A Comparison of Healthcare Students' Views Regarding Workspace Communications in a Second Language

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Abstract : As more and more foreign workers begin to be employed within the Japanese healthcare sector, the likelihood of second-language workspace communications will undoubtedly increase. This study compared the views of students in a number of healthcare disciplines regarding such interactions. The results obtained suggest that pre-service healthcare professionals in Japan hold uniform views regarding communication with non-Japanese colleagues.

Key words : second-language communication, Japan, healthcare workers, theory of planned behaviour

Introduction

The combination of a declining birth-rate with an ageing population is creating a shortage of workers capable of fulfilling Japan's increasing healthcare industry requirements. One of the ways the Japanese government is seeking to alleviate this shortage is by encouraging, via the easing of visa restrictions and training programs (Immigration Services Agency of Japan, 2022), an influx of healthcare professionals from abroad. In the 5-year period from 2019 the government plans to accept up to 60,000 'Specified Skilled Workers' in the nursing care sector. These workers will come from countries such as Vietnam, the Philippines, Indonesia, and China. This increase in non-Japanese workers will undoubtedly result in cultural and linguistic issues within healthcare institutions that have been relatively monocultural and monolingual in the makeup of their workforce up until now.

There is a long and extensive history of discussion about the level of homogeneity and its implications within Japanese society, some of which will be briefly covered below. Although there is considerable debate over the effect the lack of diversity in Japan has (see Liddicoat, 2007), with almost 98 percent of the population being Japanese citizens (Statistics Bureau of Japan, 2021), there is little doubt that in comparison to other developed economies, the Japanese workforce is very ethnically cohesive.

Although these foreign workers will come from a number of different nations, and speak a variety of first-languages (L1), the likelihood of second-language (L2) communication is clearly present. This could either be with Japanese co-workers attempting to learn and use the foreign workers' L1, or with co-workers with differing L1 using a lingua franca, such as English, to communicate.

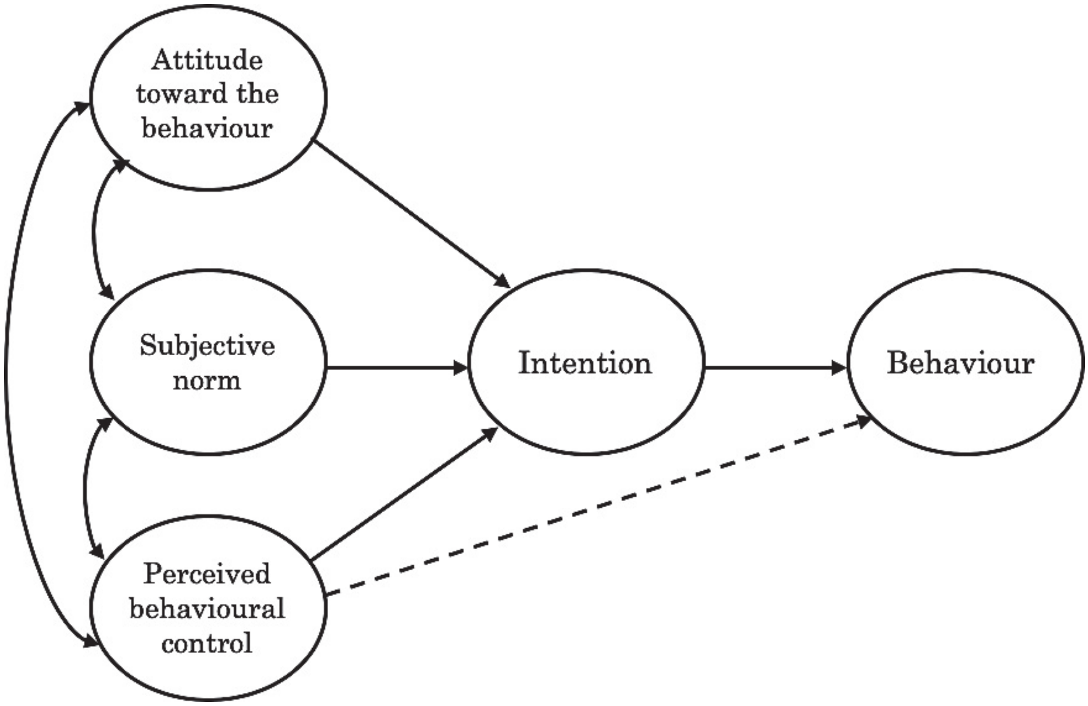
This study is a follow-up and expansion of previous research that surveyed the attitudes of pre-service nurses towards the possibility of L2 communications, in this case English, with their future co-workers (Hoggard, 2021). Both the previous and current study used the theory of planned behaviour (TPB), a psychological model developed and tested over many years to explain how the intention to perform a particular behaviour is formed (Ajzen, 2012).

