

Evaluation and Behavioral Analysis of Place-Oriented Radio by the Measurement of Cross-Cultural Understandings

Ayaka Ito
Graduate School of Media and Governance
Keio University
Fujisawa, Japan
e-mail: ayk@sfc.keio.ac.jp

Katsuhiko Ogawa
Faculty of Environment and Information Studies
Keio University
Fujisawa, Japan
e-mail: ogw@sfc.keio.ac.jp

Abstract— The number of foreigners who visit Japan is increasing and thus it is important to build mutual understanding with people of different cultural backgrounds. In order to enhance foreign visitors' further understanding of Japan, we propose a place-oriented Internet radio called Cross-Cultural Radio (CCR). Consequently, we proposed a new measurement, the Cross-Cultural Understanding Scale (CCUS), to validate the effectiveness of CCR, and conducted a set of evaluation experiments in Tokyo. Our experimental results illustrate that CCR can be effective in certain aspects of cross-cultural understanding. This paper aims to explore foreign visitors' concrete process of understanding by analyzing the behaviors of participants during the experiment. Additionally, the type of place-oriented contents that are suitable for enhancing cultural awareness will be discussed.

Keywords— place orientation; Internet radio; cross-cultural understanding; measurement; evaluation experiment.

I. INTRODUCTION

Due to the great diversity in the modern world and its continuous change, defining the term “culture” is an extremely difficult activity. However, many scholars have attempted to conceptualize their understanding of culture. Nonetheless, as we claimed in our previous work [1], several aspects of culture, such as goods, feelings, actions, and words can be very specific to a particular region. They are difficult to grasp from guidebooks or simply by browsing the Internet, because in many cases these contents are provided based on visible (and generally superficial) information. It is quite easy to acquire stereotypical ideas about Japan in front of the laptop but there will never be a better experience than direct interaction with local people. This is because they provide foreigners with real cultural ideas, and thus, having a channel to boost such communication is highly important.

For instance, a keyword that seems distinctive to Japanese culture is “Kodawari,” which is difficult to translate literally into English, yet “to be particular about a manner” would be the closest. Its meaning is not just to be particular, but to have a strong belief, or an excessive target on the action. Many craftspeople in Japan have “Kodawari” regarding what they create or how they become involved in

the industry, and having strong pride in what they do and never compromising their work is regarded as a virtue.

Another example of a keyword is “Omotenashi,” which became slightly famous after Japan's presentation to host the Olympics in 2020. “Omotenashi” means to treat everyone sincerely and warmheartedly, whether or not that person is a customer, a guest, a family member, or an acquaintance. The core of this concept is to express consideration and respect to others. This act would also require the person to understand the atmosphere, feel the mood and invisible energy, which is wrapped around the occasion or person. Ultimately, it does not mean entertaining the person or achieving any kind of self-satisfaction, but to quickly perceive the person's needs, desires, and overall mood, and entertain the person accordingly with a warm heart.

Damasio [2] claimed, “culture is a regulator of human life and identity.” As people's mobility has increased, so has the number of foreigners who visit Japan [3], and recognizing diversity to build cross-cultural understanding is becoming a matter of great interest in the country. We must be aware that all foreigners are unique individuals, and we should not generalize them by nationality, ethnic group, or religion. Foreigners are visiting Japan for various purposes, such as sightseeing, studying abroad, or working. Likewise, depending on the length of their stay in Japan or their cultural background, the problems they encounter vary greatly, and there will never be a solution that is applicable to everyone. In particular, these problems faced by foreign visitors are derived from not knowing the Japanese cultural keywords previously exemplified (and there are countless others besides “Kodawari” and “Omotenashi”), or occur when the meaning of keywords conflicts with their cultural beliefs in various communicative settings. To propose a way to solve their problems individually, thus creating new media to provide foreigners with opportunities to understand Japanese culture at a deeper level, is meaningful from a cross-cultural perspective. In other words, foreign visitors' further understanding of Japanese culture will be achieved when they listen to local people's stories in a particular place, or the opinions of other foreigners who have visited a given place.

Previous literature (Yoon [4] and Bramwell [5]) has demonstrated that the effect of motivation and satisfaction is prominent in the decision of tourists to re-visit places. Alegre [6] and Ekinici et al. [7] also pointed out the eagerness of tourists to visit based on the characteristics of a place. In terms of information systems, Masuda [8] and Takagi [9] proposed a recommender system for tourists, which provides customized tour information depending on users' needs, including the use of smartphone applications. However, there is almost no research on using Internet radio specifically as a tool for building cross-cultural understanding in Japan.

In this paper, we propose a place-oriented Internet radio called CCR, which helps foreigners to recognize Japan from a cross-cultural perspective by providing place-oriented content. In addition, we created some original criteria named CCUS and conducted an evaluation experiment in Tokyo to measure the actual effectiveness of the content and CCR itself.

The paper is structured as follows: First, Section II describes the design phase of CCR, including its concept and system configuration. Secondly, a detailed explanation of CCUS measurement is offered in Section III, including background research. Section IV describes a complete set of evaluation experiments conducted in Tokyo, and Section V examines the result in a further behavioral analysis. Lastly, the conclusion and future works are mentioned in Section VI.

