situation due to the decline in demand.

② Purpose and target of operation

First, I checked the transportation time and price by public transportation between Tokyo and Sapporo.

Aircraft from Haneda to Sapporo are connected by each aircraft company in about one and a half to two hours. In addition, it was found that the regular fare is 38,000 to 40,000 yen for JAL / ANA and less than 30,000 yen for LCC, Low Cost Carrier. In addition to this, there are various options, and it is possible to move at a price of less than 10,000 yen.

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Abstract

IoT is the abbreviation for Internet of Things. It means connecting things to the Internet to gain or enhance their utility value. The term "thing" here can be anything as it is read, and as far as you can imagine, IoT has infinite utility. As if to symbolize that, IoT is attracting worldwide attention, and the number of IoT products is exploding. This research is to know whether IoT can be used for distribution. Even if you say IoT in a nutshell, IoT can be roughly divided into three types. . The first is the "things type".

1 Introduction

This research is to know whether IoT can be used for distribution. Even if you say IoT in a nutshell, IoT can be roughly divided into three types. The first is the "things-type". This means that connecting things to the Internet is of value in itself. IoT products that are closely related to everyday life, such as smartphones and smart speakers, are often things-type. The second is "data type". This means that the data obtained by connecting things to the Internet is valuable. Smart balls that connect soccer balls and baseball balls to the Internet are not intended to increase the value of being a ball, but to improve the way the ball is kicked and thrown based on the information obtained from it. It can be said that it is a data type. Depending on the purpose of use, some have both a things type and a data type. The third is the "problem-solving type", which is for solving a specific problem. For example, if the equipment for carrying luggage used in factories is changed to IoT and used to solve the problem of increasing productivity, it can be said to be a problem-solving type.

2 Discussion and implications

The purpose of this research is to investigate the utilization of IoT in distribution and transportation, and to propose utilization methods that can improve the distribution, which is the flow of people and goods, based on it. IoT is an abbreviation for Internet of Things, literally translated as "Internet of Things," and is a technology that connects things to the Internet to add new value. Smartphones, smart watches, smart speakers, etc. are familiar to us. I was doing research on IoT last year as well, but this year I decided to focus on distribution by taking advantage of last year's reflection. Demonstration experiments are being actively conducted on IoT and distribution, and I have a relationship with myself in terms of transportation, so I decided on this research theme. In other words, the purpose of this research is to effectively use the Internet to solve problems in traffic and distribution, such as how to reduce traffic accidents and how to eliminate traffic congestion.

3 Conclusion

Confirming the definition of words, IoT is "a technology that connects things to the Internet to add new value", and transportation is "people and vehicles come and go through a certain route" (Daijirin Third edition). Distribution is "the movement of money, goods, etc. in the market. In particular, the movement of goods from producers to consumers." (Daijirin, third edition).

Science and technology, transportation, and distribution are fields that are closely related. For example, the number of cars equipped with drive recorders is increasing, and it will be only a matter of time before the technology of autonomous driving is

generally introduced. And various experiments are being conducted on the automatic driving and IoT. For example, there is research on the SIP automatic driving system conducted by the Cabinet Office. This is nothing but research on autonomous driving, but it is research on creating high-precision three-dimensional map information called a dynamic map and comparing it with various information to perform autonomous driving. This is exactly the IoT. Since this is a study by the Cabinet Office, many automobile manufacturers are cooperating. A large-scale study of transportation and IoT.

This is the IoT for people's transportation, but various companies are also researching the IoT for the distribution of goods for better distribution. Distribution is indispensable for us to shop every day. Amazon is researching how to create an unmanned supermarket, and a company called V-Sync has developed a general-purpose IoT vending machine. At convenience stores in Japan, nighttime unmanned operation experiments were also conducted in Tokyo and Yokohama. Recently, some general supermarkets have introduced a technology that allows products to be read by holding a terminal such as a smartphone over the barcode of the product and to be settled without lining up at the cash register. Unmanned stores are likely to increase one after another. In addition, the stores where food comes directly to your seat when you order from your smartphone using the app, and the recently talked-about service where the delivery staff will take care of you when you order the product and deliver it to your house by bicycle are also popular. This is also due to IoT, and I think it is a good relationship between distribution and IoT. Isn't it the ideal form of feedback in IoT to be able to get products faster and more conveniently?

So what are the issues of transportation and distribution? I think that there are roughly two types of transportation and provision of goods. As for the transportation of goods, there are vehicles that people can ride on, but aircraft and ships will already have advanced information control. You can also check the current location of the plane on the Internet. And in the first place, only a limited number of people can drive, and since the number is relatively small, it seems that there are few technical problems. Isn't it the car that should be considered? There are many cars, and of course there are many accidents. If IoT can be applied to automobiles, it can be said that it will not only reduce accidents but also complete a society that is easier to move. As mentioned above, much research has been done on this, but I think that information can be collected efficiently by using a speedometer instead of the car itself. I think that if you use the speedometer on or beside the road called Traffic enforcement camera, you can get information on not only the latest cars but also old cars. However, we came to the conclusion that it may be difficult to utilize because the number of Traffic enforcement cameras are not very large and the performance is limited. Regarding the provision of goods, although there are dealers, etc., there are still some suggestions and lack of argument, so I would like to continue research.

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US Amazon opens unmanned supermarket without cash register

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Abstract: This study reveals that long-term use of smartphones reduces scholastic ability when sleep time is shortened. The study began to hate the fact that parents told me not to use a smartphone when I was using it, and wondered if I could justify it. In the initial survey, we investigated the grounds that the results deteriorated due to long-term use of smartphones. At that time, I found the result of the academic ability survey in Sendai City in 2013 and the questionnaire about lifestyle habits conducted accordingly. As a result, it was found that long-term use of smartphones leads to poor grades even if studying time is long, but it was predicted that this would be caused by a decrease in sleep time. Here, the relationship between sleep time and grades was investigated with reference to "Sleep Science I: Introduction to the Science of Sleep" by Soichiro Miyazaki et al. As a result, memory is fixed at the third and fourth visits of the sleep wave of non-REM sleep. Therefore, when the sleep time is shortened, the visit disappears and the grades deteriorate. As a result, it can be said that a decrease in sleep time due to long-term use of a smartphone causes a decrease in grades. However, it is not known if it directly causes a decline in grades. Finally, we considered a method to prevent long-term use of smartphones from reducing sleep time. At this time, I considered using the application, but considered that it depends on my own efforts.

1 Introduction

When I'm using my smartphone, it's really annoying that my parents say, "If you use your smartphone, you'll get sick." Therefore, the ultimate goal was to investigate and analyze the grounds that could be countered by parents and justify the long-term use of smartphones by themselves and junior and senior high school students.

Therefore, I decided to investigate the usage time and results of smartphones. Parents are reluctant to use their smartphones for a long time because they think that their grades may deteriorate. Therefore, at the beginning, we conducted a simple paper survey on the truth of the fact that "the longer you use your smartphone, the worse your grades", which is featured on TV and newspapers. This is because I thought that the treatise was more credible than the website on the street. As a result, none showed a direct causal relationship. In response to this, I thought that junior and senior high school students could not use smartphones for a long time due to the "imagination" that is known in the world today, "If you use a smartphone for a long time, your grades will deteriorate."

From here, I conducted a detailed investigation to confirm the truth of the "imagination" and proceeded with the research based on the results.

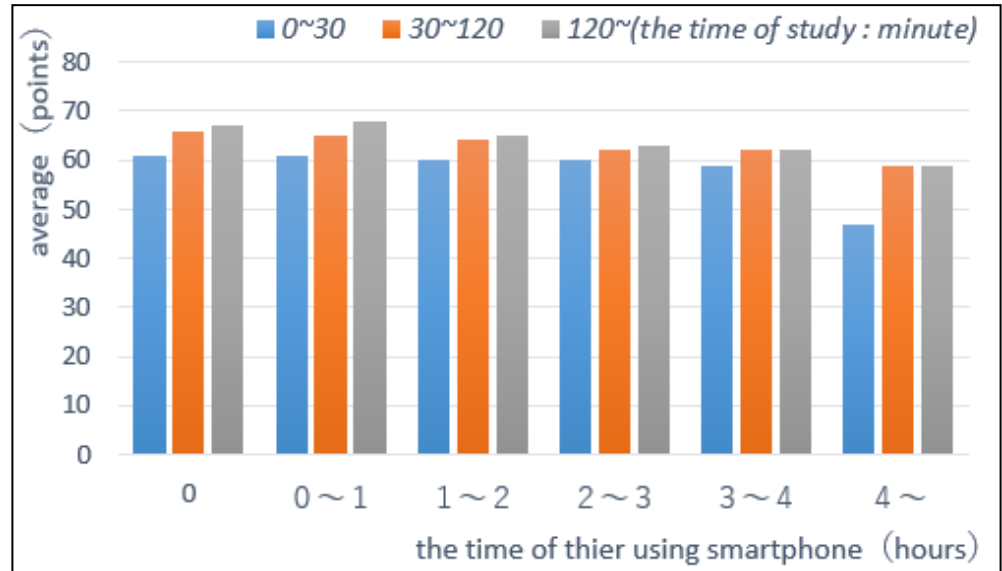
2 Method

First, in order to confirm the truth of the "imagination" presented earlier, we examined "scholastic ability and smartphone usage time as seen from the results of the academic ability survey." At first, I was thinking of using the results of the National Achievement Survey, but I was wondering if increasing the smartphone usage time would affect my study time, so I would like to share the results and the results of the 2013 Achievement Survey in Sendai City. Next, in order to solve the question "Is there a relationship between academic ability and sleep time?", I investigated it with reference to "Sleep Science I: Introduction to the Science of Sleep" by Soichiro Miyazaki et al.

3 Conclusion and Consideration

First, the results of the Sendai City Academic Achievement Survey were as shown in the figure on the right (Fig. 1). Comparing the "average score of students with study time of 2 hours or more and more smartphone usage time of 4 hours" and "average score of students with study time of less than 30 minutes and smartphone usage time of 0 minutes", the latter average score is higher. It's getting higher. From this result, "If you spend a lot of time studying but using your smartphone for a long time, your grades will be low."

That was stated in the results of the academic ability survey analysis in Sendai City. However, I took this consideration and wondered if it was because of their short sleep time. This is because I have heard that people who spend less time studying



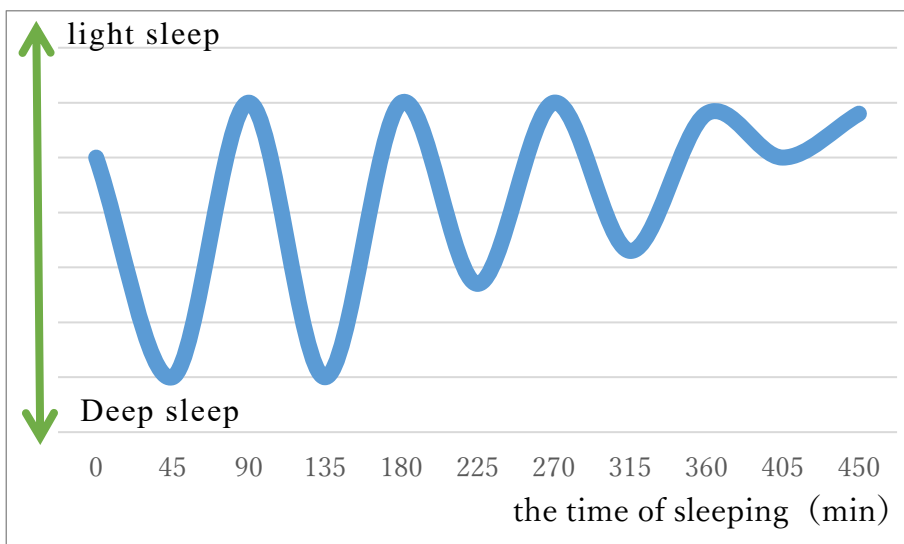
(Fig.1) the relation among examinations' average and the time of using smartphone and study smartphones

and using their smartphones and those who spend more time sleeping are completely different in sleep time, and their grades decline as the sleep time gets shorter.

So, in order to confirm the truth of the idea that "even if you spend a lot of time studying, your grades will decline if you use your smartphone for a long time." I proceeded with the investigation.

As a result, it was found that the shorter the sleep time is, the lower the grade is. Human sleep includes REM sleep (light sleep) and non-REM sleep (deep sleep), which alternate around every 90 minutes (the cycle varies from person to person)(Fig.2).

(Fig.2) the flow of your sleeping



REM sleep is sleep in which the eyes are closed but the brain is awake, and non-REM sleep is sleep in which the brain is also resting. Memory is fixed in the brain during non-REM sleep, and the more cycles of non-REM sleep, the more the memory is fixed.

Therefore, the longer the sleep time is, the more non-REM sleep is visited, and the shorter the sleep time is, the smaller the cycle of non-REM sleep.

Here, including the first survey, I made the idea that "the longer the smartphone usage time is, the shorter the sleep time is; the grade will be low". Based on this consideration, it was found that the long usage time of smartphones has an indirect effect on the decline in grades. Therefore, it turned out that long-term use of smartphones is not good. In other words, we came to the conclusion that "the longer you use your smartphone, the less sleep you have, the worse your grades will be."

Therefore, I decided to proceed with the survey with the aim of "using the smartphone for as long as possible."

First, I thought about how to use the app. There are various types of smartphone applications (hereinafter referred to as "applications"), such as those that suppress long-term use. However, restraining the use of smartphones by smartphone apps has the disadvantage that it can be stopped at any time. Due to this drawback, only those who strongly decide that they do not want to use their smartphone for a long time can use the smartphone for a long time with the app. Then, I thought that it would not be possible to suppress the long-term use of smartphones by many people, so I gave up using the app.

In response to this, I felt that the long-term use of smartphones could only be changed depending on my own consciousness. If you don't mind the low grades, the long-term use of the smartphone will still be high, and if you care about the low grades, the usage time of the smartphone will naturally shorten. Therefore, I cannot offer any concrete measures. However, I would like you to use your smartphone with the idea that "the longer you use your smartphone is, the shorter your sleep time is; your grades will be low."

4 Tasks

Through this research, "If you sleep less due to long-term use of your smartphone, your grades will decrease. It has an effect. "From there, I can say, "our grades will not deteriorate even if we use my smartphone for a long time; we have a long time of sleep.

If the time is long, it will not affect the grades. "In other words, the grade is smart It is not directly affected by the usage time of e, and if it becomes longer and the sleep time becomes shorter,

It turned out to be lower. I couldn't present a concrete plan this time, so I'm thinking about it.

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○ Abstract

During the period of high economic miracle, transportation infrastructure was developed rapidly in Japan. At that time, many bridges and tunnels were built all over Japan. However, in recent years, in developed countries including Japan, its rapid aging has become a serious problem. In the case of Japan, from March 2018 to March 2033, road bridges are about 25% to about 63%, tunnels are about 20% to about 42%, and the percentage of facilities 50 years after construction will be in the next 20 years. The Ministry of Land, Infrastructure, Transport and Tourism calculated that it would increase at an accelerating rate. Road infrastructure maintenance requires a quick response. Meanwhile, the use of ICT and AI is advancing to confirm innumerable maintenance points. The Metropolitan Expressway is an example of maintenance using such new technology. The Metropolitan Expressway repairs a large number of fatigue cracks found on piers, and such techniques are used to detect cracks and prioritize maintenance. It is no longer in time for humans to check everything one by one.

1 Purpose of research

A serious problem is imminent in the existence of a road that is very close to us. We will consider how to maintain and manage roads that can be used continuously in the future.

2 Research method

Use the Internet to collect information such as reports from the Ministry of Land, Infrastructure, Transport and Tourism and technological development of road management companies.

3 Conclusion

In recent years, road infrastructure such as bridges and tunnels constructed during the period of high economic growth is rapidly aging. From March 2018 to March 2033, road bridges accounted for approximately 25% to 63%, tunnels approximately 20% to approximately 42%, and the proportion of facilities 50 years after construction will accelerate over the next 20 years. If it increases, the Ministry of Land, Infrastructure, Transport and Tourism has calculated it, and urgent action is required. The Metropolitan Expressway is an example of an urgent need for action. It was the Great Hanshin-Awaji Earthquake of 1995 that influenced the current maintenance awareness of the Metropolitan Expressway. During the Great Hanshin-Awaji Earthquake, the collapse of the road bridge on the Hanshin Expressway No. 3 Kobe Line had a great impact. A subsequent investigation on another toll road found a crack that could not be explained by the effects of the earthquake alone. It was suspected that it might be affected by fatigue cracks. That fact disrupted the "safety myth" that roads were unlikely to deteriorate after many years of use. As a result, it was investigated that fatigue cracks may also be present on the Metropolitan Expressway. At that time, as many as 1,400 fatigue cracks were found and repairs were carried out immediately. And now, in addition to the places where serious aging is planned and large-scale rebuilding is planned, many places where aging is progressing have been found. To deal with such situations, the Metropolitan Expressway is actively trying to utilize new technologies

using ICT and AI. There is an "infrastructure doctor" as a concrete one used. The infrastructure doctor acquires 3D point cloud data using a mobile measurement vehicle MMS (Mobile Mapping System) equipped with a laser scanner and camera. By regularly acquiring 3D point cloud data, it is possible to grasp the deformation of the structure. This enables efficient maintenance of the structure. In addition, using the dynamic simulation function, a 3D model such as a bridge inspection vehicle can be mounted on the 3D point cloud data to confirm the actual inspection work in advance. As a result, it is possible to select the optimum inspection vehicle, confirm the operation procedure and interference with obstacles, and maximize the efficiency of on-site work. In an aging society with a declining birthrate and an aging society, the population is declining, although aging is progressing, infrastructure doctors will play a major role in efficient maintenance.

