

Pocket Translation Effectiveness in Real Life Communication Situations

Jeremy White, Ritsumeikan University, Japan
Ryosuke Yamanishi, Ritsumeikan University, Japan

The Southeast Asian Conference on Education 2020
Official Conference Proceedings

Abstract

Continual internationalism has seen Japanese increase their interaction with people of various languages and cultural backgrounds for research, business, education, and trade. However, Japanese lack the English-speaking confidence to be effective communicators compared to other countries and are currently ranked 31st out of 36 in English proficiency (ETS, 2019). One reason for this is Japan being a monolingual, monocultural country where there is little opportunity to practice English in a natural setting. A second reason being the lack of English-speaking opportunities afforded to students during English language lessons due to the prevalence of the teacher-centered grammar-translation method of instruction. Recently the popularity of portable translation devices has increased, with people relying on these devices for their English communication activities due to their lack of confidence in their English speaking communication competence, and the investment in terms of time and money it would take to gain a high level of English speaking communication. However, as these portable translation devices are relatively new to the market, there remains many questions that need to be investigated. This paper will outline the results of an experiment using pocket translation devices between Japanese and international students. The authors will show that although pocket translation devices have advanced, their ability for seamless communication is still limited. The authors will then highlight ways in which users can be trained for more effective communication using pocket translations devices. Finally, the authors will show ways in which pocket translation devices could be used in an educational setting future.

Keywords: pocket translation, communication, education, innovative technology, Japan

iafor

The International Academic Forum
www.iafor.org

Introduction

The number of Japanese who require foreign languages has increased in recent years due to interactions in research, business, education, and trade. Coupled with this, the number of foreign tourists coming to Japan has reached record numbers (JTB Tourism Research & Consulting Co, 2019). This has created a need for a multilingual society and not, as has been the case to date in Japan, a society that focuses on a single foreign language. In addition to this, the number of Japanese travelling overseas to non-English speaking countries has also increased. Due to these reasons the use of translation devices has become common place with Japanese travelers, with some companies even offering rental services of these devices as a means of security. However, little research has been conducted into the actual practical applications of these devices in real life communication situations.

The study that follows will outline the results of a study of seven pairs of international and Japanese students using translation devices to complete real world communications situations. Results will show that although these devices did enable communication to take place, that there are several issues that need to be addressed before they can become flawless communication tools. This paper will conclude with suggestions as to how these devices could be used more effectively and even be used in the classroom in the future.

Literature Review

Japanese English communication abilities. Japan sits in the expanding circle of Kachru's (1985) model of English influence. The expanding circle consists of other countries such as China and Brazil who have English in their education system, but still lack the communicative competence to suggest that it is indeed a second language for the country. The outer circle, of which desire to enter, is for those countries that use English regularly for business and other daily life activities. The outer circle consists of countries such as Nigeria, India, and the Philippines. The inner circle is for those countries in which English is a native language such as New Zealand, Australia, and the United Kingdom. Japan is attempting to move inwards through the lowering of age of compulsory English education from twelve to ten years old in 2011 (MEXT, 2008), and more recently to eight years old (Japan Times, 2013). However, the increased exposure to English has seem to have had little effect on English communicative competence in Japan.

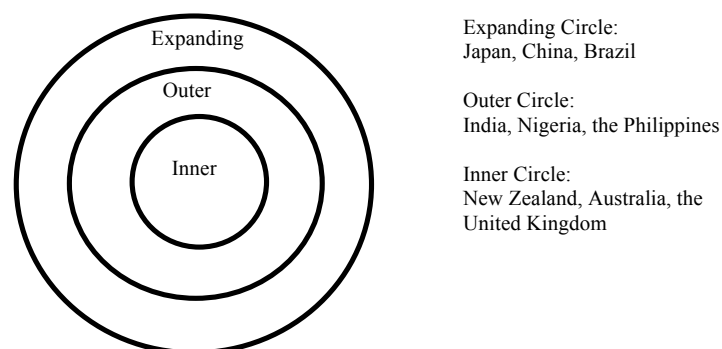


Figure 1: Kachru's three circles of English model (1985)

Japanese students. Japanese have a reputation for being silent, and passive learners in the classroom (Cheng, 2000). The cause of this passiveness is often traced back to cultural attributes, which could have a negative impact when required to make and deliver presentations or speak in public. When required to speak in public in a foreign language, Japanese can often shy away from the situation, leaving communication to a specialized guide if one is available. However, since the 2000s Japanese have increasingly travelled overseas by themselves due to amongst other things, the increased presence of low-cost airlines (LCCs), and the popular trends of backpacking, graduation trips, shopping trips, and budget short trips (Japan Times, 2018).