II. DESIGN OF CROSS-CULTURAL RADIO

A. Concept

The above-mentioned previous research, particularly Masuda and Takagi's recommender system for tourists, is designed for usage in a specific place. However, the information they provide to listeners only focuses on tourists' preferences and does not include the cultural perspective of the host country, which promotes cross-cultural understanding amongst international listeners.

Regarding the type of information available, visual material, such as detailed information on smartphones, contributes to a certain extent to obtaining a general idea about a place. Nevertheless, aural information is far superior to visual information in terms of listener flexibility, by allowing listeners to stretch their imagination regarding what they have heard. Furthermore, aural information can provide direct interaction with the place, including local people's stories or comments from other tourists. This may also be a trigger to increase international listeners' understanding of Japanese culture.

For these reasons, this paper proposes a place-oriented Internet radio called CCR as a new sound-focused media, by providing international listeners with several types of content. The detailed concept is shown in Figure 1.

CCR works in three steps. The first step consists in content design for different listeners. The second step is the

listening process, which various listeners engage in, such as international tourists, study-abroad students, and employees of multinational corporations who are not yet familiar with Japanese culture. The third step is obtaining feedback from listeners, plus revision of the content. To maximize the influence of content, the preferred target of CCR is international visitors who are staying in Japan for a relatively long period of time, from a few months to years, rather than just for a couple of days, because, in general, understanding a certain culture takes time and the experience in a host country is enriched by daily life communicative settings.

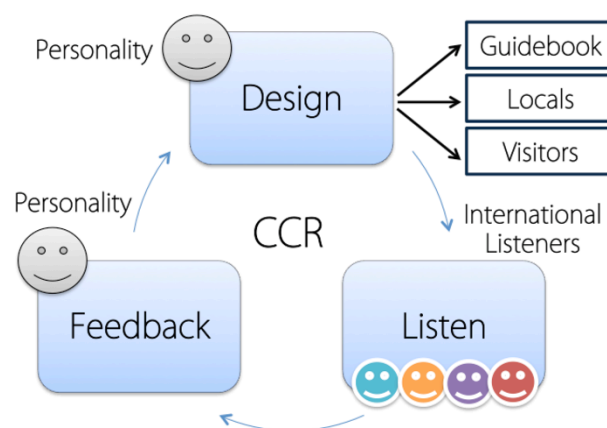


Figure 1. Concept of Cross-Cultural Radio "CCR"
(This paper only deals with Guidebook and Locals content)

Three types of content are available for international visitors: the Guidebook (audio clips from famous guidebooks such as Lonely Planet), the Locals (stories or tips from local people), and Visitors (feedback from listeners to be shared with other listeners). As a first step of the cycle, this paper deals explicitly with the content of the Guidebook and the Locals.

B. System

Previous research [10]-[13] has shown that an acceptable duration of content should be approximately 1 to 1 and a half minutes. Several companies produce audio guide players, supporting the delivery of such content as described above.

1) Selecting the Location

As CCR is designed for international visitors to Japan, the selection of a place where content is mapped is also important. In this research, Asakusa, one of the most famous and popular tourist spots in Tokyo, was selected because it has a rich cultural heritage, including Japanese traditional temples and shrines, as well as dining venues and souvenir shops that attract many international tourists. In addition, Asakusa is located at the heart of Tokyo and has great accessibility, which enables us to conduct fieldwork effortlessly.

2) "Guidebook" Content

For the guidebook content, several tips about accommodation, introduction to restaurants, and explanation of famous architecture were selected from Lonely Planet Tokyo [14] and recorded using voice synthesis software (Figure 2).

"Asakusa Engei-hall"
Have you ever seen standup comedy in your country? If you want to experience Japanese traditional comedy performance, here is the place. This is called Asakusa Engei-hall, and provides humorous speech by classic rakugo speakers. The audience also enjoys stage arts unique to the theater, including the paper cutout and funny music played using a carpenter's tool.

Figure 2. Example of Guidebook content

3) "Locals" Content

For the locals content, several interviews with locals were conducted in Japanese and stories related to their daily lives in Asakusa were selected. Each story was translated into English and supplementary explanation of cultural activities was added if necessary (Figure 3).

"Future of Asakusa"
Before World War 2, Asakusa was one of the most energetic, cutting edge cities in Japan. But unfortunately nowadays it has been overtaken by other big cities like Roppongi or Shinjuku. She feels that to revitalize Asakusa as a vivid city, collaboration with the local community is important, not just bringing lots of tourists from outside. Using social networking services can be one way; so the young generation helps older shop owners to introduce these up-to-date technologies into traditional Japanese shops.

Figure 3. Example of Locals content

4) Mapping content into CCR



Figure 4. CCR can be accessed via a QR code

The audio clips are stored on the website, and linked to icons using JavaScript code. When the user clicks on an icon, the associated audio clip is played. The website can be accessed by URL [15] or by using the QR code shown in Figure 4.

III. MEASUREMENT CCUS

To validate the credibility of CCR, an evaluation process with appropriate criteria is essential. Since CCR has a unique concept, inventing a new and suitable measurement tool is more realistic than using conventional criteria without localization. Related literature about measurement design and cross-cultural adjustment has been demonstrated by Cui & Awa [16], and Yellen [17]. Ten dimensions of cross-cultural understanding have been determined, which are:

A. Mobility

According to Benson [18], an individual's ability to find his/her way around in a foreign place is one of the most important dimensions of cross-cultural understanding. Knowing the local geography and usage of public transportation systems are two potential items for this dimension. It also includes the ability to ask for directions when one is uncertain, as well as the usage of appropriate tools, such as map applications on a smartphone.