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The support for agriculture in developing countries

～what Japanese government can do～

5412

○Abstract

These days, the support for the agriculture of developing countries roughly divides into two. In short terms, there are food support for these countries that face the shortage of food. In long terms, from the standpoint of removing and preventing the cause of food problem, such a hunger, there are breeding that is premise of agricultural production, support to plan the indispensable policy for productivity improvement, infrastructure development, support for spreading productivity skill and enhancing resident's organization, Agricultural product processing of agricultural region, and support for the entire food value chain, such as market distribution and promotion of food sales. I think that we should export agricultural machine as a support for policy making to improve productivity. Japanese total amount of export is about 70 trillion yen. The one of general machine is 16 trillion yen, but that of agricultural equipment is 207.6 billion yen. There seems to be grow in this field. Also, there are JICA volunteer, the work in the ministry of foreign, JICA, and international organization and so on as an individual support.

1 Purpose of research

I have interest in agriculture so I looked it up. Then I found out there are many problems in agriculture in developing countries. So I decided this theme.

2 Method

In mainly internet, I investigate what Japanese government do for developing countries and what I can do for it.

3 Conclusion and issue

In the "Development Cooperation Charter" decided by the Cabinet in February 2015, Japan valued the eradication of poverty and the construction of a sustainable and resilient international community through "quality growth" in developing countries, and food value chane. In the short term, we will provide food assistance to developing countries facing food shortages and In the medium to long term, from the perspective of eliminating and preventing the causes of food problems such as hunger, we support for developing varieties that are prerequisites for agricultural production and policy formulation necessary for improving agricultural productivity, infrastructure such as irrigation facilities and farm roads, support for maintenance, dissemination of production technology, strengthening of residents' organizations, promotion of agricultural product processing, market distribution and food sales in rural areas. In addition, the countries with the most severe hunger, with a proportion of undernourished population of 35% or more, are concentrated in Sub-Saharan Africa, so While countermeasures to this problem have become an important issue on a global scale, Japan's characteristic approach to supporting Africa in the agricultural sector is the promotion of rice cultivation, which is one of the staple foods of the region. In recent years, in Sub-Saharan Africa, rice consumption has been increasing mainly in urban

areas, but since production cannot keep up with the increase in consumption, many countries cannot be self-sufficient and import rice from Asia using foreign currency. Under these circumstances, Japan has developed and disseminated improved varieties such as NERICA (New Rice for Africa), which are suitable for the African environment and have high yields, through the International Agricultural Research Council (CGIAR) and also, We have provided support for efforts related to spread. Of these support, I think that agricultural machinery should be exported as support for policy formulation to improve productivity. It is said that Japan has potential needs because it has less horsepower and is more flexible than overseas agricultural machinery. Therefore, I would like to propose the expansion of exports of used agricultural machinery to developing countries. According to the export statistics of second-hand tractor, In 2017, the export value was 12,748 million yen, and by region, the export value to Asia was 6,893 million yen, which was 54.1% of the total, and the export value to the EU was 4,148 million yen, which was 32.5%. By country, Vietnam, which accounts for about 40% of the total, is overwhelmingly the most, but 2nd Lithuania, 3rd Russia, 4th Bulgaria, 5th Poland, 6th Philippines, 7th Netherlands, 8th place Germany and many EU member states are in the top. From here, it is thought that expanding exports not only to Vietnam but also to other Asian countries may be one of Japan's support measures. From here, it is thought that expanding exports not only to Vietnam but also to other Asian countries may be one of Japan's support measures.

Currently, the purchase price varies depending on the model, model year, years of use, condition, etc., but a new price of 15 to 20 horsepower tractor is about 1.5 million to 2 million yen. It is said that the price of a new product is determined by "horsepower x 100,000 yen". When used, the price is at least one-third. Here, I would like to introduce an example of the actual export of agricultural machinery. In Vietnam, used agricultural machinery mainly imported from Japan is repaired, remodeled and used in rural areas. According to Japanese exporters, the best-selling items are second-hand goods manufactured in the 1990s or earlier because, in Japan, the annual usage time of agricultural machinery is generally short, so even if it has been used for 10 years or more, it retains almost the same functions as a new one, it is cheap, and it is not equipped with electronic parts that are difficult to repair in Vietnam. From Ho Chi Minh City, where the port is located, to the Mekong Delta region, along National Highway No. 1, there is an area where used agricultural machinery importers line up. Importers along National Highway No. 1 do not simply sell imported used agricultural machinery as it is, but also repair and maintain it, and then disassemble it to remove parts. After that, the rural agricultural machinery dealers who come to buy these stores make various modifications from small to large ones. Some DIY stores make their own cultivators. Also, in the last two years or so, relatively new models of used combine harvesters have begun to be imported for rice harvesting. Demand for imported used combines seems to be expanding in the northern and central parts of rice planting, and even in the northern part where the paddy field area is small and unsuitable for introducing machinery, and in the central part where there were many poor households and few farmers could purchase agricultural machinery. It seems that the wave of agricultural mechanization is finally coming.

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Abstract

Japanese anime has received high prices from around world for high drawing skills and detailed and dense story composition. But Japanese animator's working environment is terrible bad. Wages stagnated and youngster animator's average annual income is about 110 Man-Yen. The problem is in time of working. In an survey, Average working hours per month is 262.69 hours.

Under such circumstances, China has rapid development in animation. From these years, Chinese animation market has grew up and reach 2.5 Chou-Yen. That higher than Japanese 2 Chou-Yen. Made in China anime has improved. The animation movie "Ne Zha" was No. 1 in the box office revenue ranking of domestic movies. Now China is big threat for Japan.

Feeling the catch-up of countries around the world, I would like to make two suggestions for Japanese animators to maintain the quality of anime. The one is fixed wages, the another is an improvement in production funds. The working environment of animators has not changed since long ago, so we should remake the working style that suits the present era.

1 Introduction

Japanese animators have evaluated from world by beautiful illustration and constitution. But the working environment of animators is terrible bad.

Under such circumstances, China has rapid development in animation. From these years, Chinese animation market has grew up and reach 2.5 Chou-Yen. That higher than Japanese 2 Chou-Yen. Made in China anime has improved. The animation movie "Ne Zha" was No. 1 in the box office revenue ranking of domestic movies. Now China is big threat for Japan.

Feeling the catch-up of countries around the world, I would like to make two suggestions for Japanese animators to maintain the quality of anime. The one is fixed wages, the another is an improvement in production funds. The working environment of animators has not changed since long ago, so we should remake the working style that suits the present era.

2 Methods

The researching has advanced by internet. Then, I have checked some articles and clarify the source of information.

3 Discussions and implication

There are two causes in increasing of working time and declining of salary. The one is low production funds. The fund for one animation is overwhelmingly few, and the fund does not come in the production site. These days, investors want higher quality animation than before but the funds which come in the production site has been still no change. Therefore, the animator's fatigue is accumulating.

Another is the royalties do not enter the animators at the production site. When you

make an animation, royalties will be charged as a secondary usage fee for related goods but the royalties are distributed by publishers, manufacturers, upper management of animation production companies, etc., and sometimes animators do not receive income. In addition, the rise of the Chinese animation industry can be seen. Nowadays, in China, the Confucianism of domestic animation is high, and the production funds are also high, so we can see the rapid growth of the animation market. At the end of 2017, the Chinese animation industry reached a scale of 150 billion yuan (about 2.4 trillion yen in Japanese yen when converted to about 16 yen per yuan). The market size is larger than that of Japan, and the momentum will continue to rise. The anime market in China is fully open, and foreign-made anime is actively broadcast on each broadcasting station. Animation produced in China has also developed significantly, and the anime movie "Ne Zha" produced in 2019 ranked first in the box office revenue ranking of domestic animation movies. What's wrong with this is that Japanese animators could be pulled out. Despite the language barrier, China's working environment is unmatched by Japan, so it will be difficult to stop animators from deciding to move overseas.

In addition, Japanese animation, which has a lot of demand and supply in the world now, will be in an era in which animations from all over the world, mainly China, will be divided into groups. Among them, how far can Japan, which is an old-fashioned production site, maintain its current share? In order to stop this current situation and expected future, I think two things are essential. One is the reform of the animator's salary system. I think that the volume system should be changed to a fixed salary. This will ensure a stable salary and prevent overwork.

The second is to increase production funds. But even so, it's not an easy story. For this, the cooperation of the government, goods production companies, TV companies, etc. is indispensable. We have to plan how to put in place these two mechanisms.

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総務省アニメーター実態調査 2019

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Abstract

These days, e-sports is raising its popularity. In association with that, the number of patients who dependence on gaming is increase. Gaming dependence affects bad on our lives like the decrease of sleeping time. To solve this problem, I suggest that understanding the relationship between parents and children is important. To begin this study, I used my previous researches. In those researches, I studied about the way to prevent becoming smartphone dependency, and about Japanese participating to e-sports industry. The conclusion of these articles are communicating with parents and having a person who understand about the patient is important, and making more opportunity to get involved into e-sports for many people is needed. From these reasons, I thought parents and their children have to understand each circumstances as a conclusion of this study. The reason of becoming gaming or smartphone dependency is having no thing to do in the real life. If we think about this status with e-sports, the sense of mission will work. It means that we can define doing game long time as mission. We have to prevent following this emotion.

Introduction

These days, e-sports is raising its popular. Compare with other sports, e-sports is fair, and it would affects good to the economy. In association with that, the number of patients who depend on gaming is increase. Gaming dependence affects bad on our lives like the decrease of sleeping time. This situation is bad so I began to think about the good relationship between e-sports and gaming dependency.

Discussions and implication

First, I'll tell about the current status of gaming dependency. These days, gaming dependency is capturing attention of the world. WHO(World Health Organization) admitted it as a disease in 2019. The amount of people who depends on playing game is increasing. Gaming dependency has some bad effect on our lives. Now, there are many countermeasures about gaming dependency. Application which manages the time of using smartphone is one of good example, but this countermeasure don't have good effects in the all time, rather stopping the use of smartphone forcibly may have bad effects. The idea was to have someone close to me who could understand me by communicating well with my parents. From the results of experiences and questionnaires, people who become addicted to smartphones often have anxieties such as human relationships in their private lives at school and at home, and people who understand and sympathize with them This is because I thought that I might escape to the Internet in search of it. Next, last year I did research on the development of e-sports. E-sports is about playing a game as a competition and competing with others. Recently, it has become popular overseas, and while many tournaments with large prizes have been held, it is not very popular in Japan, and the awareness that games are not sports has taken root, and e-sports is pessimistic. Is. Even so, I thought that using e-sports would have an economic effect, so I researched the development of e-sports in Japan. In the end, it was concluded that it is necessary to actively promote the goodness and attractiveness of e-sports. After all, I thought it was important to dispel the negative consciousness of the people that hindered the development of e-sports. In addition, by attracting attention in this way, it is expected that major sponsors will be acquired and PC games themselves will become widespread.

Conclusion

From here, we will move on to the goal of curbing the increase in game-dependent patients while aiming for the development of e-sports, which is our research. In order to aim for the development of e-sports, as mentioned earlier, we will take measures to convey the appeal of e-sports to as many people as possible, but due to that effect, we will play games for a long time and hinder our daily lives. I want to prevent the number of people who are not good. Therefore, I think that mutual understanding between parents and children is important. If children are banned from playing games, we cannot expect the excitement of e-sports. On the other hand, if children play too many games because they have to become stronger, they may become game-dependent. It is important for both parties to understand their wishes and to know the dangers of game addiction.

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Abstract

This study is to understand physical phenomena easily and visually. I would like to help students by letting them use the device. The experimental device is made of materials which we can buy at home centers for anyone can make it on their own. An iron ball and springs are set in the tube on the cart, and the ball jumps out by elastic force of the springs at a moment. After it did parabolic movement, it returns into the tube again. This is because objects doing parabolic movement do constant velocity motion in the horizontal direction. I practiced control experiments under the 3 conditions, running distance and tilt angle of rails, and the number of the springs, and then improve the condition with the highest success rate. Currently, I finished the experiment and analysis of the data of it. The result is that the iron ball entered 3 times out of 2400 times. Almost no iron ball entered the tube because almost all iron balls did not be launched normally and the cart slowed down so that the iron ball did not enter the tube even if it's launched well. Moreover the plan which settles those problems is not found now, so it seems to take time for a solution. But when spending time, there is a lot of something to seem able to settle them. Therefore I think it's worth continuing the study.

1. Introduction

The background of my research is that when I learned about projectile motion in physics class, it is not possible to intuitively understand that an object that makes a parabolic motion moves at a constant velocity in the horizontal direction, and I hope that there is a device with which we can visually experience the phenomenon. I thought it would be a solution to the small problems of students. I would like to manufacture the physical laboratory device through this study. The final goal is to introduce the device into the educational site.

2. Discussion and Implications

First, the experimental device is manufactured. I bought the materials of the equipment at a home center and made it with familiar tools for anyone can make it on their own. Next I experimented by using the device. I experimented with 1 condition each 50 times except the miss value and record its success rate under the 3 conditions, running distance and tilt angle of rails, and the number of the springs. And then I improve the condition with the highest success rate. More improvement is piled by the condition that the success rate was highest and the success rate is raised. I propose that to school and aim at introduction to a school education finally.

3. Conclusion

<Procedure of making equipment>

- (1) Carve a groove with a diameter of 25 mm and a width of 3 mm on the surface of a wooden board with a chisel.
- (2) Attach casters to the back of the wooden board with an electric screwdriver.
- (3) An aluminum plate is cut off by scissors like figure 1.
- (4) It's fixed on the location of figure 2 of the woodcut through a screw in a hole of the aluminum plate made with (3).
- (5) I make 2 cuts so that it may become symmetrical at the 20mm under the core of wrap.

- (6) The cylinder made with (5) (core of wrap) is fixed on a ditch of the cart with which (4) was even made.
- (7) A spring is fixed in the cylinder.
- (8) The standard to remove an aluminum plate from a cylinder is fixed on a level rail.

<Experimental procedure>

- (1) A rail is fixed on the stand to which inclination is changed.
- (2) A level rail is installed so that it may follow an inclination rail of (1).
- (3) An aluminum plate is put in a cut of a core, a spring is kept down and an iron ball is put on it.
- (4) The cart which put an iron ball on the inclination rail is set.
- (5) I let the cart released and run.
- (6) Whether an iron ball enters or not is observed.

<Experiment>

Conditions: (1) distance of the inclined rail, (2) tilt angle, (3) the number of springs

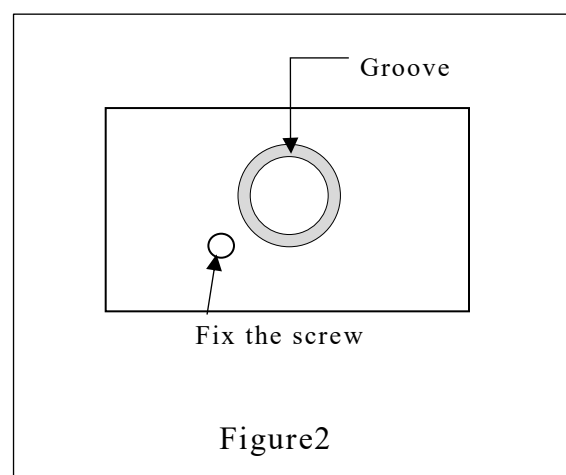
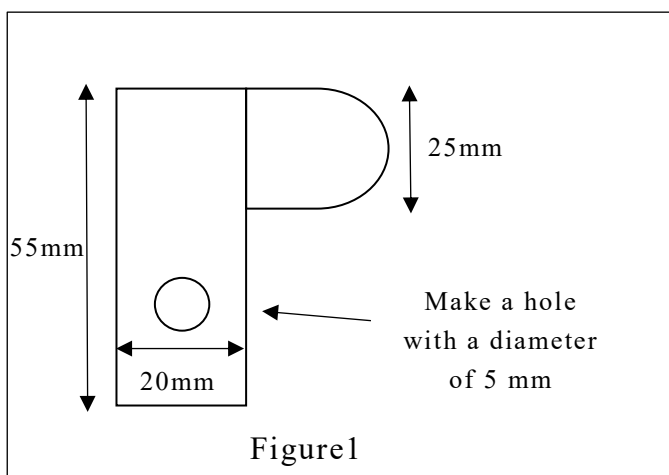
The experiment which are 50 times and total of 2400 times respectively was made by the condition above-mentioned (4 kinds by which(1) is 20 or 40 or 60 or 80 cm and 2 kinds(2) was 5 or 10 or 15 or 20 or 25 or 30 deg. of kind, and by which(3) is 1 or 2).