In this study I expanded the scope of the data collection to include three other departments within the university. In addition to nursing students, this time the opinions of pre-service medical technology, psychology, and social work students were also surveyed. The purpose of this expansion was twofold. Firstly, it increased the number of potential participants that would hopefully lead to a larger and more robust dataset. Secondly, it would allow for an analysis of any differences that may exist between students of the differing disciplines.

Literature Review

Ajzen's (1991) TPB model states that behavioural intention is a product of attitudes towards the behaviour, subjective norms about the behaviour, and perceived behavioural control regarding one's ability to perform the behaviour (see Figure 1 below). Therefore, the intention to engage in any goal directed behaviour, in this case communicating with a co-worker in English, depends upon three factors. Firstly, what attitudes the individual holds regarding that behaviour. If they view it positively they will be more likely to try it. Secondly, how they perceive the opinions of social referents, for example friends, family, and colleagues. In general, an individual is more likely to engage in behaviours they believe are approved of by their peers. Finally, the level to which they believe they are capable of performing the behaviour. It is clear that anyone who does not consider themselves capable of successfully engaging in a specific behaviour is less likely to undertake it than someone who is confident in their abilities. Perceived behavioural control can also have a direct effect on the actual performance of the behaviour. This occurs when there is an imbalance between perceived and actual behavioural control.

Figure 1 *Theory of Planned Behaviour Based on Ajzen (1987)*



The previous study of pre-service nurses found that, although they held positive attitudes and subjective norms regarding L2 communication with co-workers, they were lacking in the amount of self-perceived behavioural control they possessed to carry out such interactions (Hoggard, 2021). This result suggested that a shortage of confidence in their ability to successfully engage in L2 communication may curtail the amount of actual communication that will take place.

For the purposes of the current study, homogeneity in the Japanese context can best be summarised by linguistic diversity. This is a measure of how likely two speakers in the same country are to not speak the same language. A score of zero would indicate that everyone spoke the same language, whereas a score of one would mean that no-one does. In 2017 Japan ranked 211 out 232 countries, with a score of 0.035 (Simons & Fenig, 2017). This means that it is a statistically rare event for a person in Japan to encounter an L1 speaker of a language other than Japanese in daily life. Previous studies have also found high levels of national identification and shared attitudes towards L2 learning in Japan (Sullivan & Schatz, 2009).

Methodology

This research was conducted at a medical university in Japan. Students from four different departments (medical technology, psychology, social work, and nursing) were surveyed regarding their attitudes, subjective norms, and perceived behavioural control regarding the use of English in the workplace with non-Japanese co-workers. The medical technology and psychology students were first-years, the social work and nursing students were second-years.