B. Food/Diet

Although food allergies are not addressed here, this dimension involves being open-minded about trying new foods. Accepting foreign food and culinary manners cannot be omitted when understanding a certain culture, and for many people eating food is a major aspect of cultural exchange [19].

C. Flexibility

As Hofstede defined "uncertainty avoidance" in his prominent work [20], people from any cultural background may face culture shock to a certain extent, and may attempt to escape from that anxiety. Being flexible, patient, and tolerant of such uncertain activity or unexpected cultural norms is one dimension.

D. Knowledge

Whether one accepts it or not, acknowledgment of the host culture is an essential aspect of cross-cultural understanding. In terms of socially appropriate behaviors, host country nationals have certain expectations as to how foreigners in their country should behave, and this includes avoiding offensive actions. Webb et al.'s unobtrusive measure [21] could be useful in this regard.

E. Language Skills

This dimension appears consistently in the literature as a core criterion of mutual understanding [22]-[24]. However, we should be aware that when cultural adaptation or acculturation occurs, an adapted individual will learn the

language, but an individual who learns the language may or may not adapt.

F. Interaction

The nature and frequency of interactions with host country individuals is an indication of an individual’s level of cross-cultural understanding [25]. This involves one’s ability to initiate interaction, as well as the extent of one’s eagerness to communicate with Japanese people, regardless of language ability.

G. Awareness of Cultural difference

A question such as “to what extent are you aware that Japanese culture/society is different from yours?” is asked in this dimension. Recognition of cultural difference from one’s own culture is a starting point to build mutual understanding in any circumstances [26].

H. Nonverbal Communication

In addition to language, there are a variety of ways to communicate nonverbally. Understanding visible gestures and appreciating personal space are some of them [27]. Also, having a reasonable repertoire of “communicative currency” may be useful as a criterion dimension.

I. Respect

Being interested in the host country citizens and casual friendliness towards them should be part of cross-cultural understanding [28]. For instance, willingness to participate in activities distinctive to the host country will increase fundamental respect for others and might lead to an appreciation of one’s current state.

J. Relationship

The inclination to establish and maintain relationships regardless of skills is one crucial dimension. Although this can be influenced by an individual’s personal character, such as extroversion or introversion, we should be aware that every individual has his/her own pace for building relationships [29]. For instance, not all introverts are weaker at relationship building than extroverts; they often establish deeper and more stable relationships with others.

After the relevant literature was reviewed and the dimensions mentioned above were rationalized, these new criteria were named CCUS. In the evaluation phase, we measured users’ scores on each dimension from 1 to 10 (Figure 5), using the self-evaluation method.

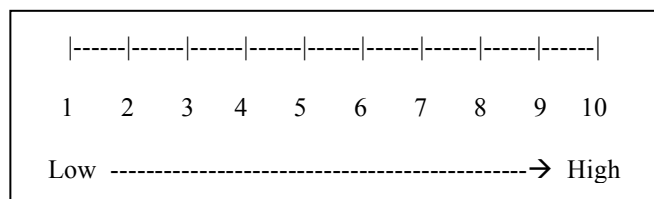


Figure 5. Scoring system of CCUS

This evaluation was conducted twice, before and after any related experiments such as fieldwork or interviews. Afterwards, the two score results were compared and discussed.

IV. EVALUATION EXPERIMENT

A. Method

Fieldwork was conducted with 12 international visitors as CCR listeners, using the same scheme to explore how the cycle of CCR works as an evaluation experiment. In order to observe various cultural exchanges, we tried to select tourists from diverse cultural backgrounds, as well as their length of stay in Japan. Fieldwork details and participants’ attributes are shown below (Table 1).

TABLE I. FIELDWORK DETAILS AND PARTICIPANTS’ ATTRIBUTES

Nationality / Code (xx)	Participants’ Attributes		
	Age	Sex	Date / Time
China (CH1)	28	F	October 31 st , 2015 / 11:00 – 13:00
Malaysia (ML)	23	F	October 31 st , 2015 / 14:00 – 16:00
Taiwan (TW)	20	F	November 1 st , 2015 / 11:00 – 13:00
Japan/Korea (JP)	22	F	November 1 st , 2015 / 14:00 – 16:00
England (UK)	22	M	November 1 st , 2015 / 14:00 – 16:00
Korea (KR)	18	F	November 7 th , 2015 / 11:15 – 13:00
India (IN)	19	M	November 7 th , 2015 / 15:00 – 16:30
Uzbekistan (UZ)	22	M	November 16 th , 2015 / 11:00 – 13:00
China (CH2)	24	F	November 18 th , 2015 / 10:00 – 12:00
China (CH3)	25	F	November 18 th , 2015 / 10:00 – 12:00
Vietnam (VN)	24	F	November 18 th , 2015 / 15:30 – 17:30
Russia (RU)	28	M	November 28 th , 2015 / 15:00 – 16:30

B. Fieldwork Route

In the experiment, two fieldwork routes were prepared for participants and they were allowed to choose whichever they preferred. The routes were determined by the reference of Asakusa’s rickshaw company Jidaiya [30], because their tours are recognized as a popular activity in Asakusa and in general they are successful at suggesting appropriate sightseeing routes. Route 1 (Figure 6) goes through Asakusa’s most touristy district, a major temple called Senso-ji in the green area on top. As illustrated in the blue line, walking along the main street named Nakamise-dori is the so-called golden route of Asakusa sightseeing.



