

How to give precise disaster information to English speakers living in Japan

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Introduction

The aim of the present study is to find out exactly how much information about disasters are conveyed to English speakers living in Japan. To complete this aim, Section I will discuss three regional pamphlets about disaster preparedness, and a 2013 NHK report on Great East Japan Earthquake (henceforth GEJE). Section II explains a questionnaire about disaster awareness of English speakers living in Japan. The objects and methods of the questionnaire will be discussed. Furthermore, the result of my questionnaire in section III considers the real situation between providing and receiving information about disasters. In addition to comparing the results of the questionnaire and previous studies in Section I, this study tries to see how current disaster prevention system works and what should be improved for non-native Japanese speakers in Japan.

I Pamphlets about disaster preparedness and NHK's report

1.1 Background

Japan is sometimes said to be one of the safest and peaceful countries in the world, but in fact, there are often natural disasters such as earthquakes and floods. The information about these disasters is generally directed toward Japanese people. Do people living in Japan have enough information to cope with disasters? Through past disaster experiences, Japan has created new information systems such as “early warning for earthquakes”. However, are these programs really helpful for the English speakers?

To find out the answers to these questions, this thesis uses three regional pamphlets about disaster preparedness written in English and a questionnaire about awareness of disaster preparedness of English speakers living in Japan.

1.2 Previous Studies

This section looks at two previous studies: my comparison of the three English pamphlets from Takamatsu, Okayama and Osaka in 1.2.1, and NHK’s report on a questionnaire of foreign residents after the 2011 GEJE in 1.2.2.

1.2.1 Comparison of 3 English pamphlets

First, the three English pamphlets are from Takamatsu city, Okayama city and Osaka prefecture. The comparison clarifies which information is commonly important or locally focused by using tables. Henceforth ○ in tables indicates the disaster is mentioned in the booklet and × indicates it is not mentioned.

Table (1) how to get information when disasters happen mentioned in the pamphlets

areas programs	Takamatsu (2012)	Okayama (2017)	Osaka (2017)
Earthquake early warning system	○	○	○
advisories/ warnings	○	○	○
data broadcasting on TV	×	○	×
links to portal website	○	×	○
email mobile site	×	×	○
foreign consulates	×	×	○
*Japan Shelter Guide	×	○	×

* A smartphone application which provides evacuation centers information.

Data broadcasting on TV has the same information as that in portal website. The Okayama booklet mentions that there is a portal website and the TV version. The Takamatsu booklet has several links including prefectural sites and Japanese Governmental sites. The Osaka booklet introduces a prefectural multilingual site called Osaka Disaster Prevention Net and it also has an email service to get disaster information. This network is introduced by the links and QR codes so that people can choose the way to access.

Japan Shelter Guide is made by 1st Media Cooperation which is a company in Tokyo. Application development is one of the company’s tasks. It means that Okayama City and a

private company cooperate with each other.

Table (2) below indicates how to prepare for future disasters mentioned in the pamphlets.

Table (2) how to prepare for future disasters mentioned in the pamphlets

actions \ areas	Takamatsu (2012)	Okayama (2017)	Osaka (2017)
Checking furniture's safety	○	○	○
Confirmation of evacuation centers	○	○	○
Emergency survival items	○	○	○
Evacuation signs in town	○	×	○
Practice in disaster prevention activities	×	○	○
Notes of individual information	○	○	○

Figure (1) Tsunami Evacuation Building



Figure (2) Evacuation Area



Except for explanation of evacuation signs in towns and practice in disaster prevention activities, all kinds of information are commonly mentioned. Evacuation signs in towns are three types. The Takamatsu booklet introduces the emergency exit sign. This sign is common in towns, and all public buildings have it. The Osaka booklet introduces tsunami evacuation building and evacuation area shown in figure (1) and (2). Tsunami evacuation building is an evacuation place

for areas where possibly we have tsunamis or flooding after earthquakes. The building means higher ground and includes buildings 3 stories or higher such as schools, community centers and hotels. An evacuation area is a temporary shelter. Practice in disaster prevention activities are held at each municipality or local community.

1.2.2 NHK's report on the questionnaire of foreign residents

Second, NHK's 2013 report on the questionnaire of foreign residents after the GEJE is summarized. This report is a basis for making my questionnaire in Section II. To clarify what foreign residents did to get information when GEJE occurred and how their usual media environment is, NHK conducted a telephone questionnaire. It was conducted on March 2012 and the targeted people were 600 people from China, South Korea, Brazil and the Philippines. They live in Japan, but not only in the damaged areas such as Iwate, Miyagi and Fukushima. As supplement resources of the telephone questionnaire, this report also has two Philippine group interviews and individual hearings of people from China, South Korea, Brazil and the Philippines living in Tokai and metropolitan areas.

As the result of these surveys, following four points were clarified; the main information resource was Japanese TV for foreign residents in Japan when the disaster happened. It depended on their nationalities and the ability of Japanese language how much information they could get. They included a need for a large amount of information in their mother tongues, English and easy Japanese.