The questionnaire contained 12 statements, three for each construct, and the participants could express their views on a six-point Likert scale ranging from strongly disagree to strongly agree (see Appendix A). A six-point scale was chosen in order to prevent the participants from taking a neutral position. An example of the statements assessing behavioural intention was, 'I would talk to my co-workers in English if I had the chance'. The attitude related statements canvassed the opinions of the participants regarding if they view English communications in the workplace as fun, interesting, or useful. An example of the statements being, 'Using English to communicate with my co-workers would be fun'. The subjective norm related statements surveyed the respondents regarding the views of their friends, senior colleagues, and bosses regarding the behaviour. An example of the statements being, 'My friends would be impressed if I used English to communicate with my co-workers'. Finally, the perceived behavioural control statements assessed if the participants would be nervous, confident or assured when communicating in English with a co-worker. An example of the statements being, 'I could communicate in English with co-workers without becoming nervous'. At the end of the questionnaire there was a section where the participants could select or input any reasons or impediments they could see in regard to communicating in English with co-workers. All the items were first written in English, before being translated into Japanese and checked by an L1 Japanese speaker (see Appendix B).

The questionnaires were administered via the use of QR codes and Google Forms. This option was utilised to simplify data collection and to reduce the risk of viral transmission during the COVID-19 pandemic.

Participation in the study was completely voluntary. In total 261 students took part. The data was entered into SPSS (Version 23) and checked for any missing or anomalous data before being analysed. The results of the analysis performed are given in the following section.

Results

The TPB related constructs of behavioural intention, attitudes, subjective norms, and perceived behavioural control regarding L2 communication with prospective future non-Japanese colleagues were each measured with three questionnaire items. The respondents could choose from 1 ~ Strongly disagree to 6 ~ Strongly agree. Therefore a mean lower than 3.5 would indicate a generally negative view, and a mean greater than 3.5 would indicate a positive view. Table 1 below shows the scale reliability, mean, and mean ranges for each of the constructs. All of the scales showed sufficient levels of reliability. Behavioural intention, attitude, and subjective norms all had means higher than 3.5. The mean for perceived behavioural control was the only score lower than 3.5.

Table 1 *Scale Reliability and Mean Scores for All Groups (N = 261)*

Scale	Cronbach's α	Mean	Mean Range
Behavioural intention	.82	4.55	4.44 ~ 4.76
Attitude	.79	5.00	4.74 ~ 5.28
Subjective norms	.88	4.42	4.38 ~ 4.47
Perceive behavioural control	.77	2.18	1.89 ~ 2.44

The descriptive statistics associated with behavioural intention across the four student groups are reported in Table 2 below. It can be seen that the social work group had the numerically smallest mean (M = 4.44) and the nursing group had the numerically highest mean (M = 4.58). In order to test the hypothesis that student group had an effect on behavioural intention, a one-way ANOVA was performed. The ANOVA did not yield a statistically significant effect, $F(3, 257) = .240$, $p = .885$, $\eta^2 = 0.003$. Therefore there was no statistical difference between the groups, and just 0.3% of the variance in behavioural intention was accounted for by student group.

Table 2 *Group Scores for Behavioural Intention*

Scale	N	Mean	SD	Mean Range
Medical technology	67	4.55	.82	2.67 ~ 6.00
Psychology	53	4.57	.98	2.00 ~ 6.00
Social work	32	4.44	.92	3.00 ~ 6.00
Nursing	109	4.58	.84	1.67 ~ 6.00

The descriptive statistics associated with attitude across the four student groups are reported in Table 3 below. It can be seen that the nursing group had the numerically smallest mean (M = 4.95) and the psychology group had the numerically highest mean (M = 5.11). In order to test the hypothesis that student group had an effect on attitude, a one-way ANOVA was performed. The ANOVA did not yield a statistically significant effect, $F(3, 257) = .591$, $p = .621$, $\eta^2 = 0.007$. Therefore there was no statistical difference between the groups, and just 0.7% of the variance in attitude was accounted for by student group.