Figure 6. Fieldwork route 1

On the other hand, route 2 (Figure 7) is set in a rather local district, including the place for community daily life. Compared to route 1, route 2 is less crowded with tourists and may be similar to other towns, but still holds the flavor of historic Tokyo downtown.

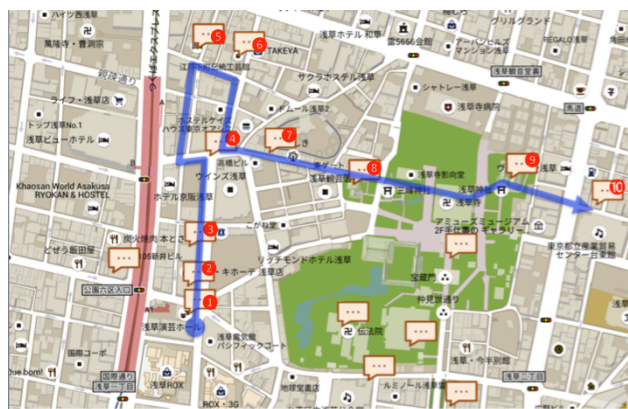


Figure 7. Fieldwork route 2

C. Contents

Figures 6 and 7 illustrate how each route has 10 mapped contents, shown as numbered speech bubble icons. We attempted to select random contents from several sources such as guidebooks and original conversation extracted from interviews with local people, and placed them as equal a distance apart as possible on the map. Content *a*) mapped on route 1 is specified as “C1a” for instance, and brief explanations of all contents are as follows:

1) Route 1

a) People who visit Senso-ji temple (C1a)

This is “Locals” content. The local fabric shop owner (henceforth Mr. M) talks about the people who visit Senso-ji temple for various reasons, such as sightseeing, religious visits, and souvenir hunting. After he talks, the English translation follows.

b) Kaminari-mon of Senso-ji temple (C1b)

This is “Guidebook” content. Kaminari-mon (Thunder gate), the entrance of Senso-ji and one of the most famous gates in Japan at the approach to a temple, is explained.

c) Tohoku earthquake and tsunami in 2011 (C1c)

This is “Locals” content. Mr. M discusses what his and other shops in the arcade were like on the day following the Tohoku earthquake and tsunami. He also talks about his experience of electricity power-saving related to the Fukushima Daiichi Power Plant Nuclear Disaster [31].

d) Asakusa visitors about a half century ago (C1d)

This is “Locals” content. Mr. M talks about his shop customers from all over the world. During the previous Tokyo Olympics in 1964, he remembers how many international visitors from Eastern Europe and the Soviet Union came to try Japanese handmade fabric, and says they were widely accepted.

e) Daikoku-ya restaurant (C1e)

This is “Guidebook” content. Daikoku-ya, the famous tempura place is recommended for its menu.

f) Senso-ji Kindergarten (C1f)

This is “Locals” content. Mr. M explains that there is a kindergarten in Senso-ji premises, and as an alumnus approximately 60 years ago he recalls his experience of the Japanese cultural event “mamemaki (bean throwing)” [32].

g) Demboin and its garden (C1g)

This is “Guidebook” content. Demboin, the residence of the head priest of Senso-ji for generations is described.

h) Fortune slip of Senso-ji (C1h)

This is “Guidebook” content. Senso-ji’s Omikuji, a kind of fortune-telling using a small piece of paper on which one’s fortune is written, is explained.

i) Asakusa shrine (C1i)

This is “Guidebook” content. At the very next premises to Senso-ji, there is a relatively large shrine called Asakusa Jinja. It is explained that the coexistence of two different religions, Buddhism and Shintoism, in the same district reflects Japanese animistic religious belief, and something that some international visitors do not fully comprehend depending on their religious or cultural beliefs.

j) Subsidy for Asakusa residents (C1j)

This is “Locals” content. As a resident who was born and raised in Asakusa, Mr. M tells of the recent subsidy policy of Asakusa city to promote the younger generation including newlyweds to settle down in the city.

2) Route 2

a) Asakusa Engei-hall (Figure 2, C2a)

This is “Guidebook” content. Asakusa Engei-hall, a Japanese comedy theatre playing traditional Rakugo and Yose performances, is explained.

b) Don Quixote (C2b)

This is “Guidebook” content. Don Quixote, or Donki for short, is a popular discount store franchise throughout Japan. Asakusa store’s localized Japanese souvenir collection for international visitors is explained.

c) Asakusa Rockza (C2c)

This is “Locals” content. Asakusa Rockza is one of the oldest and most famous striptease theatres in Japan, established in the 1940s. A professional Mikoshi, which is a divine palanquin or “portable Shinto shrine” carrier (henceforth Mr. T) tells its history and how the building and performance has remained, and is accepted as the cultural heritage of Asakusa.

d) Sukerokuno-yado Sadachiyo hotel (C2d)

This is “Guidebook” content. This hotel is of the historical Edo period’s ryokan type and intrigues many international tourists as well as Japanese guests. Their Japanese style hot spring service is also explained.

e) Japanese traditional craft museum (C2e)