<Outcome>

I found out that it's impossible to put an iron ball in when the beginning had a low success rate and angle of tilt was bigger than 5 deg. The one by which excellent results was just got is experimental 3 ((1)60cm (2)5deg. (3) 1) and 4 ((1)80cm (2)5 deg. (3)1). But almost no good outcome was obtained without absoluteness by something compared as experimental data. A spring doesn't normally operate as a failed point, and even if the cart to which an iron ball didn't fly well decelerates, and an iron ball flies, it's said that to enter wasn't mostly.

<Consideration, problem and future's view>

The system normally make them launch an iron ball and a cart, by uniform velocity, dispatch I found a device to be necessary. The failed cause felt that most was the case that an iron ball isn't normally launched. Even if it's launched well, when a cart decelerates, I don't enter anymore, so when those are improved, I think the success rate rises remarkably. But the plan which settles those sufficiently in the present isn't found, so it seems to take time for a solution. But when there is time in other words, it's said that it's possible to lead to success by quite high probability. I think it's worth sticking to it a little more greatly.



Abstract

Recently, the sounds of ambulance could not heard from inside a car and any drivers did not slow down. And this news was happen in Gunma prefecture where I live, so I want to solve the problem as soon as possible so I started to research. First, I wondered if it was the airtightness of the car that was related to this problem, because if the airtightness were improved, it would be difficult for the external and internal sounds to be heard from each other. However it is difficult to consider about airtightness because it is clear that if the airtightness were reduced, the heat retention in the car during the winter would be reduced, the heating will be used more frequently than it is now, the fuel consumption will be worse, and the conversation and music in the car will be leaked, which infringes the right to privacy. Therefore I decided to approach this problem from the sounds of ambulance.

Introduction

① Problem and purpose

The research goal is to solve the problem of not hearing the sounds of ambulance from inside of the car. There are lots of types of cars in Japan, so I focused passenger cars, not a bus or a truck and so on.

② Research method

- The Internet
- I have been researching system of car for two years and I have quoted several necessary information from them.

Conclusion

The sounds of ambulances which 20 meters far from the car was smaller than the volume inside the car while driving also listening audio and talking inside a car. Therefore, I wondered that I suggest to turn up the sounds of ambulance, but I noticed if the sounds became louder, a noise problem would cause by neighbors. Then, I suggest to using directional speaker, so I will introduced about it. Most of sounds spread widely and further from a resource of the sounds, the strength of the sounds become weaker and weaker. However, the sounds of directional speaker deliver vertically, and the strength of the sounds do not change even if observer leave from the sounds over 100 meters, so it can deliver the sounds to specific person. In addition in 2020, it was succeeded in reducing traffic accident in expressway in Japan. Therefore, the sound from it can penetrate most of glasses, but it can penetrate thick wall like a house wall due to a characteristic of sounds also reflect. Therefore, my solution is putting directional speaker on the ambulances and keep it horizontal to the ground, the reason why keep it horizontal to the ground is prevent from delivering the sounds to people who upstairs of the house. I think that most of people sleep in upstairs of the house and the average of the height of first floor is over 230 centimeters and the height of the ambulance is 249 centimeters, so the sounds from cant' reach to upstairs of the house. So no one in the house wake up by the sounds of ambulance.

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路では初の取組み～

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1 The purpose of a research work.

In recent years, the number of Japanese forensic scientists has been decreasing. In Japan, 23,000 bodies are requested to be dissected every year, but in fact only about 8,900 bodies are dissected. It turns out that the shortage of Japanese forensic scientists is serious. Forensic medicine is a medicine that protects the human rights of the dead. It can also be said to be future medicine in terms of pursuing the importance of life and death. I wanted to solve this problem and started my research. Here I would like to mention a little more forensic scientists. Forensic scientists autopsy, dissect and determine the cause of death. The patient complains to the doctor, but the corpse speaks nothing. Listening to the voice of the dead is peculiar to forensic medicine. Neither the bereaved family nor the person himself would be convinced that a healthy person would die suddenly. How did you die? Citizens wonder if the cause of death is illness, accidental death, suicide, or homicide. Forensic scientists answer that question.

2 the method

The research method is to read the literature and talk with medical students.

3 outcome

First, I wondered why so few people are aiming for forensic medicine, so I focused on that. The average annual income of forensic doctors is 7 million yen, which is far less than that of other doctors. Anatomy also carries the risk of infectious diseases such as AIDS. Furthermore, the rotting corpse gives off a strong odor. Except for these, it is called "3K". Since the dissection takes a long time, not only mental fatigue but also physical fatigue accumulates. One day I visited Gunma University and had a conversation with a medical student. According to them, it would be a miracle if there was even one person who wanted to become a forensic scientist in the grade. Forensic medicine is not popular.

Therefore, I present two countermeasures. The first is to provide medical education in elementary school, and the second is to provide medical school entrance examinations by specialty. The former will solve the overall shortage of doctors. In addition, the latter can secure a certain number of enrollees and eliminate the bias of specialists..

The first is to give a medical lesson from elementary school 3 or 4 grades to upper grades. It's essential to touch medicine from childhood to make the number of the doctor increased overall.

The second is reform of an entry exam system. In other words, doctor securement of certain quantity does an entrance examination according to the professional family, and stops doctor's maldistribution and becomes possible.

Literature

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The terminal of beauty for the body

~ Causes of anorexia nervosa ~

5418

○ Outline of research

Being an ideal body has long been useful and demanded. In fact, modern people also pay a great deal of attention to the body and are willing to spend a great deal of money and time on it. In fact, publicity aimed at health and diet is always crowded with the media. Modern people are very active in doing what is good for them and giving them a feeling of exhilaration because they are beautiful and attractive.

Also, when it comes to the relationship between the mind and the body, "Thinking about the body is about thinking about the relationship between the body and the mind." As there is such a phrase, in psychology, biology, etc. in the long history. Studies have shown that the body and mind have an inseparable relationship.

(1) In psychology, for many years, the question has been asked whether the mind and body are different or the same, and how the mind and body affect each other. Monism, which is considered to be essentially the same. On the other hand, the mind and body are different, but they work by influencing each other, that is, the mind (mind) can affect the movement of muscles (body). There is also the idea of "body mind synergy (integration of mind and body)", that is, the idea in line with the Cartesian monism. The explanation of the interaction between mind and body is simple. Affects, that is, some interaction is working.

(2) In biology, science has also revealed that there are many chemical substances in the human body that mediate the relationship between the mind and body. One of them is hormone. In fact, it has become clear that these hormones also act on the mind. One example I've heard is "happiness hormone.")

Therefore, it has been believed that a healthy spirit resides in a healthy body, and that training the body is training the mind. In other words, the act of strengthening the body was indispensable for human beings to maintain "beauty" and to strengthen their minds. Therefore, "diet" was an important act for both modern people and people a long time ago. However, although it can be said that the desire for the ideal body of the present age has existed from the beginning of human history, it is moving in the so-called bad direction in the present age. Training the body, which has been considered good for the body, has become too radical. For example, liposuction, excision, and the use of drugs. This sacrifices for "beauty" something that was unthinkable a long time ago and that is not good for the body. A new stage of dieting begins in the 1970s. It used to be a weight problem, but suddenly it becomes a mental problem. The purpose of body work, including diet, is health and beauty. The two should have been in agreement, but since the 1970s they have split and become bipolar. And beauty precedes, and diets that sacrifice health for beauty have increased. There, an obsession with weight could lead to mental illness. In other words, this is "anorexia nervosa".

○ Purpose of research

From this, it is considered that the cause of the appearance of anorexia nervosa is the viewpoint of the modern human body. The idea and image that "health must be sacrificed for beauty" must be fundamentally changed. However, it is difficult to suddenly change this way of thinking, which is strongly rooted in modern people. The purpose of this study is to find out what is the cause of anorexia nervosa patients and no "anorexia nervosa".

○ Research method

Mainly searching for literature on the Internet. At that time, take measures such as performing a double search so as not to obtain incorrect information. MML books etc. are also used as part of the information. Since the theme of the grade is exploring the world, I would like to expand my perspective to the world, not just the anorexia nervosa problem only in Japan.

○ Research results / issues

① What is an eating disorder?

First, eating disorders will be described. Eating disorders are illnesses that cause various problems centered on eating behavior. Specific eating disorder groups include the following

Anorexia nervosa

Avoidance / Restricted Food Intake

Hyperphagia

Bulimia nervosa

Pica

Anticorrosion * The deficit is the type of anorexia

Anorexia nervosa is part of an eating disorder. Anorexia nervosa is a terrifying illness that not only changes the body but also causes great damage to the mind. Extreme eating behavior abnormalities related to anorexia nervosa appear in the background of extreme obsession with weight, "I don't want to get fat, I want to lose weight" and "I'm fat / ugly → I'm not worth it" There is a psychological background such as the belief that. In other words, it can be said that it is a disease caused as a result of seeking too much "beauty" from oneself. It is also known that this disorder is especially common in women.

② Tendency of eating disorder patients

As a matter of course, we humans have a higher sense of beauty than women. That strengthens women's commitment to appearance and psychological, physical and financial investment in the body. Therefore, women are far more likely to be victims of physical problems such as anorexia nervosa and bulimia nervosa than men. In fact, a recent survey in the United States found that

“Physical attractiveness is more important to women than to men. It strengthens women's commitment to appearance and psychological, physical, financial and physical investment. Women are much more involved in physical reform groups than men. Women are far more likely to be victims of physical problems such as anorexia and hyperphagia than men. Many women are fat. It's more scary than dying. "(Debra L. Gimlin, op. Cit.)

Also, it may be because of the gender differences that have long been rooted in women seeking beauty more than men. Women have always been homely in every country and every era. No one admitted and doubted that. In fact, it is men who have higher physical abilities than women and who are good at the intelligence necessary to build civilization, so-called science subjects, who have built up civilization and established politics and have worked hard labor etc. .. As men played such roles outside the home, women were given the role of protecting the home. In other words, since it is men who have supported women and children, it is natural that men have a higher social status. Men sought

beauty from women who entrusted such families. Therefore, the fact that women are "beautiful" is chosen by many men, which is reflected in their social value. Nowadays, the number of career women who work outside the home is increasing, but in the case of young women, "beautiful" seems to affect their social value. Why do people want "beauty" from their partners? That is because "beautiful" means being in a healthy state. People instinctively seek health from the opposite sex to leave offspring. That's why healthy people look more attractive. For example, a person with a pale complexion is better than a person with a pale complexion. People who are not ill are better than those who are ill. People who are happy with their five limbs are better than those who have lost one of their limbs. A clean person is better than a person who has a strange odor and is dirty. Similarly, lean people tend to look healthier and more attractive than fat people. Therefore, the idea that "being thin is beautiful" has spread to women. Indeed, I think we are naturally more attracted to lean people than to fat people. In fact, the society in which such an idea is rooted is crowded with the media and the like with the description about "being thin for beauty". And we naturally inherit that idea. This leads to the story described above (outline of research). The result of their excessive demand for being "thin" leads to anorexia nervosa.

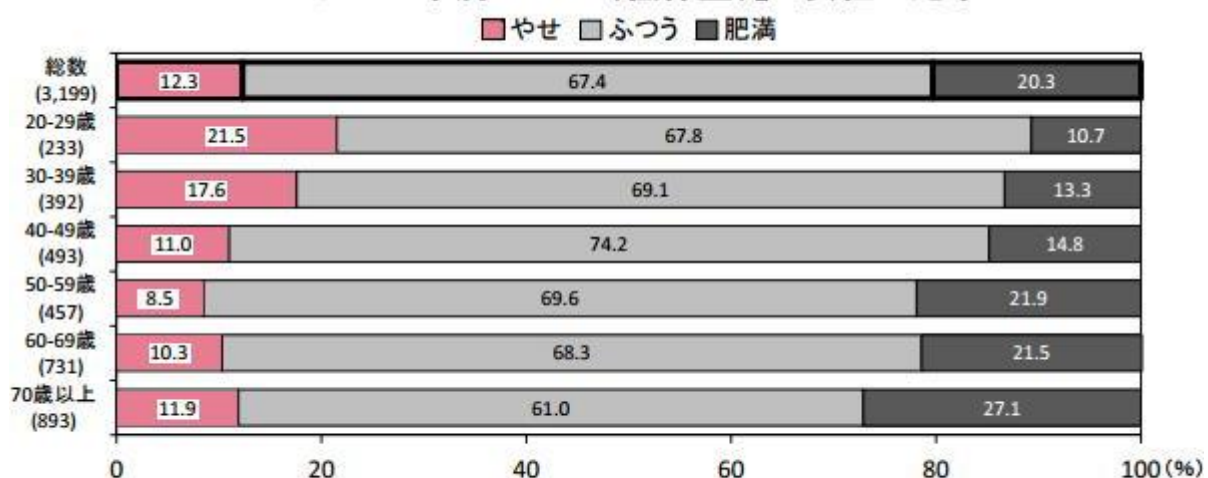
Many people develop anorexia nervosa in their teens. This is because when you are a teenager, the so-called "sex appeal" begins to develop. As a result, girls are more concerned about their appearance and the opposite sex, and tend to seek "beauty." It is said that many girls suffer from anorexia nervosa, triggered by a light diet that they started because they wanted "beauty" in their appearance. On the other hand, bulimia tends to be more common in people in their twenties. 90% of both types are female patients. Anorexia nervosa and binge eating appear to be the opposite symptoms, but they often change from binge eating to binge eating and binge eating to binge eating. This is related to the characteristic symptoms of anorexia nervosa, which will be explained later.

(reference)

-Number of patients with eating disorders-

The following graph summarizes the proportion of underweight women with a BMI of less than 18.5 among Japanese by age.

BMIが18.5未満の「やせ(低体重)」の女性の比率



「やせ」は BMI18.5 kg/m² 未満、「ふつう」は BMI18.5 kg/m² 以上 25 kg/m² 未満、「肥満」は BMI25 kg/m² 以上。

出典:2013年国民健康・栄養調査(厚生労働省)

Although not written here, the number of patients in their teens is considerably higher than in their 20s. By the way, the male-female ratio is 20: 1, and the number of female patients is overwhelmingly large, which is a characteristic of this disease.

It is also known that eating disorders are predominant in developed countries, including Japan, where the amount of calories consumed per day is high. It is rarely seen in countries where there are many hungry people, such as conflicts.

① Symptoms and treatment of anorexia nervosa

The two symptoms and treatments for anorexia nervosa will be explained.

(1) Anorexia nervosa

Anorexia nervosa mainly occurs in girls and young women. Onset is usually during adolescence, rarely after age 40. Few risk factors have been identified other than being female. Two types of anorexia nervosa are recognized:

Eating-restricted type: Patients limit their food intake, but they do not regularly overeat or excrete, and some patients exercise excessively.

Binge eating / excretion type: Patients overeat regularly and then induce vomiting or abuse laxatives, diuretics, or enemas.

Binge eating can lead to loss of self-control (ie, inability to resist or stop eating), with significantly more food than most people would eat in a similar amount of time in similar circumstances. It is defined as ingesting (while feeling unable). Binge eating and excretion are common because the feeling of weight and body shape is impaired, and even if the patient is clearly thin, he / she does not feel that it is abnormal, so some people lose weight steadily and lose weight. Binge eating is excessively restricted, but the reaction is to overeat. In that case, vomiting and heavy use of laxatives (symptoms vary from person to person)

(EX case, female in her 30s

"I started to abuse over-the-counter laxatives (10 to 15 tablets a day) in my second year of college. I lost weight. After that, I continued to overeat and withdraw. I repeated laxative abuse. I eventually dropped out of college. At the age of 25. I went to a vocational school to get a job and graduated. During this time, I stopped eating, but laxative abuse continued, and I took 300 to 400 tablets a day at most. "

https://www.jstage.jst.go.jp/article/jjpm/47/9/47_KJ00004675974/_pdf)

Prevent weight gain due to such things. It has been called anorexia nervosa / anorexia nervosa, but it is not necessarily that there is no appetite, and overeating may be seen, so a new disease name called anorexia nervosa has been proposed. If you have overeating or vomiting, your salivary glands may swell and you may have vomiting on your hands.

(vomiting octopus)



↑ Some patients with anorexia are afraid that food will be absorbed by the body, and try

to vomit by sticking their fingers into the throat to get the food out of the body in an attempt to make it something they have never eaten. Some people do this because the gastric juice during vomiting hits the hand that is stuck when vomiting, or the upper front tooth hits the back of the hand when the hand is stuck in the mouth.

<Disease principle> → Endocrine abnormalities are common; there are decreased gonadotropin levels, mildly decreased thyroxine (T4) and triiodothyronine (T3) levels, and increased cortisol secretion. Menstruation usually ceases, but menstrual arrest is not currently a diagnostic criterion. Bone loss. In patients with severe undernutrition, almost all major organ systems may be affected. Sensitivity to infection typically does not increase.

Dehydration and metabolic alkalosis may occur, and serum potassium and / or sodium may be low; both are exacerbated by self-induced vomiting and the use of laxatives or diuretics.

Mitral valve prolapse is common with decreased myocardial weight, heart chamber size, and cardiac output. Some patients have prolonged QT intervals (even after heart rate correction), which, combined with the risk of electrolyte abnormalities, predisposes to tachyarrhythmias. Sudden death (most often due to ventricular tachyarrhythmia) may occur.