Table 3 *Group Scores for Attitude*

Scale	N	Mean	SD	Mean Range
Medical technology	67	4.99	.71	3.33 ~ 6.00
Psychology	53	5.11	.73	3.33 ~ 6.00
Social work	32	5.00	.77	3.00 ~ 6.00
Nursing	109	4.95	.85	1.67 ~ 6.00

The descriptive statistics associated with subjective norms across the four student groups are reported in Table 4 below. It can be seen that the psychology group had the numerically smallest mean (M = 4.33) and the nursing group had the numerically highest mean (M = 4.45). In order to test the hypothesis that student group had an effect on attitude, a one-way ANOVA was performed. The ANOVA did not yield a statistically significant effect, $F(3, 257) = .191$, $p = .903$, $\eta^2 = 0.002$. Therefore there was no statistical difference between the groups, and just 0.2% of the variance in subjective norms was accounted for by student group.

Table 4 *Group Scores for Subjective Norms*

Scale	N	Mean	SD	Mean Range
Medical technology	67	4.44	.77	2.33 ~ 6.00
Psychology	53	4.33	.95	1.00 ~ 6.00
Social work	32	4.44	1.09	2.00 ~ 6.00
Nursing	109	4.45	.92	1.33 ~ 6.00

The descriptive statistics associated with perceived behavioural control across the four student groups are reported in Table 5 below. It can be seen that the psychology group had the numerically smallest mean (M = 2.01) and the nursing group had the numerically highest mean (M = 2.27). In order to test the hypothesis that student group had an effect on perceived behavioural control, a one-way ANOVA was performed. The ANOVA did not yield a statistically significant effect, $F(3, 257) = 1.098$, $p = .351$, $\eta^2 = 0.013$. Therefore there was no statistical difference between the groups, and just 1.3% of the variance in perceived behavioural control was accounted for by student group.

Table 5 *Group Scores for Perceived Behavioural Control*

Scale	N	Mean	SD	Mean Range
Medical technology	67	2.23	.99	1.00 ~ 6.00
Psychology	53	2.01	.99	1.00 ~ 5.33
Social work	32	2.08	.79	1.00 ~ 3.67
Nursing	109	2.27	.89	1.00 ~ 4.67

In addition to the TPB related constructs, the respondents were asked to select reasons for and impediments to English communication with non-Japanese co-workers. They could select as many or as few options as they saw fit. The options provided to the participants were: we can improve our English skills, using English looks cool, we can make friends from different countries, and we can increase our understanding of different cultures. Figure 2 below shows the reasons for L2 communication the participants selected, divided by group. Similarly to the results above, there was a large degree of uniformity between the groups in their responses. Improving their English skills was the most commonly selected reason in every group.