Methodology

This study was conducted at a private university in Western Japan. Fourteen international and Japanese students were recruited to participate in this research. The students were recruited by the researchers from classes they taught or research laboratories. The research was conducted outside of the classroom setting, and thus each participant was paid 1,000 Japanese yen for their participation. The participants were required to use a pocket translation device to complete a task as set out by the researchers. If the participants felt uncomfortable at any time during the research, they were informed of the possibility of ending their participation.

For the task, students were informed that they had been in a theoretical plane crash. Being one of the survivors after the crash the pairs of students needed to rank the materials needed for survival from most to least important. The participants were informed that they could only use the pocket translation device for communication. The ensue this was the case a physical barrier was created between the two participants to prevent any other form of non-verbal communication. The point of the research was to try and mimic a situation in which communication through discussions and decision making between people of different languages was a necessity. The researchers collected data in the form of videos of the sessions, observational notes, and the translation history of the pocket translation devices. For the purposes of this paper the observations of the researchers have been coded for a clearer understanding of the effectiveness of pocket translation devices for real world communication. Figure 1 shows the set-up of the experiment.

Baseline communication experiment (phase 1)



Key:

- (1) Japanese speaker
- (2) Translation device
- (3) Physical barrier
- (4) Translation device
- (5) English speaker

Figure 2: Communication experiment set-up

Results

The results of this research are divided into five sections: task, length of speaking, vocabulary use, accent, and speed of speech.

Task

As mentioned in the methodology the purpose of the task was for the groups to be in a situation where there was a need to be involved in a decision-making discussion with their partner. Without discussion the groups would not be able to complete the task within the time limit. The groups themselves were formed at random based on the availability of the participants. None of the groups knew each other before the task took place, thus we are able to rule out familiarity with group member as an influence in the decision-making process. A forty-minute time limit for each group was imposed to complete the task, however none of the seven groups required the entire forty minutes. The shortest time to complete the task was sixteen minutes while the longest group took 39 minutes. All seven groups were able to complete the task while only using a pocket translation device and no other form of non-verbal communication. The fact that all group were able to complete the task within the time limit suggests that translation devices are in fact a means of effective communication. An outline of the task is available in Appendix 1.

Group	Time to complete task
1	32 minutes
2	27 minutes
3	37 minutes
4	38 minutes
5	33 minutes
6	16 minutes
7	39 minutes

Figure 3: Task completion time by group

Length of speaking

The length of time speaking is the first aspect that had an effect on the real-life communication effectiveness. It was observed that the English speaker spoke considerably longer sentences into the translation device than the Japanese speaker. Overall the English speakers dominated the talk time, speaking for 60% of the overall talk time. This longer talk time inevitably led to longer sentences which in turn cause more translation mistakes when translation from English to Japanese. The Japanese speakers in contrast spoke shorter concise sentences which when translated assisted more effective Japanese to English communication.

Vocabulary use

Observations from the researchers showed that the Japanese speakers used more standard vocabulary than the English speakers. When speaking into the pocket translation device the Japanese speakers seemed to default to *hogen* (dialect), sometimes referred to as Tokyo dialect, which is considered standard to be the standard Japanese accent. This was beneficial for Japanese to English communication as the translator was able to understand the standard Japanese vocabulary used. In contrast to this the native English speakers used vocabulary based on their nationality. While the translation device did have setting for different types of English, it was difficult for the researchers to come to any conclusions as to the effectiveness of this

function. Due to the different vocabulary used the researchers were able to conclude that English to Japanese communication was less effective than Japanese to English communication.

Accent

In the aforementioned section on vocabulary use the researchers outlined how the use of *hogen*, Tokyo dialect, was thought to be responsible for the more efficient communication from Japanese to English when using a pocket translation device. The same conclusion has been made in regard to accent. As the *hogen* accent is standard the pocket translation device was easily able to understand what the Japanese speaker was trying to say, and more effectively translate it into English. However, the English speakers in this experiment came from a variety of countries; the United States of America, Indonesian, Malaysia, South Korea, China, and Mexico. Each speaker had an accent that was different. The translation device had issues understanding some of the vocabulary from these speakers, especially related to the understanding of minimal pairs. Minimal pairs being words that sound similar but have a different meaning. An example of this would be */map/* and */mat/*. Only the final consonant differs between the two, but when translated incorrectly the misunderstanding could have a big effect on effective communication. For example, the English speaker in one of the groups said; “I think the map should be number five”, which was translated by the translation device as “I think the mat should be number five.” As there was also a mat available to the group this caused some confusion.