<Diagnosis> → Anorexia nervosa may be mild and transient, or severe and long-term. Most patients are lean, but are concerned that they are overweight or that they have too much fat in certain areas (eg, thighs, gluteal region). Patients are warned and warned by friends and family that they are thin enough or very light, but continue to strive to lose weight, and any weight gain is an unacceptable failure of self-control. I reckon. Even if emaciation occurs, attachment and anxiety about weight gain increases. It is inaccurate to call the disease anorexia (anorexia) because appetite is often maintained unless the patient becomes significantly cachexia. Patients have the following food obsessions:

Study diet and calories.

Store, hide, and waste food.

Collect recipes.

Make elaborate meals for others

Patients often report higher food intakes and try to hide behaviors such as self-induced vomiting. Binge eating / excretion type occurs in 30-50% of patients. The rest of the patients simply limit their food intake.

Many patients with anorexia nervosa also exercise excessively to control their weight. Patients who appear to be cachexia still tend to be very active (such as engaging in strenuous exercise programs).

There are also many complaints of abdominal distension, abdominal discomfort, and constipation. Patients usually lose interest in sex. Depression also occurs frequently. Common physical findings include bradycardia, hypotension, hypothermia, dense or mild hirsutism of downy hair, and edema. Body fat is significantly reduced. Patients who vomit frequently may have tooth enamel erosion, painless salivary gland swelling, and / or esophageal inflammation.

Clinical Criteria: Underweight and unawareness of the severity of dietary restrictions are hallmarks of anorexia nervosa, and patients resist evaluation and treatment. Patients are usually taken to their family or for comorbidities. Clinical diagnostic criteria include:

- Restriction of food intake leading to significant underweight

Fear of obesity (appears as a patient's specific statement or behavior that prevents

weight gain)

Distortion of body image (misperception of weight and / or appearance) or denial of pathology

In adults, underweight is defined using BMI. A BMI of less than 17 kg / m² is considered a significantly lower value, and a BMI of 17 to 18.5 kg / m² can be significantly lower depending on the patient's starting value. For children and adolescents, age-specific BMI percentiles are used, with the 5th percentile being the cutoff value. However, children above the 5th percentile may be considered to meet the criteria for the disease if they do not maintain the expected growth curve; age-specific BMI percentile tables and standard growth curves are available from the CDC. Yes (see CDC Growth Charts). Patients may appear healthy in other respects. The key to the diagnosis is to hear from the patient the fact that weight loss does not eliminate the strong fear of obesity.

<Prognosis> → The mortality rate is high, and the mortality rate per 10 years in the patients who consulted is close to 10%, but it is probably rare that unrecognized mild cases lead to death. With treatment, half or all of the lost weight will be restored in half of the patients, and endocrine and other complications will be restored. In about one-quarter of patients, the outcome is moderate and may recur. Outcomes are poor in the remaining quarter of patients, including recurrent and persistent physical and psychological complications. Outcomes for children and adolescents treated for anorexia nervosa are better than for adults.

<Treatment> → Nutrition, psychotherapy (eg, cognitive behavioral therapy), family therapy for adolescents. Treatment may require short life-saving interventions to restore weight. Prompt weight recovery is essential and hospitalization should be considered if weight loss is severe or rapid, or if weight is reduced to less than about 75% of recommended body weight. If you have any doubts, you should be hospitalized. Outpatient treatment requires varying degrees of support and supervision, and typically involves multiple healthcare professionals as a team.

Nutritional supplementation starts at about 30-40 kcal / kg per day, and weight gain of up to 1.5 kg per week during hospitalization and 0.5 kg per week during outpatient treatment is possible. Oral nutrition with a solid diet is best, but it is so resistant that undernourished patients sometimes require nasal gastric nutrition. For bone loss, 1200-1500 mg / day of component calcium and 600-800 IU / day of vitamin D are commonly prescribed. Once the nutritional, fluid, and electrolyte status is stable, long-term treatment is started. Outpatient psychotherapy is the cornerstone of treatment. Treatment should emphasize behavioral outcomes such as normal diet and body weight. Treatment should be continued for one year after weight recovery. The prognosis is best in adolescents with a disease duration of less than 6 months. Family therapy, especially the Maudsley model, is useful for adolescents. This model consists of three stages:

In this model, the model teaches the patient how to resume eating (eg, through a family diet under supervision) and thereby restore the patient's weight (as opposed to the traditional approach). Does not specify family and patient responsibilities).

- Gradually return the authority to control the diet to the patient.
- After the patient is able to maintain a recovered weight, shift the focus of treatment to the formation of a healthy adolescent identity.

Treatment is complicated by the patient's aversion to weight gain and the denial of the condition. Physicians should strive to build a calm, caring, and stable relationship while encouraging moderate calorie intake.

Psychotherapy is the main treatment, but sometimes drugs can also be useful. Second-generation antipsychotics (eg, olanzapine up to 10 mg, oral, once daily) may help gain

weight and reduce anxiety.

(2) Bulimia nervosa is caused by several types of inappropriate compensatory behavior such as excretion (self-induced vomiting, laxative or diuretic abuse), fasting, or impulsive exercise following repetitive binge eating episodes. Characterized; episodes need to be seen at least once a week for 3 months. Diagnosis is based on medical history and medical examination. Treatment is with psychotherapy and antidepressants.

Bulimia nervosa affects about 1.6% of adolescent and young women and 0.5% of men of the same generation. Patients persistently show excessive interest in body shape and weight. Patients with bulimia nervosa usually weigh normally or above average, unlike anorexia nervosa.

<Disease principle> → Sometimes serious water / electrolyte balance abnormalities (especially hypokalemia) occur. Very rarely, a rupture of the stomach or esophagus may occur during an episode such as overeating or excretion, leading to life-threatening complications.

There is no significant weight loss, so there is no serious malnutrition caused by anorexia nervosa. When ipecac syrup is used to induce vomiting, long-term abuse of this drug may cause cardiomyopathy.

<Diagnosis> → In a typical example, the patient explains the binge eating / excretion behavior by himself / herself. Binge eating clearly exceeds the amount most people would eat under similar circumstances in a similar amount of time (eg, the amount considered excessive on a regular diet and a holiday diet may differ). Eat quickly while feeling the loss of self-control. Patients tend to consume sweet, high-fat foods (eg, ice cream, cakes). Binge eating can vary, sometimes with thousands of calories. Binge eating occurs paroxysmal, often caused by psychosocial stress, often occurs several times a day, and is usually hidden. Binge eating is followed by compensatory behaviors such as self-induced vomiting, laxative or diuretic use, excessive exercise, and / or fasting. Typically, patients are normal in weight and have few overweight or obesity. (This is different from anorexia nervosa) However, patients are overly concerned about their weight and / or body shape, and often think that patients are dissatisfied with their body and need to lose weight.

Symptoms include overeating and vomiting to prevent weight gain, but both are symptoms that do not occur in public and may not be noticed by the surroundings. If untreated, physical symptoms may progress and depression and anxiety may increase. Binge eating of bulimia nervosa is characterized by eating a large amount of food at once as if stuffing it. It's easy to think that you should be able to stop it with the power of your will, but in most cases you can't stop it yourself and have a strong sense of control. New diagnostic criteria from the American Psychiatric Association require treatment for binge eating even once a week. In addition, there are behaviors such as vomiting and using laxatives to prevent weight gain. It may be called fasting except during overeating time. If vomiting continues, the salivary glands may swell and the tooth surface may dissolve in stomach acid.

Psychologically, self-evaluation changes depending on the weight, and mood ups and downs may occur. If you gain weight even with 100g, you may think that it is not worth living. In addition, it often affects people's lives. If it begins during the course of anorexia nervosa, it may develop after a light diet.

Most symptoms and physical complications are the result of excretory behavior. Self-induced vomiting can lead to acid erosion of the anterior tooth enamel, painless subaural (saliva) adenoma, and inflammation of the esophagus. Physical symptoms include:

Swelling of the parotid gland

Scars on the fist (due to self-induced vomiting)

Acid erosion of teeth

Patients with bulimia nervosa are more aware of their behavior than patients with anorexia nervosa, are more likely to feel regret or guilt, and are asked by a doctor in an empathic manner. , Is likely to admit your worries. Not very socially isolated, prone to impulsive behavior, substance and alcohol abuse, and prone to overt depression. Anxiety (eg, regarding weight and / or social status) and anxiety groups may be more frequent in these patients.

Clinical Criteria: Clinical diagnostic criteria include:

- Episodes of binge eating (ingestion of abnormally large amounts of food uncontrollable) with a sense of loss of control of eating are repeated at least once a week for 3 months.

Repeated inappropriate compensatory behaviors that affect weight (at least once a week for 3 months)

Self-assessment is overly affected by body shape and weight concerns

<Treatment> → Cognitive Behavioral Therapy (CBT), Interpersonal Therapy (IPT)
SSRI

CBT is the treatment of choice. Although it can be given as group therapy, treatment usually consists of 16 to 20 individual sessions over 4 to 5 months. The purpose of treatment is to increase motivation for change, replace inadequate diet with regular and flexible dietary patterns, alleviate excessive concerns about body shape and weight, and prevent recurrence. CBT eliminates overeating and self-induced vomiting in about 30-50% of patients. Many other patients also show improvement, but some either drop out of treatment or do not respond. Improvements are usually well maintained over the long term.

The IPT focuses on helping patients identify and transform interpersonal problems that may persist in eating disorders. Treatment is non-directive and non-interpretative and does not directly focus on the symptoms of eating disorders. If CBT is not available, IPT can be considered an alternative.

Although long-term results are unknown, SSRIs alone can reduce the frequency of binge eating and vomiting. SSRIs are also effective in treating co-existing anxiety and depression. Fluoxetine 60 mg, orally, once daily is recommended (this dose is higher than that used in typical cases of depression).

① Beauty for women that society demands

As noted in the tendency of anorexia nervosa patients, the idea that "it is better to be thin than to be fat" is unknowingly inherited in modern times. The photo by the next project shows this visually.

What is the difference when you give a photo to a female graphic designer in 18 countries around the world, including the United States, Europe, and Asia, saying, "Make the woman in the photo more attractive to people in your country?" Can you see it? It was a project called "Perceptions of Perfection" that was investigated. The retouched photos, which have a great impact on you, show you how the word "beautiful woman", which you usually say, is so different from country to country.

Perceptions of Perfection | Superdrug TM

<https://onlinedoctor.superdrug.com/perceptions-of-perfection/>

This is the original photo. A woman with a slightly chubby body.



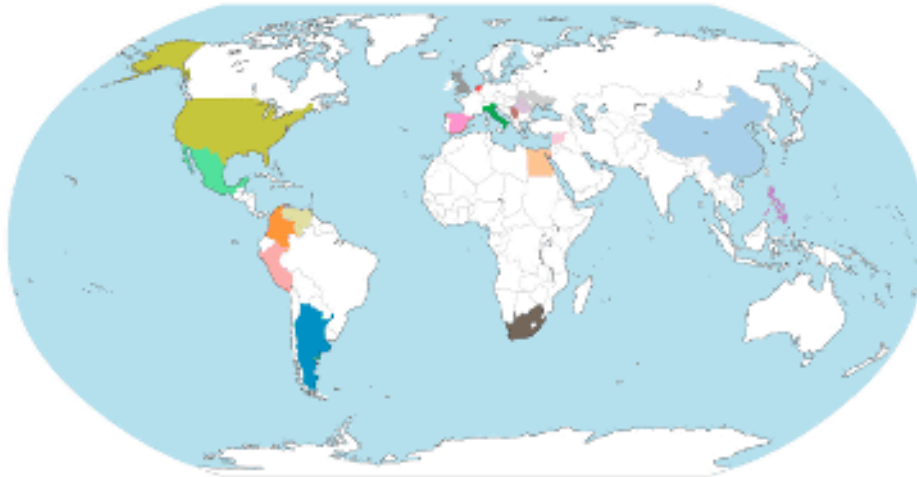
And as a result of being corrected to the ideal body shape in each country ...



It's a pity that we can't compare because there is no Japan or Japan, but the ideal figure of women in each country that men want can be seen at a glance.

Also, the following table is a project of a website called Online Doctor & Pharmacy Service, but how much is the ideal body shape expressed this time related to the average weight of each country? Therefore, we took data from 35 women per country and calculated the weight and BMI values assuming a woman with a height of 165 cm.

Estimated Weight and BMI of Each Submission



	Lbs	Kg	Stones	BMI
● CHINA	102	46.3	7.3	17.0
● ITALY	108	49.0	7.7	18.0
● UKRAINE	120	54.4	8.6	20.0
● UK	126	57.2	9.0	21.0
● NETHERLANDS	127	57.6	9.1	21.1
● ARGENTINA	127	57.6	9.1	21.1
● USA	128	58.1	9.1	21.3
● PHILIPPINES	128	58.1	9.1	21.3
● MEXICO	128	58.1	9.1	21.3
● SYRIA	129	58.5	9.2	21.5
● SOUTH AFRICA	131	59.4	9.4	21.8
● EGYPT	132	59.9	9.4	22.0
● SERBIA	135	61.2	9.6	22.5
● PERU	141	64.0	10.1	23.5
● VENEZUELA	145	65.8	10.4	24.1
● ROMANIA	146	66.2	10.4	24.3
● COLOMBIA	147	66.7	10.5	24.5
● SPAIN	153	69.4	10.9	25.5

*Estimated weight in pounds, kilograms, and stones, BMI based on weight and height of 165 centimeters (5'5")

Looking at the results, China and Italy, which were by far the slenderest in the image after modification, had small weight and BMI values, and Spain, which preferred a plump body shape, had the highest weight and BMI among the 18 countries. The result was a large value. (BMI reference: Appropriate weight; 22, Beauty weight (BMI that looks slim); 20, Model weight; 18 BMI value of 18.5 or more and less than 25 is classified as "normal weight", and less than 18.5 is classified as "low weight") It seems that only Spain, China, and Italy have ideal BMIs that are lower than the model weight. From the results, it seems that many countries still idealize a "thin" figure. The original image seems to be about Romania's ideal BMI.

① Treatment method. Suggestion

He explained that various treatments are being given to patients with anorexia nervosa. Here, I would like to propose one treatment method for my anorexia nervosa that I thought through my research.

The majority of anorexia nervosa patients are fighting their hearts with the disease. In fact, some existing treatments encourage mental care, such as counseling and psychotherapy. Here, I would like to propose "hormone therapy". As shown in the outline of the study, the relationship between mind and body is inseparable. Therefore, (2) in biology, we try to care for the mind using hormones in the human body that mediate the relationship between the mind and body. The "happiness hormone" introduced in the outline of the research is as follows.

Happiness hormone is a type of hormone in the brain. Intracerebral hormone is a general term for hormones and neurotransmitters secreted into the brain. The human brain secretes more than 100 hormones in the brain to keep the mind and body normal. Among the substances in the brain, there are substances that have a great influence on human emotions and motivation.

·joy

- Fun

·Motivation

These substances that give a feeling of happiness are called "happiness hormones".

There are three types of typical substances called "happiness hormones".

- Serotonin
- Oxytocin
- Dopamine

① Serotonin

When serotonin is secreted firmly, the balance between the two autonomic nerves is balanced and the mind is stabilized. By reducing the ups and downs of mood, stress and frustration are also reduced. Insufficiency can lead to autonomic imbalance, chronic overstress and insomnia, and can lead to depression. One way to increase serotonin is to review your diet. It is effective to take "tryptophan" which is the raw material of serotonin, but tryptophan is an "essential amino acid" that is not produced in the body, so it can only be taken from food. We recommend soybeans and dairy products.

② Oxytocin

- Give a feeling of happiness
- Improve sociability
- Relieves anxiety and fear

It is said that this can be expected to reduce stress and boost immunity.

The way to increase oxytocin is to communicate with people. Effectively secrete oxytocin, even if you are not your spouse or lover, skinship with someone you like, eating or talking with a family member or a compassionate friend, or interacting with a pet. Can be done.

③ Dopamine

In order for human beings to survive, they must be "motivated" to achieve their goals and avoid danger. Dopamine is a hormone that stimulates the motivation and happiness needed to live.

Su. How to increase dopamine Eat chi-bean foods. The raw material for dopamine is an amino acid called "tyrosine," which is abundant in dairy products and soy foods. (Recommended cheese)

These happiness hormones can be increased with daily care. In other words, it may be possible to expect an effect by encouraging anorexia nervosa patients to eat a diet high in such hormones. Current anorexia nervosa treatments initially semi-force dietary guidance for "fearful to eat" anorexia nervosa patients. In other words, mental care has a lower priority than physical care and is postponed. Naturally, such treatments are very stressful for patients, and many people give up on the way. I suggest here that such treatments should be changed and "mental care" should be prioritized first.

4 Literature

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厚生労働省 みんなのメンタルヘルス

<http://www.mental-erde.com/eatingdisorder/>

摂食障害について - 心療内科 精神科 対人関係療法 メンタル ...