Figure 2 *Reasons for L2 Communication with Co-workers (%)*

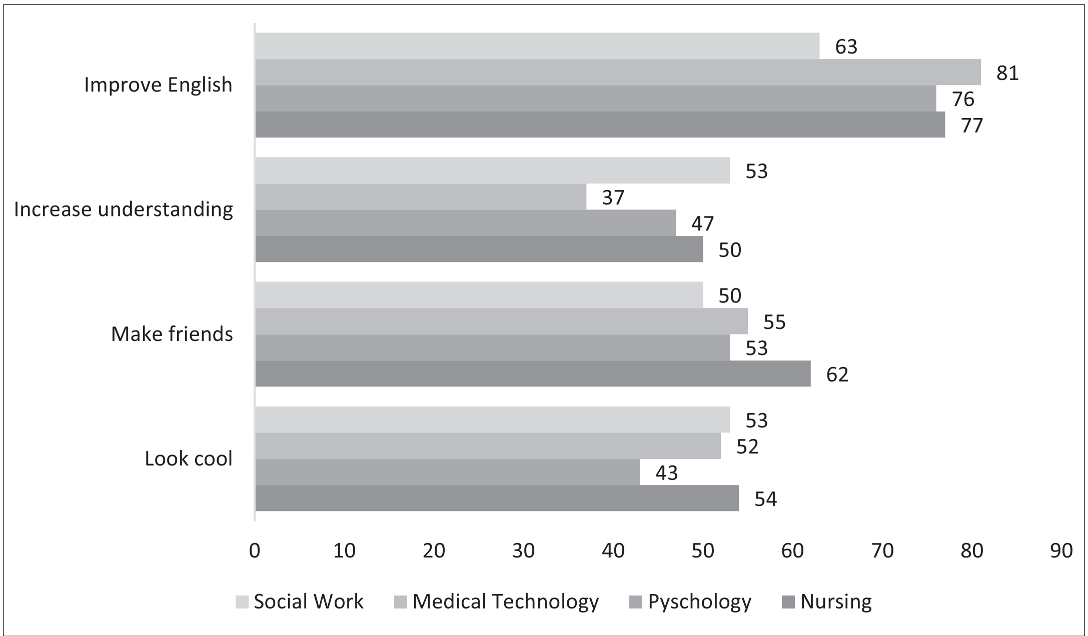
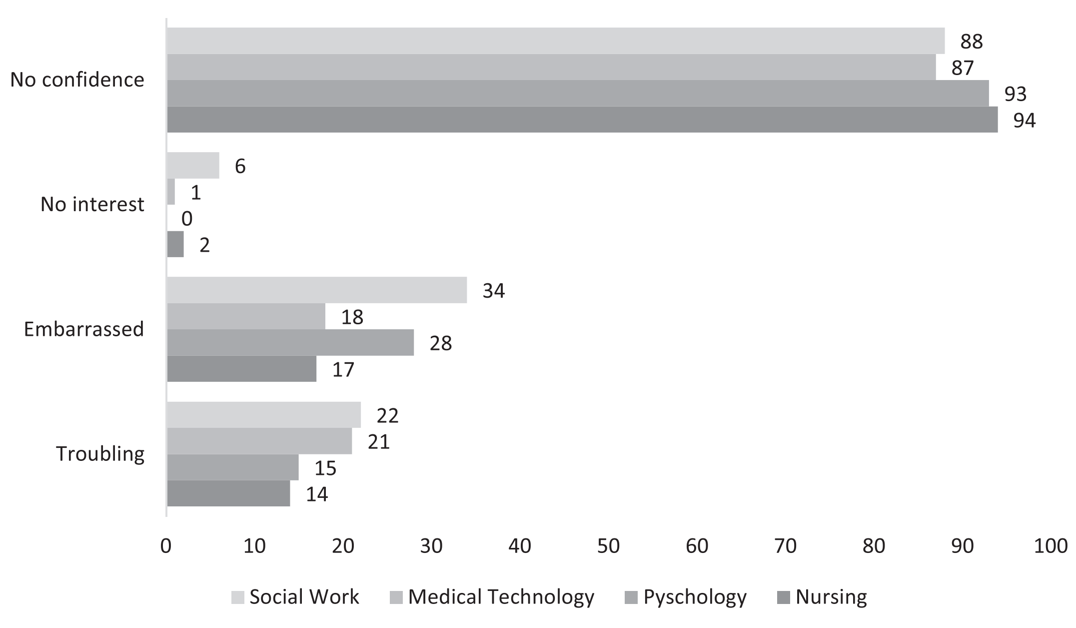


Figure 3 below shows the impediments to L2 communication with co-workers chosen by the four groups of participants. The options provided were: we are too shy to use English, we would be embarrassed to use English, we are not interested in other cultures, and we are not confident in our ability to communicate in English. In this case, lack of confidence in their English ability was overwhelmingly the most selected impediment. Almost none of the students selected the option stating that they had no interest in such communication.

Figure 3 *Impediments to L2 Communication with Co-workers (%)*



Discussion

The results presented in the previous section show a large degree of uniformity in the responses of the students. Irrespective of their chosen field of study, the pre-service medical professionals surveyed here all held, on average, very similar views regarding L2 communication with non-Japanese co-workers.

The high level of homogeneity among the respondents has both positive and negative implications. From a positive standpoint, the uniformity of opinion in Japan seen in this and in previous studies (e.g. Sullivan & Schatz, 2009) makes it possible to take a relatively standardised approach in any training or intervention. Therefore, attempts to help integrate the non-Japanese workers into the healthcare sector in Japan are likely to be successful, if the common areas in need of attention among the Japanese co-workers can be identified.