This is “Guidebook” content. Gallery Takumi is a free admission Japanese handicraft museum, which contains many types of craftsmanship and in which their elaborate works are introduced.

f) Hanayashiki theme park (Figure 3, C2f)

This is “Locals” content about Hanayashiki, one of the oldest theme parks, which began its history as a botanical garden. The theme park’s PR manager (henceforth Ms. H) talks about its current target users and its marketing strategy focused on local families and kids, as well as international visitors by providing interactive activities such as the “Ninja experience.”

g) Future of Asakusa (C2g)

This is “Locals” content as already mentioned in Figure 3. Ms. H gives her opinion about Asakusa in comparison with other famous Tokyo cities and suggests what the local community can contribute to revitalizing the city.

h) Awashimado-hall in Senso-ji (C2h)

This is “Guidebook” content about Awashimado-hall, a small segregated garden in Senso-ji premises. A unique ritual ceremony showing animistic belief called “needle funeral” happens in this garden, which is a memorial service

for broken needles to show gratitude for bringing about outstanding fabric and clothes through their works.

i) Asakusa shrine (C2i)

This is “Guidebook” contents and is shared with route 1 during the experiment.

j) Subsidy for Asakusa residents (C2j)

This is “Locals” contents and is also shared with route 1 during the experiment.

D. Instruction

In the first phase of the fieldwork, a sheet of paper giving the experiment instructions was distributed to the participants. The fieldwork route was printed and the participants were asked to walk and listen to the contents mapped on the route in numerical order. Before they began walking, they filled in the CCUS form. We observed and took pictures of participants while they were walking (Figure 16), and asked participants questions on each content, such as “what did you think about the place or object, which is explained in the content?” or “do you have any implications or comments compared to your home culture?”

The fieldwork was conducted in either English or Japanese, depending on the participant’s language ability. The conversation was recorded and, after they had listened to all the content, they completed the CCUS form again.

E. Result

Figure 8 shows the average scores for each dimension. The blue line shows the results prior to the fieldwork; the red line shows the results after the fieldwork was finished and participants had listened to the “Guidebook” and “Locals” content.

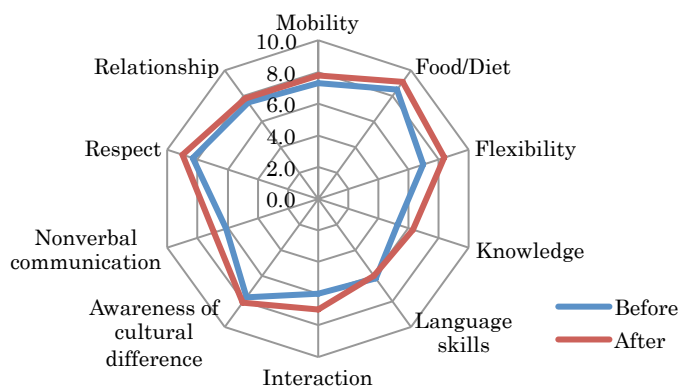


Figure 8. 12 participants’ average CCUS score

According to the results, most dimensions improved slightly after the fieldwork. Specifically, “Flexibility” (+1.4pt), “Knowledge” (+1.0pt), and “Interaction” (+1.0pt) improved more than other dimensions, while “Language

skills” declined slightly (-0.2pt). However, these scores are based on only 12 international visitors’ experiment results and are therefore highly dependent on participants’ individual characteristics, such as cultural backgrounds, attitudes, and personalities. We believe it is rather important to conduct further behavioral analysis for individual participants in the next section.

V. BEHAVIORAL ANALYSIS OF PARTICIPANTS

As shown in the section V findings, CCR has enriched most aspects of the dimensions. We will have a closer look at specific participants’ scores based on arbitrary choices, which recorded notable differences for “Flexibility,” “Knowledge,” “Interaction,” and “Language skills,” as well as those who formed a distinct shape of the 10 dimensions.

A. Participant CH2 (Figure 9)

CH2 is a close friend of CH3 and they participated in the evaluation experiment together. As she has never been in Asakusa before, she was a beginner tourist in a way.

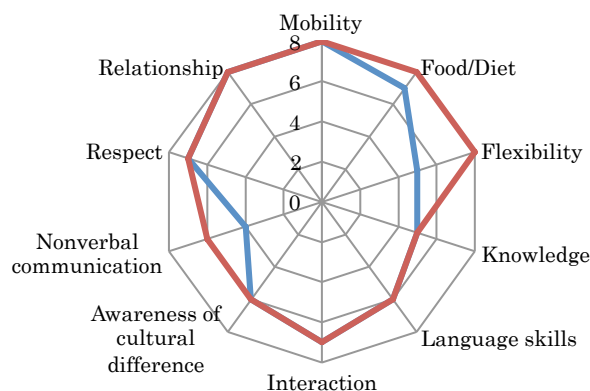


Figure 9. Participant CH2's CCUS score

Particularly after listening to “Guidebook” content about small museum shows and offering of Japanese traditional handcrafts (refer to C2e), she seemed interested in the place mentioned and took a number of pictures in front of it. She had a conversation with CH3 in Chinese and invited CH3 to go into the museum. CH2 told us they were talking about the elaborate work of Japanese craftspeople and its comparison with Chinese merchandise, including price. They mentioned that the handcrafts sold in the museum were very expensive and unfortunately they were unable to purchase any; nevertheless, they were surprised by their high quality.