Speed of Speech

The speed in which the participants spoke also seemed to have an effect on the effectiveness of the translation. The Japanese speakers in general spoke at a standard speed when speaking into the translation devices. The researchers noted the speed of the Japanese participants' actual speech was usually quicker than how they spoke into the translation device. In contrast the English speakers at first made little effort to reduce the speed at which they spoke. They spoke into the devices as if they were attempting to have a real-life face to face conversation. The difference in speed on many occasions meant that the Japanese to English translations were more effective than the English to Japanese translations. It should be noted that the English speakers were in many instances able to realize that their translation was ineffective and took measures to rectify the situation by slowing down their rate of speech.

Overall discussion

From the above it can be seen that the use of pocket translation devices is currently more effective from Japanese to English than English to Japanese. The researchers believe this may be due to the Japanese participants having more experience using translation devices in their daily life compared to the English speakers. This was most noticeable in the uses of standard Japanese for input into the device rather than the dialect the participant was most accustomed to from their upbringing. The fact that all the Japanese participants switched to standard Japanese from the outset suggests that they were previously aware of the issue of translation devices understanding their Japanese and chose to adjust their way of speaking accordingly.

In this study the researchers have attempted to answer the question as to if translation devices are effective for real life communication situations. It is the belief of the researchers that they are in fact able to facilitate communication at a basic level, as all groups were able to complete the assigned task within the timeframe. However, the researchers believe that while translation devices have improved that there is a need to consider the language used by the English speaker, and more variation of accents should be taken into account. This was especially apparent in this study where six of the seven English speakers come from countries where English is not a native language. In addition to this the devices are unable to tell what emotion the speaker is exhibiting, a telling issue when the communication is not face to face.

For these devices to become more effective the researchers believe that students should be trained on how to use them more effectively. This training would address some of the issues highlighted about with regard to accent, vocabulary selection, and speed of speech. If these issues are addressed at the classroom level then the researchers believe the use of these devices in business, education, and other daily life situations could become more flawless.

Limitations

There are a few limitations in this study that need to be addressed. Firstly, the situation of a plane crash is somewhat unrealistic and forced. A more natural conversation may have provided increased accuracy in regard to the language used during discussion. Secondly, this is a small sample of just seven groups. To ensure the data is indeed correct the research will need to repeat this study with a larger group of participants. Finally, it was inevitable that the participants had some understanding of the other language being spoken without listening to the translation. Although participants were instructed to disregard this input it is impossible to tell if this was indeed the case.

Conclusion

Translation devices are becoming more commonplace in everyday settings due to the increased functionality and portability of these devices. This means that the use of the devices may in fact help Japan move inward in English influence in the world. However, while the use of these devices has been shown in this research as a legitimate means of completing a task, there still remains issues related to how these devices accommodate different vocabulary, accents, and speed. This research has demonstrated that using these devices for Japanese to English translation is much more effective than English to Japanese translation. The researchers concluded that this difference was due to the accent, speed, and vocabulary used by the English speakers. For these devices to facilitate flawless communication the makers will need to address the above issues, and those in the education field should provide training for users. Translation devices have advanced in their technology and portability; however, questions still remain as to whether these devices can be used for flawless communication in the future.

References

- Cheng, X. (2000). Asian students' reticence revisited. *System*, 28 (3), 435-446.
- ETS. (2019). *TOFEL test and score data*. Retrieved 2020 27-01 from ETS TEOFL: https://www.ets.org/s/toefl/pdf/toefl_tsds_data.pdf
- JTB Tourism Research & Consulting Co (2019) Overseas Residents' Visits to Japan, Tourism Statistics. Retrieved 2020-1-27 <https://www.tourism.jp/en/tourism-database/stats/inbound/#annual>
- Japan Times (2018) Today's young Japanese have a different take on travel abroad <https://www.nippon.com/en/currents/d00432/today%E2%80%99s-young-japanese-have-a-different-take-on-travel-abroad.html>
- Kachru, B. (1985). English in the world: Teaching and learning the language and literature. In R. W. Quirk, *Standards, codification and sociolinguistic realism: The English language in the Outer Circle* (pp. 11-33). Cambridge: Cambridge University Press.
- Ministry of Education, Culture, Sports, Science and Technology. (2008). *2008 White Paper on Education, Culture, Sports, Science and Technology*. Retrieved 2011 1-6 from MEXT: <http://www.mext.go.jp/english/whitepaper/index.htm>

Appendix

Machine Talk Research 機械を媒介した対話についての研究

This research will test how machine translation works in a controlled communication environment.