Looking at the results from Table 2 above, it can be seen that all the groups held a positive inclination towards engaging in L2 communication. This is an encouraging result in that it shows a widely held desire to interact, in English, with their co-workers. The results in Table 3, attitudes towards L2 communication, showed the highest numerical means for any of the TPB related constructs. These results are again reassuring as they suggest a common belief that communicating with co-workers in English could be fun, interesting, and useful. The means scores for subjective norms (see Table 4), while being slightly lower than those for attitudes, were still firmly on the positive side of the spectrum. Therefore, it can be said that the participants in this study believe that their friends, senior colleagues, and bosses would view L2 communication with non-Japanese co-workers in a positive light. These results are particularly encouraging as it suggests a wide acceptance of such interactions within the healthcare sector.

Although the first three TPB factors recorded means higher than the neutral mid-point of 3.5, the final construct, perceived behavioural control, scored under 2.3 for all four groups (see Table 5). This result tallies with previous research conducted in similar contexts that suggests L2 speakers in Japan can struggle with communication anxiety (e.g. Cutrone, 2009) and low levels of confidence (e.g. Ball & Edelman, 2018). In this case, the homogeneity of the groups could be said to have a negative implication, as the participants display similarly low levels of perceived control of the behaviour. However, on the plus side, having a uniform point of deficiency means that remedial measures can be concentrated in the common area of concern. It should also be noted that the participants in this study are all pre-service healthcare workers, and not English language specialists. Therefore, it is not surprising that their levels of L2 communication confidence are quite low.

The wide range of reasons selected by the participants in this study suggest the appeal of communication in an L2 with co-workers is quite broad. However, as the reason most selected by each of the groups was the desire to improve their English, it would suggest the motivation among these students is primarily instrumental in nature. That is, they see the use of English as a means of increasing their skill set. This is a result that is quite common in studies carried out in the Japanese context (e.g. Irie, 2003). Although the popularity of the 'make friends' and 'increase cross-cultural understanding' options suggest that integrative factors, a desire to move closer to the target group (Gardner, 2001), are also prevalent.

The results obtained when the participants were asked to select any impediments they could see to English communication with non-Japanese co-workers were much more one-sided. The majority of the students in each of the groups selected a lack of confidence in their English ability as being an impediment. Low levels of self-confidence is another common result in previous studies in this context (e.g. Tsuchiya, 2006). Embarrassment was the second most selected impediment for three of the four groups, and again this issue has appeared in prior research into L2 communication in Japan (e.g. King, 2013). As both these impediments seem endemic within L2 learning in Japan, it is difficult to suggest any simple measures that may alleviate them. However, their prevalence does at least mean that these issues are not unique to those who work in the healthcare sector. Additionally, the very low number of participants who chose the 'no interest' option highlights the generally positive views expressed in this study.

Conclusion

The results of this study are encouraging in that they suggest pre-service healthcare workers in Japan in general are open to engaging in L2 communication in the workplace. Although they do not possess an abundance of confidence in their ability to perform such interactions, they have positive attitudes and subjective norms regarding the behaviour.

A comparison of the four different groups surveyed this time shows a high level of homogeneity in their views regarding L2 use with their future co-workers. This will be helpful when planning any future training programs or interventions for healthcare professionals aimed at easing the assimilation of foreign workers into the Japanese healthcare system. As there does not appear to be any significant differences in attitudes dependent on the field the pre-service workers are specialising in, an institution-wide approach can be taken.