Talking with a peer participant in her native language raised her satisfaction levels with “Flexibility” and “Nonverbal communication,” which represents the acculturation process [33]–[35] including elimination of uncertainty about Japanese culture. It is assumed that CH2 encountered the “Kodawari” of Japanese craftspeople

through their works at the museum as a tangible experience, and the content acted as a trigger for this cultural encounter.

B. Participant UZ (Figure 10)

UZ is a university student who has been studying Japanese for two years, and shows a great enthusiasm for understanding local cultures. He was particularly interested in the concept of CCR and was cooperative about participating in the evaluation experiment. He walked to the main street of Asakusa called Nakamise-dori, and after listening to content in which a local person discussed the future of Asakusa (refer to C2f or Fig. 3), he mentioned his hometown Samarkand. He said he genuinely loved his hometown but, for financial reasons, many residents are leaving the city and flowing into Toshkent, the capital of Uzbekistan; he feels sad about this. He wishes the people in Samarkand would love their city just as Asakusa locals do. Obviously, he felt some kinship with the Japanese people and had cultivated an affinity toward Japanese culture.

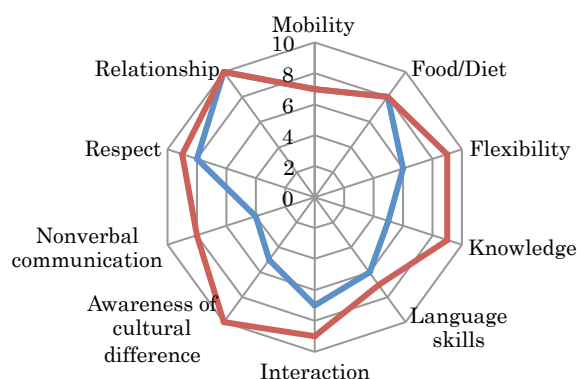


Figure 10. Participant UZ's CCUS score

He commented, “it was fun and I learned some internal/external factors of Japan, especially Asakusa city’s culture and society.” What he implies to be internal and external factors regard the context of both content, the Guidebook, and the Locals. Internal factors are invisible cultural aspects such as Asakusa locals’ attitudes or value for the place, in relation to his radical improvement of “Awareness of cultural difference.” In contrast, external factors are attainable by information input, corresponding to “Knowledge.” The synthesis of these noticeable two dimensions has appeared as the improvement of “Flexibility.”

C. Participant JP (Figure 11)

JP is a friend of UK and they participated in the experiment together. Although born in Japan and a Japanese citizen, she has an international background. She is half Korean and was raised in Hawaii. After listening to “Locals” content about the founding story of Nakamise-dori and a

kindergarten nearby (refer C1f), she remembered learning phonetics during her childhood in Hawaii.

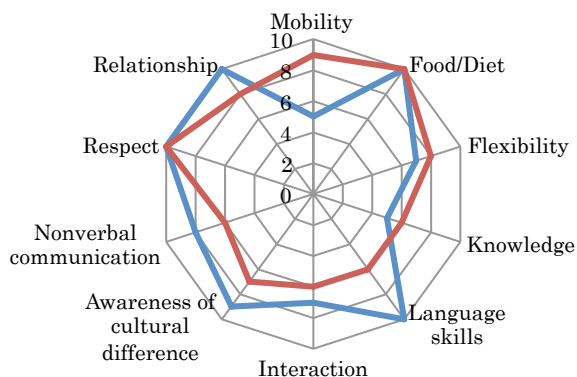


Figure 11. Participant JP's CCUS score

As she looks Asian, some of her peers automatically assumed that she did not understand any English; hence, she had a difficult time building close friendships with them. Now, English is her native language and a similar circumstance occurs when she encounters Japanese people who think she will understand Japanese perfectly whilst, in fact, she does not. JP admits “that awkward and annoying moment” frequently occurs whenever she recognizes disappointment on their faces. JP’s biggest decline in “Language skills” is not unrelated with her story. On the other hand, she improved in “Mobility,” as explained in her comment “now I feel more confident walking in Asakusa without GoogleMaps.”

D. Participant UK (Figure 12)

The fieldwork for JP and UK was conducted in English since we wanted to encourage casual conversation between two peers, which enabled us to observe frequent cultural exchange.

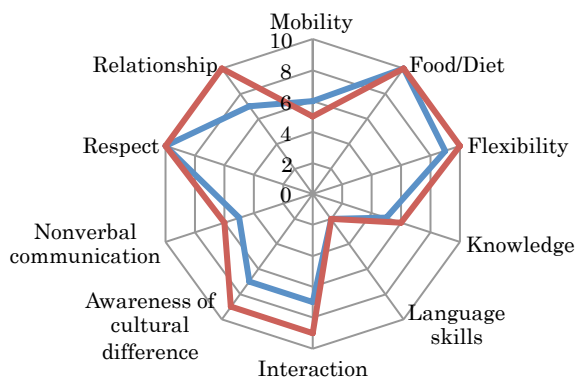


Figure 12. Participant UK's CCUS score

UK arrived in Japan approximately two months before the fieldwork, and had just started learning Japanese language and culture. According to his feedback, “Locals” content was more enjoyable than “Guidebook” although he had never visited Asakusa before. JP and UK were taking the same university courses in their study abroad and had already established a good rapport. UK is researching theories of traditional Japanese music for his master’s degree, so it is reasonable to assume that he is more interested in Japanese culture than most other international visitors.