摂食障害 病院 東京 口コミ摂食障害 薬摂食障害 病院 埼玉

ただ痩せたい！では済まない。摂食障害という心の病。働く女性の ...

https://www.mm-corp.co.jp/column/dreye_02

摂食障害／拒食症と過食症 - 総合南東北病院

www.minamitohoku.or.jp/kenkokanri/anorexia

支度削減

論文 理想の体への情熱 海野弘（うんのひろし）

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<https://gigazine.net/news/20150817-photoshop-woman-retouch-world/>

心と体に幸せホルモンのご褒美を分泌に大事な食事や腸についてしろう RE ラ

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Outline of research

I heard that my mother has a metal allergy, and because of that, there are many accessories and cosmetics that cannot be used. Everyone thought it would be inconvenient if they couldn't put on cosmetics and sunscreen in the same way, so I decided to proceed with this research.

It was found that the cause of cosmetic rashes was due to irritation and allergies. The representative of allergies seems to be metal allergies. The severity of this metal allergy varies depending on the ionization tendency. By investigating this, I decided to propose a product that could improve sunscreen allergies caused by metal allergies. Some sunscreens on the market contain UV absorbers and some contain UV scatterers. I focused on UV scatterers. The disadvantage of UV scatterers is that they cause metal allergies due to the inclusion of metal, so I thought that if the metal could be removed, sunscreen allergies would disappear.

1 Purpose of research

I heard that my mother had a mild metal allergy and couldn't wear low-purity metal accessories. I was interested in metal allergies, so I looked it up and found that people with metal allergies also had many allergic reactions to cosmetics. Since I am a high school student and I don't know much about makeup, I decided to investigate allergic reactions to sunscreen, which are familiar to us high school students.

Also, this is my guess, but it doesn't matter if the makeup isn't the worst, but without sunscreen it can cause stains and the like.

The purpose of this study is to propose a skin-friendly sunscreen for people with allergies and those with weak skin.

2 Research method

I will investigate the cosmetics and sunscreen creams that are actually available at cosmetic companies and what I am currently researching, and use them as a reference for my research.

Find out about allergies in the literature or on the Internet in advance.

3 Research results and issues

It was found that the cause of cosmetic rashes is due to irritation and allergies. A typical example of allergies is metal allergies, and the severity of these metal allergies varies depending on the ionization tendency. The higher the ionization tendency, the more likely it is that metal allergies will develop. This is because the purity of the metal is low, and it seems that the metal flows out due to sweat etc. and causes allergies. By investigating this, I decided to propose a product that could improve sunscreen allergies caused by metal allergies.

Some sunscreens on the market contain UV absorbers and some contain UV scatterers. The UV absorber seems to be too irritating because it causes a chemical reaction directly on the skin. The disadvantage of UV scattering agents is that they contain metals that cause metal allergies. So I focused on UV scatterers and thought that if I could get rid of the metal, I wouldn't have any sunscreen allergies. However, I couldn't find a solution, so I decided to propose a sunscreen to drink. But that was the case now. I thought of making a suggestion to improve the existing product.

The existing drink-type sunscreen prevents stains and wrinkles caused by sunburn, and it seems that it cannot actually prevent blackening. Therefore, we propose to include

lycopene, which has the function of suppressing melanin, which is the cause of sunburn, in sunscreens.

I think there are many issues with this proposal, so I would like to make use of it in my research from next year.

"Why do allergies occur? | Axene Official Site"

<https://www.acseine.co.jp/shop/pages/counseling_skin_allergy.aspx> (Access date: 7/18)

"What is a metal allergy?" <https://www.metallicallergy.or.jp/basic_info> (Access date: 7/18)

"What is the difference between UV absorbers and UV scatterers?"
<<https://www.skincare-univ.com/article/012509>> (Access date: 7/18)

Abstract

In the hospital, the accident happened when health care workers moved patient from ward to operating room. The cause is one nurse tried to carry patient at the same time. The patient replaced but doctor, anesthesiologist and nurse who waited them in the operating room couldn't know the incredible thing. So they start the surgery to anesthesia. However they found before scratched their bodies. The patient life is safety.

If they couldn't find them quickly...To lose precious life because of medical accident and medical malpractice don't reward for patient family of patient and their friends. And nurse's mental will be broken. So I think medical accident and medical malpractice shouldn't happen for everyone.

The purpose of this study is to save the nurse who happen medical accident and medical malpractice and not to have heavy responsibility for nurse. In addition, It will also protect the lives of patients.

The number of medical accidents in Japan in 2017 was 4,095 and patients died in 318 cases, 7.9% of which. The number of medical malpractice in Japan was 889,431 and patients will died in 5,300cases, 0.6% of which.

Why are there so many medical accidents? The cause is a shortage of nurses. The profession of a nurse is considered to be the hardest job in the medical industry. The problem is that the treatment in the hospital is low despite the hard work. I think that medical accident and medical malpractice should reduce to save patients lives of as many medical staff as possible.

1, Discussion and implications

When I knew the news of medical accident, I was impressed with them. To lose precious life because of medical accident and medical malpractice don't reward for patient family of patient and their friends. I think that medical accident and medical malpractice should reduce to save patients lives.

The purpose of this study is supporting the mentality of nurses to save medical accidents and save nurse who happen to medical accident and medical malpractice.

As a research method, we obtain information mainly on the Internet. On the Internet, I tried to compare with overseas by actively looking at sites where overseas cases are posted.

In addition, since I was able to actually get involved in the medical field in the hospital through the experience of a nurse, I also utilize the information I felt at that time and the information I got from actual interviews with doctors and nurses. I want to come.

3, Conclusion

I introduce the real meaning of "Medical accident" and "Medical malpractice".

"Medical accident" is all personal injury accidents that occurred in the medical field. Include cases where not only patients but also healthcare professionals suffer disadvantages. Include both those with and without mistakes by healthcare professionals.

"Medical malpractice" is this refers to cases where there is a human or physical error of a medical worker, etc. among medical accidents. A condition in which a medical worker suffers a disadvantage and causes damage to a patient.

The number of medical accidents in Japan during the year 2017 was 4095, of which 7.9%, or 318, killed patients. There were 899,431 cases of hiyari hats (exactly different, but = medical malpractice), of which 0.6%, or 5,300 cases, are thought to have led to patient death.

Why are there so many medical accidents? There are two possible causes. There are two possible causes.

The first is the shortage of nurses. The profession of a nurse is considered to be the hardest job in the medical industry as a whole. The problem is that the treatment in the hospital or in the world is low despite the hard work.

The second is the problem of excellent doctors. The problem of a good doctor is that if there are multiple good doctors in one hospital or one department, it can be completely cured with the minimum treatment. Then, the hospitalization period of the patient is shortened. When hospitals become less profitable and consider the benefits of hospitals, the number of well-known doctors decreases. Eventually, the quality of medical care will decline, leading to medical accidents. However, this problem is not considered because it has little relation to this theme, and the first cause, the problem of shortage of nurses, will be considered.

Is the nurse doing it in the first place? Nursing Faculty Students The number of Nursing College students will be reduced. The waiting of the husband-like nurse who is a hard work is the cup and won. Nurses who are not stressed in their daily work.

The list of nurse's stresses are

- *Irregular work structure
- *A lot of work and ambiguity
- *Shortage of personnel
- *Deterioration of human relationships with patients and staff
- *Problems of balance between work and personal life
- *It is difficult to see the results
- *It is difficult to make a proper evaluation

As a result, symptoms such as "burnout syndrome" and "depression" appear. "Burnout Syndrome" is a long-term exposure to work-related stress, despite a strong will to provide better treatment and care to the patient, resulting in frustration, helplessness, and decreased self-esteem. It means that the motivation is finally burned out. If you have burnout, you will naturally want to quit your current job. The symptoms of "depression" are similar to those of "burnout syndrome". A survey of 330 nurses at a hospital found that 24% were depressed. It is necessary to think about measures to protect the mental health of nurses so that they do not suffer from such burnout syndrome or depression.

- *Create an environment where each nurse can consult

Set up an environment where counseling can be done at the hospital and hire a counselor. Counselors help nurses regain their work energy when they become discouraged or shocked by the patient's death. Also, by hiring the entire hospital, it is possible to protect the mental health of not only nurses but also doctors and other healthcare professionals.

- * Create opportunities for multiple people to talk

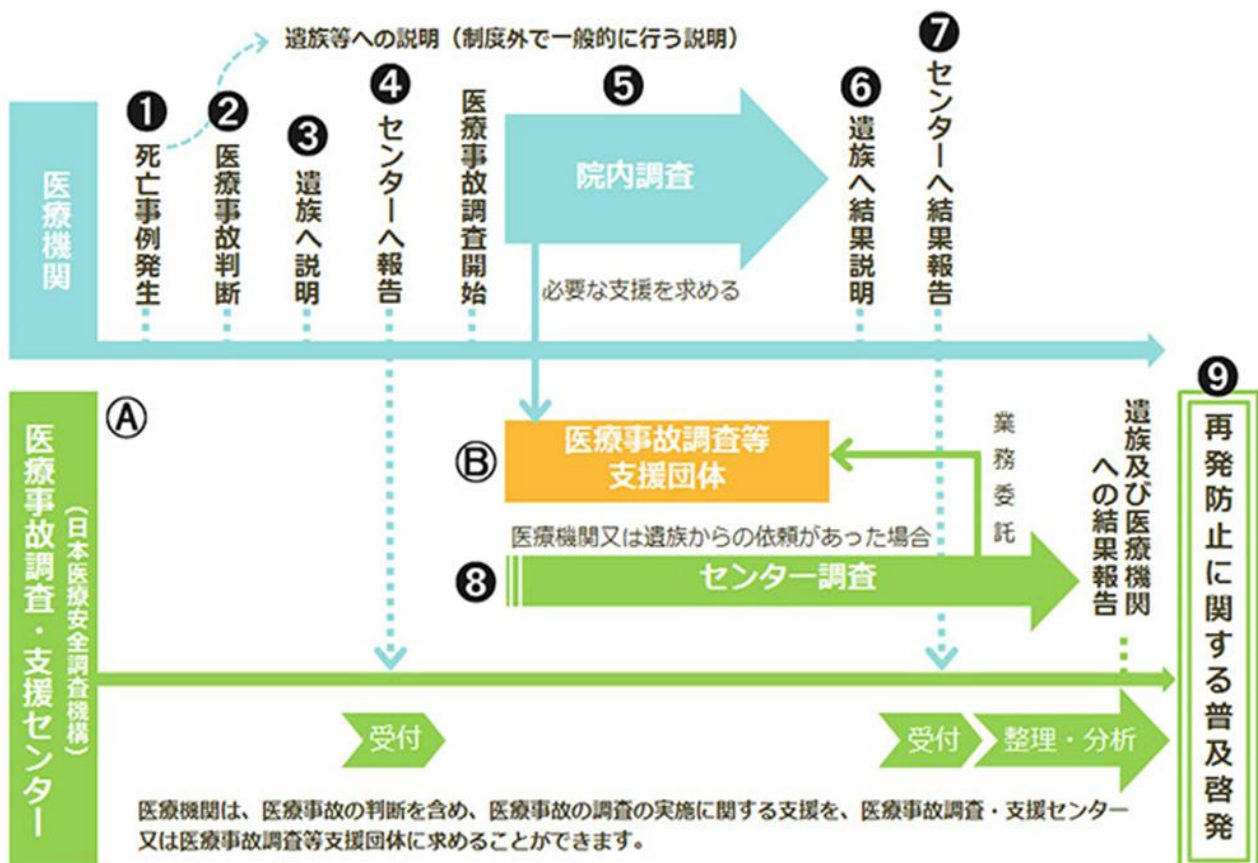
Most healthcare professionals act alone during work, and I don't think they have time to talk slowly with people in the same workplace. Therefore, if you dare to take enough time to talk, you can talk about the stress of daily work and your worries. By sharing stories, you can discover new ways of looking at things and get good advice from your seniors and bosses. People at work will get along well.

The above two examples were considered.

This next thing I want to think about is that if a nurse has a medical accident, the nurse's responsibilities should not be unnecessarily heavy, and then they should be able to return to the scene. I think returning to work is very important for both the hospital and the person. For that purpose, it is necessary to understand and utilize the "medical accident investigation system" currently existing in Japan. The medical accident investigation system is a system established on June 18, 2014. In-hospital investigations are conducted at medical institutions where medical accidents occur, and the investigation reports are collected and analyzed by a private third-party organization (center). It is a research system to prevent recurrence by doing so. In addition, this system is to prevent the recurrence of medical accidents in order to ensure medical safety, and is not intended to pursue responsibility.

The "malpractice system" is shown in the figure below. The flow is displayed continuously.

1. Medical malpractice (during medical malpractice death)
→ Explanation to bereaved family, etc. (outside the investigation system)
2. Medical malpractice
3. To the bereaved family
4. Report to the Medical Malpractice Investigation and Support Center
→ Lost due to medical malpractice investigation
5. In-hospital survey (Ask the center about medical records, tool explanations, and Medical record support)
6. Immediate examination for bereaved family
7. Medical Survey / Health Report to Medical
8. Center survey (There is medical care from the bereaved family of medical institutions) → Medical institution Medical institution for bereaved family
9. Sudden departure



In this way, it is considered that Japan has a sufficient medical accident investigation system in the event of a medical accident. We should make full use of this system so that we will not be held liable more than necessary. Not taking more responsibility than necessary may lead to a return to the field.

As long as we are humans, we can't help making mistakes, but the number of medical accidents must be small for the unrewarded bereaved family. To this end, we will make full use of the medical accident investigation system so that counseling and discussions with colleagues can be actively conducted so that heavy stress will not be applied after returning to the site, and the number of people who leave their jobs will be reduced as much as possible.

The counselor's mental support for nurses, creating opportunities for multiple people to talk, and discussing daily work stress and their own worries will become the nurse's mentality. The problem is that it is not possible to determine how effective it will be. Also, don't know if it is possible for a hospital to hire a counselor. It is not possible to compare with foreign countries under the same conditions of "medical accident investigation system".

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Abstract

The purpose of this study is to promote "food education" so that many children can learn and practice a well-balanced diet. To that end, I investigated the dietary habits and nutritional status of Japanese children and thought about how to promote "food education." As a research method, I collected information by using the Internet. In particular, I used the websites of companies that have detailed information about eating habits. The subject of research is Japanese elementary, junior high, and high school students. In addition, I wanted people to be aware of good eating habits from a young age, so I focused on elementary school students in my research. In conclusion, I considered two proposals. The first is to incorporate dietary education time into the curriculum during home economics time (10 hours out of 115 hours are dietary education time, etc.). The second is to incorporate several systems that children can be interested in eating habits. I will reexamine whether these two methods can be expected to be effective and provide the basis for the proposal.

1. Introduction

The reason I set this theme is that I felt that promoting "food education" would improve the quality of Japanese diet. At first, I was thinking of improving malnutrition with meals, but when it came to suggesting meal contents, I felt that it was difficult to make proposals for the whole because the current situation differs from person to person. Therefore, I thought that many people could learn about eating habits by promoting "food education" for children.

The research target is Japanese elementary, junior high, and high school students. In addition, I wanted to be aware of good eating habits from a young age, so I focused on elementary school students in my research. In my relationship, I'm interested in nutrition and want to study how improving my diet can reduce malnourished patients. I also believe that this research will be linked to my future. The ultimate goal of the study is to promote "food education" so that all children can learn balanced diets. Specifically, I would like to propose how to incorporate "food education" into school life.

2. Discussion and implications

As a result of the research, we first investigated the dietary habits and nutritional status of Japanese children. According to House Foods Co., Ltd., 80% of children are in danger of "new malnutrition." Specifically, we conducted a survey of mothers with children aged 6 to 8 who eat three meals on a daily basis, regarding the ingredients and amount of food they ate in the last three days. As a result, although 83% of children are able to obtain the required amount of the three major nutrients "carbohydrate", "protein" and "lipid", the nutrients "vitamin" and "vitamin" that play a role in regulating and helping the functions of the three major nutrients It turned out that they did not get much "minerals" and "dietary fiber". Chronic deficiencies in "vitamins," "minerals," and "dietary fiber" are said to lead to new types of malnutrition, indicating that modern children are also in danger of new types of malnutrition. A new type of malnutrition is the lack of the necessary nutrients, even though the diet provides the necessary calories. It is not officially defined and is also referred to as "modern malnutrition" or "hidden malnutrition."

Next, we investigated the effects of the new malnutrition. Symptoms vary depending on

the nutrients that are lacking, but according to the Website of OMRON Corporation, for example, protein deficiency makes people more likely to develop anemia. In addition, magnesium deficiency increases the risk of developing diabetes. In addition, according to the website of the Health Management Ability Test, it causes various illnesses and disorders such as fatigue, malaise, obesity, anemia, weakened immunity, taste abnormality, poor circulation, and allergies. Therefore, I thought about the reason based on my research on why children are more likely to become malnourished. As a result, I thought that the unbalanced diet of children might be related to the unbalanced diet of parents. People who did not eat a balanced diet when they were children may become less conscious of their eating habits when they grow up.

3. Conclusion

Therefore, in order to get out of this vicious circle, I thought that it would be better to have the correct knowledge and balance when eating. I would like to propose two approaches as a means for that.