本研究は、機械翻訳が特定の条件下におけるコミュニケーション環境においてどのように作用するのかを検証する。

Method

One Japanese speaking student and one English speaking student will have 40 minutes to play the following survival game. The students will have to use their machine translation device to play the game. They will not be allowed to speak directly to each other in the same language. The students will be observed to see what difficulties (if any) occur using machine translation devices, and if there are any differences between the devices.

#The devices to be used are Pocket Talk and Google Translate

After the hour of playing the game the students will fill in a survey about the challenges of using devices as a means for translation in real life situations.

日本語話者である学生1名と英語話者である学生1名が40分のあいだ以下のサバイバルゲームを行う。学生たちはゲームをプレイするにあたって機械翻訳デバイスを使用しなければならない。また、共通の言語で直接対話することは禁止とする。学生は、実験中、機械翻訳デバイスを使う上で何が困難であるのかやデバイス間の違いについて観察される。ここで、実験に用いるデバイスは、ポケトークとGoogle翻訳とする。1時間のゲーム終了後、学生は実環境下での翻訳においてデバイスを用いる試みに関するアンケートへの回答を行う。

SURVIVAL SITUATION

サバイバル環境

It is approximately 10:00 A.M. in mid-August and you have just crash landed in the Sonora Desert in southwestern United States. The light twin engine plane, containing the bodies of the pilot and co-pilot, has completely burned. Only the airplane frame remains. None of the rest of you have been injured.

8月の中旬のある日、おおよそ午前10時、君たちはアメリカ南西部ソノラ砂漠に不時着した。2機のエンジンを積んだ飛行機は、機体も操縦士も副操縦士も含めて、完全に焼失した。ただ、飛行機の残骸が残るばかりである。幸いなことに、残された君たちは誰も怪我をしていない。

The pilot was unable to notify anyone of your position before the crash. However, he had indicated before impact that you were 70 miles south-southwest from a mining camp which is the nearest known habitation, and that you were approximately 65 miles off the course that was filed in your VFR Flight plan.

パイロットは事故前に君たちがいる場所を誰かに知らせることはできなかった。しかし、不時着直前に、君たちがいる場所は、最も近い居住地である採鉱基地から南南西70マイル（約110km）の地点であることを言い残してくれた。本来の飛行ルートから約65マイルほど離れた地点にいたことになる。

The immediate area is quite flat and rather barren, except for an occasional barrel and saguaro cacti. The last weather report indicated that the temperature would reach 110 degrees (43°C) that day, which means that the temperature at ground level will be 130 degrees (54°C). You are dressed in light weight clothing—short sleeved shirts, pants, socks, and street shoes, everyone has a handkerchief.

目の前に広がるのは、全く起伏のない荒野。ところどころにサボテンが見える。不時着直前の天気予報では、日中の気温は43°Cにもなるとのことだった。つまり、体感気温は54°C程にもなる。君たちは半袖シャツ、ズボン、靴下、そしてスニーカーといった軽装で、全員が持っているものと言えばハンカチくらいだ。

GROUP RANKING SHEET

Before the plane caught fire, your group was able to salvage the 15 items listed on the sheet. Your task is to rank these items according to their importance to your survival, starting with “1” being the most important to “15” the least important.

飛行機が火に包まれるまでに、君たちのグループは以下のシートに示された15個のアイテムを運び出すことができた。君たちのタスクは、それらのアイテムを生き残るための重要度に応じてランク付けすることである。「1」が最も重要であり、「15」の重要度が最も低い。

Answer Sheet

“1” being the most important to “15” the least important.

「1」が最も重要であり、「15」の重要度が最も低い

<u>Group ranking</u>	<u>ITEM</u>
	a. Flashlight (4 battery size), 懐中電灯 (単4電池)
	b. Jackknife, ナイフ
	c. Sectional air map of the area, 空域の地図
	d. Plastic raincoat (large size), レインコート (ビニール製; ラージサイズ)
	e. Magnetic Compass, 方位磁石
	f. Compress kit with gauze, ガーゼ付き止血キット
	g. 0.45 caliber pistol (loaded), 45口径のピストル (装填済み)
	h. Parachute (red & white), パラシュート (赤と白)
	i. Bottle of 1,000 salt tablets, 1,000粒の塩タブレットが入ったボトル
	j. 1 litre of water per person, 1人1リットルずつの水
	k. Book (<i>Edible Animals of the Desert</i>), 本 (『砂漠で食べられる動物』)
	l. A pair of sunglasses per person, 1人1つずつのサングラス
	m. 2 liters of 80 proof Vodka, 2リットルのウォッカ (80度)
	n. 1 topcoat per person, 1人1つずつのオーバー (防寒コート)
	o. A cosmetic mirror, 化粧用鏡