However, there are several caveats to any conclusions taken from this survey. Firstly, only four specialisations, nursing, psychology, medical technology, and social work, were surveyed. Other healthcare related occupations such as medical doctor, physical therapist, pharmacist, etcetera, were not included in this study. Secondly, as all the participants in this study were either first- or second-year students, it is feasible that differences in their views and attitudes will develop as they progress in their studies, and on into their professional careers. Thirdly, as mentioned in a previous study (Hoggard, 2021), it is debateable how much L2 communication will occur, even if the Japanese healthcare workers are open to it. This is partly due to the unknown level of English proficiency and attitudes held by the foreign workers. It is also difficult to predict how likely the Japanese workers are to attempt to learn the foreign workers L1. Finally, the opportunities for L2 communication, during and away from professional duties, may also be somewhat limited in scope.

In the future it will be useful to survey third- and fourth-year pre-service students, as well as in-service healthcare professionals, to see if any differences emerge as they progress throughout their professional life. It would also be valuable to obtain information from the non-Japanese healthcare workers regarding their attitudes to such interactions, and their levels of English proficiency.

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Appendices

Appendix A : Questionnaire (English)

Think about your use of English. Circle the answer that matches your feelings the closest.

1. I would talk to my co-workers in English if I had the chance.

Disagree 1 2 3 4 5 6 Agree

2. Using English to communicate with my co-workers would be fun.

Disagree 1 2 3 4 5 6 Agree

3. I know enough English to chat with co-workers.

Disagree 1 2 3 4 5 6 Agree

4. My friends would be impressed if I used English to communicate with my co-workers.

Disagree 1 2 3 4 5 6 Agree

5. I want to talk to my co-workers in English if I had the chance.

Disagree 1 2 3 4 5 6 Agree

6. Using English to communicate with my co-workers would be useful.

Disagree 1 2 3 4 5 6 Agree

7. I can communicate in English with co-workers without becoming nervous.

Disagree 1 2 3 4 5 6 Agree

8. My senpai would be impressed if I used English to communicate with my co-workers.

Disagree 1 2 3 4 5 6 Agree

9. I plan to talk to my co-workers in English if I have the chance.

Disagree 1 2 3 4 5 6 Agree

10. Using English to communicate with my co-workers would be interesting.

Disagree 1 2 3 4 5 6 Agree

11. I am confident in my English ability.

Disagree 1 2 3 4 5 6 Agree

12. My bosses would be impressed if I used English to communicate with my co-workers.

Disagree 1 2 3 4 5 6 Agree

Think about the reasons why you would or wouldn't communicate in English with co-workers.
Check all the ones that apply.

Reasons for :	Reasons against :
Looks cool	I would be embarrassed
Can make friends from different countries	I'm too shy
Increase my understanding of different cultures	I'm not interested in other cultures
Other	Other

Appendix B : Questionnaire (Japanese)

自分の英語の使用について考え，自分の感情と近いものを選んでください.

1．機会があれば外国人の同僚と英語で会話する.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

2．外国人の同僚と英語で会話するのは楽しそう.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

3．自分の英語力は外国人の同僚と会話をするのに充分である.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

4．外国人の同僚と英語で会話をすると，友人が関心する.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

5．機会があれば外国人の同僚と英語で会話したい.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

6．外国人の同僚と英語で会話することは役に立ちそう.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

7．緊張せずに外国人の同僚と英語で会話することができる.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

8．私が外国人の同僚と英語を使うと，先輩が関心する.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

9．機会があれば外国人の同僚と英語で会話するつもりである.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

10. 外国人の同僚と英語で会話するのは面白そう.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

11. 自分の英語能力には自信がある.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

12. 外国人の同僚と英語で会話をすると，上司が関心する.
全くそう思わない － そう思わない － あまりそう思わない － ややそう思う － そう思う － 非常にそう思う

外国人の同僚と英語で話す，もしくは話さない理由について考え，
当てはまるものを全て選んでください.

話す理由
☐ かっこいい
☐ 他国の友達がほしい
☐ 他国の文化を知りたい
☐ 英語能力を高めたい
☐ その他

話さない理由
☐ 困る
☐ 恥ずかしい
☐ 他国の文化に興味がない
☐ 自信がない
☐ その他