The first is to incorporate dietary education time into the curriculum during home economics time. Specifically, 15 hours out of 115 hours of elementary school home economics lessons per year will be used for food education and will be unified nationwide. We can know that the goals required of children are clearly stated with the curriculum guidelines for home economics in elementary schools.

For example, it is possible to "think about nutritional balance and devise a menu for one meal" (quoted from the elementary school curriculum guidelines). However, the home economics class time in 6 years is only 115 hours in 2 years of 5 or 6 years, and since you have to learn various fields in it, the time you can spend studying eating habits is limited. Therefore, I thought that it would be better to improve the quality of the lesson content during the time devoted to studying eating habits. To that end, I would like to propose incorporating "food education" time into the curriculum. Specifically, I think that by inviting instructors such as dietary education instructors from the outside and talking to registered dietitians who are thinking about school lunches, children's awareness of dietary content may be raised. .. In addition to school textbooks and reference materials, it is also effective to use teaching materials specialized in food education, such as pamphlets issued by the Ministry of Education, Culture, Sports, Science and Technology.

The second is to introduce a system that makes children interested in eating habits outside of class. In particular, I would like to propose the adoption of a system that has been successful in foreign countries. Examples include 5 A DAY in the US, an edible school, a week of taste in France, and a cooking bath in the UK. I would like to propose to incorporate 5A DAY in this. 5A DAY is a health promotion campaign with the slogan of eating more than 5 dishes of vegetables and more than 200g of fruits a day (quoted from the website of the Five a Day Association). By working on this throughout the elementary school, each family will have the opportunity to think about their eating habits, so I think that not only children but also parents' nutritional deficiencies can be improved. We also believe that it is effective to promote a "Japanese-style diet" in dietary education for children. The Japanese-style diet is the diet around the 1950s. It is a well-balanced meal with rice as the staple food, plus milk, dairy products and fruits in addition to the main and side dishes. The reason why Japan is one of the longest-lived countries in the world has been internationally evaluated for its excellent dietary content (quoted from the Ministry of Agriculture, Forestry and Fisheries website). In promoting this Japanese-style diet, I would like to utilize the "Japanese Food Guide Spinning Top" decided by the Ministry of Health, Labor and Welfare and the Ministry

of Agriculture, Forestry and Fisheries in June 2005. This is an easy-to-understand illustration of the desired combination and approximate amount of meals so that you can use it as a reference when thinking about "what" and "how much" you should eat in a day (quoted from the Ministry of Agriculture, Forestry and Fisheries website). With this as a reference, some regions have created a "Regional Japanese Food Guide Spinning Top" that incorporates dishes that make use of regional characteristics such as agricultural products and food culture that can be obtained in the region. A regional Japanese Food Guide Spinning Top has been created in Gunma Prefecture. However, Takasaki City, where I live, has not created its own. Therefore, I want to create a regional Japanese Food Guide Spinning Top for Takasaki City. To achieve this goal, I will investigate the agricultural products that can be obtained in Takasaki City and the food culture of Takasaki City. Then, I would like to think of a Japanese Food Guide Spinning Top that is familiar, easy to understand, and easy for Takasaki citizens to practice.

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Establishing Support System for New Farmers

～ To Suppress Agricultural Decline～

5422

○Abstract

One of the problems with Japanese agriculture today is the aging and lack of successors. This problem is at the root of many other problems, such as the increase in wasteland and the decrease in work efficiency, and it is an issue that needs to be resolved. Therefore, the causes of the current situation and the services that are currently being provided were discussed to determine how to encourage new farmers to take up farming. I concluded that the form of agriculture is commercial farming with a strong subsistence aspect, and farmland is targeted for mountainous areas because those problems are currently occurring more in the mountains. I propose a mechanism to provide support from matching experienced farmers who are currently farming to new farmers who want to start farming to independence.

1. Purpose of research

Due to the influx of population from rural areas to cities, diversification of occupations, and information technology, agriculture, forestry, and fisheries are in decline. On the other hand, corporate agriculture has been attracting attention in recent years and is showing signs of recovery. However, it is only partially successful due to its large scale, flat farmland, huge capital requirements, and harsh conditions. For commercial and subsistence farmers, the status quo has not changed much. The further the decline goes, the harder it will be to reverse it. A quick solution is needed. This study looked at how to stop the progression of these problems.

2. Research method

1. Internet, Japan Agricultural Journal, and interviews with farmers. On the Internet, we will learn about the problems and current situation of agriculture in Japan today. In the Japan Agricultural News, we learned about the efforts and problems that each region is making and facing. In the interviews, we interviewed people who are actually doing it.

3. Conclusion and issue

(1) The Current State Agriculture in Japan

The table on the left shows that the number of key farmers has declined (by about 700,000 in 15 years) and the population is aging. Even so, from the latest survey by the Ministry of Agriculture, Forestry and Fisheries, the number of new farmers hovered around the 50,000 mark, but exceeded 60,000 in 2015. Looking at the breakdown of new farmers, it appears that they are an increase in entrants to corporate farming and farming as a business. However, the reality is that the population is aging and a large number of people are expected to leave the workforce.

(2) Problems faced by new farmers and the problems they face

The results of a survey on the actual condition of new farmers by the National Center for Advice on Starting a Farming, showed that there are two major concerns and problems related to the technical aspects, such as inexperience of technology and inadequate cultivation plans and arrangements, and financial aspects, such as low income and lack of funds for capital investment. « In addition, because agriculture is a practical and specialized field, it is difficult to understand how to start farming even if you are interested in it, and this is one of the reasons why it is difficult to find a job.

(3) Approaches to Farming

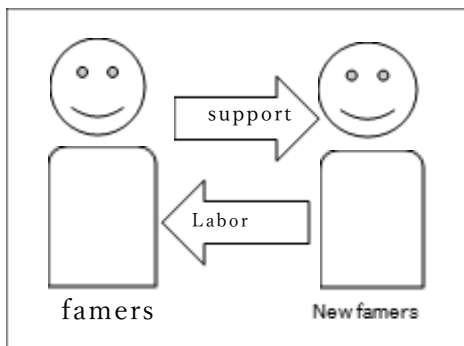
① Farming Consultation / Each J.A. Farming Support Center The purpose is to provide an opportunity to learn about farming, agriculture, and provide an opportunity for consultation. Advise prospective farmers on support programs and training.

② Agricultural Experience Tour / Each business owner Farming Support Center J.A. etc. Make it feel familiar through experience. Create opportunities to think.

(4) Support measures and initiatives for farmers

Looking at the support measures for agricultural management by the Ministry of Agriculture, Forestry and Fisheries, they are divided into nine categories: solving problems of people and farmland, training and securing human resources, initiatives for business development, securing funds, introduction of machinery and facilities, stable production of agricultural and livestock products, initiatives for high value addition and export, initiatives for the environment, and preparation for natural disasters and reduced income. There are a wide range of support systems in place, mainly in terms of funds to get started, land, and even pensions. There are various forms of support such as financial assistance and advisors. Material support, such as the Farming Next Generation Human Resources Investment Fund and the Farmland Intermediary Agency, is widely available, but non-material support is still not widely available.

4 Results



In light of these circumstances, I propose a system to provide support for new farmers and current farmers from matching to independence. New farmers can gain know-how and cut down expense. On the other hand, there is the advantage of labor for the current farmers.

5 reference

「Statistics on the agricultural workforce」 [https://www.maff.go.jp/\(2020/10/15\)](https://www.maff.go.jp/(2020/10/15))

○Abstraction

I like K-POP, but poor relations between Japan and South Korea can limit group activities and damage members. I wanted to solve this problem and have been conducting research. This research is going to be carried out over two years, last year and this year, and during the last year I learned what the Japan-Korea problem is and found a problem. This year, based on the problems I found last year, I would like to propose a method to solve them.

I suspected that the media is the reason why the Japan-Korea issue was not resolved. This is because I mainly used the Internet to investigate the Japan-Korea issue, but most of the pages were written in a way that criticized Korea. I think it is one of the reason that Japanese people have a bad impression of South Korea. The media such as TV, newspapers, and the Internet are the main tools for learning about South Korea, and they give a negative impression about South Korea. If this were to happen in South Korea, I guess Japan and South Korea would continue to have bad impressions of each other. I think that the media has great power to change people's consciousness and thoughts in an instant. Thinking about how the media should exist and how it should be used may be the first step toward solving the Japan-Korea problem.

1. Introduction

Currently, there are many problems with Japan and South Korea. I started this research to solve those problems.

2. Discussion and implications

[What is the Japan-Korea issue?]

It is a problem between nations in Japan and South Korea. Issues that have been discussed in recent years include the comfort women issue and the recruitment issue. There are many other problems in the historical and political backgrounds.

[Correspondence of each country]

In Japan→Imposed export restrictions on South Korea and excluded it from White list.
* White list has a strict trade export control system, and in a country where there is little risk of military diversion of products containing goods, technologies and parts used in the manufacture of weapons of mass destruction and conventional weapons. A country that the Japanese government recognizes as being.

In Korea→Boycotts of Japanese products was launched against Japan. (Most people don't do it now)

[Impact on K-POP]

In Japan→Criticize the Korean group for appearing in the Kouhaku Uta Gassen and Japanese programs, and criticized the clothes worn by Korean members as a rebellion against Japan.

In Korea→Requested the Japanese members of each group to withdraw and postponed the debut of the Japanese singer. There were also criticisms of doing the event in Japan and selling Japanese songs in South Korea.

According to [What is the Japan-Korea issue?] and [Impact on K-POP], A situation has arisen in which each other hates each other.

3. Conclusion

My hypothesis is that such a bad situation was created by the media. It could have been fully realized by the out-of-stock turmoil of many daily necessities such as masks and toilet paper caused by the new coronavirus, which has become a hot topic every day. Were these really necessary to buy up? At least the toilet paper was definitely hoax information, but what about masks? I feel that the media overstated, "The masks are sold out. There are so many people in this store who buy them side by side from the morning." Professor Yoshiaki Hashimoto of the Graduate School of Interdisciplinary Information Studies, the University of Tokyo, who is studying the media, said that the cause of the shortage of masks was "The media is not limited to the content that masks are essential", but "sold out in various places". It is a big point that it is widely and excessively recognized for its rarity by actively reporting such as "sold at a high price on the net". "In addition, in order to encourage consumers to act calmly, "Is the mask actually in short supply? It is necessary for the media to report the actual situation of supply and demand correctly and calmly." Not only the mask shortage problem this time, I think it's not uncommon for the media to misrepresent and the recipient to react too much.

In a good way, the media is trusted by many. Returning to the issue of Japan and South Korea, the media should not only tell the bad points of South Korea, but if there are bad points in Japan, it should be told correctly. If the media sends out a message that approaches South Korea, the people will not show as much anti-Korean sentiment as before. Of course, I think that not only the originator of the media will change, but also the recipient of the information will need to reconsider how to receive it.

○Outline of research

The breeding method for hens, which is currently the mainstream in Japan, is the battery cage, which is regarded as a problem from the viewpoint of animal welfare and animal welfare. On the other hand, in developed countries such as the EU and the United States, battery cages have been abolished, and enriched cages and flat cages have become the mainstream. The background to Japan's continued adoption of battery cages is related to the amount of Japanese eggs consumed. The advantage of flat-breeding and free-range breeding is that the chickens are not stressed, but the disadvantage is that the number of hens that can be bred per unit area is smaller than that of battery cages, resulting in lower cost performance. , Not suitable for Japan, which consumes a large amount of eggs. Therefore, the purpose of this research is to propose a new poultry farming format that can achieve both stress-free chicken and egg production efficiency. As a result, we came to the conclusion that in Japan, where the land area is small, the method of creating a poultry farm in the building and raising the poultry farm in it is the most suitable.

1. Purpose of research

Last year, I was doing research on animal protection for pet animals, and this year I wanted to do research on animals, and the theme I arrived at was about animal protection for livestock. The direction of research changes greatly depending on whether it is a cow, a pig, a chicken, breeding, transportation, or slaughter, even if it is said to be animal protection for livestock. At that time, I saw news from overseas that the eggs provided at the Tokyo Olympics were from caged chickens, so it is probably the most timely "chicken breeding". I decided to study "methods".The problem with cage-free breeding is "stress on chickens." In this research, I would like to propose a breeding method or equipment that does not stress chickens as much as possible, but in Japan, which consumes a large amount of eggs, the cost of eggs, that is, efficiency during breeding, labor costs, and land area cannot be ignored. In the past, it was difficult to achieve both stress and cost performance in poultry farming, but the ultimate goal of this research is to propose a new poultry farm that allows chickens to live comfortably and mass-produce eggs. is there.

2. Research method

- Information gathering using the Internet and literature
- Create an overview of the poultry farm using architectural drawings

3. Preliminary research

[Japanese poultry farming]

According to a survey conducted by the Livestock Technology Association in March 2015, out of the 398 poultry farmers who responded to the questionnaire, the number of farm households (including duplicate answers) and the number of buildings by breeding type and poultry house type are In the open poultry house, there were 296 cages and 1864 houses, 41 flat houses and 198 houses, and 10 and 42 free-range poultry houses.

On the other hand, in the windowless poultry house, there were 251 cages and 1230 cages, and 3 flats and 12 cages

飼養形態 鶏舎タイプ		ケージ				平飼い	放し飼い	その他	
		従来型(コバ ⁺ ソコバ)		エンリッチ	合計				
		Aライン (ヒナ段)	直立						
A 開放鶏舎	回答数(戸)	246	47	3	296	41	10	4	
	合計(棟)	1,642	218	4	1,864	198	42	20	
	平均(棟)	6.7	4.6	1.3	-	4.8	4.2	5.0	
	割合(棟数)	88.1%	11.7%	0.2%	100%				
B ウィンドウレス鶏舎									
従来型	陽圧式	回答数(戸)	17	30	1	48	0	0	1
		合計(棟)	61	90	1	152	-	-	1
		平均(棟)	3.6	3.0	1.0	-	-	-	1.0
トンネル換気	陰圧式	回答数(戸)	46	39	0	85	2	0	0
		合計(棟)	207	195	-	402	9	-	-
		平均(棟)	4.5	5.0	-	-	4.5	-	-
トンネル換気	トンネル換気	回答数(戸)	35	80	3	118	1	0	0
		合計(棟)	163	506	7	676	3	-	-
		平均(棟)	4.7	6.3	2.3	-	3.0	-	-
ケージ型別棟数 計		431	791	8	1,230				
割合		35.0%	64.3%	0.7%	100%				

(ウィンドウレス鶏舎 ケージ飼い内訳)

	ケージ飼い			従来型			※1 戸当たり平均棟数	
	従来型	トンネル換気	合計	陽圧式	陰圧式	合計	回答数(戸)	合計(棟)
棟数	554	676	1,230	152	402	554	390	3,367
割合	45.0%	55.0%	100%	27%	73%	100%		8.6

[EU poultry farming]

Number of laying hens by farming method (maximum capacity) according to notifications under Commission Implementing Regulation (EU) 2017/1185, Art. 12(b) - Annex III.10						
Member State (MS)	Total laying hens in MS	% by farming method in respective country				
		% MS / EU	% enriched	% barn	% free range	% organic
DE	54,900,379	15.0%	6.0%	61.0%	20.8%	12.2%
PL	49,415,958	13.5%	82.1%	13.4%	3.7%	0.8%
FR	48,255,709	13.2%	54.1%	11.7%	23.0%	11.2%
ES	45,800,939	12.5%	76.8%	12.7%	9.1%	1.4%
IT	39,857,600	10.9%	49.4%	40.2%	4.9%	5.5%
NL	32,092,213	8.8%	14.1%	61.3%	18.0%	6.6%
BE	10,769,525	2.9%	37.2%	44.1%	12.8%	6.0%
PT	9,724,334	2.7%	86.2%	9.8%	3.4%	0.5%
RO	9,073,860	2.5%	62.6%	32.9%	3.0%	1.4%
SE	8,901,921	2.4%	8.4%	72.4%	3.0%	16.2%
HU	7,242,765	2.0%	70.3%	28.7%	0.6%	0.4%
AT	6,921,026	1.9%	0.2%	62.6%	25.0%	12.2%
CZ	6,732,730	1.8%	74.0%	25.0%	0.8%	0.2%
BG	4,800,379	1.3%	67.3%	28.9%	3.7%	0.0%
EL	4,616,611	1.3%	77.3%	12.2%	5.1%	5.4%
FI	4,349,092	1.2%	56.0%	33.8%	3.0%	7.2%
DK	4,203,583	1.1%	13.0%	46.6%	8.3%	32.1%
IE	3,651,519	1.0%	51.5%	1.1%	43.8%	3.7%
SK	3,086,903	0.8%	83.3%	15.5%	1.1%	0.2%
LV	2,996,526	0.8%	81.7%	15.5%	2.7%	0.1%
LT	2,973,705	0.8%	88.9%	10.5%	0.2%	0.5%
HR	2,112,958	0.6%	67.3%	29.9%	2.6%	0.2%
EE	1,154,464	0.3%	78.7%	12.8%	4.0%	4.6%
SI	1,146,240	0.3%	39.3%	53.0%	4.5%	3.2%
CY	633,298	0.2%	58.8%	25.7%	13.5%	2.0%
MT	348,822	0.1%	99.4%	0.6%	0.0%	0.0%
LU	114,200	0.0%	0.0%	79.0%	10.5%	10.5%
TOTAL	365,877,259	100%	49.5%	32.5%	11.8%	6.2%

The EU has banned battery cages since 2012 under the "Minimum Standards for the Protection of Spawning Chickens", and if cage breeding is to be continued, a minimum

area of 750 cm² per bird, nests, sandboxes and perches will be installed. It has to be an "enriched cage". In addition, there is a movement to abolish cage breeding itself, and although there are no laws and regulations, the shift from enriched cages to flat breeding and grazing is progressing. Cage-free breeding, which was 42.2% in 2012, has increased to 44.1% in 2016, 49.6% in 2018, and 52.2% in 2019.