NHK's report did not know the reason of the difference among their nationalities in the responses. The report predicts that the results came from differences of their awareness such as how much urgency they felt relied on media when the GEJE occurred, rather than whether they could get the information they needed or not.

II Methodology of my questionnaire

2.1 Participants

Participants were English speakers living in Japan and they included non-native English speakers from various countries in the world. Their ages range from teenage to 60's. The range of how long they have lived in Japan is from less than one year to more than 20 years. Also, the participants were asked if they have native Japanese speakers in their families or not.

2.2 Instrument

The questionnaire has both required and voluntary questions. It has five required questions: 1 “If they have experienced or heard about any disasters in Japan or not”, 2 “how much the information they got which they needed in the disaster”, 3 “how they get disaster related information if they have any disaster”, 4 “if they have seen pamphlets for disaster preparedness/prevention written in English”, and 5 “how much anxiety about future disasters in Japan”. The number of voluntary writing questions is four: 1 “what made them feel they could not get enough information”, 2 “where they have seen or got the pamphlets”, 3 “what they prepare for future disaster”, and 4 “any concerns about disaster preparedness”.

2.3 Procedure

The questionnaire was conducted by paper version and online version using Google forms. 46 participants answered the online form from the links attached on the e-mail or Messenger. Others who had difficulty accessing online answered with the paper version. This survey was conducted from June 13th to July 31st, 2019 and the participants could answer whenever they wanted during the term.

III Analyses of the questionnaire

3.1 Results of the questionnaire

First, the questionnaire shows the correlations between how much information the people could get and their competence of Japanese language. Q7 asks how many people have experienced or heard about any disasters in Japan and 70.6 % of the subjects answered Yes. Those who answered Yes were asked Q8 if they could get the information they needed in their disasters. 70.6% of the total respondents are represented by the diagrams [1] and [2]. The vertical-axis shows the amount of information and the horizontal-axis shows their Japanese language competence. These diagrams do not include people who barely speak or read Japanese language because they answered that they have not experienced or heard about any disasters in Japan.

Diagram [1] Japanese speaking competence and the amount of the information

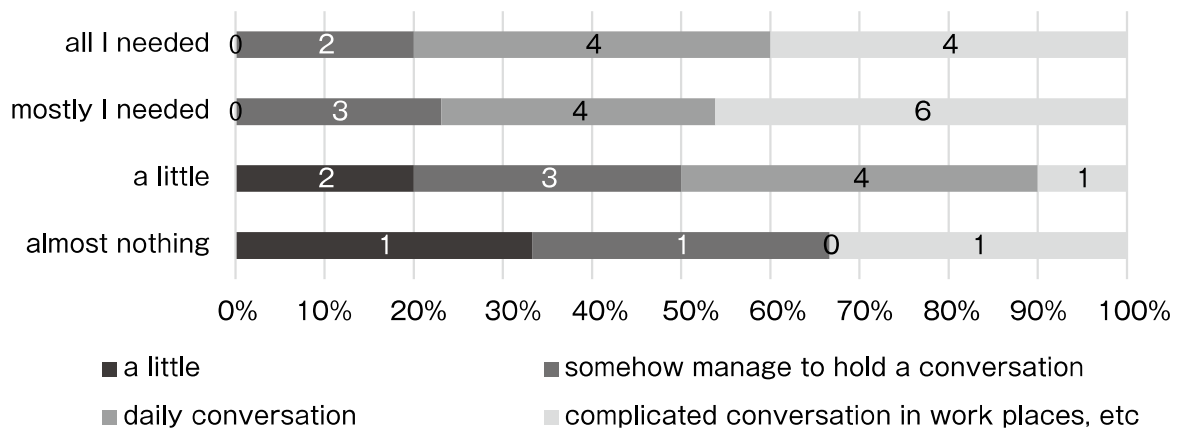
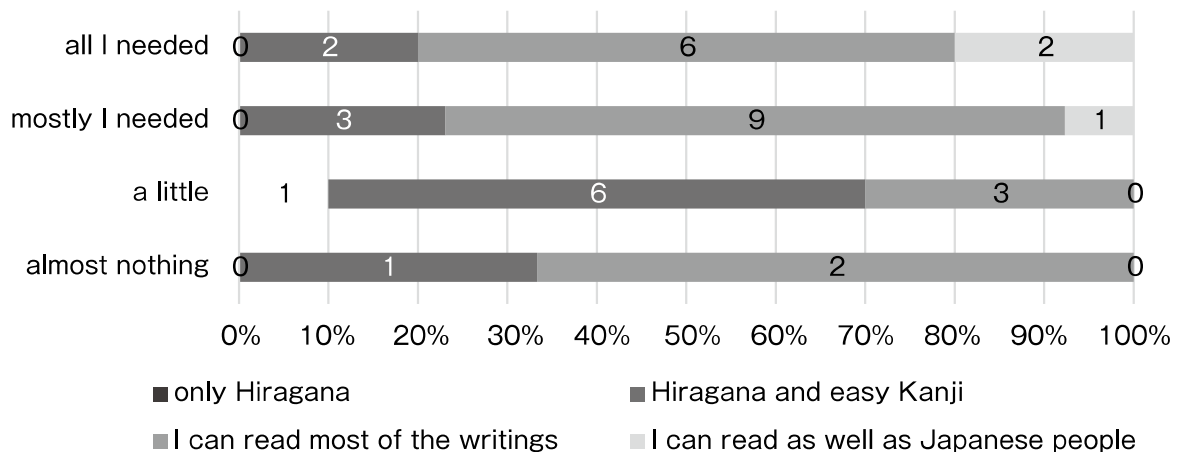