After listening to “Locals” content about subsidy policy to promote the movement of newlyweds into Asakusa city due to the population decline, particularly of the young generation (refer C1j), he commented, “Here is very packed and I didn’t even know that (the population drop) was an issue. As for in Britain, honestly I really don’t know (about the government policy).” He may have felt sympathy with the local people talking about the city’s problem and a possible solution, which might have influenced his improvement in “Relationship,” “Awareness of cultural difference,” and “Interaction.” The listening experience gave him recognition of Japanese culture to a certain extent.

E. Participant IN (Figure 13)

IN is a university freshman and quite new in Japan, as he arrived in Tokyo approximately two months before the fieldwork. His family has been working in Japan for a while, and he came to live with them and to pursue his academic career. He had never been in Asakusa before, and since his Japanese is still at beginner level, his fieldwork was conducted in English.

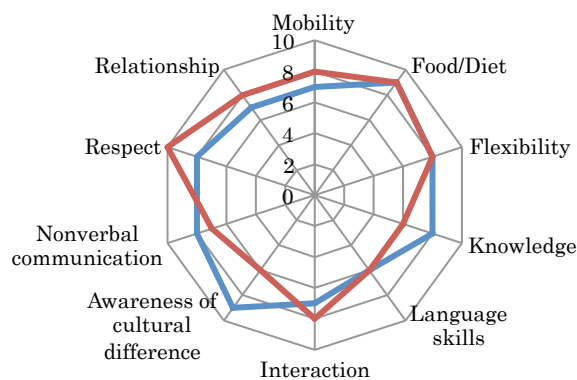


Figure 13. Participant IN's CCUS score

After listening to the content about Asakusa Engei-hall (refer C2a), he was asked if he would be interested in watching such a Japanese traditional comedy performance if they were available in a more understandable language (not only in Japanese, but with an English audio guide for instance). He answered, “Honestly, I’m not interested, I

never wanted to. Because I wouldn't even understand, as it's connected to the very localized humor. That's why I never really had the motivation (to go to a Japanese comedy performance)."

When we meet international visitors to Japan, they normally have some type of positive motivation, such as interest in Japanese language or culture, and many are open to knowing new things. IN's straightforward remark is noteworthy, because what differentiates him from other internationals is that he is very truthful in his attitude toward Japanese culture. His initial motivation for visiting Japan, which is that he simply followed his family, may be relevant. This gives us the insight that CCR might not contribute to those who already have a fixed impression of Japanese culture, and the contents will not be sufficiently strong to change their attitudes. IN's decrease in certain dimensions, particularly his 3pt drop in "Awareness of cultural difference" seems to prove this hypothesis.

F. Participant ML (Figure 14)

ML is a senior university student who has been in Japan for a few years. Although she speaks fluent Japanese, she preferred to conduct the fieldwork in English, as it is still a better language of communication for her.

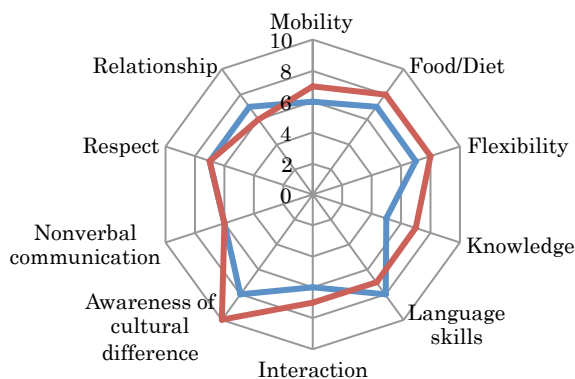


Figure 14. Participant ML's CCUS score

After listening to the content about when the Tohoku earthquake hit Japan in March 2011 (refer to C1c), she related her experience of university enrollment four years ago. As the Japanese university semester starts in April, she had a family discussion to persuade her mother, who was worried about radioactive contamination after the quake. Luckily, she was passionate enough to have a new endeavor in Japan and her father was very supportive. She commented, "You have to overcome the scare, or you just never learn anything," and admitted that her mindset helped her to decide to study abroad in Japan.

Looking at her CCUS score result, she has improved in terms of "Awareness of cultural difference." Presumably, listening to the contents and having a conversation reminded her of her initial motivation to study in Japan. It is also

notable that similar to JP, who is an advanced Japanese speaker, ML has also dropped in terms of "Language skill."

G. Summary

As shown in the previous result, it is reasonable to say that CCR has contributed to the enhancement of some aspects of cultural understanding. In particular, some dimensions, such as "Flexibility," "Awareness of cultural difference," "Knowledge," "Interaction," and "Language skills," recorded dominant changes (both positive and negative).

1) Flexibility/Awareness of cultural difference

Most participants have improved in these dimensions. The biggest difference was made by CH2, but other participants, such as TW, CH3, and RU, also had a similar CCUS score distribution.

2) Knowledge

UZ and ML are the tractors of this dimension's increase, whereas some participants have not improved at all. These two participants had both been in Japan for a few years, and their Japanese was at an advanced level. Their listening experience, particularly of "Locals" contents, might have worked as a lecture to boost their knowledge of Japanese culture. VN also improved in this dimension.