[American poultry farming]

Although there are no laws and regulations, the cage breeding itself is being abolished for battery cages. Also, the top 25 American food retailers have all promised to use only cage-free eggs within 10 years. The prevalence of cage-free in the United States was 6% in 2012, but gradually increased to over 12% in 2016 (conventional cage-free 7.9% and USDA organic 4.5%). There is. The USDA Cage-Free Shell Egg Report, released on December 3, 2018, states that the total number of cage-free chickens in the United States is 51.16 million. On the other hand, according to a report by USDA Chicken & Egg in December 2018, the total number of hens in the United States is estimated to be about 325 million, so cage-free chickens in 2018 accounted for 17.6% of the total. Become. After that, according to the 2019 USDA report, 19.6% are cage-free chickens. In addition, more than a quarter (26.2%) of the United States were cage-free chickens, according to the 2020 USDA announcement.

[About vertical farming]

Vertical farming is a method of vertically farming using the floors of high-rise buildings and the slopes of high-rise buildings, and is unprecedented in Japan. It has merits such as year-round harvest, production and distribution of various species, weather fluctuations, and response to natural disasters.

4. Research results and issues

The setting is to build a building-type poultry farm in the metropolitan area centered on vertical farming.

[Layer breeding]

- The basic breeding method is the same as for flat breeding
- One room is about 100 tsubo (about 18m x 18m) and can accommodate 50 to 100 birds (to secure a space where layers can move freely).
- One-sided window on the wall → By taking in sunlight, the body clock of the layer is adjusted and spawning at a fixed time (only on the breeding floor of the layer)
- Install an automatic egg collector behind the spawning box and connect it directly to the elevator. Take the elevator downstairs.
- Install LEDs as well as sunlight coming in through the windows to keep the soil dry (to prevent the feces from getting wet).
- Installation of perch → To encourage behavior with instinct
- Installed about 4 rooms on 1 floor

- Issues related to ventilation and odor

[Egg washing / sterilization / inspection / packaging factory]

- Installed on lower floors such as the 1st and 2nd floors
- Do not divide the room
- Work such as packing eggs carried from each floor

[* Permanent breeding]

- Installed on the floor above the layer breeding floor
- Permanent breeding until the abandoned chicken dies
- Separate floors by age
- The breeding method is the same as the layer
- Maintenance cost issues

* There was an idea that creating a slaughterhouse would be more like a general poultry farm, but if slaughter is adopted, it will be necessary to consider a slaughter method similar to animal welfare, so this time it is possible to have a hierarchy Adopt permanent slaughter.

○Abstract

There is a need for a fulfilling life for middle-aged and elderly people who are aging. The purpose of this study is to create a place to provide meals that are nutritious, delicious, and stress-friendly, and to encourage communication among the elderly.

It is a food truck that we propose to fulfill this purpose. There are 66 restaurants and cafes nationwide that serve meals for the elderly, but the current situation is that they are unevenly distributed. The food truck can be moved to various places instead of having a store in one place, which leads to a solution to this problem. Specific locations are nursing homes and serviced housings for the elderly and public halls. The dishes offered are millet and vary from porridge to soups to desserts. The issue is that we have not been able to verify in detail how and where we go and how often we provide them, and how much we can expect customers and profits.

1. Introduction

The Japanese population is rapidly aging, and it is necessary for elderly people to lead a full life. In order to do that, I think eating is very important because they can find a reason for living through happy meals. However, some elderly people have to eat foods adjusted thickness, adhesion, and cohesiveness because of dysphagia. There are also many elderly people who must eat flavorless foods due to restriction of salt. These foods often aren't tasty and elderly people can't enjoy eating. Also, there is another problem that one-fifth of elderly people in Japan are in low nutritional state. To solve these problems, I suggested some recipes of meals for elderly people which contain a lot of nutrition and are delicious last year. However, for elderly people who live alone, it is difficult to cook every day from the point of physical strength and vigor. It may also be hard for their family who will take care of them to cook. So, in this research, I would like to try to create the different way in which elderly people can eat delicious and nourishing foods.

There are two ways in which elderly people can eat such foods except for to make them on their own: to eat them at eating places or to buy them on the Internet. I think it is better for elderly people to enjoy eating at shops than to buy foods on the Internet and eat them at home. By the way, according to an eating deglutition-related health resource map, there are 66 shops which serve food for elderly people in Japan. But the number of shops differs among regions. Tokyo has 13 shops, which is largest, while cities such as Aomori, Gunma, Nagano, Ehime, and Nagasaki have no shops. There are 21 prefectures which don't have such shops in Japan. I think we should solve this problem in aging society of Japan, so I set a goal to develop the new place where elderly people enjoy eating. It is also a goal to promote communication among the elderly. According to "Annual Report on the Aging Society 2019", 13.3 % of men over 65 years old and 21.1 % of women over 65 years old live alone in Japan. Such people may be lacking communication with other people. I want to create the way in which they can not only enjoy eating but also enjoy communication.

In this research, I used the Internet to learn about basic information such as the problem of meals of elderly people and shops which serve food for elderly people and so on. When I thought of the menu which we serve, I cooked the foods to try to eat

actually and evaluate taste, thickness, adhesion, and cohesiveness. When I created the menu, I referred to “Tsubutubu zakkokuko de tsukuru suitsu to pan” and “Tsubutubu zakkoku soup”, the cookbook written by Otani Yumiko

2. Discussion

- The examples of shops which serve foods for elderly people

- a French restaurant, “SAKURA”

The restaurant is in Hotel New Otani Osaka. It serves soft food which is adjusted for each customer. Even elderly people who have dysphagia can enjoy French full-course meals. The full-course meal is 7,000 yen. I think it is too expensive to go eating frequently.

- a café, “Kamulier”

The café is in Tokyo. It serves cake and drink that is easy to swallow for elderly people and infants. It doesn't serve meals.

I think these shops are good when we want to eat something special, but they are not suitable to eat on a daily basis because the meals of these shops are a little expensive. Also, because they are in big cities, people living in rural areas can't go these shops. So, I want to create a new place where they can go on daily basis.

- Food truck

Food truck is another possible way that we can serve food. In Japan, food truck is becoming popular and popular lately because initial cost and the cost of labor are low, we can choose working hours easily, and we can open up our store wherever we like. Now, there is no food trucks which serve food for elderly people in Japan. I think food trucks can solve the problem of imbalance between regions.

- Suggestion

I suggest a food truck as a new way in which elderly people enjoy eating.

- The place where the food truck serves food

I think we don't need to sell at a certain place. I suggest that we should sell at various places. For example, if we open the store five days a week, it is good to sell at about 10 places and change the place we sell on a two-week cycle.

I suggest three types of places, nursing homes, serviced housings for the elderly, and community centers.

I think nursing homes and serviced housings are good places because there are a lot of elderly people there and we can receive earnings surely when we go there. Community centers are also nice places because they exist in each small district, so it is possible for elderly people with some physical strength who live near them to go on foot. It will also be a place for the elderly living in the area to gather and communicate. However, since there is no previous example to sell by food truck at community centers, we have to negotiate with local governments.

- How to sell

I think it is necessary to take elderly people into consideration. For example, characters on the menu should be large in order for elderly people to read them easily.

- Nursing homes and serviced housings

When we serves at these places, we park food truck at parking areas and elderly

people come to buy foods. They bring the foods which they bought to their facilities and eat them.

- Community centers

Unlike nursing homes and serviced housings, it is possible to eat the foods which they bought at community centers. I hope that elderly people will enjoy communication with other customers.

- The menu

The foods which served contain a lot of nutrition, are delicious and take aging of elderly people into consideration. On the menu, classification of food by “The Classification of Modified Diet for Dysphagic Persons in 2013 in the Japanese Society of Dysphagia Rehabilitation” is written.

These are the examples of menu.

Millet gruel, soup of Japanese barnyard millet with a lot of mushrooms, potato potage with Japanese barnyard millet, cream of cereal flour, and so on.

3. Conclusion

I suggest a food truck as a new way in which elderly people enjoy eating. We can provide meals for elderly people who live in wide area because we can move and open the store wherever we want.

I hope that more elderly people can eat delicious and nutritious foods which suit their physical ability.

The issue is that we have not been able to verify in detail how and where we go and how often we provide them, and how much we can expect customers and profits. So, we have to continue to think about those points and consider whether the suggestion is possible to carry out in fact.

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Terminal care
~To improve the quality of life~

5426

<Introduction>

As hospitals account for more than 70% of the places of death, how to spend the end of life has become a problem. Especially, more than half of the people have a negative opinion about ineffective life-prolonging treatment. However, patients are often reluctant to take pain-relieving treatments such as palliative care because they are worried about the mental and financial burden of the nursing family. Since end-of-life treatment is what almost everyone experiences, I would like to summarize the types of life-prolonging treatment and palliative care so that you can choose the treatment method that suits you best in the event of an emergency.

<Discussion and implication>

When the prognosis of life is poor because of illness and no cure is expected, doctors give patients life-prolonging treatment such as artificial respiration, blood transfusion, and infusion. According to the opinion poll (February-March 2003), regarding the results of doctors, the general public is more likely to choose "a method of discontinuing life-prolonging treatment and dying naturally" than "a method of focusing on relieving pain". This is because, patients are often worried not only about the physical distress caused by their illness, but also about the mental and financial burden on the nursing family. If the lives lasts for as long as one day, it will force the family to take care of them during that time, which will be economically burdensome. Patients are thinking about their own treatment methods while giving consideration to their families. However, if medical treatment does not intervene until the end and no infusion or oxygen inhalation is performed, nutrition is blocked and starvation occurs, so that endorphin, which is a morphine-like substance, is secreted into the brain. This hormone in the brain gives the human body a sense of euphoria by binding to the same receptors as when morphine was ingested. In fact, endorphins have about 6.5 times the analgesic effect of morphine. In addition, if patients become dehydrated, the level of consciousness drops, resulting in a drowsy state followed to rest in peace.

And, end-of-life care is provided to people with dementia and senility, including those who are have a short life expectancy because of illness, spend the rest of their lives in their own way and reach their end with satisfaction. The care that relieves pain and discomfort caused by illness symptoms, prioritizes mental peace and enrichment of the remaining life is given to improve the quality of life rather than prolonging life by treatment. The role of this end-of-life care is to prevent pressure on the patient himself by physical care (relieving symptoms such as pain with medication), mental care (creating the same environment as usual and making it relaxing), and social care (financial burden).

Palliative care is an approach to the improve quality of life by preventing and alleviating pain through value and treatment. This treatment should be given in parallel with normal one from the time of diagnosis, and is involved in the entire course of cancer. If there are symptoms, analgesics are prescribed, and psychological support is provided for depression caused by the notification of the diagnosis. In addition to physical symptoms, depression and insomnia reduce a patient's quality of life. Psychiatrists and

psychosomatic physicians properly prescribe antidepressants and sleep-inducing agents to address these concerns. As the physical and mental conditions affect each other and exacerbate each symptom, palliative care provides treatment and support from both the physical and mental aspects.

In the past, when cancer was diagnosed, the prognosis was harsh if it could not be removed by surgery, but in recent years, due to advances in early detection, surgery, anticancer drug treatment, and radiation therapy, survival was significantly extended. Besides, by using palliative care together, it becomes possible to spend more personal life. Furthermore, a comparative clinical trial was conducted in which patients with advanced non-small cell lung cancer were divided into two groups: "only anticancer drug treatment" and "combined palliative treatment with anticancer drug treatment". As a result, the group "combined with palliative treatment" not only improved QOL but also decreased anxiety and depression, and at the same time, had a significant life-prolonging effect for 3 months. (The period of 3 months is sufficient for a new anticancer drug to be approved.) From this, palliative treatment is considered to be "a treatment that can coexist with cancer for a long time with less pain."

Sedation is a method of making the patient pain-free by sleeping with a sedative (hypnotic) when the patients can't be relieved from their pain with all palliative care and treatment. Most sedative continues to be used until the patient's death. Palliative care is a method of relieving pain without any loss of consciousness, while sedation uses drugs that lowers patient awareness. One of the disadvantages is that it becomes difficult for patients to communicate with their family after the procedure because they fall asleep. Therefore, in order to be able to communicate as much as possible and take pain, recent sedation should be started "only when it is necessary" or "shallow (if called, patients can wake up)". However, as sedation causes shallow breathing, it can increase cardiac load, and worsened prognosis.

Living wills describe whether or not you would like to receive specific medical treatment such as cardiopulmonary resuscitation, ventilator, and artificial nutrition regarding the contents of medical treatment received at the final stage of life. Without this, the family has to decide the end of lives of patients, which will become their burden. However, in the 2010 poll, the approval rating for prior instructions was as high as about 70%, but only 3.2% was actually created, and prior instructions aren't still common in Japan. In order to make it, patients and doctors discuss the nomination of proxy decision makers, the medical care and care that you want to receive in the future, the place they spend the time of the end of life, the values and religion of the patient. By sharing the patient's values and outlook on life, family members and medical professionals can respond to unexpected situations.

Finally, hospitalization fees including costs of rooms, bedding, and extra bed fee depends on the policy of end-of-life care and the content of the treatment. In particular, if you use a private room, your insurance doesn't pay for this, so you have to pay for it out of pocket. The average amount of end-of-life medical expenses per person is 1.12 million yen in total. Actually, end-of-life care is not determined to be "one month before death", in the longest case, it will be about half a year, and it will cost higher than expected. Therefore, in terms of the national finance, end-of-life medical expenses have become a big problem. One of the reasons is that many elderly people want to receive terminal care at home, but in order to reduce medical expenses, measures to provide

terminal care at home are being promoted.

Though home care and palliative care are recommended now, it is necessary for us to consider why they are being promoted, and it is important to consider the treatment method which we and our family can convince, after investigating the merits of life-prolonging treatment.

<Conclusion>

In order to enrich the patient's end of life, it is necessary to think how to live true to yourself as much as possible, and to have the opportunity to discuss with family members and doctors using advance instructions.

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Abstract

ICT is being used for education in Japan, but it is hard to say that all schools are using ICT well, referring to the penetration rate of ICT equipment in educational settings. Therefore, I decided to study with the aim of proposing a method for popularizing ICT education in Japan. From questionnaires and previous research, we thought that the problem of ICT education was the lack of equipment and the degree of utilization of teachers. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) has presented the "Five-Year Plan for Environmental Improvement for ICT Education (2018-2022)", which contains plans for the development of ICT equipment. Therefore, we believe that the introduction and maintenance of equipment will be significantly advanced in the next few years. Therefore, I decided to think about the utilization of ICT by teachers after the introduction of ICT equipment. It was found that there are many teachers who cannot use electronic blackboards and tablet terminals even if they are introduced, or who cannot teach students how to use them well. Therefore, I propose to introduce ICT education into the teacher employment examination from the beginning.

1 Introduction

Currently, ICT is used everywhere. The development of ICT technology can be seen not only in things that use data such as statistics, smartphones, games used for entertainment purposes, but also in direct contact with people such as medical care and long-term care. There are many opportunities to come into contact with ICT at school, but I feel the situation of the spread of ICT education is not good. So I decided to study current status of ICT education in Japan and what kind of relationship ICT and education should have.

2 Discussion and implications

It is predicted that "in the next 10 to 20 years, 47% of the occupations currently in the United States will be replaced by computers." It's a story that many have heard. In today's rapidly evolving world such as AI, there is not much demand for "Input" education that memorizes the contents of textbooks. "Output" is needed. Therefore, I turned my attention to ICT education, which is currently attracting attention, especially ICT education in schools. Common merits include making lessons easier to understand and improving the efficiency of teachers' work, but they are not the only ones. There is a big merit of supporting 21st century skills. 21st century skills are defined by the Ministry of Education, Culture, Sports, Science and Technology as critical thinking ability, problem-solving ability, communication ability, project ability, and ICT utilization ability. Nowadays, active learning and high presentation ability utilizing such ICT equipment are required.

However, it cannot be said that Japan is making good use of ICT, the poor maintenance stands out. Mainly many elementary and junior high schools require large presentation devices, but the penetration rate of electronic blackboards, which is one of them, is very low, at 24.4% per class. The achievement rate of one document camera (a camera that shoots in real time to project prints, etc.) is also 46.2% per class, which is less than half. Therefore, I would like to suggest the active introduction of ICT equipment. However, according to the Ministry of Education, Culture, Sports, Science and Technology, an environment improvement five-year plan (2018-2022) for ICT in education has already been announced, and it is said that ICT education is being promoted in line with this plan. It's hard to say that by 2022, everything in this plan will come true, but this plan

has been working and I won't say anything about the plan. So how can we make more use of ICT education?