Diagram [2] Japanese reading competence and the amount of the information



There is a correlation between Japanese speaking competence and the amount of the information they could get. The higher the level of Japanese speaking ability, the more information they could get. Especially for the range from “almost nothing” to “most I needed” corresponds to their language ability. However, there are more people who answered “most I needed” than “all I needed” among those who could deal with complicated conversation in work place, etc. It shows that most fluent speakers who have competence do not always get everything they need.

As for Japanese reading skill and the amount of the information they could get, it shows higher reading competence is required to get information than speaking. Most people answered “Hiragana and easy Kanji” or “I can read most of the writings” and those who can read as well as Japanese were only three people. This number is much smaller than those who can have

complicated conversation in work places, etc. Also, even if the people think they can read most of the writings in daily lives, it is often possible that they can get almost no information or a little.

In fact, language barrier is the biggest reason why they could not get enough information. Q9 which is a writing form, asks what made them feel they could not get enough information. This question was not required, but 22 people responded. 13 people out of 22 answered “language barrier”, especially for the news and alerts which are explained with more difficult words than they are used to seeing. As the result, they could not judge if they needed to evacuate or not and the warnings became ineffective.

3.1.1 Comparison of the questionnaire and previous studies

According to previous studies in Section I, each prefectural government conveys a variety of the disaster prevention information in English. However, how helpful and effective the information is for English speakers seems to be different from what the regional governments expect.

Q15 asks to write down freely what people are concerned about regarding future disasters in Japan and it had 26 respondents. 8 out of 26 responded about the need of interpretation for the people who do not have high level of Japanese language skill. In particular, emergency warning in Japanese makes them more worried. Some people mentioned the need of timely translated information by translators and letting them know the Consulate’s email address or phone number. These opinions show that the translated information is less accessible for the people.

3.2 Implications

Even if the local governments organize the pamphlets of translated information, it is more essential to make these pamphlets accessible to foreign residents. All booklets used in previous studies are available at the international center of each local government. However, places where the booklets are put in the center is different in each location. It means that you have to ask the staff if you want to get one. These places reflect each government’s awareness of disaster prevention for foreign residents.

3.3 Limitations

Since this questionnaire did not ask about the reasons why people from foreign countries live in Japan or how long they will stay in Japan, we cannot see the correlation between their

necessity of Japanese language and competence. Also, their status of residence and future plans make it more clear how urgent they feel about disasters to come. Understanding these facts and correlations are keys to deliver disaster prevention information which is adapted to individual situations.

In some cases, easy Japanese might be more helpful than English because many respondents answered that Japanese language for emergency situations was too difficult. It may imply they can understand what they should do if Japanese emergency instruction is as easy as their daily conversation. Also, not all people can understand English completely, so their mother tongue can be of better help for them. The data about foreign residents in Japan in 2018 provided by the Foreign Council indicates that most of the people are from countries where their first languages are not English such as China, South Korea, the Philippines and Vietnam.

Conclusion

Section I clarified what kind of disaster information is translated for English speakers in pamphlets by Takamatsu City, Okayama City and Osaka Prefecture. This analysis found that each government gives various information. For example, what to prepare for future disasters and how to get information when disasters occur. NHK indicates that the people's Japanese language skill and sense of urgency about disasters was related to how much information they could get when they wanted.

Section II explained my questionnaire which had 51 respondents from various countries. The questionnaire had some required questions and non-required questions. Required ones were such as whether they have any native Japanese speakers in their families and their level of Japanese language. Non-required ones were writing forms, and respondents could write freely what they are preparing for future disasters in Japan, and what is concern for them about disasters in Japan.


Section III analyzed the results of my questionnaire. Many people felt language barriers and their Japanese language skills had correlations with how much information people can get and their anxiety about disasters. The higher level of Japanese language, the more anxiety people tended to have. Family constitution also affected the people's anxiety because they can get some information from family members. It was one of the clear differences compared with people living in Japan alone.

From the analyses of the questionnaire and comparison with previous studies, we can see governments' efforts for English speakers do not necessarily have good results with foreign

residents. Even if governments organize enough information about disasters, ways to give the information to them certainly needs to be improved.

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