3) Language Skills

Most participants did not change in this dimension at all, while some, who were relatively fluent in Japanese such as JP and ML, decreased in this dimension (JP dropped 3pts), which caused an average overall decrease. JP and ML's score drop will be revisited further in the next section.

4) Interaction

More than half of the participants improved in this dimension by approximately 1pt, which also reflects the average 1pt increase. CCR has an interactive characteristic to promote international listeners' "cultural exchange" by allowing them to discuss freely while walking, during and after they listened to each content.

VI. FINDINGS AND DISCUSSION

According to the overall result of the evaluation experiment conducted in Tokyo for 12 participants, it is reasonable to assume that CCR has contributed to the enhancement of several aspects, such as "Flexibility," "Awareness of cultural difference," and "Interaction," which are cultivated by listening to locals' stories, and "Knowledge" in relation to the information provided by the guidebook.

1) CCUS dimensions categorized into 4 types

From each participants' episodes found in behavioral analysis, it is reasonable to assume that CCR contributes to international listeners' awareness of some aspects of culture.

Furthermore, based on the episodes, it is possible to relate the 10 dimensions of CCUS into four categories of contribution (Figure 15). Hence observing CCUS score distribution enables us to roughly categorize each participant's mode of cultural understanding for these four types. This time, we observed 12 participants, and adding more participants will validate the effectiveness of this categorization.

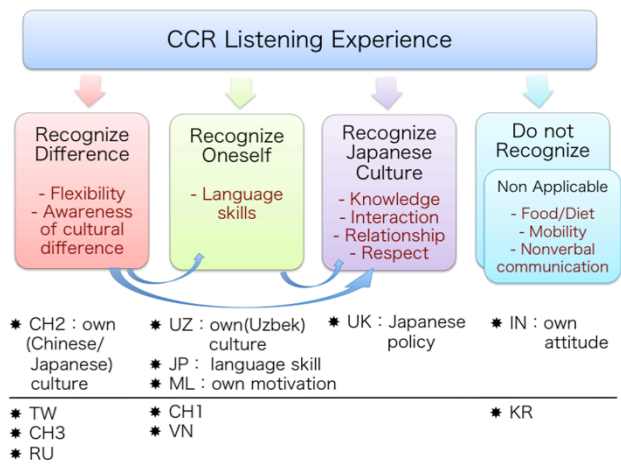


Figure 15. CCR contribution to international listeners

Through the contents listening experience, some participants realized the difference between their own culture and Japanese culture. For instance, CH2 pointed out the elaborateness of Japanese craftsmanship compared to Chinese merchandize.

Others may recognize themselves through self-reflection and conversation with peers as a next step. UZ recalled his own Usbek culture after listening to the "Locals" content. JP and ML were made more aware of their Japanese language skills by listening to interviews with local people. The discussion after the fieldwork became a trigger for ML to remember her initial motivation for studying abroad in Japan.

To a certain participant, CCR directly approaches recognition of Japanese culture or knowledge itself. UK, who was already fond of Japan, gained information about Japan's social policy after listening to a local's story.

On the other hand, the evaluation experiment has revealed that, for some participants, CCR may not contribute greatly to enhancing their cultural understanding. For example, IN clarified his lack of motivation to attend Japanese comedy performances through his honest feedback. Their personality, attitudes, and experiences will greatly influence the result.

Regarding Japanese culture itself, although more or less all participants showed recognition of it, it is assumed that "Visitors" contents will make a greater contribution in this regard.

2) "Locals" versus "Guidebook" Contents

In terms of the effectiveness of place-oriented contents, for each participant's approximately two-hour fieldwork, one outstanding episode was taken and discussed in the paper. Amongst the six participants individually analyzed in the paper, five were "Locals" content and 1 was "Guidebook" content. In addition, feedbacks elicited in the follow-up questionnaire after the fieldwork showed that "Locals" contents were more enjoyable for participants to listen to. More consultation is required for the result; however, we may rationalize that "Locals" content is more effective than "Guidebook" content for cultural understanding in this setting specifically.

VII. CONCLUSION AND FUTURE STUDIES

In this paper, a place-oriented Internet radio called CCR was proposed by providing three types of content, "Guidebook," "Locals," and "Visitors," which give an idea of real cultural aspects of Japan, represented as "cultural keywords." The paper explicitly deals with the "Guidebook" and "Locals" content. To validate the effectiveness of these unique media, we also proposed CCUS as a new criteria set to measure the level of cross-cultural understanding. The evaluation experiment and subsequent behavioral analysis of individual participants illustrated that CCR can be effective for certain international visitors' cultural understanding. Furthermore, place-oriented contents, including locals' real voices, focused on their attitudes or values, are found to be more enjoyable to listen to.

For future work, we will develop a variety of place-oriented content and add more participants to the evaluation experiment so that CCUS will be more reliable. Additionally, the introduction of "Visitors" content to encourage listeners' self/mutual reflection with other listeners is required, to compare with conventional "Locals" and "Guidebook" content. This time, we chose Asakusa for a fieldwork location as one of Tokyo's most touristy cities; however, we may need to investigate if the same scheme can be applied not only in Asakusa but also in different cities, or if it significantly varies depending on the characteristics of the place. In addition, one possibility of the evaluation experiment is to employ Japanese tourists as participants for comparative research.

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Figure 16. Participants engaging in the evaluation experiment in Asakusa