Here, I searched for the disadvantages and problems of ICT education. The two points that were often mentioned were "budget" and "teachers have not been able to utilize it." We cannot provide financial support for the budget easily, so here we will consider the use of ICT by teachers.

Forcing teachers to take several lectures on ICT utilization is meaningless. So how about incorporating it as a necessary element to become a teacher? Specifically, it is to introduce ICT mock lessons in the teacher employment exam. Currently, in the mock lesson exams that are held in some areas, most of the lessons are taught only by teachers. When I investigated whether there were any examples, I found that they were adopted in Saga Prefecture. The following is a quote from an article about a mock lesson in Saga Prefecture.

The Saga Prefectural Board of Education will introduce electronic blackboards for the first time in Japan into the "mock lessons" that will be held in the 2014 teacher employment examination. The prefecture that promotes ICT (Information and Communication Technology) education plans to deploy electronic whiteboards in all prefectural schools within this year, and decided that the utilization of electronic whiteboards is a standard ability of teachers. According to the Prefectural Education Informatization Promotion Office, etc., we will use an electronic blackboard in the mock lessons conducted in the secondary exam to see the ability to utilize it. All categories of elementary school, junior high school / high school, special needs school, nursing care, and nutrition teacher are covered. Regarding the reason for the introduction, the promotion office explains that "the penetration rate of electronic blackboards is increasing in the prefecture, and the ability to utilize them is the basic ability of teachers."

In addition, some regions are adopting ICT education utilization methods in the process of teacher training. Even overseas, many schools that are focusing on ICT education regularly exchange information with each other to utilize ICT during practical training and after school.

From the above, I think that the training of teachers regarding ICT education should be increased. However, problems such as working hours of teachers and training will be left to each school, so I think that the optimal method is to incorporate mock lessons utilizing ICT education into the teacher employment examination. This can be said not only in Japan but also overseas.

I hope that everyone will be able to receive equal and high-quality ICT education not only in Japan but also in the world.

3 conclusion

I think that the training of teachers regarding ICT education should be increased. However, problems such as working hours of teachers and training will be left to each school, so I think that the optimal method is to incorporate mock lessons utilizing ICT education into the teacher employment examination. This can be said not only in Japan but also overseas.

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Abstract

The purpose of this research is to raise awareness of reference services and increase opportunities for their use, because reference service is a very convenient service, but I felt that many people didn't use it because they didn't know about it. I suggest two things. One is to use the reference services in lessons like research at school. We make a time to contact in advance and go to a nearby library, or use the reference service online or by e-mail. The other is to set up a counter dedicated to the reference service. I think it would be better for more people to see the service.

1 Introduction

The purpose of this research is to raise awareness of reference services and increase opportunities for their use. The reference service is a service that the library provides. It supply not only to search for books but also to help you to investigate questions. It's a very convenient service, but I felt that many people didn't use it because they didn't know about it. So, when I examined the number of visitors and references to the Gunma Prefectural Library over the last five years, I found that the number of references was only about one tenth of the number of visitors. I suspected that the cause was the low awareness of the reference service. So I researched it. Possibly there was an oversight, but I can't find it. I think it is a problem because we can't understand the present circumstances. Therefore, I decided to think about why many people don't use the reference services and what I can do to increase the awareness and number of uses of reference services.

2 Discussion and implications

In this research, I would like to determine the status of utilization through the interview I did at the prefectural library. I asked about the number of library users, the number of references, the awareness of the reference service, and the current issues. I immediately received answers and explanations along with the literature on which they were based, and provided some books and magazines related to the awareness and issues of the reference service. It was a quick and accurate response, and I think I couldn't find it by myself. From the data librarian presented, the number of references was only about one tenth of the number of visitors. Also, the librarian said that the problem was that we had few opportunities to learn how to use the library at school when we were a child. Children may grow up and stop using the library without knowing how to use the library. She also said that many of the users of the prefectural library are elderly, so they don't understand the opinions of young people. I was agreed that the spread of the Internet has made them easier to obtain information and decrease the use of the library. The Internet is certainly convenient, but we can get only wide and shallow information. I think it may be better to use the library when we make sure of the evidence.

Based on the above story, I thought about why young people rely on the Internet instead of the library. As a result, I suspected that the cause was ignorance of library job like reference service. The librarian has a strong image of that lending or returning books, and may not have the image of "helping with research". According to the report on the

fact-finding survey about reference services in public libraries(公立図書館におけるレファレンスサービスに関する実態調査報告書), 87.1% of the 1707 public libraries don't have a dedicated counter for reference service. I think many people know that we can rent and returned books at the counter because of its dedicated counter. I think whether there is a dedicated counter or not is concerned with the awareness of the reference service. In addition, I think it make us tend to use the duties.

3 Conclusion

I suggest two things. One is to use the reference services in lessons like research at school. We make a time to contact in advance and go to a nearby library, or use the reference service online or by e-mail. The other is to set up a counter dedicated to the reference service. I think it would be better for more people to see the service and introduce examples rather than sending information on the homepage or SNS.

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1, Abstract

I learned from lectures that there are many patients with lifestyle-related diseases in the world and that eating habits are a major cause, so I started research mainly on the Internet. In Japan, as the social situation changed, the externalization and simplification of food became established, and the disorder of eating habits became one of the major problems, which greatly increased the number of patients with lifestyle-related diseases. By age group, the dietary disorder of working generations and minors is on the rise. The main cause is thought to be women's social advancement. I learned that eating habits from childhood are important, so I thought that encouraging dietary education activities might be one solution.

2, Introduction

The reason why I decided to do this research was that I learned that bad cholesterol is high in heredity, and when I was curious and investigated, I found that there are many patients with lifestyle-related diseases and that eating habits are a major cause, which is correct. Therefore I wanted to study eating habits.

3, Discussion and implications

(1) Lifestyle-related diseases

Lifestyle-related diseases are defined as diseases caused by lifestyle-related habits such as eating habits, exercise, drinking, and smoking. Factors are divided into three types: lifestyle-related factors, external environmental factors, and genetic factors. Of those who died of lifestyle-related diseases, 60% are lifestyle-related factors. It is also known that eating habits and lack of exercise are greatly involved. There are many lifestyle-related diseases around the world, and the number of diabetics exceeds 400 million. The number of malignant neoplasms, heart disease and obesity continues to increase. In Japan, as in the world, the number of patients with lifestyle-related diseases continues to increase. In WHO and Japan, various organizations such as the Ministry of Health, Labor and Welfare are presenting preventive measures for lifestyle-related diseases and calling for attention.

(2) Dietary habits and lifestyle-related diseases

The Japanese have eaten Japanese food, which is also registered as an intangible cultural heritage. Well-balanced, good-looking, and low in calories, it is currently gaining popularity worldwide as a diet food. However, with the increase in single-person households and female employees, and changes in social conditions such as the development of imports and exports, the externalization and simplification of food has progressed and has become established. There was also the problem of disordered eating habits. Due to these problems, the number of patients with lifestyle-related diseases such as obesity, type 2 diabetes, cancer, and heart disease has increased.

(3) By age

When examined by age group, there was a bias in the number of materials. More accurate data were available as the number of people going to the examination increased as they got older.

Among minors, the number of obese children and patients with other lifestyle-related diseases is increasing year by year. Causes include lack of exercise due to increased time to play indoors, and increased opportunities to eat out and eat delicatessen due to women's social advancement.

Similarly, the number of patients with lifestyle-related diseases is increasing in their 20s and 30s, which is attributed to decreased outdoor activities, changes in eating habits, and irregular lifestyles.

The number of patients with lifestyle-related diseases is increasing after their 40s. It was found that the number of diabetic patients and patients with heart disease is increasing in particular. It was found that the older the person, the smaller the change in the number of patients from the previous year. It was also found that older people tend to lead a relatively regular life and become more concerned about their dietary balance.

The number of patients with lifestyle-related diseases is increasing in all age groups. Common factors include changes in eating habits, decreased outdoor activity, and irregular lifestyle habits.

(4) Good meal

A food balance guide is posted on the websites of the Ministry of Health, Labor and Welfare and the Ministry of Agriculture, Forestry and Fisheries. If you eat as shown in the figure, you can maintain your health. However, there are many issues that need to be improved, such as the fact that this figure is not widespread and that it is difficult to maintain it in today's Japanese life.

(5) The world

The number of patients with lifestyle-related diseases is increasing in the world, and poor eating habits are also one of the major problems. The Netherlands ranked first in the good diet rankings according to a WHO survey. Many people eat a lot of vegetables, and the time to eat is regular. The family often surrounds the table and goes out to eat out less often. The fact that dietary education is active is also one of the reasons for having a good diet.

4, Conclusion

During my research, I realized that dietary education is important. It was also found that food education activities is not well known in Japan. Therefore, I think that food education activities should be promoted in the area. I think it should be especially promoted to parents with children under the age of five. This is because it is important to lay the foundation for a proper diet when you are little. At the same time, I think it is necessary to reduce likes and dislikes.

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(Browsing date April to January in 2020)

Abstract

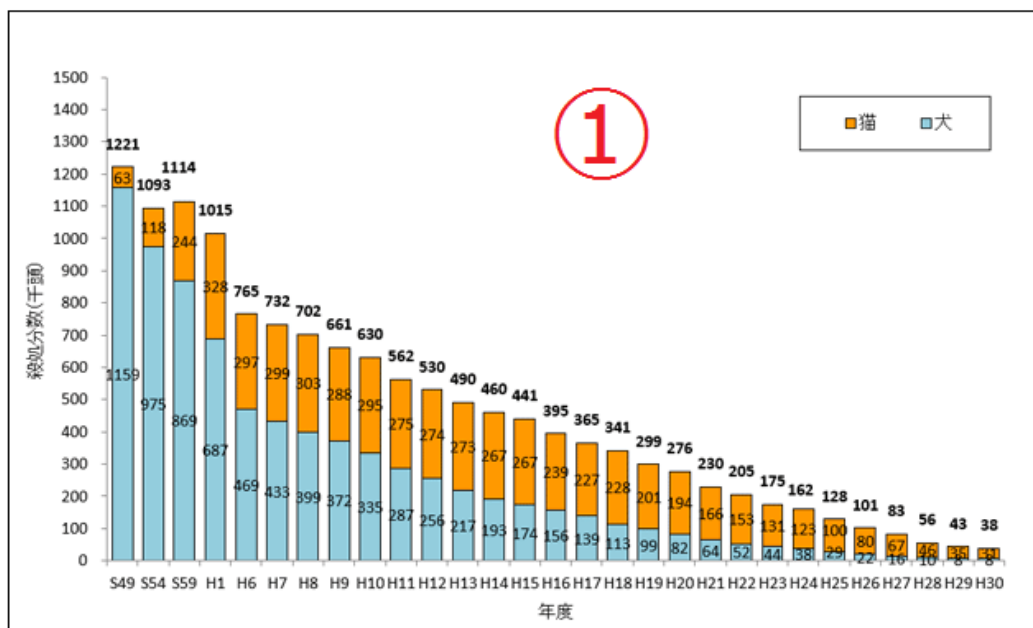
This study considers what to do for animal protection. I came to the conclusion that reducing the number of dogs and cats that have been slaughtered requires reducing the selfish behavior of pet owners. Therefore, when you buy a pet, you must meet certain conditions before you can buy it. Currently, many local governments have set zero culling. As a result, the number of animals being slaughtered is decreasing, but many are still being brought to health centers. I thought it would be difficult to study everything, so I considered it only when it was brought directly from the owner.

1 Introduction

This study considers what to do for animal protection. I came to the conclusion that reducing the number of dogs and cats that have been slaughtered requires reducing the selfish behavior of pet owners. Therefore, when you buy a pet, you must meet certain conditions before you can buy it. Currently, many local governments have set zero culling. As a result, the number of animals being slaughtered is decreasing, but many are still being brought to health centers. I thought it would be difficult to study everything, so I considered it only when it was brought directly from the owner.

2 Discussion and implications

全国の犬・猫の殺処分数の推移



As you can see from the graph (①) published by the Animal Welfare and Management Office, General Affairs Division, Natural Environment Bureau, Ministry of the Environment, the number of slaughtered animals has decreased sharply in recent years. Curiously, I asked the Japan Animal Welfare Association why the number of culling is decreasing sharply. At present, many places such as the Japan Health Center are aiming to eliminate culling. With this as an opportunity, an increasing number of local governments have set the slogan of "zero culling." As a result, many dogs and cats have been transferred to animal protection groups, and the burden on these protection groups

is increasing rapidly. It is true that the number of culling is decreasing, but there is a new problem behind it. Many dogs and cats have been transferred to animal protection groups, and this time, the burden on these protection groups is increasing rapidly.

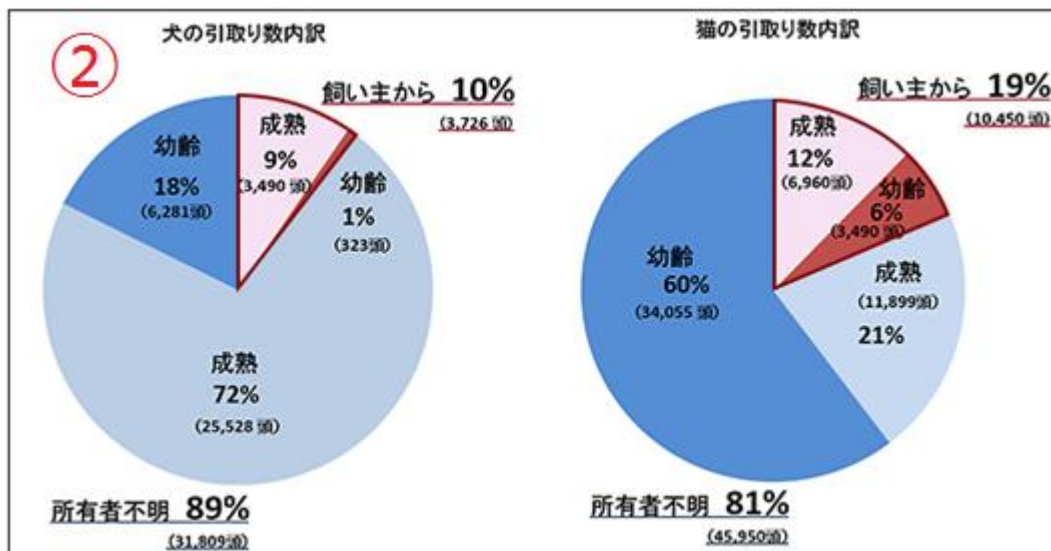
I took a look at what kind of activities the countries where the idea of animal protection in the world is advancing are doing.

(Germany)

Germany is called an advanced animal protection country.

The existence of an ideal animal shelter called Tiaheim. We have created a facility to protect animals that have been abandoned or abused. Many staff and volunteers also take care of, walk, discipline, and treat injuries. Many citizens who want to keep dogs and cats visit, and after confirming compatibility enough on the opening day, most dogs and cats are received. Animals whose owners cannot be found are not killed and can live in the facility for the rest of their lives. In this Tiaheim, more than 90% of animals get new owners.

There is a full-scale animal protection law system. Germany has already enacted a systematic animal protection law in 1933. It has been revised several times since the official enactment of the Animal Protection Law in 1972, which inherited the contents, and continues to the present day. In addition to the Animal Protection Act, in 2002, "animal protection" was introduced into the Constitution. Further details were stipulated by government ordinances and state laws. For example, regarding dog breeding, daily walks and the size of living space are determined in detail by setting numerical values. In this way, not only the Animal Protection Law but also a multi-layered legal system that influences each other is in place.



I thought that it would be possible to think about initiatives in Japan from overseas initiatives. As you can see from the graph (②) published by the Animal Welfare and Management Office, General Affairs Division, Natural Environment Bureau, Ministry of the Environment below, I thought that we should first reduce the cases where the owners come directly. When I thought about what was the cause of the delivery from the owner, I think there are three main reasons.

3. Conclusion

One is the fun breeding by the owner. The reason why this breeding is not good is that if you cannot keep the born child by yourself because it costs money to give birth to a dog or cat without thinking about it after breeding. Problems such as the pick-up destination of the dog have not been decided.

The second cause is impulse buying. I think its normal for most people to see animals and think they're cute when they have the opportunity to visit a pet store. And there are people who make impulse purchases. What's wrong with impulse buying is that you don't think about what happened after you bought the animal. You must also have knowledge of the animals you have purchased. As you can see, various preparations are required before keeping an animal.

The third cause is the selfish behavior of the owner of the pet. The third cause is the selfish behavior of the owner of the pet. The third cause is the selfish behavior of the owner of the pet. I thought about what to do in Japan with reference to this cause and overseas efforts.

When you keep a pet, you cannot buy it unless you meet the following conditions.

- ① Can you afford to keep a pet?
- ② Do you have any plans to move for the time being?
- ③ Can you sacrifice some private?
- ④ Do you like cleanliness or cleaning?
- ⑤ Can you care for an elderly pet?
- ⑥ Do you spend a lot of time at home?
- ⑦ Does the whole family agree to have a pet?

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